DEPARTMENT OF DEFENSE

NATIONAL GUARD AND RESERVE EQUIPMENT REPORT FOR FISCAL YEAR 2013

February 2012

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(NGRER FY 2013)

(In Accordance with Section 10541, Title 10, United States Code)

February 2012

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FOREWORD

The new Department of Defense strategic guidance, Sustaining U.S. Global Leadership: Priorities for 21st Century Defense, outlines a smaller force, reduced priorities, reversibility, and a greater reliance on mobilized forces. The Reserve Components (RC) are key enabling factors in attaining those goals. To succeed, RC units must have access to sufficient modern equipment to train at home station, deploy for contingency or crisis response, and react to domestic consequence management events.

There has never been a more critical time for the Nation to understand the value generated by the RC in support of our National Security. The National Guard and Reserve provide a trained, equipped, and ready force for a fraction of the cost of comparable active forces. The new defense strategy combined with current fiscal realities point toward moving capacity and capability into the RCs for routine operational use as well as a strategic hedge.

The value of the Nation's National Guard and Reserve has been fully demonstrated as they served side-by-side with their Active Component counterparts for over a decade of war. Secretary of Defense Leon E. Panetta, on November 8, 2011 stated "Whether engaged in domestic support missions or serving on the front lines in Iraq and Afghanistan, the men and women of today's National Guard have proven themselves to be an extremely effective operational force over a decade of great demand." He also went on to say "A decade of war has honed the Guard into an effective, lethal, fighting force, and it would be a tremendous mistake, in my view, to put that capability back on the shelf." These comments apply equally to the Federal Reserve as well.

Budget constraints and force structure changes will test the Services' abilities to manage Reserve equipment in the face of competing demands. Full transparency and accountability of Reserve equipping is required for informed decisions to be made. This can only be achieved through a life cycle approach. This life cycle includes requirements determination, budget requests, appropriation, purchase, and delivery of hundreds of thousands of pieces of equipment.

The Department's transparency efforts have been making slow, steady progress. More steps must be taken if we are to achieve true transparency.

Using the RC as an operational force, with planned rotations and mobilizations, makes it imperative that Guard and Reserve units be provided the necessary resources to man, equip, sustain, and train. Modernization and recapitalization of equipment must extend to the RCs placing particular emphasis on the cyclical needs of rotational equipment used to train for scheduled deployments.

The combat readiness of our Nation's Reserve forces is fundamental to the National Military Strategy. We will continue to ensure that the RC forces are trained, ready, and possess the required equipment necessary to perform their vital mission as a critical part of the Total Force.

Sincerely,

David L. McGinnis
Acting

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Chapter 1 Overview

I. Strategic Context

The Reserve Component (RC) has transformed into an operational force proving to be capable in all worldwide functions whether on land, at sea, or in the air. The RC is stronger than ever with four of the individual Reserve Components meeting or exceeding their fiscal year (FY) 2012 accession goals. The Services are achieving predictability in deployments, while performing real and meaningful work as members of the Total Force.

Significant numbers of guardsmen and reservists have seen combat in the current operations in Iraq and Afghanistan. This shift to an operational force has changed the roles with a protracted war on terror and other activities outside of the United States, e.g., Japan, Haiti

Concerns about fiscal challenges that face the Department of Defense can be daunting as the force goes through ongoing modernization and recapitalization after a decade of combat. The tough choices we face in balancing national security and fiscal responsibility must be well thought through decisions, keeping our priorities aligned with resources available. The American people expect nothing less than a secure nation and great care taken for our military and their families. The balance achieved between service to the country, meeting employer requirements, and family responsibilities is the best ever across the RC, but is tenuous with possible impacts from drastic budget reductions.

The Department of Defense has embraced recommendations of the Commission on the National Guard and Reserves (CNGR) and has institutionalized policies in recent instructions to achieve transparency for RC equipment procurement and distribution.

As stated in the April 2011 *Comprehensive Review of the Future Role of the Reserve Component*: "For the foreseeable future the Reserve Component must continue to:

- Contribute to America's successful resolution of current overseas conflicts
- Provide military capabilities to ensure defense of the homeland against all external attack, and to support civil authorities in response to attacks or to natural disasters
- Remain prepared to augment and reinforce the national effort with combat and support forces in case of major combat operations
- Use capabilities efficiently to support Combatant Commanders around the world
- Provide vital capabilities to meet national defense objectives
- Support the Services' efforts to preserve the All-Volunteer Force"

II. Scope of the Report

The National Guard and Reserve Equipment Report (NGRER), mandated in Section 10541, Title 10, United States Code, is a statutory requirement that reflects Congressional interest in ensuring a well equipped and robust RC capability within the armed forces. The NGRER identifies major items of equipment in the RC inventories that are important to the Services, DoD, and Congress, and also outlines how that equipment is being acquired and disposed of by the Reserves for the

budget year and the two succeeding years. Data on equipment included in the report consist of high-value, mission-essential equipment requirements, critical equipment shortages, Service procurements, supplemental funding for the RC, and items procured with National Guard and Reserve Equipment Appropriation (NGREA) funding.

The FY 2008 National Defense Authorization Act directed new equipment reporting requirements for the National Guard. This guidance is highlighted in its entirety in Appendix A, and the National Guard Bureau responds to the requirements in Appendix B.

The three charts that follow in this chapter present a broad overview of: previous major items reported in the NGRER, major item shortages in terms of dollar amounts, and the recent tracking through the current budget year of procurement funding for the RC. These introductory charts are summary and historical in nature and do not indicate the comprehensive dollar requirement that would be needed to fully fund Reserve capabilities. Detail on potential costs, such as modernization of existing systems is contained, where appropriate, in the chapters on the respective individual RC.

RC inventories include thousands of different types of equipment. The FY 2013 NGRER highlights 875 major equipment types whose total dollar value comprises approximately 85 percent of the value of all RC equipment. This report presents the results of analysis of RC inventories based primarily on the dollar value of the equipment, which allows the aggregation, comparison, and summary of diverse types of equipment. The procurement costs are from the Services' official data and are either the latest procurement cost adjusted for inflation or the current replacement cost.

Chart 1-1 shows the number of types of equipment included in previous NGRER reports to Congress. These numbers are provided for perspective and comparison with previous reports and do not represent the entire inventory of RC major items.

Chart 1-1. Items of Equipment Reported in Recent NGRERs

Reserve Component	FY 2008 NGRER	FY 2009 NGRER	FY 2010 NGRER	FY 2011 NGRER	FY 2012 NGRER	FY 2013 NGRER
ARNG	231	421	411	404	396	365
AR	233	222	220	212	208	215
USMCR	161	200	101	195	213	150
USNR	33	33	35	36	44	42
ANG	31	33	31	31	31	30
AFR	16	17	17	17	16	20
USCGR	15	15	19	19	19	53
Total	**720**	**941**	**834**	**914**	**927**	**875**

III. Equipment Shortages

The aggregate equipment shortage for all the RCs is approximately $58B. Chart 1-2 shows the dollar value of the current total major equipment requirements and inventories for each RC. The

information this chart displays indicates the requirement for new procurement for the RC; however, it does not indicate capabilities, shortfalls, or compatibility mismatch with the Active Component (AC) due to modernization requirements. For example, it does not include substitute items of equipment in determining shortages of Army RC equipment.

The Army National Guard (ARNG) and Army Reserve (AR) shortage costs depicted in Chart 1-2 show the cost based on requirements and the inventory without recognition of authorized substitutes and modernized replacements. Chart 1-2 indicates a $40.7B total shortage cost for the ARNG and $10.6B for the AR. The ARNG shortage reduces to $28.0B and the AR shortage reduces to $6.4B when modernized replacements are included. The shortage depicted is decreased to $24.2B (ARNG) and $6.3B (AR) when authorized substitutes are also included. The difference is the result of documentation procedures and distribution within the component.

The Marine Corps Reserve (USMCR) reflects a 6.9 percent shortage of its major items; however, the USMCR is equipped to a home station training allowance only. More information on the Marine Corps equipping strategy and the USMCR's use of a training allowance can be found in the Service's chapter.

Chart 1-2. Beginning FY 2013 Reserve Component Equipment Shortages

Reserve Component	Requirements ($M)	On-hand ($M)	Shortage ($M)	Shortage (% of Reqd $s)
ARNG	105,594.3	64,867.8	40,726.5	38.6%
AR	27,283.6	16,634.9	10,648.7	39.0%
USMCR	6,243.6	5,812.8	430.8	6.9%
USNR	9,977.4	8,978.2	999.2	10.0%
ANG	53,620.8	50,778.4	2,842.4	5.3%
AFR	26,900.7	24,783.3	2,207.4	8.2%
USCGR	51.1	26.1	25.1	49.0%
Total	**229,761.6**	**171,881.5**	**57,880.1**	**25.2%**

Note: Requirements, on-hand, and shortage entries are total equipment value, excluding substitutes.

IV. Equipment Procurement

Chart 1-3 shows funding levels from three RC procurement sources for FY 2007–FY 2013. The FY 2013 funding does not include any NGREA or Congressional Additions, since those funding amounts are not established until after the publication of the FY 2013 NGRER.

Chart 1-3. Reserve Component Procurement Funding

FY	Procurement Funding Source	RC Procurement Funding ($ in Millions)							
		ARNG	AR	USMCR	USNR	ANG	AFR	Total	Grand Total
2007	President's Budget P-1R Submit	2,115.6	391.8	120.4	60.0	628.8	234.1	3,550.8	
	Congressional Adds to AC Accts for RC	17.8	32.2	0.0	6.8	228.6	2.0	287.4	
	Supplemental	1,152.0	507.0	0.0	0.0	361.0	166.0	2,186.0	
	NGREA	1,074.7	89.9	34.9	34.9	74.7	34.9	1,343.8	
	Total	**4,360.1**	**1,020.9**	**155.3**	**101.7**	**1,293.1**	**437.0**		**$7,368.0**
2008	President's Budget P-1R Submit	3,496.2	690.3	99.9	51.7	633.9	316.7	5,288.7	
	Congressional Adds to AC Accts for RC	45.2	0.0	0.0	7.8	17.9	0.0	70.9	
	Supplemental	1,294.0	590.0	0.0	0.0	25.0	10.0	1,919.0	
	NGREA	1,267.6	182.9	44.7	44.7	149.0	44.7	1,733.6	
	Total	**6,103.1**	**1,463.2**	**144.6**	**104.2**	**825.8**	**371.4**		**$7,278.6**
2009	President's Budget P-1R Submit	5,443.4	1,235.2	109.5	201.9	1,214.2	445.0	8,649.2	
	Congressional Adds to AC Accts for RC	75.1	0.0	0.0	3.2	16.7	0.0	95.0	
	NGREA	778.6	127.3	62.4	62.4	154.4	62.4	1,247.5	
	Total	**6,297.1**	**1,362.6**	**171.9**	**267.5**	**1,385.3**	**507.4**		**$9,991.7**
2010	President's Budget P-1R Submit	3,315.9	1,596.8	40.8	123.5	706.7	215.8	5,999.5	
	Congressional Adds to AC Accts for RC	82.3	0.0	0.0	3.2	123.5	1.2	210.2	
	NGREA	575.0	85.0	45.0	55.0	135.0	55.0	950.0	
	Total	**3,973.2**	**1,681.8**	**85.8**	**181.7**	**965.2**	**272.0**		**$7,159.7**
2011	President's Budget P-1R Submit	3,822.4	1,671.8	24.5	73.8	615.3	95.2	6,303.0	
	Congressional Adds to AC Accts for RC	535.0	0.0	0.0	0.0	183.4	0.0	718.4	
	NGREA	250.0	140.0	70.0	70.0	250.0	70.0	850.0	
	Total	**4,607.4**	**1,811.8**	**94.5**	**143.8**	**1,048.7**	**165.2**		**$7,871.3**
2012	President's Budget P-1R Submit	3,447.6	764.5	8.5	194.2	262.3	137.1	4,814.2	
	Congressional Adds to AC Accts for RC					47.2		47.2	
	NGREA	325.0	145.0	65.0	75.0	315.0	75.0	1,000.0	
	Total								**$5,861.4**
2013	President's Budget P-1R Submit	1,612.1	611.4	19.2	119.7	267.5	318.5	2,948.5	
	Congressional Adds to AC Accts for RC								
	NGREA								
	Total								**$2,948.5**

Note 1: The above figures do not include Ammunition procured for the RC.
Note 2: USNR figures include USMCR aircraft procurement funds.
Note 3: 2007-2012 NGREA include both Title III & IX funding.
Note 4: 2013 Congressional Adds and NGREA values will not be available until 2013 appropriation bill is passed.

V. The Reserve Components' Equipping Concerns

This segment briefly summarizes the principal equipping concerns of each RC. The components' individual chapters treat these subjects in more detail.

A. The Army National Guard (ARNG)

The Army National Guard, in the past year, has had over 38,800 Soldiers deployed or mobilized outside of the continental United States. They served in Iraq and Afghanistan, but also in Kosovo, Kuwait, Cuba, and Djibouti, supporting the major combatant commands. Back home, in the United States, the Army National Guard supported domestic operations responding to flooding, tornados, wildfires, and winter storms. Equipment modernization has improved, making this operational

force a greater asset for domestic missions and overseas contingencies. Great improvements in modernization are seen in aviation, engineer equipment, and tactical wheeled vehicles.

The ARNG's top equipping focus areas are described below.

1. Equipping ARNG Units for Pre-mobilization Training and Deployment

The Army National Guard is currently equipped at 87 percent for Modified Table of Organization and Equipment (MTOE) on-hand assets. This does not take into account equipment used at schools, civil support teams, and pre-mobilization training. The target fill for ARNG units is 80 percent to ensure coverage for state missions.

2. Equipping ARNG Units for Homeland Missions

The Army is committed to ensuring RC units are equipped to support homeland defense missions and defense support of civil authorities (DSCA). Critical dual use items of equipment are needed in sufficient quantities to cover domestic operational requirements. The current on-hand critical dual use equipment is 89 percent.

3. Achieving Full Component-level Transparency for Equipment Procurement and Distribution

The Army is pressing forward with transparency, refining and institutionalizing processes, business rules, and data systems to track equipment deliveries back to a funding source. Much progress has been made in transparency with integrated process teams working the issue together across components and the quarterly Equipment Delivery Reports providing accountability of assets. Full implementation of processes is expected in FY 2013.

4. Modernizing the ARNG Tactical Wheeled Vehicle (TWV) Fleet

Significant improvements in modernization have been made to the medium tactical wheeled vehicle fleet and key engineer mobility systems.

5. Improving Interoperability with AC Forces

The ARNG has aligned itself to continue supporting the Army's full-spectrum ARFORGEN-based Equipping Strategy by focusing on modernization, improving equipment interoperability, and emphasizing critical dual use equipment.

6. Modernizing the ARNG Helicopter Fleet

Significant modernization continues for the ARNG aviation fleet. The Army is scheduled to modernize the ARNG with the AH-64D Longbow by FY 2014, the CH-47F Chinook by FY 2017, and the UH-60L Blackhawk by FY 2023. The CH-47D, OH-58A/C, and UH/HH-60A all continue to go through modernization. The modernization for the OH-58 is the Light Utility Helicopter (LUH) fielding. The ARNG is scheduled to complete the LUH-72 Lakota fielding in FY 2016.

B. The Army Reserve (AR)

The Army Reserve provides a solid core of combat support and combat service support capabilities. This community-based operational force has over 17,000 Soldiers currently mobilized and deployed both overseas and in support of domestic missions.

The Army Reserves' top equipping focus areas are outlined below.

1. Modernizing and Sustaining Equipment in a Resource-constrained Environment

The Army Reserve faces challenges in equipment modernization, with only 67 percent of on-hand equipment considered to be modernized. This creates interoperability and integration issues between the components as they combine as a team working towards mission success.

2. Equipping as an Operational Force Capable of Full Spectrum Operations, Homeland Defense, and Natural Disaster Response

On-hand equipment for the Army Reserve is currently at 91 percent, but lags behind both the AC and ARNG in equipment modernization, which is currently at 67 percent. Theater-provided equipment allows the Army Reserve to provide support during deployment, but more new production and recapitalized equipment is needed to close the gap for current operational environments.

3. Modernizing the Tactical Wheeled Vehicle Fleet

The Army is taking strides to improve the modernization of major end items, including tactical wheeled vehicles that are being fielded new or recapitalized through national level maintenance programs. Medium and heavy tactical wheeled vehicles have seen success; for example, the Army Reserve has rebuilt 70 percent of its 5-ton Cargo Trucks and 83 percent of its Semitrailer Tankers. The Army Reserve has highlighted shortfalls in the modernization of its 5-ton Dump Trucks and Heavy Expanded Mobility Tactical Truck Wreckers at 30 percent and 46 percent on-hand respectively.

4. Achieving Complete Transparency of Equipment Procurement and Distribution

Transparency related processes continue to be manually-intensive to correlate between appropriations and contracts to equipment delivery. Automated processes are in development at the Headquarters, Department of Army (HQDA)-level to streamline the documentation resulting in an Equipment Delivery Report (EDR).

5. Expanding the Use of Simulators to Mitigate Equipment Shortfalls and Gain Efficiencies in Training Requirements

A Distributed Simulation Network is being established for efficient and effective full spectrum training, maximizing home station collective training, and reducing facility infrastructure requirements through constructive simulations over a network. Multi-purpose simulation and simulator complexes are also in planning for construction at Fort McCoy, WI and Fort Hunter Liggett, CA.

C. The United States Marine Corps (USMCR)

Marine Corps reservists are operationally interchangeable with their AC counterparts, and have been serving side-by-side continuously in combat operations in Iraq, Afghanistan, and other global missions.

The Marine Corps Reserve's top equipping challenges are described below.

1. Implementing Results of the Strategic Review from the Force Structure Review Group

The Force Structure Review Group (FSRG) is conducting an extensive strategic review that will evaluate RC requirements capabilities as well as the geographic positioning of RC units. Initial analysis indicates that up to 40 percent of RC units may be impacted by this review, and the FSRG decisions will require at least five years to fully implement. Ensuring the most efficient transfer of equipment, while sustaining enduring programs for maintenance, will remain an equipping challenge.

2. Transitioning the KC-130 Platform

Sustainment costs for the two-variant fleet of KC-130s will stretch maintenance costs beyond FY 2020. The KC-130T, currently in service, and the new KC-130J, now being fielded to AC, requires different maintenance, parts, and aircrew. This maintenance challenge will be a continuing cost with the slow fielding to the RC.

D. The United States Navy Reserve (USNR)

The Navy has established a seamless and fully integrated Total Force. More than 6,000 mobilized or deployed Navy Reserve Sailors are providing about half of the Navy's ground forces serving in the Central Command and in other critical roles worldwide. Equipment compatibility with the AC is a focused challenge. Equipment used in the RC is often experiencing service life of more than 20 years for many platforms, adding sustainment and interoperability challenges in preparing RC units to train and deploy mission-ready units to support the Navy's Total Force.

The Navy Reserve's top equipping challenges are described below.

1. Aircraft Procurement

The Naval Aviation Plan 2031 provides a requirement to replace the aging and maintenance-intensive aircraft that provide critical RC capability enhancements. In particular, the C-130 aircraft are a critical part of the Navy-unique fleet essential airlift mission serving as a connector between strategic airlift points and the carrier onboard delivery and vertical onboard delivery to the fleet. To date, 12 C-40As have been accepted and are being operated out of various Navy bases in the United States.

2. Expeditionary Equipment Procurement

Shortfalls in equipment across the RC, particularly in expeditionary elements such as security forces, construction regiments, and logistics, is challenging to component compatibility. Increased procurement in force protection, secure communications, and a wide range of logistical

equipment for cargo handling, warehouse operations, and fuel operations will increase the overall capabilities of units serving in contingency operations.

3. Navy Special Warfare Equipment

RC Navy Special Warfare sea-air-land (SEAL) teams have been fully integrated with the AC since 2008, making up 1/3 of the personnel mobilized in support of overseas contingency. The RC relies on the AC equipment to perform training and deployment missions. This shortfall becomes a challenge when 97 percent of special warfare personnel are mobilized for current operations.

E. The Air National Guard (ANG)

The ANG has proven itself as an integral part of Air Force capability. On-hand equipment fill is nearly 91 percent. The challenge in this rapidly changing operating environment facing the ANG is maintaining and sustaining capabilities, especially since major items of equipment are 27 years of age.

The ANG's top equipping challenges are highlighted below.

1. Modernizing aging aircraft and other weapons systems for both dual-mission and combat deployments.

The operations tempo for the ANG has been high and prolonged, driving a need to concurrently modernize and recapitalize its aircraft fleets, a need shared by the AC. Modernization programs for aircraft include upgrades to avionics, radar systems, communications, and extended range systems. The equipment categorized as "dual use" is approximately 88 percent of ANG assets. This presents a potential conflict with federal and state missions both requiring the same equipment performing different missions. Equipment is shared between the AC and RC using a Total Force Initiative (TFI) as a support agreement. The challenge is priority of use for federal and state missions when both are needed simultaneously.

2. Acquire equipment for domestic operations in each Emergency Support Function (ESF).

Despite the equipment support provided by the Air Force, the ANG still has shortfalls in critical defense support of civil authorities (DSCA) areas. While the Total Force concept has proven to be very successful for the Air Force in supporting federal operational missions, the Air Force is seeking solutions to overcome challenges in equipment availability for domestic support missions.

3. Define an Air Force validation process for both Federal and State domestic response needs.

ANG equipment is typically procured in support of federal missions with authorizations that are aligned to Tables of Allowances (TAs). These TAs prescribe the equipment necessary to perform federal missions. The ANG leverages these TAs for both vehicles and aircraft support equipment to meet its responsibilities for both the federal and domestic support missions. Equipment priorities are determined in a Total Force environment, where the forces with the most pressing operational need get first priority, no matter which component owns those forces. The ANG continues to work through a validation process to service both federal equipment requirements and state equipment needs.

F. The Air Force Reserve (AFR)

The Total Force has fully integrated the AC and RC for air, space, and cyberspace power with the Air Force Reserve functioning as an operational force. The AFR considers its mission equipment on par with the AC; however increased wear will result in higher sustainment needs across the fleet.

The AFR's top equipping challenges are described below.

1. Defensive Systems

AFR aircraft require self-protection suites that are effective against modern anti-aircraft missile systems. Large Aircraft Infrared Countermeasures (LAIRCM), Aircraft Defensive Systems (ADS) and Missile Warning System (MWS) are needed to provide adequate infrared missile protection for combat operations.

2. Data Link and Secure Communications

AFR modernization efforts stress aircraft defense, safety, and data link communications. The information demands of modern warfare require a fully integrated data- link network. A robust, persistent airborne gateway system and secure line-of-sight (SLOS)/ beyond line-of-sight (BLOS) voice and data communications support that integrated data-link requirement. SLOS/BLOS communications are currently being installed in all combat coded aircraft.

3. C-5 Maintenance

C-5As have unfunded required maintenance issues that will produce severe restrictions and aircraft groundings if not corrected. These range from floor fitting end cap replacement to delaminated panel repair and replacement.

G. The United States Coast Guard Reserve (USCGR)

Coast Guard Reservists serve side-by-side with AC personnel, being directly assigned to AC units executing daily operations to meet Coast Guard missions for maritime homeland security, domestic and expeditionary support to national defense and domestic disaster response and recovery. Reservists make up 20 percent of the Coast Guard total strength. The Coast Guard Reserve provides a surge capacity including resources and flexibility to respond to all threats and hazards at all times.

The USCGR top equipping challenges are shown below.

1. Personal Protective Equipment (PPE)

Approximately 5,100 billets or 63 percent of the Coast Guard Reserve have mobilization requirements that call for PPE to safely conduct Coast Guard operations. The annual shortfall in PPE for RC personnel is estimated to be approximately $542K. The absence of PPE impedes Reserve mobilization readiness. Reservists who are not properly outfitted are unable to safely perform Coast Guard operations, which renders them unable to achieve or maintain mobilization competencies.

2. Boat Resources for RC Training

The Coast Guard continues to pursue replacement of its aging assets. As boat platforms and other equipment are replaced, the RC will require additional training to become proficient on the new equipment and maintain operational readiness. Current boat resources are inadequate to simultaneously support both Reserve training and rapidly changing in-theater combatant command requirements.

Chapter 2
United States Army Reserve Components

I. Army Overview

A. Army Planning Guidance

> In the coming years we will work to maintain unit combat skills as we reconstitute for other missions and deal with the impacts of war. Three documents frame our way forward: the Army Modernization Strategy, the Affordable and Integrated Army Equipment Modernization White Paper and the Army Modernization Plan 2012.
>
> The **Army Modernization Strategy** establishes a goal to develop and field a versatile and affordable mix of equipment to allow Soldiers and units to succeed in full-spectrum operations today and tomorrow and maintain our decisive advantage over any enemy we face. It lays out the ends, ways and means to execute senior leaders' priorities within projected resources and at prudent risk.
>
> The **Affordable and Integrated Army Equipment Modernization White Paper** challenges us to better align our modernization development community to collaboratively deliver the best possible value for the resources provided.
>
> The **Army Modernization Plan 2012** stems from the Modernization Strategy and explains how our annual budget request moves the Army towards achieving our objectives. It provides an overview of the Army's Fiscal Year 2012 priorities and steps to adapt our institutional processes to reform our requirements and resource processes to get the best value and right equipment for our Soldiers. (Extracted from a memorandum by LTG Robert P. Lennox, included in **Army Modernization Plan 2012**.)

After a decade of war, our Army has faced tremendous challenges and prevailed. We are proud of our all-volunteer force, our civilians, and our families for their sacrifice and commitment to the Nation, the profession, and each other.

The enduring mission of the Army is to provide forces to fight and win our Nation's wars in prompt and sustained operations across the spectrum of conflict in support of combatant commanders and Title 10 directives. Our challenge is to maintain our combat edge while we simultaneously work to reshape the force and build resilience for the long haul. We are the symbol of national resolve and the most decisive land force in the world.

In the years ahead, the United States will confront complex, dynamic, and unforeseen challenges to our national security and the collective security of our friends and allies. The challenges will occur in many forms and will be waged across the spectrum of conflict—from peaceful competition to general war and all points in between—and in all domains: land, sea, air, space, and cyberspace.

To meet the challenges of this dynamic environment, the Army will prevail in our current and future campaigns; engage to help other nations build their own capacity and assure friends and allies; support civil authorities at home and abroad; and deter and defeat future threats from state and non-state actors.

The Army will utilize a versatile mix of tailorable and networked organizations, operating on a rotational cycle, to provide a sustained flow of trained and ready forces for current overseas contingency operations—at a tempo that is predictable and sustainable for our all-volunteer force. We will rely on the appropriate mix of Active and Reserve Component capabilities, a new ground combat vehicle, and the integrated use of defense, diplomacy, intelligence, law enforcement, and economic tools to build the capacity of partners and to maintain balance and promote stability. This will improve the force's long-term health while ensuring the Army remains one of the leading strengths of the Nation.

B. Army Equipping Strategy

The Army Equipping Strategy describes the ends, ways, and means the Army will use to ensure Soldiers and units have the right equipment in the quantities needed to accomplish assigned missions in support of combatant commander requirements. It describes how equipment and capabilities, provided by the Army Modernization Strategy, are distributed and placed into a unit to synchronize it with its assigned mission. The strategy establishes goals, targets, and metrics for achieving a balance between requirements and resources.

The scope of the Equipping Strategy includes the entire Army: Active Component (AC), Army National Guard (ARNG), and Army Reserve (AR). It addresses the Operational Force (both rotational and non-rotational) and the Generating Force. The strategy is a dynamic and flexible document that addresses the divergent needs and requirements for all components.

1. Ends

The Army's equipping goal is to ensure that Soldiers and units always have the equipment they need to execute assigned missions; whether units are progressing through the cyclic readiness model, are non-rotational units, are in the Generating Force, or are conducting homeland defense (HD) or defense support of civil authorities (DSCA) missions. Ensuring Soldiers and units have the equipment they need, when they need it, even though the Army does not have enough equipment to fill all units to their full authorizations, represents achieving an equipping "balance."

2. Ways

Army Force Generation (ARFORGEN) is the structured progression of readiness over time to produce trained, ready, and cohesive units. The Equipping Strategy encompasses three lines of operation that, together, support ARFORGEN. The first is the unit-focused main effort: Unit-based Equipping, which provides increasing levels of equipment to rotational units based on their ARFORGEN phase, critical equipping points, and assigned mission, focusing on placing equipment into the hands of units. It also equips non-rotational units and ensures the Reserve Component (RC) has equipment to support HD and DSCA responsibilities. The second line of effort is Managing Friction, which minimizes the impact of equipment not available to units. The final line of effort, Building Enduring Readiness, relates to institutional processes and requires ensuring the Army's relevant policies and procedures are synchronized to support all aspects of equipping.

3. Means

Precise Understanding of the Demand Signal—The Army must understand unit equipment requirements, the equipping demand signal, to maximize its ability to distribute equipment in the

most effective manner. Unit equipment requirements are not only Modified Table of Organization and Equipment (MTOE) and Table of Distribution and Allowances (TDA) requirements, but also Operational Needs Statement, Mission Essential Equipment List (MEEL), Pre-deployment Training Equipment (PDTE), etc. These requirements are frequently unique to a specific place, unit, or mission, and they often change over time. These constantly changing requirements make it difficult to maintain a solid understanding of the real needs of commanders. To make the best use of limited resources and to be able to get the right equipment to the Soldier, when needed, equippers must have a way to know exactly what equipment units have and what equipment shortfalls exist.

100 Percent Equipment Visibility—Implicit in the ability to make informed equipping decisions is 100 percent visibility of major end item assets that the Army owns, uses, stores, or has in repair/recapitalization, transit, or some other process. The Army is creating a major end item asset visibility and redistribution capability using the Logistics Information Warehouse (LIW) as the Army's single authoritative materiel data repository for this information.

Focused Leadership—A key aspect of ensuring that an equipping strategy is successful is focused leadership. Leaders create the conditions for success by providing the goals, resources, direction, intent, guidance, and oversight needed to accomplish the mission. They also must clearly and unambiguously state requirements.

Commodity-based Equipping Strategies—Commodity-based equipping strategies that are synchronized with the Army Equipping Strategy are critical for the Army to meet its goal of equipping to ARFORGEN Aim Points. The Aim Points are points in time during a unit's ARFORGEN cycle which the Army uses to meter resources to achieve a prescribed state of readiness. Commodity-based equipping strategies require periodic reviews to optimize equipping agility to keep pace with evolving missions, MTOEs, processes, and policies.

Automation Tools—The Army continually needs to refine the automated tools that provide complete situational awareness of Army inventories and business tools that assist in the optimal distribution of equipment based on requirements.

C. Plan to Fill Mobilization Shortages in the RC

Through ARFORGEN and the Equipping Strategy, the Army will continue to equip AC and RC units to meet mission requirements. The Army equips all forces based on their priority within the Dynamic Army Resourcing Priorities List (DARPL). It simultaneously ensures that the ARNG always has at least 80 percent of the equipment authorized in each unit's Mission Essential Task List. This allows the units to meet their HD and DSCA requirements when not deployed.

The Army makes certain that all units, AC and RC, are correctly equipped when they assume their deployment missions. When there are shortages of certain items of equipment, the Army must use innovative methods to ensure commanders have the right amount and types of equipment to train with and use when deployed. A common method leverages PDTE sets and theater-provided equipment (TPE) to support training and to equip units to theater-specific equipping levels.

PDTE sets are pre-positioned at key Mobilization Force Generation Installations (MFGIs) in support of individual and collective training requirements. Camps Shelby and Atterbury are the two primary MFGIs for the ARNG, and Forts Dix and McCoy are the two primary MFGIs for the Army Reserve. MFGIs have robust modernized equipment sets to facilitate individual and unit training prior to deployment. These sets remain at the MFGIs when the units deploy.

When the units arrive in theater, they are issued TPE. Maintaining TPE in theater serves valuable purposes. It minimizes the cost and friction of deploying the equipment back and forth with returning and deploying units, and it ensures that theater-required equipment is where it needs to be.

D. Initiatives Affecting RC Equipment

1. Current Operations

The Army's operational tempo in support of overseas contingency operations (OCO) has lessened, but it still places a strain on the force, particularly with the RC. As the operating tempo slows, the Army moves to a Boots on the Ground (BOG): Dwell ratio of 1:2 for the AC and a Mobilization: Demobilization (Mob: Demob) ratio of 1:4 for the RC by early 2013. When it does so, the strain on personnel will reduce. Counter intuitively, however, the strain on equipping will increase, due to increased need for equipment caused by longer Train/Ready phases.

The Nation's uncertain fiscal situation, combined with anticipated future reduction in wartime demand, is prompting calls for decreased defense spending. Department of Defense leadership has heeded these calls, directing the departments to make hard choices and reduce spending. The next 10 years will be a dynamic environment of changing operational demands coupled with reduced defense spending. The Army's goal is to have an affordable and versatile mix of tailorable and networked units operating on a rotational cycle and capable of full spectrum operations.

Regardless of the Mob: Demob ratios, the Army is committed to ensuring that RC units are equipped to execute their HD and DSCA missions as well as their operational requirements. To this end, Headquarters, Department of the Army (HQDA) and ARNG define, validate, and update the Critical Dual Use (CDU) equipment list, identifying those MTOE items necessary for the accomplishment of the RC's Title 10 and Title 32 missions. The minimum acceptable level of CDU equipping is 80 percent on-hand. This provides a sufficient pool of equipment that, within the constraints of overall Army equipping levels, meets the goal of ensuring that the RC always have the equipment necessary to meet domestic operational requirements.

There are five focus topics used to bring the RC capabilities in line with future demands: Operationalizing the Reserves, Transparency, Homeland Defense and Homeland Security, Reset, and What We Bring to the Fight.

2. Operationalizing the Reserves

Today's Army was built as a Total Force and demands for U.S. ground forces have required almost continuous operational use of the RC to meet requirements. As part of our overall efforts to build the Army of the 21st century, it is important that we take a critical look at how the Army plans to use the RC in the future and what policies governing use of the RC require modification to achieve more efficient mobilization and effective employment of RC forces. The Army has made significant progress in transforming the RC from a strategic reserve into an operational

force that is fully integrated into the ARFORGEN model. In parallel with a Secretary of Defense-directed review, the Secretary and Chief of Staff of the Army commissioned an independent panel to review the policies and assumptions governing RC use to ensure that we can deliver a sustained flow of trained and ready land forces to meet the challenges of the 21st century. The Secretary and Chief of Staff of the Army panel reported that operationalizing was the right thing and that the Total Force concept needs to be institutionalized to increase the talent pool available for operations. It reported that "while there are issues to address with an operational reserve, the benefits far outweigh the challenges and represent the best path forward."

3. Transparency

In 2008, the Secretary of Defense directed the Services to provide increased transparency of equipping the RC. Specifically, the Services were charged with providing increased visibility and accountability of National Guard and Reserve equipment in the formulation of the annual budget, and for tracking and tracing National Guard and Reserve equipment through the acquisition process from procurement to delivery.

To implement these directives, two important steps were taken by all Services. First, component level funding and procurement quantities were included on key Congressional budget exhibits, such as the Budget Item Justification Sheet (the "P-40" form) and the Production Schedule (the "P-21" form). Providing this data gives both Congress and the RC greater confidence that the equipment requirements programmed in the budgeting process were both accounted for and clearly visible in the President's Budget submission. Consistent with DoD's intent, it also provided stakeholders with component-level funding data that could be linked to the acquisition process.

The second step taken was to track the delivery of funded equipment. The format for this tracking effort was standardized for all of the Services and is called the Equipment Delivery Report (EDR). In close coordination with the National Guard and Army Reserve, HQDA prepares the EDR quarterly and then provides the report to the Assistant Secretary of Defense for Reserve Affairs (ASD/RA). Collecting the data is largely a manual process for the Army because the databases currently in use were not designed to link a piece of equipment delivered to a unit with the funding that resourced the procurement. As an example, a new truck may be funded by the FY 2010 appropriation and ultimately delivered to an Army National Guard unit, but there is no automated linkage between the truck and the FY 2010 appropriation used to fund the procurement.

The task of providing increased transparency has given the Army an opportunity to closely examine many of its systems and processes. Several working groups have been focused on improving programming, finance, contracting, and logistics automation systems. Although implementing permanent solutions will take time, immediate steps have been taken to increase transparency. A secure, online collaborative tool is now in use that provides HQDA, as well as the RC, the ability to see and manipulate programming and budgeting data real-time as budget exhibits are created. The same collaborative system also allows Army programmers, budget analysts, and acquisition specialists to build the EDR online while maintaining full visibility for the RC.

Oversight of the transparency effort is maintained by a multi-component General Officer Steering Committee (GOSC) that meets quarterly and reviews programming, budgeting, procurement, and delivery data. Supporting the GOSC are Integrated Product Teams (IPTs) that ensure budget and procurement documentation are accurate and consistent. The IPTs also supervise the online data

collection effort and prepares the EDR for GOSC review and approval. IPT leadership maintains close working relationships with both the ASD/RA and other DoD staff agencies.

The Army fully supports DoD's efforts to increase transparency for the RC and is in full compliance with all directives. The Army also continues in its efforts to automate the data collection process and has made significant progress in that area. Along with supporting DoD's transparency efforts, the Active Army, Army National Guard, and Army Reserve are also keeping Congress apprised of progress in this area and have provided numerous updates to both Senate and House professional staff members since the transparency effort began in 2008.

4. Homeland Defense and Homeland Security

The Army is playing an ever-increasing role in homeland defense (HD). In accordance with direction from the Chairman of the Joint Chiefs of Staff, the Army provides the bulk of the Defense Chemical, Biological, Radiological, Nuclear, and High-yield Explosives (CBRNE) Response Force (DCRF) for FY 2012 and beyond. The Army provides specific capabilities for federalized military assistance to civilian agencies in the event of an attack against the United States, or in the event of a manmade or natural disaster. These capabilities come from all Army components in support of Northern Command's (NORTHCOM's) mission to support civil authorities in the event of a disaster.

The equipment used by the RC to respond to emergencies in a DCRF capacity or DSCA mission is dual-use equipment that comes primarily through Army base budget procurement and commercial off-the-shelf (COTS) equipment procurement by the Army Reserve. It is also equipment that has been cascaded from the AC to the RC.

HD/DSCA Risk—Like AC units, as ARNG units progress through the Reset and Train/Ready phases, they will be equipped at less than 100 percent. This represents risk in the ability to respond to HD and homeland security (HS) missions. Placing continuing emphasis on procurement and management of CDU items will help ensure that the necessary equipment is available for mission execution.

5. RESET

The RESET phase is a six-month process for the AC and a twelve-month process for the RC to systematically restore deployed units to levels of personnel and equipment readiness that permit the resumption of training for future missions. It encompasses those tasks required to reintegrate Soldiers and families.

RESET includes all those activities that return previously deployed equipment to at least full mission-capable standards, some with upgraded capabilities. The reset process incorporates critical materiel lessons learned from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), e.g., installing protective armor on high mobility multipurpose wheeled vehicles (HMMWVs). Obsolete equipment is replaced, and pre-positioned stocks are reconfigured to be more strategically relevant and responsive.

The Army has minimal training expectations of RC units during RESET. However, it makes a concerted effort to ensure RC units are equipped to their desired Aim Point by the end of the RESET phase for entry into the Train/Ready phase. For the ARNG, this is S-2 (80 percent or

more of its MTOE or MEEL requirements) and, for the Army Reserve, this is S-3 (65 percent or more of its MTOE or MEEL requirements). Unlike the AC, where units in the Train/Ready and Available phases have priority over those in RESET in accordance with the DARPL, the Army will ensure the ARNG, as a whole, has at least 80 percent of its CDU MTOE equipment to enable it to meet its HD and DCSA requirements.

6. What We Bring to the Fight

The RC is a full partner in national defense, meeting the challenges not only of today, but of the future. To meet the future requirements, the Army has significantly accelerated the tempo of transformation and continues to adapt the resourcing processes to become more flexible, dynamic, transparent, and responsive.

The Reserve Component has undergone tremendous change in the last ten years. It has been transformed from a strategic reserve to an operational force. It has seen equipping change from a Cold-War paradigm of tiered-readiness, where it was often equipped with obsolete equipment and had significant shortages, to the ARFORGEN structured progression of readiness over time, to produce fully modernized and equipped, trained, ready, and cohesive units. The RC plays an essential role in the National Defense Strategy. The ARNG and the AR serve alongside AC units in Iraq and Afghanistan. They serve in the Sinai, and in the Balkans. The RC provides combat units, combat service support forces, special operations Soldiers, and unique capabilities critical to the Army's success.

E. Plan to Achieve Full Compatibility between AC and RC

The ARNG and AR are operational components and they can continue to expect to serve alongside AC units in any theater. The Army equips all ARFORGEN units with the most modern and most capable equipment available, based on the units' mission. Because of this, the ARNG and AR units receive the same equipment as their AC counterparts when assigned similar missions.

The Army is also committed to fulfilling its DoD Directive (DoDD) 1225.6, *Equipping the Reserve Forces*, requirements to replace RC equipment transferred to the AC. As of this writing, the Army has reduced the number of items it owes the RC from over 85,000 to about 7,300 pieces of equipment. To ensure transparency, any new requirements must be accompanied with a memorandum of agreement signed by both the AC and RC and approved by the Secretary of Defense, and repayments are tracked item by item.

II. Army National Guard Overview

A. Current Status of the Army National Guard

1. General Operational Overview

Top ARNG Focus Areas

- Equipping ARNG units for pre-mobilization training and deployment
- Equipping ARNG units for their homeland missions
- Achieving full component-level transparency for equipment procurement and distribution
- Modernizing the ARNG tactical wheeled vehicle (TWV) fleet
- Improving interoperability with AC forces
- Modernizing the ARNG helicopter fleet

The ARNG participated in numerous Overseas Contingency Operations (OCO) and domestic missions in FY 2011. During peak periods of ARNG support to domestic operations, 13,811 ARNG Soldiers supported flood and tornado response missions; 1,634 Soldiers supported winter storms; 173 Soldiers supported wildfires; and 1,088 Soldiers provided support to the Department of Homeland Security and Customs and Border Protection along the U.S. Southwest Border. As of August 15, 2011, the ARNG has provided 12,950 Soldiers supporting Operation Iraqi Freedom/Operation New Dawn rotations; 16,081 Soldiers supporting OEF in Afghanistan; 7,002 supporting operations in Kuwait; 713 Soldiers supporting operations in Kosovo; 419 Soldiers in Cuba (Guantanamo Bay); 632 Soldiers in Djibouti (Horn of Africa); and 549 Soldiers supporting the Multinational Force and Observers mission. The ARNG had 38,860 Soldiers mobilized or deployed to support operations outside of the continental United States (CONUS) in all of the major combatant commands.

The ARNG has aligned itself to continue supporting the Army's full-spectrum ARFORGEN-based Equipping Strategy by focusing on modernization, improving equipment interoperability, and emphasizing CDU equipment. As a result of these focused efforts and Congress's continued support of Army procurement, the ARNG is more capable than ever to support the Army and our Nation in overseas OCO and HD/DSCA missions. Over the past year, the ARNG received ~104,000 new items of equipment valued at $3.6B. With this new equipment, the MTOE equipment on-hand (EOH) percentage has risen to 87 percent, and the ARNG currently has 89 percent of its CDU equipment on-hand.

The ARNG continued making significant improvements in modernizing its medium tactical wheel vehicle fleet. Utilizing Army and National Guard and Reserve Equipment Appropriation (NGREA) funding, the ARNG anticipates achieving over 71 percent fill in modern Family of Medium Tactical Vehicles (FMTV) variants. FMTVs continue to play an integral part in National Guard missions and are one of the mainstays of CDU equipment; the ARNG continues to focus efforts on FMTVs to replace the aging M939 series medium trucks. NGREA funding also improved our on-hand levels in combat service support equipment, such as power generators, containerized kitchens, and field feeding systems.

During FY 2010 and FY 2011, the ARNG made significant improvements modernizing key Engineer Mobility Systems obligating $136.7M of NGREA funds. Purchases included the 14-18 Cubic Yard Heavy Scraper, D7R Dozers and the 2.5 Cubic Yard Light Loader. These systems are CDU and play an integral part in HD and DSCA missions. These and other Engineer systems

continue to be an integral part of ARNG missions at home and abroad. The ARNG will continue to focus on procuring Engineer Mobility Systems to replace its aging fleet.

Significant modernization continues for the ARNG aviation fleet. The Army is scheduled to modernize the ARNG with the AH-64D Longbow by FY 2014, the CH-47F Chinook by FY 2017, and the UH-60L Blackhawk by FY 2023. The CH-47D, OH-58A/C, and UH/HH-60A all continue to go through modernization. The modernization for the OH-58 is the Light Utility Helicopter (LUH) fielding. The ARNG is scheduled to complete the LUH-72 Lakota fielding in FY 2016. NGREA continues to fund the LUH Mission Equipment Package retrofit for homeland missions.

The Tactical Operation Combat System and Standardized Integrated Command Post System (TOCS/SICPS) provides the standardized communication infrastructure for commanders and staff to digitally plan, prepare, and execute operations. It allows the ARNG to have fully interoperable and digital command and control (C2) capability with the AC. During FY 2010–FY 2011, the ARNG obligated $66.6M NGREA dollars in TOCS/SICPS to field brigade and battalion level units.

The ARNG is scheduled to field the War-fighter Information Network–Tactical Increment 1 (WIN-T Inc 1) to 100 percent of its requirement by second quarter FY 2012. WIN-T Inc 1 improves C2 by providing communications capabilities down to the battalion level for real time internet access and the ability to send and receive voice, data, video, and images via military and commercial satellites.

a. Status of Forces as an Operational Force

There have been significant improvements in equipping and modernizing the RC as an operational force to include: additional funding ($41.99B in equipment from FY 2005–FY 2011), an improved EOH (80.7 percent in FY 2009 to 87 percent in FY 2011), an improved CDU EOH (83 percent in FY 2010 to 89 percent in FY 2011), and increased modernization. The recurrent predictable cycle is the Army's ARFORGEN cycle, in which units pass through three phases: RESET (equipment and Soldiers are most recently returned to home station post deployment), Train/Ready (units are training for possible deployments and receive equipment to support training requirements), and Available (units are equipped to 90+ percent of requirements and are available to deploy). As an operational force, the ARNG will continue supporting OCO, its domestic missions, and the state partnership program in countries around the world.

b. Homeland Defense/Homeland Security/Defense Support of Civil Authorities

In 2011, ARNG responded to significant spring flooding in the Midwest states of ND, SD, NE, MT, and WY. ARNG soldiers from KY, TN, AR and LA also provided response efforts during the historic Mississippi River flooding. Soldiers conducted numerous operations including transportation support, levee patrols, security, traffic control, search and rescue, sand bagging and communication checks. At the same time, Soldiers from MO and MA were also responding to the impacts of devastating tornados. 4,330 Soldiers responded to the flood and tornado response missions in early June 2011.

In July 2010, the President of the United States authorized 1,200 National Guardsmen to support the HS mission along the Southwest Border. In May 2011, the mission was extended through

September 2011. Nearly 1,100 Army National Guardsmen from TX, NM, AZ, and CA are currently providing C2, entry identification teams, and criminal investigative analysts in support of U.S. Customs and Border Patrol operations.

i. CBRN Enterprise

The ARNG has a portion of the Title 10 Chemical, Biological, Radiological, and Nuclear (CBRN) Response, consisting of approximately 1,900 personnel, designed to provide federalized military assistance to a lead federal agency in the event of a CBRN attack in the NORTHCOM area of responsibility.

ARNG is standing up 10 Homeland Response Forces (HRFs), each consisting of 566 personnel—one per Federal Emergency Management Agency (FEMA) Region. Two HRFs stood up in FY 2011 and the remainder will be in place no later than FY 2012. HRF is a regional approach to the national coordinated CBRN Response, designed to provide focused life-saving capability within a 6–12 hour response time. Nine existing CBRNE Enhanced Response Force Packages (CERFPs) will evolve into HRFs while new CERFPs will be hosted in neighboring states to maintain the number of CERFPs at 17.

ii. Domestic All Hazards Response Team (DART)

Established in July of 2009, the DART was established in an effort to support the National Guard's Title 32 (state) response to all hazards by utilizing the unique capabilities of a Division Headquarters (HQ) for the coordination and planning of employment for subordinate units. The DART develops, publishes, and distributes DART contingency plans, focusing on the 15 National Planning Scenarios and the National Guard "Essential 10" capabilities. These capabilities include C2 (Joint Force HQ for joint integration with air assets), logistics (property, finance, and maintenance), aviation, military police, engineering, transportation, medical, chemical (with access to one or more Civil Support Teams), maintenance capabilities, and signal assets.

c. Equipment On-hand

The ARNG effectively manages its available resources at a time when domestic missions are competing with wartime requirements for resources. The ARNG continues to be resourced at less than 100 percent of its equipping requirements. The ARNG's total EOH is at 87 percent. Eleven percent of ARNG equipment is deployed. This leaves the ARNG with 76 percent of MTOE equipment in CONUS available to the governors. This EOH percentage does not include TDA requirements that are critical to military occupational specialty (MOS) producing schools, Civil Support Teams (CSTs), pre-mobilization training, states' Joint Force Headquarters (JFHQs), and other ARNG TDA requirements. Additionally, some TDA equipment is critical in performing HD/HS/DSCA missions.

Beginning in FY 2006, the Army significantly increased its investment in ARNG equipment, allocating approximately $32B for new procurement and recapitalization between FY 2006 and FY 2011. As a result, ARNG EOH (MTOE only) increased from 69 percent to 87 percent in FY 2011. ARNG CDU EOH, a subset of MTOE equipment, increased from 65 percent to 89 percent during this same period. The rapid improvement in ARNG EOH is impressive and essential to ensuring the ARNG is capable of fulfilling its missions. The ARNG EOH will improve at a slower rate in the future due to changing MTOEs and modernization of equipment;

however, the net result has been a more ready and modern force, prepared for utilization as an operational force. As a result of this rapid modernization, new equipping metrics have also been implemented to better reflect the readiness state of the ARNG.

iii. Table of Distribution and Allowances (TDA) of Equipment

ARNG TDA units contribute to domestic response missions. Such units include states' Joint Force Headquarters, which consist of The Adjutants General and their staffs who provide command and control support for HD/DSCA missions. Civil Support Teams (CSTs) are also TDA units, and there are currently 57 CSTs throughout the United States. CSTs are required to rapidly deploy to provide assistance to local first-responders in determining the nature of an attack and to provide medical and technical advice. Although TDA units generally do not deploy, they have equipment to train units, which contributes to the readiness and availability of ARNG units to support HD/DSCA missions. TDA units are usually lower priority and may inherently have older equipment and more shortages as they compete with deploying units.

iv. Equipment Cross-leveling

The cross-leveling of equipment presents a challenge to the ARNG and results in lower MTOE levels of equipment available. The ARNG has developed predictive models to lessen the effects of last minute requirements placed on units to move equipment to other states and territories in support of operational needs. Increased quantities of EOH over the past few years have correspondingly reduced the need to cross-level equipment to more manageable levels. To support mobilization requirements, the ARNG directed the cross-leveling of 1,229 items ($10.4M value) between states and territories in FY 2011.

v. DoD Directive 1225.6—Equipment Diversions to Support Theater

In the past decade, Army National Guard units have been directed to leave equipment behind in theater to support enduring theater requirements. A milestone in the DoDD 1225.6 program was recently achieved with the signing of a memorandum of agreement by HQDA, Army Materiel Command (AMC) and ARNG, detailing the reconciliation and replacement plans for equipment transferred between 2003–2008. The MOA captures 12,000 pieces of equipment, worth approximately $1.3B. All equipment transfers from 2009 to the present are directed by a HQDA G3/5/7 order and must include a replacement plan for the equipment. In conjunction with HQDA G8 and AMC, ARNG is working to maintain accountability of equipment transferred in theater and the status of replacement plans. Through regularly scheduled IPT meetings consisting of members from HQDA, AMC, ARNG and AR, all theater equipment transfers and replacement plans are properly annotated and tracked. The ARNG continues to work closely with HQDA to ensure equipment is returned and future transfers are correctly executed.

d. Average Age of Major Items of Equipment

The average age of ARNG equipment, beginning in FY 2013, is reflected in *Table 2*. With an increase in manufacture and recapitalization programs through FY 2013, the historical issue associated with aging equipment has been alleviated. In the past, the ARNG received much of its equipment through the cascading actions of the AC, and the equipment transferred was often already at or near the end of its planned service life. Programmed replacements and rebuilding efforts for ARNG equipment could not keep up with the needs of the ARNG and the MTOE

units. If the current levels of both new procurement and re-capitalization efforts continue, it is anticipated that the average age of equipment will be substantially reduced in the future as new and modernized equipment is moved into the ARNG inventory.

e. Overall Equipment Readiness

Readiness metrics were recently updated to more accurately reflect the readiness picture of the ARNG. This was necessary due to the RESET of units returning from deployments and units transforming under modularity. In light of the large amounts of equipment received in recent years, and the addition of 800,000 items to the Unit Status Report (USR). The ARNG continues to manage readiness by prioritizing limited resources using the ARFORGEN cycle in support of the National Military Strategy. In addition, the ARNG is engaged in a concerted effort to identify opportunities to improve EOH readiness in the states through cross-leveling.

f. Compatibility of Current Equipment with AC

Despite Army efforts to equip all components to the same levels of modernization, deployments of ARNG units have demonstrated continuing equipment compatibility issues. Problems with compatibility can be caused by lack of repair parts to support older systems, differences in types of fuels required, and other capacity or equipment interface problems. One major factor in the deployment of equipment is the evolving requirement for armor protection. Similar to other compatibility challenges, introduction of a new standard for armor protection can make a large amount of equipment less than fully acceptable for deployment. Current compatibility workarounds for deploying units are to keep critical equipment in TPE stocks or to issue the newest equipment versions only to units that are deploying. Compatibility has improved for tactical radios as the last AN/VRC-12 radios have been displaced by single-channel ground and airborne radio systems (SINCGARS). Some compatibility gaps remain for WIN-T equipment, SICPS, and the latest satellite communications systems. A list of authorized substitutes currently employed within the ARNG is provided in *Table 7*.

g. Maintenance Issues:

i. Field Level Maintenance

Field level maintenance is critical to ARNG equipment readiness in the ARFORGEN model and for HD, DSCA, and emergency operation missions. It is essential that the ARNG has modern maintenance shop facilities to effectively repair equipment for an operational force. The cost to modernize ARNG maintenance facilities is part of the $1.96B total funding needed for ARNG military construction. Many of ARNG shop facilities are 50 to 60 years old and do not have the required equipment to meet the modern demands of two level maintenance and requirements of maintaining a modern up-armored vehicle fleet.

ii. National Level Maintenance

The key to maintaining readiness of the ARNG fleet is the continued funding of the ARNG Surface Depot Maintenance Program. As an integral part of ARNG sustainment activities, the depot overhaul and rebuild programs sustain ARNG EOH and extend the service life of its fleet. Currently, the ARNG Depot Maintenance Program is funded at $225M, 47.5 percent of the ARNG requirement in FY 2011 ($474M). The ARNG's Readiness Sustainment Maintenance Sites (RSMS) are also vital to supporting mobilized units by filling MTOE shortages that would

otherwise have to be cross-leveled from other units. Four RSMS sites perform this maintenance. A fifth RSMS repairs chemical alarms and monitors, night vision devices, generators, and welding equipment. The RSMS completed maintenance on over 5,938 pieces of equipment in the past year.

iii. Home Station Reset

Under the Home Station Reset program in FY 2011, the ARNG continued to restore equipment returning from Iraq and Afghanistan to Technical Manual 10/20 levels within 365 day of the unit's return to its home station. The burdens on AC installations, as well as the costs associated with second-destination transportation, have been reduced as a result of the Home Station Reset program.

iv. Automatic Reset Induction (ARI)

Units re-deploying from theater are required to induct into Sustainment Maintenance 100 percent of equipment identified by HQDA as ARI prior to their return to CONUS. The depot has up to one year to return the equipment to the ARNG. Under the current process, visibility of the equipment is lost by the ARNG and the returning units upon induction of the equipment into the supply system. HQDA is working to develop a Logistics Standard Army Management Information System that would allow all components to track the induction of ARI equipment from outside the CONUS (OCONUS) back to home station. Once completed, this will provide transparency and visibility of all equipment undergoing the sustainment reset process.

h. Other Equipment Specific Issues

i. Equipment Maintenance Technician Support

Congress and the Army have made great strides in equipping the ARNG to the levels needed to be successful in its role as an operational force. Unfortunately, full-time surface maintenance technician manning levels have not kept up with the increased levels of equipment and operating tempo. A manpower study of the surface maintenance facilities completed in FY 2010 and approved in FY 2011 validated an approximate 10 percent increase in requirements for full-time surface maintenance technicians. Yet, recent funding has filled only 71.5 percent of the ARNG's previously established surface maintenance technician requirements.

ii. Repair Parts Shortages

There are currently no major issues with repair part shortages for ARNG surface maintenance.

B. Changes Since Last NGRER

1. Transparency

The Army continued aggressively pursuing transparency and traceability of procurement-funded equipment from the President's Budget request to delivery at the unit level during FY 2011. To this end, the Army has taken multiple steps toward achieving transparency, including institutionalizing a formal Post-Appropriation Reconciliation Process (PARP), supporting two Integrated Process Teams (IPTs) and an Enterprise Management Office, publishing quarterly Equipment Delivery Reports (EDR), maintaining component-specific funding information throughout the procurement cycle, and taking advantage of an Item Unique Identification (IUID) system for tracking equipment deliveries to their funding source. At the end of FY 2011, the Army's Transparency efforts were tracking a total of

100 programs with a combined value of approximately $45B. The Army will not be able to accurately assess the ARNG transparency efforts until FY 2013.

The Army has two separate IPTs addressing the related issues of financial traceability and transparency and delivery traceability and transparency. The Financial Synchronization and Transparency (FST) IPT, chaired by HQDA G-8 FDR, is chartered with determining the processes and best practices that need to be implemented to provide transparency of appropriated funds from initial budgetary requests to execution. Similarly, the Delivery Certification (DC) IPT, co-chaired by HQDA G-4 and G-8, is charged with designing and establishing a physical delivery tracking system that will link delivered equipment with its initial funding source. Both of these IPTs continue to report the status of their efforts to the quarterly Transparency General Officer Steering Committee (T-GOSC).

Despite the uncertainly of receiving formal appropriations in any given fiscal year, HQDA continues to utilize the PARP to realign enacted funding with Congressional intent and HQDA budgetary requests. This process reestablishes component-specific funding splits so that the ARNG receives adequate funding to achieve and maintain its high state of equipment availability and readiness. Core to the process, the PARP establishes a metric from which deviations can be identified and assessed to determine, among other actions, whether payback actions are warranted and to gauge the overall efficiency of post-appropriation funds execution.

The Army continues to expand its equipment delivery and traceability transparency efforts to include a robust, automated IUID system that traces deliveries of equipment in unit property books to the funding year and appropriation from which those items were resourced. This system, when fully implemented, will facilitate Chief, National Guard Bureau (CNGB) compliance with National Defense Authorization Act (NDAA) 2008 requirements by providing a tool with which certification of equipment deliveries can be made. This effort is on schedule to become fully established by FY 2012.

Transparency efforts continue to pay dividends to the ARNG. Utilizing transparency-specific business rules and examining equipment deliveries, the Army has identified numerous instances where under-delivery of equipment or diversion of funds during FYs 2009 and 2010 resulted in paybacks to the ARNG. The continued refinement and institutionalization of processes, business rules, and data systems established by the FST and DC IPTs will ensure the Army's transparency and equipment tracking processes remain on schedule for full implementation by FY 2013.

2. Significant Major Item Shortages (Table 8)

In addition to OCO, the ARNG will continue to equip its force in efforts to support HD and DSCA missions. As the OCO equipping posture of the ARNG approaches a higher level than it was 10 years ago, CDU shortfalls have become more of a focus as significant major item shortages in terms of maximizing the ARNG's equipment readiness across all of its missions.

The item shortages of highest priority are not necessarily driven by shortfall costs, but rather our ability as a force to maximize readiness across all of the varied missions mentioned above. Supporting the ARNG's dual role, the FMTV, HMMWV Recapitalization, Chemical/Biological Protective Shelters, Medical Field System, and General Engineering Equipment shortages still

remain a high priority. Also, for this reason, Aviation assets (UH-60 A-A-L Modernization and the CH-47F) have been added as first and second priorities respectively.

The UH-72A LUH is expected to be fully fielded by 2016 under current funding plans, ensuring the continuation of that UH-72A funding is a top ARNG priority.

C. Future Years Program (FY 2013–FY 2015)

The ARNG estimates it will receive $4.23B in FY 2011 procurement funding including the OCO appropriation and NGREA funding. The ARNG expects to receive $3.58B in FY 2012 in total procurement funding. Base funding in future years is programmed for $1.94B in FY 2013, $2.53B in FY 2014, and $3.32B in FY 2015; these figures do not include OCO appropriations or NGREA funding. In light of the current fiscal environment, the ARNG anticipates procurement funding will continue to decrease across the Future Years Defense Program (FYDP).

1. Anticipated New Equipment Procurements

The ARNG is projected to receive 70,884 pieces of equipment valued at approximately $6.9B from October 2011–September 2012. Highlights include 33 UH-72A Light Utility Helicopters, 43 Blackhawk helicopters, 337 Bradley Fighting Vehicles, 129 Armored Security Vehicles, 6,000 Thermal Weapon Sights, and 4,868 FMTVs—not including trailers, and 13,000 night vision devices. In light of current funding levels, production capacities, and the age of ARNG equipment, the ARNG tactical wheeled vehicle and helicopter fleets will continue to require a long-term investment of funding over the next 10 years to adequately address shortfalls and modernize fleet capabilities.

2. Anticipated Transfers from AC to RC

Table 5 shows the cascaded equipment that the ARNG is projected to receive. The AC has also received a large influx of newly procured equipment, especially for units rotating overseas. This new AC equipment allowed the AC to cascade some older equipment to the ARNG. The cascades will be instrumental in filling current shortages and replacing obsolete equipment while the Army continues to develop projections for cascades to the ARNG through FY 2015.

3. Funding for New and Displaced Equipment Training

New Equipment Training (NET)/Displaced Equipment Training (DET) funding is dependent on the amount of new equipment scheduled to be received. In FY 2011, the ARNG received $79.6M in NET funding to field new equipment.

There are additional costs related to NET that are not specifically included in the NET event funding. For example, when a NET event requires live firing, states are statutorily mandated to provide Range Safety Officers, range control managers, ammunition handlers, and medics all of which are not funded by the NET program. When equipment is fielded, additional equipment and personnel are frequently required to prepare or process the equipment for training. Additional National Guard Pay and Allowance funding would allow the States to provide an augmented body of Soldiers for required “support” activities directly related to NET events.

4. ARNG Equipping Strategy

Reflecting the Army's Equipping Strategy, the ARNG will equip all units during FY 2013 in accordance with ARFORGEN equipping Aim Points based upon ARNG equipping resourcing priorities and the Army Resourcing Priority List (ARPL). Additionally, the ARNG will ensure that units are equipped to no less than 80 percent of Critical Dual Use (CDU) items. The ARNG is also coordinating with the Army Materiel Command as the Lead Materiel Integrator (LMI) for inclusion of ARNG requirements in the LMI policy and process. The equipping goal is to achieve equipping balance by ensuring Soldiers and units always have the equipment they need, when they need it, to execute assigned missions—whether units are progressing through the cyclic readiness model (ARFORGEN), are non-rotational units, are in the Generating Force, or are conducting HD or DSCA missions.

5. Anticipated Withdrawals from ARNG Inventory

The withdrawal of obsolete equipment will be allowed by the implementation of new, rebuilt, reset, or cascaded equipment. Table 2-1 lists obsolete items (left hand column) with their corresponding replacement system (right hand column).

Table 2-1. Obsolete versus Replacement System

Obsolete System	Replacement System
CH-47D Cargo Helicopter	CH-47F Cargo Helicopter
M800-series 5-ton Truck	Family of Medium Tactical Vehicles (FMTV)
M915A1/A2/A3/A4 Tractor	M915A5 Tractor
M198 Howitzer	M777 Towed Howitzer
M16A2 Rifle	M16A4 Rifle and M4/M4A1 Carbine
M1 and M1A1 AIM/EDS Tank	M1A1 Abrams (ODS-SA) Tank
M2A2 ODS Bradley Fighting Vehicle (BFV)	M2A2 ODS-SA BFV
M3A2 ODS BFV	M3A2 ODS-SA BFV
AH-64A Attack Helicopter	AH-64D Attack Helicopter
OH-58A/C Scout Helicopter	UH-72A Light Utility Helicopters (LUH)
UH-1H/V Utility/MEDEVAC Helicopter	UH/HH-60A or L Utility/MEDEVAC Helicopter
UH/HH-60A Utility/MEDEVAC Helicopter	UH/HH-60L or M Utility/MEDEVAC Helicopter

6. Equipment Shortages and Modernization Shortfalls

While ARNG procurement funding is expected to decrease in future years, the Army and Congress continue to demonstrate their commitment to equipping the ARNG with modern equipment. *Table 8* provides further detail on the ARNG's prioritized top ten shortages for major items of equipment that would benefit from additional funding in the FYDP.

a. Budget Operating Systems (BOS)

The equipment item listings in each BOS area not an all inclusive ARNG shortage list but are a grouping of those shortages most critical to the ARNG for FY 2013.

BOSs include Management Decision Packages of the following two categories: (a) support systems that enable weapons, personnel or information to reach or leave the battlefield and (b) weapon systems, or components thereof, for the battlefield. Such systems fulfill the Army's combat, combat support (CS), and combat service support (CSS) missions. Systems in the following BOS tables with fill percentages below 90 percent are candidates for NGREA funding.

i. Air Defense Budget Operating System

Table 2-2. Air Defense Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
Air/Missile Defense Planning & Control Sys (AMDPCS)	3	2	66%	$12M
Sentinel Radar	86	42	49%	$70M
Air Defense & Airspace Management System (ADAM)	81	50	62%	$24M

The AMDPCS consists of systems that detect, track, and destroy enemy air and missile attacks. These systems have a significant role in supporting OCO missions as well as protecting our national airspace. The Sentinel consists of basic and improved radars of which the ARNG has 49 percent (42 of 86) radars on-hand. The upgrade to the Improved-Sentinel radars (detects, tracks, classifies, and reports targets including cruise missiles, unmanned aerial vehicles, rotary, and fixed-wing aircraft) is at 67 percent (28 of 42) radars on-hand and 33 percent (28 of 86) of requirement. Production rate is slowing (12–18 months delay) because of theater priority and the late funding authorization in FY 2011. Avenger/Stinger systems are being reviewed to determine sustainment, modernization and whether a shelf life extension program (SLEP) is necessary. The Army currently has 850 Stingers postured to enter the SLEP, extending their life 10 years. Furthermore, the ARNG feels it is necessary to enter additional Stingers into a SLEP as they approach life-cycle end. Future, planned funding will improve Air Defense Artillery (ADA) systems, but funding for the AMDPCS awaits the outcome of the future Army Integrated Air and Missile Defense System upgrade. The Army established an Air and Missile Defense Task Force with intent to integrate the joint and Air Missile Defense (AMD) community on emerging AMD concepts and operational requirements. The ARNG has participated and contributed to this task force. The AMDPCS shortfall value is significantly greater than last year due to upgraded system cost.

ii. Aviation Budget Operating System

Table 2-3. Aviation Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
UH-60 Blackhawk (Modernization)				$4.9B
• UH-60L Model	480	202	42%	
• UH-60M Model	40	36	90%	
LUH-72 Lakota	204	141	69%	$327.6M
AH-64 Apache	144	107	74%	$1.3B
CH-47 Chinook (Modernization)	24	16	66%	$186M
Aviation Ground Support Equipment (54 LINs)				$33.5M

The above data reflects reporting requirements and on-hand data for FY 2013 only. All systems are undergoing phase modernization changes and the data is not the overall requirement for a specific system. The systems above are considered CDU items with the exception of the AH-64 Apache Longbow and the LUH-72. The LUH-72 Lakota is scheduled to be fully fielded by FY 2016 with an overall requirement of 210. The ARNG continues to lack modernization funding for Aviation Ground Support Equipment (AGSE). At the current UH-60 conversion and cascade rate (from the A model to the L models), it will take until 2023 to fully divest the UH-60A fleet. Requirements for FY 2018 are 623 for the UH-60L and 171 for the UH-60M. The AH-64D will continue its block II upgrades and plans to have the AH-64A fully divested by FY 2014. By FY 2015, the AH-64D will have a total requirement of 192. The planned divestiture of Army National Guard fixed wing aircraft is on hold pending the outcome of a congressionally-mandated domestic airlift requirement study.

iii. Battle Command Budget Operating System

Table 2-4. Battle Command Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
Global Broadcast Systems (GBS)	143	91	64%	$19.7M
Force XXI Battle Command Brigade and Below (FBCB2)	25,911	16,247	63%	$301.2M

The Battle Command BOS consists of the Army digital C2, communication, computer, and intelligence systems including fixed/semi-fixed and mobile networks that are designed for interoperability. The SICPS is a crucial piece of equipment for the ARNG and is used for tying in the interoperability of all Army Battle Command Systems (ABCS) throughout various echelons. Over the past year, the ARNG has made great strides, rising to 89 percent fill by the end of FY 2012. NGREA funds have supplied a vital bridge to ARNG units to achieve an acceptable mission-capable readiness level. The ARNG expects to field 63 percent of FBCB2/Blue Force Tracker requirements and 64 percent of GBS by FY 2013.

iv. CSS Quartermaster, Ordnance, and Medical Budget Operating System

Table 2-5. CSS Quartermaster, Ordnance, and Medical Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
2,000 Gallon Tank (HIPPO)	685	427	62%	$39.1M
Containerized Kitchen: CK	360	343	95%	$4.3M

The CSS Quartermaster, Ordnance, and Medical BOS consists of medical, fuel, water, and food systems. Since the HIPPO and Camel water systems are new items of equipment that are being fielded, the ARNG is experiencing low percentage fill rates. Additionally, the Camel system is experiencing initial production delays; consequently, the on-hand quantity remains zero. The CKs play a vital role in the ARNG's HD/DSCA missions. The ARNG is currently sitting at 50 percent EOH for CKs. As a result of NGREA purchases, the ARNG will be over 90 percent EOH for CKs by FY 2013.

v. CSS Transportation Budget Operating System

Table 2-6. CSS Transportation Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
Truck Ambulance: 4 Litter	1,652	1,332	81%	$127M
Medium Tactical Vehicles (MTVs)	30,528	26,517	87%	$1.7B
Armored Security Vehicle (ASV)	1,001	638	64%	$366.5M

The CSS Transportation BOS consists of Light Tactical Vehicles (LTVs), Medium Tactical Vehicles (MTVs), Heavy Tactical Vehicles (HTVs), and Tactical Trailers.

Although the LTV on-hand percentage is 100 percent, only 39 percent of the fleet is armor capable. The ARNG fully supports the Army's strategy of modernizing and extending the HMMWV service life by recapitalization which, if funded, will extend the economic useful life of over 3,300 legacy HMMWVs. The ARNG used NGREA funding to procure 500 HMMWV ambulances which will increase the on-hand percentage to 100 percent by FY 2012.

MTVs are the backbone of the ARNG's truck fleet and critical to performing domestic and OCO missions. Using both Army and NGREA funding, the ARNG significantly increased its MTV fleet on-hand and modernization levels. By FY 2012, 71 percent of the MTV fleet will consist of modern FMTVs with 13 percent armor capable. Overall, the ARNG's MTV fleet is 85 percent fill consisting of a mix of modern FMTVs and legacy M939-series models.

vi. Fire Support Budget Operating System

Table 2-7. Fire Support Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
M1200 Armored Knight	170	66	39%	$176M
Lightweight Laser Designator Range Finder (LLDR)	1,053	451	43%	$181M

The above systems play a vital role in ARNG OCO missions. The ARNG has full funding for the M777A2, M119A2, and High Mobility Artillery Rocket Systems (HIMARS). The M1200 Armored Knight and Lightweight Laser Designator Finder are fully funded and are being fielded through FY 2016. The Enhanced Q-36 Fire-finder radar replaces both the Q-36 and Q-37 and is currently in the production and deployment phase. It will begin full rate production in FY 2013 and the ARNG will not be fully fielded for many years. It is a significant capability upgrade as it provides War-fighters continuous and responsive 360 degree counter-battery target acquisition capability verses the current 90 degree capability.

vii. Intelligence and Electronic Warfare (IEW) Budget Operating System

Table 2-8. IEW Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
Prophet Electronic Support Spiral	69	21	30%	$108M

The IEW BOS consists of a variety of military IEW subsystems. The systems within the IEW BOS portfolio are the Trojan Special Purpose Intelligence Remote Integrated Terminal (SPIRIT), Prophet, Counterintelligence/Human Intelligence Automated Reporting and Collection System (CHARCS), and Distributed Common Ground System-Army All Source Analysis System-Light (DCGS-A). IEW equipment fielding is aligned with ARFORGEN Aim Points. DCGS-A supports network-centric warfare by providing timely battle management and targeting information to the Field Commanders at all echelons. DCGS-A emphasizes the use of distributed operations to improve data access and reduce forward footprint. The Prophet Electronic Support Spiral 1 equipment shortfall is being addressed through a Memorandum of Agreement (MOA) between HQDA G8 and NGB. The equipment shortfall is the result of disparity between required manning to field the system per Basis of Issue Plan (BOIP) and the ANG manning availability to receive the system. An equitable resolution for the MOA is continuing to be adjudicated.

viii. Maneuver Budget Operating System

Table 2-9. Maneuver Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
Stryker Vehicles	323	319	99%	$82M
Bradley Fighting Vehicles	876	792	91%	$566M
Long Range Advanced Scout System (LRAS3)	1,050	1,046	100%	$2M

The Maneuver BOS consists of a variety of maneuver combat vehicles including the Abrams Tanks, armored carriers, Bradley Fighting Vehicles, Stryker Combat Vehicles and Hercules Recovery Vehicles as well as mortars, and Long Range Acquisition Scout Surveillance System (LRAS3) systems. Funding is in place to provide 100 percent of requirements by FY 2013.

ix. Mobility Budget Operating System

Table 2-10. Mobility Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
T9 Dozer W/Winch	404	242	60%	$41M
Mixing Plant: Asphalt	16	2	13%	$42M
Family of All Terrain Tactical Cranes: TYP II (Modernization)	156	0	0%	$20M

The Mobility BOS contains systems to support DSCA and combat missions, including HD. This BOS includes systems in general engineering, horizontal construction, mobility, survivability, counter-mobility and sustainment. Funding is planned in future years for key systems in this category except the HYEX, Medium Mine Protected Vehicle, Dozer and Bridging Families. Systems in the HYEX and Dozer Families are either beginning their modernization or concept development for the next generation of that system. Horizontal Construction equipment is also being modernized; full funding is not planned for the Asphalt Mixing Plant. NGREA funding has been recently used to purchase light loaders, bull dozers and scraper systems.

x. Nuclear, Biological, and Chemical (NBC) Force Protection Budget Operating System

Table 2-11. NBC Force Protection Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
Chemical and Biological Protection Shelter (CBPS)	286	2	1%	$208.3M

The NBC Force Protection BOS consist of systems to support chemical, biological, radiological, and nuclear activities. Production of the MTV-based Chemical and Biological Protection Shelter System is scheduled to begin in August 2011. After initial testing, first production deliveries are slated for July 2012. The ARNG plans to use NGREA to supplement Army base-budget funding.

xi. Soldier Systems Budget Operating System

Table 2-12. Soldier Systems Budget Operating System

System	Required Qty (FY 2013)	On Hand Qty (FY 2013)	Percent Fill	Equipment Shortfall Value
Thermal Weapons Sights	77,732	62,388	80%	$210M
Heavy Machine Guns	24,488	22,942	94%	$20M
Night Vision Goggles	221,832	218,582	99%	$50M

The Soldier BOS, consisting of Soldier Systems and Soldier Weapons, is composed of night vision goggles, thermal weapons sights, and weapon support items (Soldier Systems) as well as grenade launchers, heavy, medium and light machine guns, service rifles and other small arms (Soldier Weapons). As of now, full funding is planned over the next six years. EOH levels are increasing and several new requirements are being applied to replace legacy systems. NGREA has provided some funding for M25 Binoculars, shop maintenance equipment for small arms, and night vision goggle shortages.

D. Summary

The ARNG is continuing to transition from a strategic reserve to an operational force while continuing to meet its HD/DSCA missions. With this new mission and role as an operational force, it becomes critical for the ARNG to continue modernization efforts. The ARNG will continue to move towards the Army's ARFORGEN-based Equipping Strategy by increasing interoperability and modernization of equipment. The Army continues to demonstrate a strong commitment to modernize the ARNG. The ARNG has received or is now on track to receive its full complement of key systems to include combat arms systems, communication systems, HTVs, and small arms; however, tactical wheeled vehicles and aviation systems still lag behind and require $500M and $1.3B respectively in additional funding over the next 10 years. Transparency efforts continue to improve, but additional work is still required to track funds from Congressional appropriation to equipment delivery to the unit for all major systems.

ARNG

Table 1

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of Equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve Component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of Equipment which should be in the inventory of each Reserve Component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Air Defense							
Radar Set: Sentinel AN/MPQ-64	G92997	$3,500,000	50	71	72	72	72
Air Defense System Integrator: AN/MSQ-214	Z03104		1	1	1	1	14
Fire Unit Vehicle Mounted: (Avenger)	F57713	$1,090,277	264	264	264	264	264
Aircraft							
Helicopter Utility: UH-60L	H32361	$4,855,000	201	282	296	319	646
Aerial Scout Helicopter: OH-58D	A21633	$4,075,800	23	23	23	23	30
Helicopter: Attack AH-64D	H48918	$25,128,800	140	173	186	186	192
CH-47F Improved Cargo Helicopter:	C15172	$30,000,000	28	47	55	70	60
Helicopter Light Utility (LUH) UH-72A:	H31329	$3,900,000	104	152	171	191	198
Helicopter Utility: UH-60M	H32429	$8,000,000	36	43	58	73	68
Tactical Unmanned Aerial Vehicles System: (Shadow)	T09343	$2,000,500	27	29	29	29	28
Helicopter Advanced Attack: AH-64A	H28647	$10,680,000	30	30	30	30	20
Helicopter Cargo Transport: CH-47D	H30517	$5,000,000	141	141	141	141	102
Helicopter Observation: OH-58C	H31110	$190,817	7	7	7	7	0
Helicopter Observation: OH-58A	K31042	$92,290	113	113	113	113	16
Helicopter Utility: UH-1H	K31795	$922,704	8	8	8	8	5
Helicopter Utility: UH-60A	K32293	$4,635,000	457	457	457	457	35
Airplane Cargo Transport: C-12D	A29812	$1,967,301	8	8	8	8	1
Airplane Cargo Transport: C-23B	A29880	$7,424,158	28	28	28	28	58
Airplane Cargo-Transport: C-12F	A30062	$3,068,422	23	23	23	23	45
Airplane: Cargo-Transport C-26	A46758	$800,000	9	9	9	9	11
Airplane, Cargo Transport	BA108Q	$2,150,000	9	9	9	9	0
Helicopter Utility: UH-1V	H31872	$948,158	0	0	0	0	15
HH-60L MEDEVAC Helicopter	U84291	$7,908,000	12	12	12	12	0
HH-60Q MEDEVAC Helicopter	U84541	$7,908,000	4	4	4	4	0
Aviation							
Aviators Night Vision Imaging System: AN/AVS-6(V)1	A06352	$10,747	5,537	5,549	5,549	5,549	5,297
Command System: Tactical AN/TSQ-221	C61597	$3,000,000	20	21	21	21	22
Hoist High Performance:	H39331	$142,338	217	230	230	230	431
Power Unit Aux: Aviation Multi-Output GTED (AGPU)	P44627	$850,000	158	190	190	190	279
Shop Equipment Contact Maintenance (SECM): Aviation	S30224	$250,000	2	2	2	2	342
Tool Kit Tube Swaging: Sizes 4 6 8 10 12 16 (Set B)	T57982	$42,116	187	192	192	192	237
Tool Set: Aviation Foot Locker	T65997	$5,000	601	675	676	676	806
Radar Set: AN/TPN-31	R17126	$3,701,502	14	14	14	14	14
Radio Set: High Frequency AN/VRC-100 (V)1	R81691	$33,707	217	217	217	217	249

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Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Radio Set: High Frequency AN/ARC-220 (V)1	R22436	$27,779	918	927	932	932	699
External Stores Subsystem (ESSS): UH-60A	E21985	$676,111	83	83	83	83	768
Battle Command C2							
Generator Set Diesel Engine TM: PU-802	G53778	$31,481	1,464	1,464	1,464	1,464	1,563
Computer Set: Digital OL-590/TYQ(SAMS-1 CONFIG	C28078	$19,571	15	15	15	15	1
Gen Set: Ded Skid mtd 3kW 60Hz	G18358	$9,922	7,831	7,832	8,134	8,514	7,543
Gen Set: Ded Skid mtd 5kW 60Hz	G11966	$12,798	2,770	3,324	3,324	3,324	2,215
Computer Set: Digital OL-582/TYQ	C18446	$5,000	45	45	45	45	0
Computer Set: AN/UYK-128(V)3	C18378	$15,850	16,247	18,266	18,266	18,321	34,467
Computer System: Digital AN/TYQ-105(V)1	C27503	$2,562	8,200	10,225	10,232	10,233	10,048
Computer System: Digital AN/TYQ-129(V)2	C27435	$3,000	4,354	4,354	4,354	4,354	3,070
Navigation Set: Satellite Signals AN/PSN-13	N96248	$3,581	83,568	84,972	86,992	93,992	73,443
Carrier Command Post: Light Tracked	D11538	$345,787	403	403	403	403	130
Computer System: Digital AN/TYQ-109(V)2	C27775	$7,000	762	831	851	851	736
Computer System: Digital AN/TYQ-109(V)1	C27707	$5,000	4,563	4,926	5,041	5,041	4,439
Gen Set DED TM: 5kW 60Hz	G42238	$23,738	1,120	1,120	1,120	1,120	932
Gen Set DED TM: 10kW 60Hz	G42170	$25,757	1,828	1,828	1,828	1,828	1,447
Carrier Armored Command Post: Full Tracked	C11158	$374,086	276	276	276	276	427
Computer Set: Digital OL-591/TYQ	C18718	$8,226	6	6	6	6	0
Computer System: Digital AN/TYQ-129(V)1	C27367	$13,000	134	134	134	134	96
Computer Set: Digital OL-603/TYQ	C78827	$14,899	304	309	310	310	285
Computer System: Digital AN/UYQ-90(V)2	C18278	$5,650	8,569	9,203	9,203	9,203	19,996
Computer Set: Digital OL-604/TYQ	C18684	$14,899	446	846	971	971	545
Gen Set: Ded Skid mtd 10kW 60Hz	G74711	$14,345	1,862	1,937	1,937	1,937	1,701
Generator Set: Diesel TM 60kW 50/60Hz PU805 Chassis	G78306	$44,185	230	232	232	232	210
Generator Set: Diesel Eng TM 15kW 60Hz	G78374	$32,622	177	177	177	177	245
Power Plant: Electric TM 30kW 50/60Hz AN/MJQ 40	P42126	$85,594	110	110	110	110	115
Power Plant: Diesel TM 10kW 60Hz AN/NJQ-37	P42262	$50,294	181	181	181	181	285
Computer System: Digital AN/UYQ-90(V)3	C78851	$8,500	1,401	3,701	3,701	3,701	3,648
Interrogator Set: AN/TYX-1	J99233	$14,000	1,048	1,048	1,048	1,048	587
Accessory Kit Electronics Equipment: MK-2975/TYQ	Z00057		1	1	1	1	23
Interface Unit Comm Equip: OL-713(V)1/TYQ CSS VSAT	Z00560		0	1	1	1	0
Processor Group Signal Data: OL-701/TYQ	Z53098		12	12	12	12	248
Generator Set Diesel Engine TM: PU-803	G35851	$38,418	463	465	465	465	260
Generator Set Diesel: 28V DC MEP-501A	G36169	$6,000	89	91	92	92	62
Generator Set Diesel: 60Hz AC MEP-531A	G36237	$6,000	2,532	2,532	2,532	2,532	3,917
Gen Set: Ded Skid mtd 30kW 50/60Hz	G74575	$26,705	116	116	116	116	168
Gen St Dsl Eng TM: 10kW 60Hz	G40744	$12,102	208	208	208	208	4
Rigid Wall Shelter: Command Post	R98145	$162,800	72	72	72	72	265
Gen St Dsl Eng: 5kW 60Hz	J35813	$8,332	1,486	1,486	1,486	1,486	165
Gen St Dsl Eng: 10kW 60Hz	J35825	$13,635	596	596	596	596	32
Power Plant Elec DED TM: 10kW 60Hz 2ea AN/MJQ-18	P28015	$36,050	45	45	45	45	18
Battlespace Awareness							
Dig Topograph Sys: AN/TYQ-67(V)	D10281	$2,500,000	105	109	109	109	94

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Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Target Acq Subsys: Common Grnd Station AN/TSQ-179(V	T37036	$2,560,000	17	25	43	43	43
Central: Communications AN/TSQ226(V)2	C43331	$1,275,000	2	2	2	2	2
Central: Communications AN/TSQ-226(V)3	C43399	$1,880,000	49	49	50	50	51
Battle Command Transportable Networks							
Radio Set: AN/PSC-5	R57606	$27,000	500	500	500	500	4,402
Satellite Communications Terminal: AN/TSC-93A	S34963	$825,000	9	9	9	9	9
Spectrum Analyzer: AN/USM-489(V)1	S01416	$37,378	38	38	38	38	77
PJH Surface Vehicle Radio Set: AN/VSQ-2(V)	P49587	$50,011	989	989	989	989	7,665
Receiver Transmit: RT-1523E(C)/U	R30343	$8,537	25,593	25,593	25,593	25,593	28
Radio Set: AN/VRC-89F(C)	R44999	$11,128	3,101	3,641	3,688	3,688	5,378
Radio Set: AN/VRC-92F(C)	R45543	$13,446	11,976	12,641	12,641	12,641	14,964
Terminal: Satellite Communication AN/TSC-154	T81733	$3,334	4	41	41	84	84
Computer System Digital: AN/PYQ-10(C)	C00003	$1,978	50,981	58,014	58,656	60,667	89,168
Joint Node Network (JNN) Central Office Telephone	Z00562		132	132	132	132	132
Battalion Command Post(Switching Group): OM-XXX	B67234		503	503	503	503	503
Radio Set: AN/VRC-88F(C)	R67330	$7,123	1,407	2,641	2,641	2,641	1,810
Radio Set: AN/VRC-90F(C)	R68044	$7,415	26,488	35,249	35,353	35,665	60,443
Radio Set: AN/VRC-91F(C)	R68146	$11,817	5,831	7,903	7,954	7,954	12,246
Radio Set: AN/PRC-119F(C)	R83141	$4,346	6,899	7,625	7,625	7,625	9,332
Receiver-Transmitter Radio: RT-1523(C)/U	R31609	$8,537	24,680	24,680	24,680	24,680	108
Radio Set: AN/PRC-126	R55336	$8,900	5,365	5,365	5,365	5,365	6,268
Radio Set: AN/PSC-11	R57810	$150,000	9	9	9	9	0
Radio Set: AN/VRC-87F(C)	R67296	$6,532	927	1,527	1,527	1,527	581
Receiver Transmitter: Radio RT-1523C(C)U	R70839	$8,537	14,894	14,894	14,894	14,894	2
HF Radio Set: AN/GRC-193A	H35404	$37,000	29	29	29	29	0
Radio Set: AN/PRC-104A	R55200	$12,000	92	92	92	92	636
Receiver Transmitter: RT-1539(P)A(C)/G	R30434	$95,853	43	43	43	43	0
Combat Mobility							
Cradle: Improved Boat (IBC) M14	C33925	$22,064	116	116	116	116	178
Ramp Bay Bridge Floating:	R10527	$134,112	118	118	118	118	152
Boat Bridge Erection Inboard Engine: Shallow Draft	B25476	$210,000	121	128	128	128	172
Tractor Wheeled: DSL Excavator & Front Loader	T34437	$110,000	532	532	532	532	78
Bridge Heavy Dry: Supt (HDSB) 40m MLC96	B26007	$2,676,000	16	28	33	33	24
Interior Bay Bridge Floating:	K97376	$111,968	352	382	382	382	366
Launcher Heavy Dry Support Bridge: (HDSB)	L67660	$937,000	16	16	16	16	24
Loader Scoop Type: Ded w/5 Cy Gp Bucket (CCE)	L76321	$147,930	68	68	68	68	4
Transporter Common Bridge:	T91308	$226,150	586	586	586	586	688
Pallet: Bridge Adapter (BAP)M15	P78313	$37,085	404	404	404	404	522
Launch M60 Series Tank Chassis Transpt: 40/60ft Bridge	L43664	$527,126	104	104	104	104	119
Loader Scoop Type: DSL 2-1/2 cu yd w/Multi Purp Bucket	L76556	$92,895	361	361	361	361	421
Tractor FT HS: Armored Combat Earthmover (ACE)	W76473	$887,050	85	85	85	85	123
Bridge Erection Set Fixed Bridge: UK Medium Girder Bridge	C22126	$488,354	5	5	5	5	25
Bridge Erect Set Fixed Bridge: Hwy Truss Baly Type	C22058	$43,944	7	7	7	7	107
Bridge Fixed: Highway Alum UK Medium Girder Bridge 100ft	C22811	$964,515	9	9	9	9	26

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Reinforcement Set: Medium-Girder Bridge	C27309	$498,940	5	5	5	5	25
Field Logistics							
Electronic Shop Shelter Mtd Avionics: AN/ASM-146	H01907	$124,000	336	385	389	391	956
Refueling System: Aviation HEMMT tanker	R66273	$24,460	161	209	209	209	216
Radio Test Set: AN/PRM-34()	R93169	$6,500	2,224	2,224	2,224	2,224	994
Shelter: Tactical Expandable Twoside	S01359	$223,219	7	7	7	7	97
Shop Equip Auto Maint & Repair: FM Basic	T24660	$120,827	138	138	138	138	474
Test Set Aviators NVIS: TS-3895/UV	T53471	$10,424	389	389	389	389	828
Diagnostic Test Set	D12196	$9,672	72	72	72	72	218
Test Kit Mask Protective: M41	T62350	$7,000	2,792	2,792	2,792	2,792	2,759
Containerized Kitchen: CK	C27633	$224,490	165	234	234	234	400
Forward Area Refueling Sys: Advanced Aviation (AAFARS)	F42611	$321,537	127	127	127	127	121
Rough Terrain Container Handler (RTCH): KALMAR RT240	R16611	$740,815	74	76	76	76	48
Shop Equip: Contact Maint Ord/Eng Truck Mounting	S25681	$75,000	1,428	1,806	1,907	1,989	2,051
Forward Area Water Point Supply System	F42612	$19,484	152	251	255	257	217
Tank & Pump Unit Liquid Dispensing Truck Mounting	V12141	$9,015	768	769	770	770	798
Sanitation Center: Food	S33399	$33,865	937	939	940	940	924
Forward Repair System (FRS)	F64544	$275,000	616	693	693	693	729
SATS Field Maintenance Module 2	T65562	$9,795	32	44	44	44	120
Truck Lift: Fork Variable Reach Rough Terrain	T73347	$166,639	513	618	628	628	829
Maintenance Support Device	T92889	$18,233	12,968	14,360	14,969	14,969	15,959
Test St: Radar TS-4530()/UPM	T99847	$9,944	468	485	485	485	596
Trailer Tank Water (CAMEL): 800G 5-ton	Z36683		77	142	248	336	309
Tactical Water Purification System (TWPS) 1500gph	T14017	$450,000	140	140	140	140	142
Load Handling Sys: 2000G Comp Water Tank-Rack (HIPPO)	T32629	$131,839	327	390	466	570	685
Signal Generator: SG-1219/U	S48255	$39,335	68	68	68	68	239
Electronic Test Set: TS-4348/UV	E03826	$649	8,929	8,929	8,929	8,929	9,252
Trailer Tank: Water 400G 1-1/2 ton 2 wheel	W98825	$16,000	3,181	3,181	3,181	3,181	3,078
Test Set Electronic Systems: Direct Support (DESETS)	T52849	$561,312	74	74	74	74	124
Test Set Transponder: AN/APM-421	T49392	$30,370	27	27	27	27	142
Tent: Lightweight Maintenance Enclosure (LME)	T49947	$16,313	1,503	1,503	1,503	1,503	0
Kitchen: Company Level Field Feeding	K28601	$7,511	171	171	171	171	838
Tool Kit Electric Equipment: TK-101/GSQ	W37483	$541	4,313	4,313	4,313	4,313	4,198
Water Purification: Reverse Osmosis 3000gph TM	W47225	$748,000	64	64	64	64	74
Test Facilities Kit: MK-994/AR	V61444	$20,894	119	119	119	119	176
Water Quality Analysis Set: Purification	W47475	$3,404	20	20	20	20	0
Kitchen Field Trailer-mounted	L28351	$104,246	1,077	1,077	1,077	1,077	559
Fuel System Supply Point: Ptbl 60000G	J04717	$30,213	9	9	9	9	19
Test Set Line: Advanced Flight Control System CH-47D	T81985	$159,457	46	46	46	46	26
Test Set Stabilator Line/SAS	T93517	$42,563	209	209	209	209	139
Service Kit Portable Riot Control Agent Disperser: M254	S78839	$1,767	163	163	163	163	2,429
Test Set Transponder Set: AN/APM-305	V99436	$35,182	36	36	36	36	94
Water Storage/Distribution Set: 40000gpd (Brigade)	W55968	$121,746	5	5	5	5	68
Water Storage/Distribution Set: 800000G	W37311	$200,508	6	6	6	6	12

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Tent: Frame Type Maintenance Medium Light Metal Cotton	V48441	$13,262	110	110	110	110	0
Truck Lift Fork: Dsl Drvn 4000 Lb Cap Rough Terrain	T49255	$75,000	333	333	333	333	411
Test Set Instrument Display System Bench	T20861	$71,396	44	44	44	44	90
Truck Lift Fork: DED 50000lb Cont Hdlr Rough Terrain	T48941	$159,138	6	6	6	6	58
Truck Lift Fork: DED 6000lb Variable Reach RT Ammo Hdlg	T48944	$72,370	482	482	482	482	145
Force Protection							
Chemical Biological Protective Shelter: (CBPS)	C07506	$622,051	2	13	13	13	288
Collective Protection Equipment: NBC Simplified M20	C79000	$18,167	1,150	1,278	1,278	1,278	2,224
Decontaminating Apparatus: Pwr Drvn Lt Wt	D82404	$23,121	70	70	70	70	1,788
Mask Chemical Biological: M40	M12418	$280	327,194	327,815	327,868	327,869	307,644
Mask Chemical Biological: Combat Vehicle M42	M18526	$401	30,934	30,952	30,963	30,963	25,650
Nuclear Bio Chem Recon Veh: (NBC RV)	N96543	$2,320,389	3	29	41	41	107
Radiac Set: AN/VDR-2	R20684	$1,950	19,112	19,112	19,112	19,112	22,087
Radiac Set: AN/PDR-75	R30925	$2,978	2,538	2,597	2,899	3,163	3,595
Radiac Set: AN/PDR-77()	R30993	$4,312	846	846	846	846	1,117
Radiac Set: AN/UDR-13	R31061	$631	30,102	30,102	30,102	30,102	30,244
Reconnaissance System NBC: M93A1 FOX	R41282	$3,000,000	4	4	4	4	0
Alarm Chemical Agent Automatic: M8A1	A32355	$8,432	7,278	7,278	7,278	7,278	14
Alarm: Chemical Agent Automatic M22	A33020	$10,000	7,560	7,560	7,560	7,560	14,809
Armored Security Vehicle (ASV)	A93374	$809,500	619	748	748	748	1,340
Monitor Chemical Agent	C05701	$7,500	9,025	9,025	9,025	9,025	10,909
General Engineering							
Scraper Elevating: SP 9-11 cu yd	S30039	$324,218	130	130	130	130	92
Scraper Earth Moving: SP 14-18 cu yd (CCE)	S56246	$149,523	369	384	398	436	402
Excavator: Hydraulic (HYEX) Type I	E27792	$236,830	101	107	107	107	131
Grader Road Motorized: DSL Drvn Hvy (CCE)	G74783	$98,045	495	495	495	495	473
Truck: Tactical Firefighting HEMTT	T82180	$640,131	42	163	234	246	39
Tractor FT LS: DSL Med DBP w/Buldoz w/Scarif Winch	W76816	$205,000	502	502	502	502	305
Tractor FT LS: DSL Med DBP w/Buldoz w/Scarif Ripper	W83529	$245,275	322	322	322	322	81
Grader Road Motorized: Dsl Drvn Sectionalized	J74886	$223,471	8	8	8	8	3
Scraper Elevating: Self Propelled 8-11 cu yd	S29971	$162,596	0	0	0	0	46
Truck Concrete: Mobile Mixer 8 cu yd (CCE)	T42725	$132,518	19	19	19	19	0
Tractor FT HS: Deployable Lt Engineer (DEUCE)	T76541	$432,799	38	38	38	38	51
Excavator: Hydraulic (HYEX) Type II	E41791	$435,755	13	13	13	13	10
Crane: Wheel-mounted Hydraulic 25T All Terrain AT422T	C36586	$313,521	159	159	159	159	177
Distributor Water Tank Type: 6000G Semitrailer mtd (CCE)	D28318	$30,289	84	84	84	84	188
Compactor High Speed: Tamping Self-Propelled (CCE)	E61618	$171,438	107	107	107	107	110
Fire Fighting Equipment Set: Truck mtd	H56391	$151,000	9	9	9	9	37
Tractor FT LS: DSL Hvy DBP w/Buldoz w/Ripper (CCE)	W88699	$197,322	29	29	29	29	0
Tactical Water Distribution Equip Set: (TWDS-RDF)	T09094	$660,000	6	6	6	6	8
Maneuver Combat Vehicle							
Fighting Vehicle: Full Tracked Cavalry (CFV) M3A3	F90796	$4,021,449	0	29	29	29	29
Fighting Vehicle: Full Tracked Infantry (IFV) M2A3	F60564	$4,409,064	14	59	60	60	60
Fighting Vehicle: Full Tracked Infantry Hi Survivability (IFV)	F40375	$1,349,348	418	418	418	418	531

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Fighting Vehicle: Full Tracked Cavalry Hi Survivability (CFV)	F60530	$1,144,000	126	126	126	126	259
M2A2ODS: for Engineers	M31793	$1,311,639	43	43	43	43	91
Carrier 120mm Mortar: Self Propelled Armored	C10990	$318,308	122	122	122	122	119
Tank Combat Full Tracked: 120mm Gun M1A2	T13305	$4,445,399	73	73	73	73	58
Tank Combat Full Tracked: 120mm Gun	T13168	$2,393,439	556	556	556	556	477
Infantry Carrier: Vehicle (ICV)	J22626	$2,320,389	146	146	146	146	128
Engineer Squad Vehicle: (ESV)	J97621	$2,320,389	12	12	12	12	12
Medical Evacuation Vehicle: (MEV)	M30567	$2,320,389	16	16	16	16	16
Mortar Carrier Vehicle: (MCV)	M53369	$2,320,389	36	36	36	36	36
Mobile Gun System: (MGS)	M57720	$2,320,389	9	9	9	9	27
Reconnaissance Veh: (RV)	R62673	$2,320,389	51	51	51	51	51
Anti-Tank Guided Missile Veh: (ATGM)	A83852	$2,320,389	9	9	9	9	9
Command Variant Veh: (CV)	C41314	$2,320,389	27	31	31	31	31
Fire Support Vehicle: (FSV)	F86821	$2,320,389	13	13	13	13	13
Recovery Vehicle Full Tracked: Medium	R50681	$1,210,755	303	303	303	303	241
Tank Combat Full Tracked: 105mm M1 (Abrams)	T13374	$1,645,697	7	7	7	7	5
Carrier Personnel Full Tracked: Armored (RISE)	C18234	$405,815	923	923	923	923	935
Cavalry Fighting Vehicle: M3	C76335	$1,056,845	7	7	7	7	6
Carrier Personnel Full Tracked: Armored	D12087	$244,844	47	47	47	47	6
Combat Vehicle Anti-Tank: Improved TOW Vehicle	E56896	$393,062	8	8	8	8	6
Infantry Fighting Vehicle: M2	J81750	$1,061,457	4	4	4	4	6
Maneuver Systems							
Surveillance System: Scout Long Range AN/TAS-8	S02976	$400,000	650	1,047	1,155	1,177	1,007
Target Acquisition System: TOW Improved ITAS M41	T24690	$1,010,000	693	910	910	910	670
Drivers Enhancers: AN/VAS-5	D41659	$35,000	2,525	3,394	3,394	3,418	16,572
Launcher Tubular Guided Missile: (TOW)	L45740	$133,000	34	34	34	34	5
Camouflage Net System Radar Scattering: AN/USQ-159	C89480	$824	72,599	72,599	72,599	72,599	0
Camouflage Screen Support System: Woodland/Desert	C89070	$347	23,745	23,745	23,745	23,745	0
Camouflage Screen System: Woodland Lt Wt Radar Sca	C89145	$933	20,827	20,827	20,827	20,827	0
Night Sight Equipment: (TOW 2)	N04982	$116,014	63	63	63	63	669
Night Vision Sight Set: AN/UAS-11	N05050	$68,000	4	4	4	4	243
Medical Field Systems							
Dental Equipment Set: Comprehensive Dentistry Field	D43802	$65,777	64	64	64	64	69
Defibrillator Monitor Recorder: 120/230V 50/60Hz AC/DC	D86072	$26,877	345	361	391	406	365
Ventilator Volume Ptbl	V99788	$11,921	297	315	326	337	265
MES Combat Medic	U65480	$3,432	4,087	4,550	4,566	4,599	5,195
Medical Equipment Set Chemical Agent Patient Treatment:	M23673	$30,758	897	898	898	898	900
Medical Equipment Set Ground Ambulance	M26413	$35,110	2,105	2,106	2,106	2,106	1,891
Medical Equipment Set Patient Holding Squad Field	M29633	$125,345	124	124	124	124	108
Medical Equipment Set Sick Call Field	M30156	$36,646	420	420	420	420	669
Medical Equipment Set Tactical Combat Medical Care	M30499	$148,995	1,017	1,022	1,022	1,022	885
Medical Equipment Set Special Forces: Tactical	M29999	$106,425	181	181	181	181	148
Medical Equipment Set Air Ambulance:	M29213	$100,896	298	304	304	304	252
Other Systems							

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Bridge Fixed: Highway Pony Truss Ptbl Panel Bailey Type	C23017	$303,673	7	7	7	7	106
Soldier Systems							
Illuminator: Infrared	J03261	$1,059	80,924	80,924	80,924	80,924	52
Sight: Night Vision Sniperscope AN/PVS-10	S90433	$9,546	516	516	516	516	50
Medium Weapon Thermal Sight (MWTS): AN/PAS-13(V)2	S90535	$17,591	17,591	26,817	27,412	27,967	27,717
Heavy Weapon Thermal Sight (HWTS): AN/PAS-13(V)3	S90603	$19,306	17,257	27,798	28,167	28,621	28,765
Mini Eyesafe Laser IR Observation Set (MELIOS): AN/PVS-6	M74849	$22,015	1,320	1,320	1,320	1,320	11,121
Sight: Reflex Collimator	S60288	$319	213,538	213,546	213,550	213,550	112,455
Telescope: Straight	T60185	$762	13,642	13,642	13,642	13,642	7,528
Monocular Night Vision Device: AN/PVS-14	M79678	$3,607	159,184	179,591	184,388	188,072	37,243
Night Vision Goggle: AN/PVS-7B	N05482	$6,000	49,601	49,601	49,601	49,601	211,698
Sight: Thermal AN/PAS-13B(V)1	S60356	$17,000	13,473	20,769	20,769	20,769	23,582
Mount Gun: Ring cal .50	M74364	$3,777	8,394	8,394	8,394	8,394	13,886
Night Vision Sight Individual Served Weapon: AN/PVS-4	N04732	$8,535	10,914	10,914	10,914	10,914	1,328
Night Vision Goggles: AN/PVS-5	N04456	$4,300	9,471	9,471	9,471	9,471	35
Night Vision Sight Crew Served Weapon: AN/TVS-5	N04596	$3,500	3,394	3,394	3,394	3,394	1,005
Soldier Weapons							
Machine Gun: cal .50, HB Flexible	L91975	$12,685	13,225	13,225	13,225	13,225	13,791
Machine Gun: 5.56mm M249	M09009	$3,830	28,976	29,046	29,163	29,467	26,581
Machine Gun: 5.56mm M249 Light	M39263	$2,779	4,972	4,972	4,972	4,972	8,216
Machine Gun Grenade: 40mm Mk19 MOD III	M92362	$15,320	9,229	9,241	9,247	9,247	8,972
Machine Gun: 7.62mm M240H	M92591	$8,593	1,509	1,509	1,509	1,509	1,541
Machine Gun: 7.62mm M240B	M92841	$6,000	10,847	14,673	14,697	14,697	13,645
Pistol: 9mm Automatic M9	P98152	$386	71,490	71,782	71,803	71,803	61,108
Rifle: 7.62mm Sniper M24	R95387	$7,029	624	624	624	624	3,076
Rifle: 5.56mm M4	R97234	$1,329	146,106	147,383	147,406	147,410	159,646
Command Launch Unit: (Javelin) 13305405-119	C60750	$231,671	2,737	2,813	2,813	2,813	2,628
Rifle: 5.56mm M16A2	R95035	$503	139,196	139,196	139,196	139,196	136,479
Rifle: 5.56mm M16A4	R97175	$950	25,006	25,006	25,006	25,006	3,362
Shotgun: 12 Gauge Riot Type 20in barrel	T39223	$238	8,731	8,731	8,731	8,731	8,096
Machine Gun: 7.62mm Fixed RH Feed	M92420	$4,890	986	986	986	986	991
Launcher Grenade: 40mm Sgle Shot Rifle mtd	L44595	$593	9,223	9,223	9,223	9,223	7,656
Launcher Grenade: M203A1	L46007	$593	601	601	601	601	6
Launcher Grenade: M203A2	L69012	$1,060	13,713	13,713	13,713	13,713	167
Disperser: Riot Control Agent Portable M33	G22348	$724	367	367	367	367	2,316
Machine Gun: 7.62mm Light Flexible	L92386	$5,864	328	328	328	328	0
Strike							
Fire Support Team Vehicle: Bradley (BFIST)	F86571	$903,195	27	27	27	27	92
Howitzer Light Towed: M119	H57505	$1,100,000	322	327	327	327	328
High Mobility Artillery Rocket System: HIMARS	H53326	$2,500,000	172	196	196	196	195
Howitzer Medium Self Propelled	H57642	$1,435,000	296	296	296	296	242
Multiple Launch Rocket System: (MLRS) M270A1 Improved	M82581	$2,168,500	37	37	37	37	32
Radar Set: AN/TPQ-36(V)10	R14284	$10,091,900	18	28	28	28	29
Radar Set: AN/TPQ-37(V)9	A41666	$14,465,400	7	16	16	16	16

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Range Finder-Target Designator: Laser AN/PED-1	R60282	$300,000	532	812	812	812	1,062
Knight: M707	S50205	$947,000	54	54	54	54	4
Carrier Ammunition: Tracked Vehicle (CATV)	C10908	$1,140,667	284	284	284	284	236
Howitzer Medium Towed: 155mm M198	K57821	$1,032,337	18	18	18	18	17
Launcher Rocket: Armored Vehicle-mounted	L44894	$1,973,897	40	40	40	40	10
Carrier Personnel Full Tracked: Armored Fire Support	C12155	$553,367	48	48	48	48	9
Carrier Cargo: Tracked 6-ton	D11049	$323,416	37	37	37	37	230
Howitzer Medium Self Propelled: 155mm	K57667	$923,286	8	8	8	8	8
Support Systems							
Container Handling Unit (CHU)	C84862	$34,613	140	140	140	140	859
Platform: Container Roll-In/Roll-Out	B83002	$16,633	14,368	14,372	14,372	14,372	17,395
Boat Landing Craft Inflatable: 7 Person	B84293	$15,720	191	294	294	294	453
Automobile Sedan: Class II Compact	B04441	$9,176	291	291	291	291	8,789
Bus Motor: Transit Forward Control 28-44 Passenger	C39977	$62,106	41	41	41	41	1,224
Truck Cargo: 1/2 to 3/4 ton 4X2 4500-8510 GVW	X39598	$18,000	473	473	473	473	5,812
Truck Cargo: 1/2 to 1 ton 6000-10000 GVW	X39893	$27,242	939	939	939	939	7,150
Truck Carryall: 1/4 to 1-1/4 ton 4000-8550 GVW	X42201	$28,000	335	335	335	335	4,895
Training Set: Moving Target Simulator (Stinger/Redeye)	X04802	$4,377,780	1	1	1	1	50
Trailers							
Semitrailer Low Bed: 70-ton Heavy Equip Transporter (HET)	S70859	$229,219	626	626	626	626	686
Semitrailer Tank: 5000G Fuel Dispensing Automotive	S73372	$97,413	406	406	406	406	213
Semitrailer Tank: 5000G Bulk Haul Self-Load/Unload	S10059	$77,550	367	367	367	367	300
Semitrailer Flatbed: Breakbulk/Cont Transporter 22-1/2-ton	S70027	$33,156	3,820	3,820	3,820	3,820	3,520
Semitrailer Flatbed: Breakbulk/Container Transporter 34T	S70159	$43,252	3,539	3,539	3,539	3,539	4,349
Semitrailer Low Bed: 40-ton 6 wheel	S70594	$51,900	1,397	1,397	1,397	1,397	1,406
Trailer Flatbed: 11-ton 4 wheel (HEMAT)	T45465	$34,714	1,414	1,414	1,414	1,414	1,035
Trailer: Palletized Loading 8X20	T93761	$46,731	4,606	4,606	4,606	4,606	4,947
Trailer Cargo: High Mobility 1-1/4-ton	T95924	$8,954	6,260	6,269	6,480	6,550	6,440
Light Tactical Trailer: 3/4-ton	T95992	$8,954	10,230	10,245	10,256	10,256	10,571
Trailer Flat Bed: M1082 Trlr Cargo LMTV w/Dropsides	T96564	$34,569	3,160	3,402	3,436	3,546	4,871
Trailer Cargo: MTV W/Dropsides M1095	T95555	$62,829	2,610	3,199	3,239	3,282	5,737
Trailer Cargo: 3/4-ton 2 wheel	W95537	$4,474	766	766	766	766	39
Trailer Cargo: 1-1/2-ton 2 wheel	W95811	$10,245	0	0	0	0	86
Semitrailer Van: Repair Parts Storage 6-ton 4 wheel	S74832	$32,952	60	60	60	60	34
Semitrailer Van: Shop 6-ton 2 wheel	S75038	$6,532	174	174	174	174	1
Trucks							
Truck Utility: ECV Armament Carrier M1151A1	T34704	$210,000	3,432	3,432	3,432	3,432	4,263
Truck Cargo: MTV	T61908	$184,333	3,232	3,232	3,232	3,232	376
Truck Van: LMTV	T93484	$230,363	196	196	196	196	362
Truck Wrecker: MTV W/W	T94709	$331,680	336	336	336	336	811
Truck Cargo: MTV W/W	T41135	$182,089	431	431	431	431	855
Truck Tractor: Heavy Equipment Transporter (HET)	T59048	$256,704	624	624	624	624	746
Truck Cargo: LMTV	T60081	$176,428	4,346	4,346	4,346	4,346	414
Truck Cargo: LMTV W/W	T60149	$149,600	547	547	547	547	3

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Truck Tractor: MTV	T61239	$167,746	1,678	1,678	1,678	1,678	3,015
Truck Tractor: MTV W/W	T61307	$175,733	108	108	108	108	596
Truck Cargo: MTV LWB	T61704	$170,073	70	70	70	70	766
Truck Cargo: MTV LWB W/W	T61772	$119,567	5	5	5	5	0
Truck Cargo: Heavy PLS Transporter 15-16.5 ton 10X10	T40999	$360,139	1,013	1,013	1,013	1,013	1,731
Truck Cargo: 5-ton 6X6 MTV LAPES/AD	T41036	$118,579	19	19	19	19	104
Truck Cargo: 2 1/2-ton LMTV LAPES/AD	T41995	$103,220	87	87	87	87	142
Truck Utility: Cargo/Troop Carrier HMMWV	T61494	$36,076	14,362	14,362	14,362	14,362	6,884
Truck Utility: Cargo/Troop Carrier W/W HMMWV	T61562	$36,672	849	849	849	849	93
Truck Tractor: Let 6X6 66000 GVW W/W C/S	T91656	$166,223	1,811	1,811	1,811	1,811	446
Truck Utility: Armt Carrier Armd HMMWV	T92242	$74,969	3,316	3,316	3,316	3,316	1,116
Truck Utility: Expanded Capacity Up-Armored HMMWV	T92446	$146,844	25	25	25	25	354
Truck Tank: Fuel Servicing 2500G HEMTT	T87243	$384,130	1,265	1,265	1,265	1,265	739
Truck Wrecker: Tactical HEMTT W/W	T63093	$503,382	700	700	700	700	634
Truck Utility: Heavy Variant HMMWV 10000 GVW	T07679	$61,665	11,666	12,338	13,714	15,114	322
Truck Tractor: Line Haul C/S 50000 GVW 6X4 M915	T61103	$162,968	2,083	2,083	2,083	2,083	2,265
Truck Tank: Fuel Servicing 2500G HEMTT W/W	T58161	$396,130	461	461	461	461	231
Truck Cargo: Tactical 8X8 HEMTT w/LHS	T96496	$321,057	896	896	896	896	1,975
Truck Cargo: MTV w/MHE	T41203	$218,378	291	291	291	291	409
Truck Cargo: 5-ton 6X6 MTV W/W LAPES/AD	T41104	$119,265	13	13	13	13	40
Truck Cargo: Tactical HEMTT w/Med Crane	T39586	$361,629	699	699	699	699	258
Truck Cargo: Drop Side 5-ton 6X6	X40794	$74,450	4,404	4,404	4,404	4,404	18
Truck Cargo: Tactical HEMTT W/W w/Lt Crane	T39518	$328,920	98	98	98	98	89
Truck Cargo: Tactical HEMTT W/W w/Med Crane	T39654	$373,692	135	135	135	135	45
Truck Cargo: Hvy PLS Transporter 15-16.5 ton w/MHE	T41067	$288,015	613	613	613	613	152
Truck Dump: 5-ton 6X6	X43708	$100,887	1,060	1,060	1,060	1,060	0
Truck Tractor: 5-ton 6X6	X59326	$86,203	1,917	1,917	1,917	1,917	0
Truck Van: Expansible 5-ton 6X6 (Army)	X62237	$145,700	204	204	204	204	0
Truck Cargo: Tactical HEMTT w/Lt Crane	T59278	$316,920	285	285	285	285	44
Truck Utility: Armt Carrier Armd W/W HMMWV	T92310	$39,518	1,650	1,650	1,650	1,650	778
Truck Wrecker: 5-ton 6X6 W/W	X63299	$168,960	576	576	576	576	0
Truck Utility: Expanded Capacity HMMWV M1113	T61630	$61,042	537	537	537	537	891
Truck Cargo: MTV LWB w/MHE W/W	T61840	$209,309	6	6	6	6	0
Truck Ambulance: 2 Litter Armd HMMWV	T38707	$49,357	29	29	29	29	5
Truck Ambulance: 4 Litter Armd HMMWV	T38844	$113,998	1,327	1,327	1,327	1,327	1,700
Truck Dump: MTV	T64911	$209,309	23	23	23	23	884
Truck Dump: MTV W/W	T64979	$139,015	0	0	0	0	265
Truck Dump: 20-ton DSL Drvn 12 cu yd Cap (CCE)	X44403	$211,764	689	689	695	724	598
Truck Utility: Tow Carrier Armd HMMWV	T05096	$49,521	425	425	425	425	603
Truck Utility: S250 Shelter Carrier HMMWV	T07543	$36,932	457	457	457	457	221
Truck Utility: Expanded Capacity Armored Carrier w/AOA	T92514	$95,548	33	33	33	33	0

Table 2

ARNG
Average Age of Equipment

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2012.

Nomenclature	Equip No.	Average Age	Remarks
Aircraft - Rotary Wing			
Helicopter, Attack AH-64A	H28647	21	
Helicopter, Attack AH-64D	H48918	12	
Helicopter, Cargo CH-47D	H30517	23	
Helicopter, Utility, UH-60A	K32293	30	
Helicopter, Utility, UH-60L	H32361	20	
Helicopter, Utility, UH-60M	H32429	4	
Helicopter, Observation, OH-58 A/C	H31110	42	
Helicopter, Observation, OH-58D	A21633	17	
Helicpoter, Light Utility, UH-72A	H31329	4	
Aircraft - Fixed Wing			
Airplane, Cargo Transport, C-12D	A29812	30	
Airplane,Cargo Transport, C-12U	BA108Q	22	
Airplane, Cargo Transport, C-23C	A29880	17	
Airplane, Cargo Transport, C-26	A46758	16	
Artillery & Missiles			
Howitzer, Medium, Sp, 155mm, M109A1-A5	K57667	40	
Howitzer, Medium, Sp, 155mm, M109A6	H57642	24	
Howitzer, Lightweight M119A2	H57505	6	
Bridging Equipment			
Boat Bridge Erection, MK1/MK2	B25476	20	
Boat Cradle, Improved (IBC), M14	C33925	9	
Interior Bay Bridge, Floating	K97376	15	
Launcher, M60 Tank Chassis, AVLB	L43664	39	
Pallet, Bridge Adapter (BAP) M15	P78313	8	
Ramp Bay Bridge Floating	R10527	5	
Communications & Electronics Equipment			
Computer System, AN/TYQ-109(V)1	C27707	8	
Engineer & Construction Vehicles			
Compactor, High Speed	E61618	13	
Crane, Whl-mtd, 25-ton, ATEC AT422T	C36586	11	
Excavator, Hydraulic (HYEX) Type I	E27792	13	
Excavator, Hydraulic (HYEX) Type II	E41791	10	
Grader Road Motorized, DED Hvy	G74783	27	
Grader Road Motorized, DED Sectionalized	J74886	29	
Loader Scoop Type, DED w/5 Cy Gp Bucket	L76321	33	
Loader Scoop Type, DED w/MultiPurpose Bucket	L76556	27	
Scraper Earth Moving SP, 14-18 Cu Yd	S56246	27	

Table 2

ARNG
Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
Scraper Elevating, SP Sectionalized	S30039	4	
Tractor Full-tracked High-speed, DEUCE	T76541	10	
Tractor, FT, Hvy, CAT D8K-8-S	W88699	35	
Tractor, FT, Med, Cat D7 w/Scarif Ripper	W83529	25	
Tractor, FT, Med, Cat D7 w/Scarif Winch	W76816	32	
Tractor, Full-tracked, Armored, M9 (ACE)	W76473	20	
Tractor, Whld Excavator, SEE	T34437	23	
Truck Concrete, Mobile Mixer 8 Cu Yd (CCE)	T42725	32	
Truck, Forklift, ATLAS	T73347	6	
Truck, Forklift, DED 4k lb, Rough Terrain	T49255	28	
Truck, Forklift, DED 50k lb, RT, Cont Hdlr	T48941	29	
Truck, Forklift, DED 6k lb, RT, Ammo Hdlg	T48944	19	
Truck, Dump, 20-ton, M917	X44403	19	
Generator Sets & Power Plants			
Generator Set, 2kW, MEP-501A	G36237	11	
Generator Set, 5kW, MEP-802A TQG	G11966	10	
Generator Set, 5kW, PU-797 TQG	G42238	9	
Generator Set, 10kW, MEP-803A TQG	G74711	9	
Generator Set, 10kW, PU-753/M	G40744	22	
Generator Set, 10kW, PU-798 TQG	G42170	8	
Generator Set, 15kW, PU-801/A TQG	G78374	8	
Generator Set, 15kW, PU-802 TQG	G53778	7	
Generator Set, 30kW, PU-803/B/G	G35851	9	
Generator Set, 60kW, PU-805 TQG	G78306	15	
Power Plant, 10kW, AN/MJQ-18	P28015	24	
Power Plant, 10kW, AN/MJQ-37 TQG	P42262	13	
Power Plant, 30kW, AN/MJQ-40 TQG	P42126	11	
Night Vision Equipment			
Aviation Night-vision System (ANVIS), AN/AVS-6	A06352	8	
Other Support Equipment			
Fire Fighting Equipment Set, Truck-mtd	H56391	22	
Kitchen, Containerized, CK	C27633	6	
Tactical & Support Vehicles			
HEMTT Cargo Truck, w/LHS, M1120	T96496	5	
HEMTT Cargo Truck, w/Lt Crane, M977	T59278	23	
HEMTT Cargo Truck, w/Lt Crane, M977 W/W	T39518	24	
HEMTT Cargo Truck, w/Med Crane, M985	T39586	19	
HEMTT Cargo Truck, w/Med Crane, M985 W/W	T39654	21	
HEMTT Common Bridge Transporter, M1977	T91308	12	
HEMTT Fuel Tanker, 2500gal, M978	T87243	15	

Table 2

ARNG
Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
HEMTT Fuel Tanker, 2500gal, M978 W/W	T58161	18	
HEMTT Wrecker, M984	T63093	14	
HMMWV Ambulance, 2-litter, M996	T38707	23	
HMMWV Ambulance, 4-litter, M997	T38844	22	
HMMWV Armt Carrier, Armd, M1025	T92242	22	
HMMWV Armt Carrier, Armd, M1026 W/W	T92310	22	
HMMWV Armt Carrier, ECV, M1151	T34704	3	
HMMWV Cargo/Trp Carrier, M998	T61494	21	
HMMWV Cargo/Trp Carrier, W/W, M1038	T61562	22	
HMMWV Shelter Carrier, Heavy, M1097	T07679	13	
HMMWV Shelter Carrier, M1037	T07543	21	
HMMWV Tow Carrier, M966	T05096	25	
HMMWV Truck, Utility, ECV, M1113	T61630	11	
HMMWV Truck, Utility, ECV, Up-armored, M1114	T92446	11	
LMTV 2.5-ton Cargo Truck, M1078	T60081	6	
LMTV 2.5-ton Cargo Truck, M1078 W/W	T60149	6	
LMTV 2.5-ton Cargo Truck, M1079	T93484	7	
MTV 5-ton Cargo Truck, M1083	T61908	5	
MTV 5-ton Cargo Truck, M1083 W/W	T41135	6	
MTV 5-ton Cargo Truck, M1084	T41203	5	
MTV 5-ton Cargo Truck, M1085	T61704	6	
MTV 5-ton Cargo Truck, M1085 W/W	T61772	8	
MTV 5-ton Dump Truck, M1090	T64911	15	
MTV 5-ton Tractor Truck, M1088	T61239	7	
MTV 5-ton Tractor Truck, M1088 W/W	T61307	6	
MTV 5-ton Wrecker, M1089	T94709	5	
PLS Container Handling Unit (CHU)	C84862	6	
PLS Demountable Cargo Bed	B83002	15	
PLS Trailer, 16.5-ton, M1076	T93761	6	
PLS Transporter, M1074	T41067	17	
PLS Transporter, M1075	T40999	8	
Semitrailer Tanker, 5000-gal Bulk Haul, M967	S10059	14	
Semitrailer Tanker, 5000-gal POL, M969	S73372	17	
Semitrailer Van, 6-ton Repair Parts, M749/M750	S74832	38	
Semitrailer Van, 6-ton, Electr Shop, M146	S75038	44	
Semitrailer, 22.5-ton Flatbed, M871	S70027	17	
Semitrailer, 34-ton Flatbed, M872	S70159	22	
Semitrailer, 40-ton Lowbed, M870	S70594	22	
Semitrailer, 70-ton Lowbed, M1000 HETS	S70859	13	
Trailer, Cargo, 1.5-ton, M105	W95811	36	

Table 2

ARNG
Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
Trailer, Cargo, 2.5-ton LMTV, M1082	T96564	4	
Trailer, Cargo, 3/4-ton, High Mobility, M1101	T95992	3	
Trailer, Cargo, 3/4-ton, M101	W95537	34	
Trailer, Cargo, 5/4-ton, High Mobility, M1102	T95924	4	
Trailer, Cargo, 5-ton MTV, M1095	T95555	4	
Trailer, HEMAT, 11-ton, M989A1	T45465	11	
Truck Tractor, 14-ton LET, M916	T91656	10	
Truck Tractor, 14-ton Line Haul, M915	T61103	15	
Truck Tractor, HETS, M1070	T59048	13	
Tracked and Other Combat Vehicles			
Armored Personnel Carrier, FISTV, M113	C12155	40	
Armored Personnel Carrier, M113A1/A2	D12087	45	
Armored Personnel Carrier, M113A3	C18234	24	
Bradley Fighting Veh, Cavalry, M3A0	C76335	27	
Bradley Fighting Veh, Cavalry, M3A2	F60530	18	
Bradley Fighting Veh, Infantry, M2A0	J81750	27	
Bradley Fighting Veh, Infantry, M2A2	F40375	18	
Carrier, Ammo Tracked, M992A2	C10908	22	
Carrier, Cargo, M548	D11049	41	
Carrier, Command Post, M577a1	D11538	35	
Recovery Vehicle, Medium, M88A1	R50681	35	
Tank, Combat, 105mm, M1 Abrams	T13374	28	
Tank, Combat, 120mm, M1A1 Abrams	T13168	20	
Stryker, Infantry Carrier	J22626	5	
Stryker, Mortar Carrier	M53369	8	
Stryker, Mobile Gun System	M57720	5	
Stryker, Fire Support Vehicle	F86821	7	
Stryker, Engineer Squad Vehicle	J97621	5	
Water & Petroleum Equipment			
Distributor Water Tank, 6k gal, Tlr-mtd	D28318	27	
ROWPU Water Purification System, 3000 GPH	W47225	18	
Tank & Pump Unit, Liquid Dispensing Trk-mtd	V12141	21	
Trailer, Tank Water, 400 gal, M1112	W98825	22	

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Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2013 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2013 would be expected to arrive in RC inventories in FY 2014 or FY 2015.

Nomenclature	FY 2013	FY 2014	FY 2015
Aircraft			
RQ-11 (RAVEN)	$5,641,000	$708,000	$1,048,000
Helicopter, Light Utility (LUH)	151,991,000	184,171,000	27,836,000
UH-60 Blackhawk (MYP)		376,211,000	770,908,000
CH-47 Helicopter		198,000,000	
Modification of Aircraft			
Utility/Cargo Airplane modifications	9,571,000	11,859,000	1,657,000
Utility Helicopter modifications	53,506,000	42,742,000	56,616,000
Communications, Navigation, Surveillance	7,298,000	3,704,000	7,181,000
Global Air Traffic Management (GATM) Rollup	3,391,000	2,186,000	2,182,000
Missiles			
MLRS Reduced Range Practice Rockets (RRPR)	8,135,000	8,222,000	8,677,000
Modification of Missiles			
MLRS Modifications	32,000	2,284,000	14,794,000
High Mobility Artillery Rocket System (HIMARS) Modifications	2,492,000	2,491,000	2,436,000
Weapons and Tracked Combat Vehicles (WTCV)			
Stryker Vehicle	118,683,000		
Fire Support Team (FIST) Vehicle (Modifications)	27,000,000	43,400,000	
Bradley Program (Modifications)	35,000,000	35,000,000	
Joint Assault Bridge		17,887,000	35,853,000
Integrated Air Burst Weapon System Family		17,604,000	17,592,000
Machine Gun, Lightweight .50 cal	8,562,000	12,315,000	11,459,000
Mortar Systems	2,000,000	1,500,000	1,500,000
XM320 Grenade Launcher Module (GLM)	4,599,000	4,483,000	4,301,000
Shotgun, Modular Accessory System (MASS)	2,217,000		
Common Remotely Operated Weapons Station	23,000,000	23,000,000	23,000,000
Howitzer, Light Weight, 155mm, Towed	5,606,000		
M777 Howitzer Modifications	3,233,000	3,220,000	3,002,000
M119 Howitzer Modifications	8,291,000	7,483,000	26,964,000
Spares and Repair Parts (WTCV)	12,917,000		
Tactical and Support Vehicles			
Tactical Trailers/Dolly Sets		1,693,000	3,386,000
Truck, Dump, 20 ton (CCE)			14,000
Family of Medium Tactical Vehicles (FMTV)	139,542,000	125,553,000	2,193,000
Family of Heavy Tactical Vehicles (FHTV)	15,707,000	23,228,000	3,302,000
Palletized Load System (PLS) Extended Service Program (ESP)			10,358,000
Truck, Tractor, Line Haul, M915/M916		5,336,000	5,428,000
Heavy Expanded Mobile Tactical Truck (HEMTT) ESP	14,941,000	21,014,000	13,127,000

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Table 3

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2013	FY 2014	FY 2015
Modification of In-service Equipment		14,887,000	14,277,000
Communications and Electronics Equipment			
Warfighter Information Network-Tactical (WIN-T) - Ground Forces Tactical Network	24,525,000	93,793,000	427,028,000
Signal Modernization Program			37,247,000
Secure Mobile Anti-Jam Reliable Tactical Terminal (SMART-T) (Space)	65,771,000	33,992,000	
Global Broadcast Service (GBS)	43,339,000	39,043,000	
Mod of In-service Equipment (Tactical Satellite)	21,181,000	18,000,000	18,000,000
Joint Tactical Radio System	104,462,000	116,758,000	111,925,000
Mid-tier Networking Vehicular Radio (MNVR)	12,933,000	15,378,000	14,963,000
SPIDER Anti-personnel Landmine Alternative (APLA) Remote Control Unit	13,719,000	3,153,000	2,376,000
Tactical Communications and Protective System			22,620,000
Gunshot Detection System (GDS)	933,000	9,664,000	10,788,000
Medical Communications for Combat Casualty Care (MC4)	4,602,000	4,682,000	4,672,000
Telecommunications Security (TSEC) - Army Key Management System (AKMS)	4,510,000		
Information Systems Security Program (ISSP)	5,985,000	11,152,000	9,946,000
Prophet Ground	6,900,000	6,900,000	13,500,000
Distributed Common Ground System - Army (DCGS-A) (MIP)	1,097,000	34,600,000	22,600,000
Counterintelligence (CI) and Human Intelligence (HUMINT) Automated Reporting and Collection System (CHARCS) (MIP)	637,000	639,000	665,000
Lightweight Counter Mortar Radar	25,000,000	25,666,000	15,000,000
Forward Area Air Defense (FAAD) GBS	7,980,000		
Sentinel modifications	14,381,000	18,193,000	26,037,000
Sense Through the Wall (STTW) Sensor	2,881,000		7,015,000
Night Vision Devices	39,633,000	52,604,000	91,580,000
Night Vision, Thermal Weapon Sight	11,847,000	16,381,000	32,520,000
Small Tactical Optical Rifle Mounted (STORM) Micro-Laser Range Finder (MLRF)	5,000,000	3,000,000	10,000,000
Green Laser Interdiction System (GLIS)	514,000	516,000	
Indirect Fire Protection Family of Systems	11,168,000	8,914,000	14,654,000
Profiler	4,394,000	2,742,000	1,485,000
Mod of In-service Equipment (Firefinder Radars)	3,075,000		
Joint Battle Command - Platform (JBC-P)		19,809,000	19,811,000
Joint Effects Targeting System (JETS)			15,000,000
Modification of In-service Equipment (Lightweight Laser Designator/Rangefinder [LLDR])	6,076,000	7,653,000	16,843,000
Mortar Fire Control System	18,751,000	4,771,000	4,593,000
Counterfire Radars	105,059,000	149,201,000	270,610,000
Fire Support Command & Control (C2) Family	23,448,000	17,126,000	14,063,000
Battle Command Sustainment Support System (BCS3)	1,135,000	427,000	
Forward Area Air Defense (FAAD) C2	2,475,000	2,440,000	2,426,000
Air & Missile Defense Planning and Control System (AMDPCS)	20,981,000	23,543,000	16,154,000
Network Management Initialization and Service	18,880,000	19,003,000	11,614,000

ARNG

Table 3

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2013	FY 2014	FY 2015
Maneuver Control System (MCS)	8,242,000	5,458,000	19,846,000
Single Army Logistics Enterprise (SALE)	51,443,000	43,676,000	57,341,000
Reconnaissance and Surveying Instrument Set	9,245,000	6,399,000	5,634,000
Items Less Than $5M (Surveying Equipment)	1,109,000	1,512,000	1,310,000
Other Support Equipment			
Family of Non-lethal Equipment (FNLE)	1,992,000	1,667,000	5,370,000
Base Defense Systems (BDS)	1,510,000	7,416,000	1,411,000
CBRN Soldier Protection	952,000	3,390,000	366,000
Tactical Bridging	19,961,000		
Tactical Bridge, Float-Ribbon	4,143,000	7,063,000	5,733,000
Ground Standoff Minefield Detection System (GSTAMIDS)		14,486,000	19,645,000
Robotic Combat Support System (RCSS)		929,000	2,316,000
Explosive Ordnance Disposal (EOD) Equipment	2,511,000	2,060,000	2,038,000
Items Less Than $5M (Countermine Equipment)	776,000	897,000	962,000
Heaters and Environmental Control Units (ECUs)	1,863,000	4,395,000	9,296,000
Field Feeding Equipment	9,976,000	10,270,000	9,999,000
Cargo Aerial Delivery & Personnel Parachute System	29,854,000	24,188,000	19,609,000
Family of Engineer Combat and Construction Sets	10,633,000	24,134,000	10,829,000
Items Less Than $5M (Engineer Support)	3,633,000	2,761,000	1,895,000
Distribution Systems, Petroleum & Water	19,355,000	38,944,000	48,314,000
Combat Support Medical	5,610,000	1,803,000	3,495,000
MEDEVAC Mission Equipment Package (MEP)	13,967,000	22,537,000	10,755,000
Mobile Maintenance Equipment Systems	1,329,000	1,358,000	3,200,000
Items Less Than $5M (Maintenance Equipment)		2,387,000	2,188,000
Scrapers, Earthmoving	6,146,000	25,346,000	8,927,000
Tractor, Full Tracked	16,081,000	20,465,000	27,382,000
All Terrain Craines		7,220,000	5,195,000
Plant, Asphalt Mixing	3,679,000	5,493,000	11,378,000
High Mobility Engineer Excavator (HMEE)	29,042,000		
Construction Equipment ESP	2,097,000	2,118,000	2,853,000
Items Less Than $5M (Construction Equipment)	4,445,000		
Generators and Associated Equipment	7,528,000	36,199,000	50,040,000
Family of Forklifts	780,000	316,000	
Training Devices, Nonsystem	2,564,000	34,798,000	29,207,000
Close Combat Tactical Trainer	6,500,000	6,564,000	5,990,000
Aviation Combined Arms Tactical Trainer	3,341,000	4,116,000	2,837,000
Gaming Technology in Support of Army Training	1,000,000	1,000,000	2,753,000
Calibration Sets Equipment	1,400,000	952,000	865,000
Integrated Family of Test Equipment (IFTE)	22,937,000	32,764,000	34,009,000
Test Equipment Modernization (TEMOD)	7,414,000	6,576,000	6,850,000
Modification of In-service Equipment (OPA-3)	2,413,000	5,588,000	6,325,000
Total	**$1,612,098,000**	**$2,367,169,000**	**$2,770,989,000**

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2012 would be expected to arrive in RC inventories in FY 2013 or FY 2014. All values are costs in dollars.

Nomenclature	FY 2010	FY 2011	FY 2012
FY 2010 Title IX NGREA Equipment			
Family of Medium Tactical Vehicles (FMTV)	$220,471,720		
Medical Support Equipment (e.g., Ambulances)	165,578,160		
General Engineering Equipment (e.g., Tractor, 15-Man Inflatable Assault Boat)	56,391,726		
Light Utility Helicopter Mission Enhancement Program (LUH MEP)	50,432,000		
Training Aids, Devices, Simulators, and Simulations (Mine Resistant Ambush Protected Vehicle Virtual Trainers [MRAP-VVT], Vehicle Convoy Operations Trainer C3)	36,862,256		
Network Communications Security (e.g., Secure VTC to BN/BDE)	22,480,000		
Civil Support Team (CST) (e.g., Thermal Desorption System for Gas Chromatograph Mass Spectrometer)	13,470,000		
Shadow Crew Trainer (Unmanned Aerial Vehicle)	4,760,000		
Chemical Decontamination Equipment (e.g., CERFP Mass Casualty Decontamination Trailer)	3,888,800		
Tactical Trailers	664,723		
FY 2011 Title IX NGREA Equipment			
Battle Command (Standard Integrated Command Posts, Global Broadcast System)		$78,073,492	
Aviation (FLIR Star Imaging System, Ground Support Equipment, Rescue Hoist, LUH MEP)		58,980,480	
Engineering Equipment (Light Loader, Low Speed Bulldozer)		38,506,000	
Force Protection (Chemical Detection, Decontamination Trailer)		35,306,257	
Training Aids, Devices, and Simulators (Mine Resistant Ambush Protected Vehicle Virtual Trainer, Shadow Crew Trainer, Vehicle Convoy Operations Trainer Upgrade, Operator Driver Simulator)		30,932,981	
Tactical Power Generation/Distribution (PDISE Generators)		8,199,240	
Total	**$574,999,385**	**$249,998,450**	

1. Service FY 2012 NGREA equipment list was not available in time for publication in the NGRER. Equipment list for FY 2012 will be provided in next year's NGRER.

Table 5

ARNG
Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the AC receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks
Air Defense					
Radar Set: Sentinel AN/MPQ-64	G92997	+21	+1		
Aircraft					
CH-47F Improved Cargo Helicopter:	C15172	+18			
Helicopter Light Utility (LUH) UH-72A:	H31329	+11			
Helicopter Utility: UH-60L	H32361	+42	+14	+23	
Helicopter: Attack AH-64D	H48918	+33	+13		
Tactical Unmanned Aerial Vehicle (Shadow)	T09343	+2			
Aviation					
Aviators Night Vision Imaging Sys: AN/AVS-6(V)1	A06352	+12			
Command System: Tactical AN/TSQ-221	C61597	+1			
Hoist High Performance:	H39331	+13			
Power Unit Auxiliary: Aviation Multi-output GTED (AGPU)	P44627	+32			
Radio Set: High Frequency AN/ARC-220 (V)1	R22436	+9	+5		
Tool Set: Aviation Foot Locker	T65997	+74	+1		
Battle Command C2					
Computer System: Digital AN/UYQ-90(V)2	C18278	+537			
Computer Set: AN/UYK-128(V)3	C18378	+2,019		+55	
Computer System: Digital AN/TYQ-105(V)1	C27503	+1,857	+7	+1	
Computer System: Digital AN/TYQ-109(V)1	C27707	+18			
Computer System: Digital AN/TYQ-109(V)2	C27775	+9			
Generator Set Diesel Engine TM: PU-803	G35851	+2			
Generator Set Diesel: 28v DC MEP-501A	G36169	+2	+1		
Generator Set: Trl-mtd 60kW 50/60Hz PU805 Chassis	G78306	+2			
Battlespace Awareness					
Central: Communications AN/TSQ-226(V)3	C43399		+1		
Dig Topograph Sys: AN/TYQ-67(V)	D10281	+1			
BC Transport Networks					
Joint Node Network (JNN) Central Office Telephone	Z00562	+2	+7		
Combat Mobility					
Bridge Heavy Dry: Supt (HDSB) 40m MLC96	B26007	+4			
Field Logistics					
Forward Area Water Point Supply System: (FAW SS)	F42612	+98	+4	+2	
Forward: Repair System (FRS)	F64544	+77			
Electronic Shop Shelter-mtd Avionics: AN/ASM-146	H01907	+49	+4	+2	
Shop Equip: Contact Maintenance Ord/Eng Truck Mounting	S25681	+77	+101	+82	
Sanitation Center: Food	S33399	+2	+1		
Load Handling Sys: 2000gal Water Tank-rack (HIPPO)	T32629	+8		+4	

Table 5

ARNG
Projected Equipment Transfer/Withdrawal Quantities

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks
SATS Field Maintenance Module 2:	T65562	+12			
Truck Lift: Fork Variable Reach Rough Terrain	T73347		+10		
Maintenance Support Device:	T92889	+2	+609		
Test St: Radar TS-4530()/UPM	T99847	+17			
Tank and Pump Unit Liquid Dispensing Truckmounting:	V12141	+1	+1		
Maneuver Combat Vehicles					
Command Variant Veh: (CV)	C41314	+4			
Fighting Vehicle: Full Tracked Infantry (IFV) M2A3	F60564	+45	+1		
Fighting Vehicle: Full Tracked Cavalry (CFV) M3A3	F90796	+29			
Drivers Enhancers: AN/VAS-5	D41659	+869		+24	
Surveillance System: Scout Long Range AN/TAS-8	S02976	+5	+7	+14	
Target Acquisition System: TOW Improved ITAS M41	T24690	+217			
Medical Field Systems					
Medical Equipment Set Ground Ambulance:	M26413	+1			
Medical Equipment Set Tactical Combat Medical Care:	M30499	+4			
MES Combat Medic:	U65480	+462	+16	+33	
Soldier Systems					
Monocular Night Vision Device: AN/PVS-14	M79678	+407	+4,456	+3,684	
Sight: Reflex Collimator	S60288	+8	+4		
Sight: Thermal AN/PAS-13B(V)1	S60356	+46			
Medium Weapon Thermal Sight (MWTS): AN/PAS-13(V)2	S90535	+1,209	+1	+1	
Soldier Weapons					
Machine Gun 5.56mm: M249	M09009	+70	+117	+304	
Machine Gun Grenade 40mm: Mk19 Mod III	M92362	+12	+6		
Machine Gun: 7.62mm M240B	M92841	+3,826	+24		
Pistol 9mm Automatic: M9	P98152	+292	+21		
Rifle 5.56mm: M4	R97234	+532	+23	+4	
Strike					
Radar Set: AN/TPQ-37(V)9	A41666	+9			
High Mobility Artillery Rocket System: HIMARS	H53326	+2			
Radar Set: AN/TPQ-36(V)10	R14284	+10			
Range Finder-target Designator: Laser AN/PED-1	R60282	+68			
Support Systems					
Platform: Container Roll In/Roll Out	B83002	+4			
Boat Landing Craft Inflatable: 7 Person	B84293	+103			
Trailers					
Trailer Cargo: MTV w/Dropsides M1095	T95555	+48		+3	
Trailer Cargo: High Mobility 1-1/4 Ton	T95924	+9	+211	+70	
Light Tactical Trailer: 3/4 Ton	T95992	+15	+11		
Trailer Flat Bed: M1082 Trlr Cargo LMTV w/Dropsides	T96564	+203			
Trucks					
Truck Utility: Heavy Variant HMMWV 4x4 10000 GVW	T07679	+5	+2		
Truck Dump: 20 Ton Dsl Drvn 12 Cu Yd Cap (CCE)	X44403		+6		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2009 with actual procurements and transfers. FY 2009 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2011. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2009 Planned Transfers & Withdrawals							
Alarm: Chem Agent Automatic M22	A33020	+6	0				
Radar Set: AN/TPQ-37(V)1	A41666	+1	+3				
Boat Bridge Erection, MK1/MK2	B25476	+12	0				
Computer Set: Digital OL-584/TYQ	C18582	+2	+100				
Computer System, AN/TYQ-109(V)1	C27707	+2	0				
Computer Set, OL-590/TYQ	C28078	+6	0				
Decontaminating Apparatus, M17	D82404	+121	+14				
Excavator, Hydraulic (HYEX) Type I	E27792	+1	0				
Forward Area Refueling System	F42611	+23	0				
Bradley Fighting Veh, Infantry, M2A3	F60564	+37	0				
Bradley Fighting Veh, Cavalry, M3A3	F90796	+23	0				
Gen Set, 60kW, MEP-805A/B TQG	G74575	+2	0				
Gen Set, 15kW, PU-801/A TQG	G78374	+1	+37				
Helicopter, CH-47D	H30517	+5	0				
Helicopter Utility: UH-60L	H32361	+9	+32				
High Mob Arty Rocket Sys HIMARS	H53326	+34	+44				
Howitzer Light Towed: M119	H57505	+2	+112				
Fuel System Supply Point,60k gal	J04717	+5	0				
Loader Scoop Type: w/Bucket	L76556	+1	0				
Machine Gun, 5.56mm, M249	M09009	+11	+488				
Mask, Chemical-Biological, M40	M12418	+102	+6,842				
Night-vision Device, AN/PVS-14	M79678	+41	+4,808				
Machine Gun, Grenade, MK19	M92362	+9	0				
Machine Gun: 7.62mm M240B	M92841	+541	+1,008				
Night-vision Goggles, AN/PVS-7B	N05482	+2,844	+585				
Navigation Set: AN/PSN-13	N96248	+208	+11,028				
Radar Set: AN/TPQ-36(V)8	R14284	+2	+2				
Radio Set: AN/GRC-213	R30895	+271	0				
Recon System NBC: M93A1 Fox	R41282	+1	0				
Radio Set: AN/PSC-11	R57810	+3	0				
Laser Designator Rangefinder, AN/PED-1	R60282	+8	+96				
Radio Set: AN/PRC-119F(C)	R83141	+436	+41				
Rifle, 5.56mm, M16A2	R95035	+154	0				

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Shop Equipment: Contact Maintenance Ord/Eng Trk Mtd	S25681	+33	+283				
Food Sanitation Center	S33399	+11	+266				
Satellite Comm Terminal, AN/TSC-93A	S34963	+1	0				
Signal Generator: SG-1219/U	S48255	+4	+2				
Knight: M707	S50205	+5	0				
Reflex Sight, Collimator, M68	S60288	+40	+6,618				
Sight: Thermal AN/PAS-13B(V)1	S60356	+954	+4,091				
Semitrailer, 40-ton Lowbed, M870	S70594	+9	0				
Night-vision Sight, AN/PVS-10	S90433	+53	0				
Thermal Weapon Sight, AN/PAS-13	S90535	+1,169	+7,412				
Thermal Wpn Sight, AN/PAS-13A	S90603	+1,589	+6,990				
Tractor, Whld Excavator, SEE	T34437	+3	0				
Shotgun, 12-gauge Riot Type	T39223	+901	0				
MTV 5T Cargo, M1093 WW	T41104	+7	+9				
HMMWV, Utility, ECV, M1114	T92446	+57	+3				
Trailer, Cargo, 3/4-ton, M1101	T95992	+587	+5,386				
Trailer, Cargo, LMTV, M1082	T96564	+4	+414				
Ventilator Volume Ptbl	V99788	+2	0				
Trailer, Cargo, 3/4-ton, M101	W95537	+4	0				
Interface Unit Comm Equip: OL-713(V)1/TYQ CSS VSAT	Z00560	+2	0				
FY 2009 P-1R Equipment							
Aircraft							
Joint Cargo Aircraft (JCA)				$258,622,000	$258,622,000		
Armed Reconnaissance Helicopter				287,730,000	0		
Helicopter, Light Utility (LUH)				0	91,743,000		
UH-60 Blackhawk (MYP)				39,600,000	39,600,000		
CH-47 Helicopter				0	150,000,000		
AH-64 Mods				0	432,700,000		
CH-47 Cargo Helicopter Mods (MYP)				0	5,760,000		
Modification of Aircraft							
Utility/Cargo Airplane Mods				8,500,000	8,500,000		
Common Ground Equipment				21,573,000	21,573,000		
Air Traffic Control				37,094,000	37,094,000		
Airborne Communications				55,000	55,000		
Other Missiles							
Javelin (AAWS-M) System Summary				89,222,000	104,092,000		
MLRS Reduced Range Practice Rockets (RRPR)				9,666,000	9,666,000		
High Mobility Artillery Rocket System (HIMARS)				160,842,000	160,842,000		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Modification of Missiles							
ITAS/TOW Mods				84,751,000	84,347,000		
Himars Modifications				8,696,000	8,696,000		
Spares and Repair Parts				7,013,000	7,013,000		
Tracked Combat Vehicles							
Stryker Vehicle				245,620,000	0		
Modification of Tracked Combat Vehicles							
FIST Vehicle (Mod)				33,200,000	28,800,000		
Bradley Program (Mod)				232,458,000	232,458,000		
Howitzer, Med SP FT 155mm M109A6 (Mod)				13,227,000	13,227,000		
Armored Breacher Vehicle				18,000,000	0		
M1 Abrams Tank (Mod)				83,358,000	83,358,000		
Weapons and Other Combat Vehicles							
Howitzer, Light, Towed, 105mm, M119				84,316,000	78,483,000		
M240 Medium Machine Gun (7.62mm)				23,831,000	23,831,000		
Machine Gun, Cal .50 M2 Roll				15,063,000	15,063,000		
M249 Saw Machine Gun (5.56mm)				7,770,000	7,770,000		
Mk-19 Grenade Machine Gun (40mm)				8,236,000	8,236,000		
Mortar Systems				11,191,000	11,191,000		
M107, Cal. 50, Sniper Rifle				223,000	222,000		
XM320 Grenade Launcher Module (GLM)				7,294,000	7,294,000		
XM110 Semi-automatic Sniper System (SASS)				562,000	562,000		
M4 Carbine				61,055,000	42,333,000		
Shotgun, Modular Accessory System (MASS)				1,748,000	1,748,000		
Howitzer Lt Wt 155mm (T)				40,030,000	40,030,000		
Mk-19 Grenade Machine Gun Mods				114,000	114,000		
M4 Carbine Mods				7,989,000	7,989,000		
M249 Saw Machine Gun Mods				61,000	61,000		
M240 Medium Machine Gun Mods				2,005,000	2,005,000		
M16 Rifle Mods				3,000	3,000		
Items Less Than $5M (WOCV-WTCV)				1,112,000	1,112,000		
Tactical Vehicles							
Tactical Trailers/Dolly Sets				17,847,000	18,032,000		
Semitrailers, Flatbed				9,486,000	9,486,000		
Semitrailers, Tankers				23,405,000	23,325,000		
Hi Mob Multi-purp Whld Veh (HMMWV)				404,712,000	594,580,000		
Family of Medium Tactical Veh (FMTV)				537,427,000	237,589,000		
Firetrucks & Associated Firefighting Equipment				6,240,000	6,240,000		
Family of Heavy Tactical Vehicles (FHTV)				391,187,000	664,738,000		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Armored Security Vehicles (ASV)				62,413,000	115,138,000		
Mine Protection Vehicle Family				65,880,000	67,365,000		
Truck, Tractor, Line Haul, M915/M916				7,413,000	9,532,000		
HEMTT Ext Serv Program				12,539,000	12,539,000		
Joint Communications							
WIN-T - Ground Forces Tactical Network				62,138,000	62,138,000		
Satellite Communications							
NAVSTAR Global Positioning System (Space)				41,807,000	41,807,000		
SMART-T (Space)				41,342,000	41,342,000		
Global Brdcst Svc - GBS				8,775,000	8,775,000		
Communications - C3 System							
Army Global Cmd & Control Sys (AGCCS)				2,132,000	2,132,000		
Combat Communications							
Army Data Distribution System (Data Radio)				3,604,000	3,604,000		
SINCGARS Family				84,888,000	87,031,000		
Bridge To Future Networks				0	141,290,000		
Comms-Elec Equipment Fielding				3,280,000	11,085,000		
Soldier Enhancement Program Comm/Elect				354,000	354,000		
Combat Survivor Evader Locator (CSEL)				3,842,000	3,842,000		
Radio, Improved HF (COTS) Family				14,746,000	23,600,000		
Medical Comm for Cbt Casualty Care (MC4)				9,780,000	9,780,000		
Information Security							
Tsec - Army Key Mgt Sys (AKMS)				17,852,000	17,992,000		
Information System Security Program-ISSP				7,672,000	14,804,000		
Tactical Intelligence & Related Activities (TIARA)							
All Source Analysis Sys (ASAS) (MIP)				31,084,000	34,184,000		
Prophet Ground (MIP)				75,558,000	75,336,000		
Digital Topographic Spt Sys (DTSS) (MIP)				16,750,000	16,750,000		
DCGS-A (MIP)				65,761,000	65,761,000		
Ci Humint Auto Reprting and Coll (CHARCS)				6,904,000	6,904,000		
Items Less Than $5M (MIP)				19,671,000	22,580,000		
Electronic Warfare							
Lightweight Counter Mortar Radar				0	5,100,000		
Tactical Surveillance							
Sentinel Mods				20,214,000	20,214,000		
Night Vision Devices				187,065,000	185,034,000		
Long Range Adv Scout Surveillance System				48,202,000	48,202,000		
Night Vision, Thermal Weapon Sight				127,235,000	127,235,000		
Radiation Monitoring Systems				3,418,000	1,862,000		

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FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Artillery Accuracy Equip				0	1,800,000		
Profiler				11,200,000	7,673,000		
Mod of In-svc Equipment (Firefinder Radars)				15,800,000	15,800,000		
Force XXI Battle Cmd Brigade & Below (FBCB2)				158,040,000	120,422,000		
Ltwt Laser Designator/Rangefinder (LLDR)				61,466,000	61,466,000		
Computer Ballistics: LHMBC XM32				1,529,000	1,529,000		
Mortar Fire Control System				348,000	348,000		
Counterfire Radars				12,000,000	12,000,000		
Tactical Operations Centers				132,387,000	83,039,000		
Fire Support C2 Family				13,407,000	15,891,000		
Battle Command Sustainment Support System (BCS3)				4,945,000	4,836,000		
FAAD C2				3,000,000	3,000,000		
Air & Missile Defense Planning & Control System (AMD PCS)				25,644,000	23,422,000		
Knight Family				33,000,000	54,600,000		
TC AIMS II				2,453,000	2,453,000		
Joint Network Management System (JNMS)				3,154,000	3,154,000		
Tactical Internet Manager				351,000	351,000		
Maneuver Control System (MCS)				29,871,000	29,871,000		
Single Army Logistics Enterprise (SALE)				11,179,000	11,179,000		
Mounted Battle Command On The Move (MBCOTM)				18,737,000	18,737,000		
Other Communications & Electronics Equipment							
CSS Communications				9,088,000	4,720,000		
Items Less Than $5M (Surveying Equipment)				1,200,000	1,200,000		
Items Under $5M (SSE)				3,660,000	3,660,000		
Chemical Defensive Equipment							
CBRN Soldier Protection				44,505,000	37,735,000		
Smoke & Obscurant Family: SOF (Non AAO Item)				4,042,000	4,042,000		
Bridging Equipment							
Tactical Bridging				56,760,000	56,760,000		
Tactical Bridge, Float-ribbon				108,384,000	100,394,000		
Engineer (Non-construction) Equipment							
Handheld Standoff Minefield Detection Sys-HST				17,528,000	17,528,000		
Explosive Ordnance Disposal Eqpmt (EOD Eqpmt)				16,910,000	18,533,000		
Combat Service Support Equipment							
Heaters and ECUs				4,757,000	4,757,000		
Soldier Enhancement				1,705,000	1,705,000		
Field Feeding Equipment				18,498,000	18,498,000		
Parachute & Aerial Del Sys				1,028,000	1,028,000		
Items Less Than $5M (Eng Spt)				5,108,000	6,798,000		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Petroleum & Water Equipment							
Distribution Systems, Petroleum & Water				15,069,000	15,069,000		
Water Purification Systems				14,262,000	14,262,000		
Medical Equipment							
Combat Support Medical				3,908,000	3,908,000		
Maintenance Equipment							
Mobile Maintenance Equipment Systems				17,752,000	21,570,000		
Construction Equipment							
Grader, Road Mtzd, Hvy, 6x4 (CCE)				15,482,000	17,418,000		
Skid Steer Loader (SSL) Family of System				7,650,000	7,650,000		
Mission Modules - Engineering				26,609,000	16,609,000		
Loaders				12,320,000	11,951,000		
Tractor, Full Tracked				12,150,000	15,030,000		
Plant, Asphalt Mixing				4,836,000	4,813,000		
High Mobility Engineer Excavator (HMEE) FOS				13,190,000	13,190,000		
Construction Equipment ESP				3,000,000	3,000,000		
Items Less Than $5M (Construction Equipment)				3,450,000	3,450,000		
Other Support Equipment							
Generators and Associated Equipment				59,467,000	59,467,000		
Rough Terrain Container Handler (RTCH)				16,082,000	16,003,000		
All Terrain Lifting Army System				21,521,000	21,521,000		
Integrated Family of Test Equipment (IFTE)				3,409,000	3,409,000		
General Purpose Electronic Test Equipment (GPETE)				7,136,000	7,136,000		
FY 2009 Title III NGREA Equipment							
Family of Medium Tactical Vehicles (FMTV)						$123,281,000	$199,723,793
Family of Light Tactical Vehicles (HMMWV Variants)						102,787,000	102,787,000
Tactical Radios						69,291,000	3,514,463
Blackhawk Modernization Program						32,818,000	32,818,000
Night Vision						25,356,000	25,356,000
Light Utility Helicopter Mission Enhancement Program (LUH MEP)						24,000,000	24,000,000
Chemical Decontamination						17,817,000	9,289,743
JFHQ and Command & Control Systems						17,070,000	38,531,508
AH-64 A To D Upgrades						10,000,000	10,000,000
Horizontal Construction Equipment						8,543,000	0
MILSATCOM						7,935,000	7,935,000
Maintenance Systems						6,383,000	6,383,000
Digital Enabler						6,363,000	6,363,000
Small Arms						5,893,000	0
Tactical Trailers						5,517,000	3,150,686

Table 6

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FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Medical Systems						3,898,000	2,272,170
Route & Area Clearance						3,811,000	1,079,790
Liquid Logistics Storage & Distribution Systems						3,789,000	3,789,000
Force Protection						2,365,000	0
Generators						1,668,000	1,668,000
FY 2009 Title IX NGREA Equipment							
Family of Medium Tactical Vehicles (FMTV)						123,173,990	123,173,990
Army Battle Command Systems (ABCS)						30,000,000	91,684,298
Light Utility Helicopter Mission Enhancement Program (LUH MEP)						29,955,039	29,955,039
Heavy Tactical Trailers						18,682,650	0
Commercial Off-the-shelf Tactical Radios						16,210,000	0
CBRN Soldier Protection (Ex: Chem & Bio Protected Shelter System)						12,466,491	0
Thermal Weapons Sights (TWS)						10,474,926	0
Aviation Health Information Management System (AV-HIMS)						10,000,000	10,000,000
Construction Equipment (Ex: Loaders; Scrapers)						7,713,552	6,461,940
Drivers Vision Enhancers (DVE)						7,573,720	0
UH-60 Extended Range Fuel Storage Tanks (ERFST)						7,000,000	7,000,000
Field Feeding Equipment (Ex: Conatinerized Kitchens)						5,040,000	5,040,000
Family of Heavy Tactical Vehicles (FHTV)						4,992,060	0
Maintenance Support Equipment (MSE) (Ex: Electrical Test Sets)						4,250,000	14,217,161
Blackhawk Multi-year Program (MYP)						4,022,220	4,022,220
Blackhawk Medical Evacuation (MEDEVAC)						2,200,000	2,200,000
Liquid Logistics Storage and Distribution						2,090,000	2,090,000
SIPRNET Level I Access Equipment						1,944,530	1,944,530
CBRNE Enhanced Response Force Package (CERFP)						1,047,500	1,047,500
Logistics Network Communications						448,000	448,000
Civil Support Team (CST) Equipment						438,000	438,000
Logistics Automation (TC-AIMS)						277,200	277,200
TOTAL				**$5,443,430,000**	**$5,867,880,000**	**$778,584,878**	**$778,661,031**

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Table 7

Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Aircraft						
Helicopter Observation: OH-58C	H31110	Helicopter Observation: OH-58A	K31042	83	X	
Helicopter Utility: UH-60L	H32361	Helicopter Utility: UH-60A	K32293	241	X	
Battle Command and Control						
Computer System: AN/TYQ-109(V)2	C27775	Computer System:AN/TYQ-109(V)1	C27707	1,012	X	
Gen Set: DED Skid-mtd 5kW 60Hz	G11966	Gen Set DSL: 5kW 60Hz	J35813	406	X	
Gen Set: DED Skid-mtd 5kW 60Hz	G11966	Gen Set DSL: 10kW 60Hz	J35825	8	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DSL: 10kW 60Hz	J35825	3	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DSL TM: 5kW 60Hz PU-751/M	G37273	7	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DSL: 5kW 60Hz	J35813	471	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DSL TM: 30kW 60Hz PU-406	J36383	4	X	
Gen Set DSL TM: PU-803	G35851	Gen Set DSL TM: 30kW 60Hz PU-406	J36383	91	X	
Gen Set DSL TM: PU-803	G35851	Gen Set DSL: 10kW 60Hz	J35825	1	X	
Gen Set DED TM: 10kW 60Hz PU-798	G42170	Gen Set DSL: 10kW 60Hz	J35825	1	X	
Gen Set DED TM: 10kW 60Hz PU-798	G42170	Gen Set DSL TM: 10kW 60Hz PU-753/M	G40744	83	X	
Gen Set DED TM: 10kW 60Hz PU-798	G42170	Gen Set DSL: 5kW 60Hz	J35813	1	X	
Gen Set DED TM: 5kW 60Hz PU-797	G42238	Gen Set DSL TM: 15kW 60Hz PU-405	J35492	1	X	
Gen Set DED TM: 5kW 60Hz PU-797	G42238	Gen Set DSL TM: 10kW 60Hz PU-753/M	G40744	1	X	
Gen Set DED TM: 5kW 60Hz PU-797	G42238	Gen Set DSL TM: 5kW 60Hz PU-751/M	G37273	69	X	
Gen Set DED TM: 5kW 60Hz PU-797	G42238	Gen Set DSL: 5kW 60Hz	J35813	5	X	
Gen Set DSL TM: PU-802	G53778	Gen Set DSL: 10kW 60Hz	J35825	2	X	
Gen Set DSL TM: PU-802	G53778	Gen Set DSL: 5kW 60Hz	J35813	3	X	
Gen Set DSL TM: PU-802	G53778	Power Plant Elec TM: 30kW 60Hz 2ea PU-406 W/Dist Box AN/MJQ-10	P27819	1	X	
Gen Set DSL TM: PU-802	G53778	Gen Set DSL TM: 15kW 60Hz PU-405	J35492	228	X	
Gen Set DSL TM: PU-802	G53778	Gen Set DSL TM: 5kW 60Hz PU-751/M	G37273	1	X	
Gen Set DSL TM: PU-802	G53778	Gen Set DSL TM: 30kW 60Hz PU-406	J36383	93	X	
Gen Set DSL TM: PU-802	G53778	Power Plant Elec DED TM: 10kW 60Hz - AN/MJQ-18	P28015	1	X	
Gen Set: DED Skid-mtd 10kW 60Hz	G74711	Gen Set DSL TM: 15kW 60Hz PU-405	J35492	1	X	
Gen Set: DED Skid-mtd 10kW 60Hz	G74711	Gen Set DSL: 5kW 60Hz	J35813	8	X	
Gen Set: DED Skid-mtd 10kW 60Hz	G74711	Gen Set DSL: 10kW 60Hz	J35825	267	X	
Navigation Set: Satellite Sig AN/PSN-13	N96248	Navigation Set Satellite Systems	N95862	3,187	X	
Power Plant: Elec TM 30kW 50/60Hz AN/MJQ-40	P42126	Power Plant: Elec TM 30kW 60Hz 2ea PU-406 W/Dist Box AN/MJQ-10	P27819	7	X	
Power Plant: DSL TM 10kW 60Hz AN/NJQ-37	P42262	Power Plant: Elec DED TM: 10kW 60Hz - AN/MJQ-18	P28015	9	X	
BC Transport Networks						
Radio Set: AN/VRC-89F(C)	R44999	Radio Set: AN/VRC-90D	R67976	3	X	
Radio Set: AN/VRC-89F(C)	R44999	Radio Set: AN/VRC-92A	R45407	3		X

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Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Radio Set: AN/VRC-89F(C)	R44999	Radio Set: AN/VRC-89D	R44931	419	X	
Radio Set: AN/VRC-89F(C)	R44999	Radio Set: AN/VRC-87D	R67228	1	X	
Radio Set: AN/VRC-89F(C)	R44999	Radio Set: AN/VRC-89A	R44863	1,212		X
Radio Set: AN/VRC-89F(C)	R44999	Radio Set: AN/VRC-91A	R68010	2		X
Radio Set: AN/VRC-89F(C)	R44999	Radio Set: AN/VRC-88A	R67194	7		X
Radio Set: AN/VRC-89F(C)	R44999	Radio Set: AN/VRC-90A	R67908	2		X
Radio Set: AN/VRC-92F(C)	R45543	Radio Set: AN/VRC-91A	R68010	3		X
Radio Set: AN/VRC-92F(C)	R45543	Radio Set: AN/VRC-89D	R44931	12	X	
Radio Set: AN/VRC-92F(C)	R45543	Radio Set: AN/VRC-92D	R45475	863	X	
Radio Set: AN/VRC-92F(C)	R45543	Radio Set: AN/VRC-90A	R67908	5		X
Radio Set: AN/VRC-92F(C)	R45543	Radio Set: AN/VRC-92A	R45407	1,542		X
Radio Set: AN/VRC-92F(C)	R45543	Radio Set: AN/VRC-89A	R44863	13		X
Radio Set: AN/VRC-87F(C)	R67296	Radio Set: AN/VRC-87A	R67160	138		X
Radio Set: AN/VRC-87F(C)	R67296	Radio Set: AN/VRC-87D	R67228	28	X	
Radio Set: AN/VRC-87F(C)	R67296	Radio Set: AN/VRC-87C	R00845	3	X	
Radio Set: AN/VRC-87F(C)	R67296	Radio Set: AN/PRC-119A	R83005	4		X
Radio Set: AN/VRC-87F(C)	R67296	Radio Set: AN/VRC-88D	R67262	3	X	
Radio Set: AN/VRC-88F(C)	R67330	Radio Set: AN/VRC-88A	R67194	864		X
Radio Set: AN/VRC-88F(C)	R67330	Radio Set: AN/VRC-88D	R67262	179	X	
Radio Set: AN/VRC-88F(C)	R67330	Radio Set: AN/VRC-91A	R68010	4		X
Radio Set: AN/VRC-88F(C)	R67330	Radio Set: AN/VRC-87A	R67160	1		X
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-87D	R67228	36	X	
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-88A	R67194	77		X
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-88D	R67262	19	X	
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-90D	R67976	5,079	X	
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-90A	R67908	11,805		X
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-92A	R45407	12		X
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-87A	R67160	61		X
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/PRC-119A	R83005	33		X
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-89A	R44863	103		X
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-91A	R68010	11		X
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-92D	R45475	8	X	
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-87C	R00845	2	X	
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/PRC-119D	R83073	12	X	
Radio Set: AN/VRC-90F(C)	R68044	Radio Set: AN/VRC-89D	R44931	19	X	
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-91D	R68078	966	X	
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-91A	R68010	3,547		X
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-87A	R67160	12		X
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-92A	R45407	2		X
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-92D	R45475	14	X	
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-88A	R67194	11		X
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-88D	R67262	17	X	

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Table 7

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-89D	R44931	16	X	
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-87D	R67228	2	X	
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-90A	R67908	11		X
Radio Set: AN/VRC-91F(C)	R68146	Radio Set: AN/VRC-89A	R44863	11		X
Radio Set: AN/PRC-119F(C)	R83141	Radio Set: AN/PRC-119A	R83005	1,175		X
Radio Set: AN/PRC-119F(C)	R83141	Radio Set: AN/VRC-92D	R45475	1	X	
Radio Set: AN/PRC-119F(C)	R83141	Radio Set: AN/VRC-87D	R67228	11	X	
Radio Set: AN/PRC-119F(C)	R83141	Radio Set: AN/VRC-90A	R67908	1		X
Radio Set: AN/PRC-119F(C)	R83141	Radio Set: AN/PRC-119D	R83073	421	X	
Combat Mobility						
Tractor Whl: DSL Excavator & Front Loader	T34437	Tractor Whl Ind: DSL W/Backhoe W/Loader W/Hyd Tool Attach (CCE)	W91074	1	X	
Tractor FT High Spd: Armored Combat Earthmover (ACE)	W76473	Tractor FT Low Spd: DSL Med DBP W/Buldoz W/Scarif Winch	W76816	17	X	
Field Logistics						
Containerized Kitchen: CK	C27633	Kitchen Field Trailer-mtd	L28351	134	X	
Tactical Water Purification System (TWPS) 1500gph:	T14017	Water Purif equip Set: Reverse Osmosis 600gph	W35417	1	X	
Fork Lift: Variable Reach RT	T73347	Fork Lift: DED 6000lb Variable Reach RT Ammo Hdlg	T48944	102	X	
Fork Lift: Variable Reach RT	T73347	Fork Lift: DSL 10000lb RT	T49119	27	X	
Fork Lift: Variable Reach RT	T73347	Fork Lift: DSL 10000lb RT	X49051	1	X	
Fork Lift: Variable Reach RT	T73347	Fork Lift: DSL 6000lb RT	X48914	6	X	
Maintenance Support Device	T92889	Test Set Elect Sys: AN/PSM-80(V)2	T77499	6	X	
Test Set: AN/APM-305	V99436	Test Set: AN/APM-239A	V99416	3	X	
Force Protection						
Alarm: Chemical Agent Automatic M22	A33020	Alarm Chemical Agent Automatic: M8A1	A32355	6,217	X	
Decon Apparatus: Lt Wt	D82404	Decon Apparatus Skid-mtd: multipurp	F81880	19	X	
Radiac Set: AN/UDR-13	R31061	Radiacmeter: IM-93/UD	Q20935	1,374	X	
General Engineering						
Tractor FT Low Spd: DSL Med DBP W/Buldoz W/Scarif Ripper	W83529	Tractor FT Low Spd: DSL Med DBP W/Buldoz W/Scarif Winch	W76816	37	X	
Tractor FT Low Spd: DSL Med DBP W/Buldoz W/Scarif Ripper	W83529	Tractor FT Low Spd: DSL Hvy DBP W/Buldoz W/Ripper (CCE)	W88699	4	X	
Maneuver Combat Vehicles						
Tank Combat FT: 120mm Gun M1A2	T13305	Tank Combat FT: 120mm Gun	T13168	4	X	
Soldier Systems						
Night Vision Goggle: AN/PVS-7B	N05482	Monocular NVD: AN/PVS-14	M79678	111,301	X	
Night Vision Goggle: AN/PVS-7B	N05482	Night Vision Goggle: AN/PVS-5	N04456	2,045		X
Night Vision Goggle: AN/PVS-7B	N05482	Night Vision Sight: AN/PVS-4	N04732	233	X	
Sight: Thermal AN/PAS-13B(V)1	S60356	Night Vision Sight: AN/PVS-4	N04732	583	X	
Soldier Weapons						
Machine Gun: Light 5.56mm M249	M39263	Rifle: 5.56mm M16A2	R95035	5	X	
Machine Gun: Light 5.56mm M249	M39263	Machine Gun: 5.56mm M249	M09009	2,141	X	
Rifle: 5 56mm M4	R97234	Rifle: 5.56mm M16A2	R95035	10,419	X	

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Table 7

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Rifle: 5 56mm M4	R97234	Rifle: 5.56mm M16A4	R97175	3,955	X	
Strike						
Fire Spt Team Veh: Bradley (BFIST)	F86571	Carrier Personnel FT: Armd Fire Spt	C12155	20	X	
Howitzer Light Towed: M119	H57505	Howitzer Light Towed: 105mm	K57392	1	X	
Range Finder-Target Designator: Laser AN/PED-1	R60282	Target Designator Set: Electro Optical (GLLD)	T26457	88	X	
Trailers						
Light Tactical Trailer: 3/4T	T95992	Trailer Cgo: 3/4T 2 Wheel	W95537	160	X	
Trucks						
Trk Cgo: HEMTT W/W W/Lt Crane	T39518	Trk Cgo: HEMTT W/Med Crane	T39586	99	X	
Trk Cgo: HEMTT W/W W/Lt Crane	T39518	Trk Cgo: Heavy PLS Transporter 15-16.5T W/MHE	T41067	2	X	
Trk Cgo: HEMTT W/W W/Lt Crane	T39518	Trk Cgo: HEMTT W/Lt Crane	T59278	29	X	
Trk Cgo: HEMTT W/W W/Med Crane	T39654	Trk Cgo: HEMTT W/Med Crane	T39586	213	X	
Trk Cgo: Hvy PLS Transporter	T40999	Trk Cgo: Hvy PLS Transporter 15-16.5T W/MHE	T41067	222	X	
Trk Cgo: Hvy PLS Transporter	T40999	Trk Cgo: HEMTT W/Med Crane	T39586	2	X	
Trk Cgo: Hvy PLS Transporter	T40999	Trk Cgo: HEMTT W/Lt Crane	T59278	6	X	
Trk Cgo: 5T 6X6 MTV Lapes/AD	T41036	Trk Cgo: Drop Side 5T 6X6	X40794	10	X	
Trk Cgo: 5T 6X6 MTV W/W Lapes/AD	T41104	Trk Cgo: Drop Side 5T 6X6 W/W	X40931	5		X
Trk Cgo: 5T 6X6 MTV W/W Lapes/AD	T41104	Trk Cgo: Drop Side 5T 6X6	X40794	1	X	
Trk Cgo: MTV W/W	T41135	Trk Cgo: Drop Side 5T 6X6 W/W	X40931	211		X
Trk Cgo: MTV W/W	T41135	Trk Cgo: HEMTT W/Med Crane	T39586	1	X	
Trk Cgo: MTV W/W	T41135	Trk Cgo: 5T 6X6 XLWB	X41105	5	X	
Trk Cgo: MTV W/W	T41135	Trk Cgo: Drop Side 5T 6X6	X40794	192	X	
Trk Cgo: MTV W/W	T41135	Trk Cgo: 5T 6X6 XLWB W/W	X41242	10	X	
Trk Cgo: LMTV	T60081	Trk Cgo: HEMTT W/Med Crane	T39586	6	X	
Trk Cgo: LMTV	T60081	Trk Cgo: Drop Side 5T 6X6	X40794	1,379	X	
Trk Cgo: LMTV	T60081	Trk Cgo: 5T 6X6 XLWB W/W	X41242	14	X	
Trk Cgo: LMTV	T60081	Trk Cgo: 5T 6X6 XLWB	X41105	27	X	
Trk Cgo: LMTV	T60081	Trk Cgo: HEMTT W/Lt Crane	T59278	2	X	
Trk Cgo: LMTV	T60081	Trk Cgo: Drop Side 5T 6X6 W/W	X40931	252		X
Trk Cgo: LMTV W/W	T60149	Trk Cgo: 5T 6X6 XLWB	X41105	2	X	
Trk Cgo: LMTV W/W	T60149	Trk Cgo: Drop Side 5T 6X6 W/W	X40931	55		X
Trk Cgo: LMTV W/W	T60149	Trk Cgo: Drop Side 5T 6X6	X40794	16	X	
Trk Tractor: MTV	T61239	Trk Tractor: 5T 6X6 W/W	X59463	99	X	
Trk Tractor: MTV	T61239	Trk Cgo: HEMTT W/Lt Crane	T59278	1	X	
Trk Tractor: MTV	T61239	Trk Tractor: 5T 6X6	X59326	1,456	X	
Trk Tractor: MTV W/W	T61307	Trk Tractor: 5T 6X6	X59326	95	X	
Trk Tractor: MTV W/W	T61307	Trk Cgo: Drop Side 5T 6X6	X40794	1	X	
Trk Tractor: MTV W/W	T61307	Trk Tractor: 5T 6X6 W/W	X59463	79	X	
HMMWV: Cgo/Troop Carrier	T61494	HMWWV: Hvy Variant	T07679	5,513	X	
HMMWV: Cgo/Troop Carrier	T61494	HMMWV: Cgo/Troop Carrier W/W	T61562	313	X	

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Table 7

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
HMMWV: EC M1113	T61630	Carrier Command Post: Light Tracked	D11538	12	X	
HMMWV: EC M1113	T61630	HMWWV: Hvy Variant	T07679	813	X	
HMMWV: EC M1113	T61630	HMMWV: Cgo/Troop Carrier W/W	T61562	10	X	
Trk Cgo: MTV LWB	T61704	Trk Cgo: 5T 6X6 XLWB	X41105	24	X	
Trk Cgo: MTV LWB	T61704	Trk Cgo: 5T 6X6 XLWB W/W	X41242	12	X	
Trk Cgo: MTV LWB	T61704	Trk Cgo: HEMTT W/Med Crane	T39586	1	X	
Trk Cgo: MTV LWB	T61704	Trk Cgo: Drop Side 5T 6X6	X40794	3	X	
Trk Cgo: MTV	T61908	Trk Cgo: HEMTT W/Med Crane	T39586	6	X	
Trk Cgo: MTV	T61908	Trk Cgo: Drop Side 5T 6X6 W/W	X40931	296		X
Trk Cgo: MTV	T61908	Trk Cgo: 5T 6X6 XLWB	X41105	21	X	
Trk Cgo: MTV	T61908	Trk Cgo: Drop Side 5T 6X6	X40794	1,699	X	
Trk Cgo: MTV	T61908	Trk Cgo: 5T 6X6 XLWB W/W	X41242	5	X	
Trk Tank: Fuel Servicing 2500gal HEMTT	T87243	Tank and Pump Unit Liquid Dispensing Trk mounting:	V12141	8	X	

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Table 8

Significant Major Item Shortages

NOTE: This table provides a RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	UH-60 A-A-L Modernization	646	185	$7,500,000	$1,387,500,000	The UH-60L replaces the UH-60A and is a CDU item used in support of homeland defense (HD), homeland security (HS), and defense support of civil authorities (DSCA) operations. During its modernization program, the UH-60A undergoes transformation through an A-A-L line.
2	CH-47F	161	26	$29,289,080	$761,516,080	The CH-47F replaces the CH-47D and is a CDU item used in support of HD/HS and DSCA operations. It's the only heavy-lift helicopter in the Army's inventory.
3	HMMWV Recapitalization	3,308	3,308	$60,000	$198,480,000	Army New HMMWV production ceased in 2011. Legacy HMMWVs are critical light Tactical Vehicles for both command, control, and maneuverability during HD/HS operations. The ARNG Light Tactical Vehicle (LTV) fleet includes 3,300 legacy HMMWVs requiring recapitalization.
4	General Engineering Equipment	3,901	2,254	$243,105	$547,958,670	Heavy / light horizontal construction, vertical, diving, and firefighting equipment critically under filled or past its useful life cycle. Required for DSCA, HD, and combat missions.
5	Family of Medium Tactical Vehicles	32,960	7,185	$259,307	$1,863,120,795	FMTVs are the most modern Medium Tactical Vehicles (MTVs) in the Army's inventory. The ARNG still retains over 10,000 legacy M939-series trucks, which have an average age of over 20-years old, are un-armorable, and non-deployable to Iraq and Afghanistan. FMTVs will replace the M939 fleet and modernize the MTV fleet.
6	Global Broadcast Systems (GBS)	89,157	25,085	$1,957	$49,091,345	GBS continues to represent a critical shortfall for the ARNG. The ARNG expects to field 64 percent of GBS by end FY 2013. NG is authorized 193 with 33 on-hand; remaining systems are expected to be fielded in FY 2012 and upgraded to Joint Internet Protocol Modem (JIPM)-compliant in FY 2013 / FY 2014.
7	Prophet	69	48	$1,400,000	$67,200,000	System is currently under limited production, with units being deployed to theater receiving priority
8	Chemical/Biological Protective Shelter	288	275	$733,323	$201,663,825	CBRNE collective protective systems required for CCMRF missions.
9	Medical Field Systems	14,562	1,371	$16,995	$23,300,145	Includes medical equipment that field and support a comprehensive information system enabling lifelong electronic medical records, and streamline medical logistics and enhanced situational awareness for Army tactical forces. Also includes medical equipment requirements for State and Terrority Joint Forces Headquarters conducting HD/HS missions.

Table 8

ARNG
Significant Major Item Shortages

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
10	Helicopter Light Utility (LUH) UH-72A	210	0	$5,200,000	$0	The UH-72A is a CDU item used in support of HD/HS and DSCA operations. This system replaces the OH-58A/C and continues to undergo modernization. The system is fully funded through FY 2016; it is critical that funding remains in place.

III. Army Reserve Overview

A. Current Status of the Army Reserve

1. General Operational Overview

The Army Reserve is a community-based force resident in every state and territory. Since September 11, 2001, over 210,000 Army Reserve Soldiers have mobilized in support of domestic and overseas missions. More than 17,000 Army Reserve Soldiers are currently deployed in Iraq, Afghanistan, and 16 other countries. An additional 6,000 Army Reserve Soldiers are mobilized and serving in the United States.

Top Army Reserve Focus Areas

- Modernizing and sustaining equipment in a resource constrained environment
- Equipping as an operational force capable of full spectrum operations, homeland defense, and natural disaster response
- Modernization of the Tactical Wheeled Vehicle (TWV) fleet
- Achieving complete transparency of equipment procurement and distribution
- Expanding the use of simulators to mitigate equipment shortfalls and gain efficiencies in training requirements

To effectively meet the demands of an operational force, the Army Reserve must be fully manned, trained, and equipped comparable to its Active Component (AC) counterparts. As an integral part of the Army's team, the Army Reserve requires the most modernized equipment available to enable system interoperability and integration during full spectrum operations.

a. Status of Forces as an Operational Reserve

The Army Reserve is ideally suited to provide combat support (CS) and combat service support (CSS) enablers for expeditionary missions and international engagement activities, such as peace building and security cooperation. The Army Reserve offers a wide array of capabilities to include medical units for humanitarian assistance and medical diplomacy efforts, engineer units for reconstruction, and Training Divisions to provide staff and tactical training to foreign militaries. These types of missions provide the operational Army Reserve with opportunities to maintain its experience and training levels as well as provide responsive, flexible, and essential enablers critical to the Army's success.

b. Homeland Defense and Defense Support of Civil Authorities (HD/DSCA)

The Army Reserve is among the Nation's first Title 10 responders for DSCA. With a presence in communities across all 50 states, the Army Reserve is resourced with equipment and Soldiers able to provide critical capabilities in support of HD/DSCA operations. The Army Reserve comprises a large portion of the overall Army CS and CSS capability to include 43 percent of chemical, 72 percent civil affairs, 31 percent of engineer, 33 percent of interpreter/translator, 54 percent of medical, 24 percent of military police, 64 percent of quartermaster, 44 percent of transportation, 17 percent of signal, and 4 percent of aviation structure.

The Army Reserve contributes a myriad of capabilities to the Chemical, Biological, Radiological, Nuclear, Explosives (CBRNE) response enterprise. The Army Reserve provides the capability to respond to two near simultaneous catastrophic events involving the use of weapons of mass destruction or a terrorist event. These capabilities include a Theater Aviation Command, medical brigades and hospitals, consequence management units, movement control detachments, firefighting units with specialized search and extraction capability, and

chemical/biological detection units. These units provide federalized military assistance to a lead federal agency in the event of a CBRNE attack on our Nation.

Units sourced to support the CBRNE Enterprise, which now include the Defense CBRNE Response Force (DCRF) and Command and Control (C2) CBRNE Response Element (C2CRE) missions, do so for three years: one training year and two operational years. During the training year, units participate in tactical level exercises evaluated by U.S. Army North personnel. Headquarters units, battalion-size and larger, participate in NORTHCOM-sponsored Command Post Exercises. During the operational years, all Army Reserve DCRF/C2CRE units participate in one annual field training exercise (14-day duration), which revalidates the unit for the subsequent operational year.

The primary purpose of equipment assigned to these units is to support full-spectrum operations. However, some equipment falls under the category of Critical Dual Use (CDU). CDU equipment is defined as those items required to support both operational and HD/DSCA missions. The Army Reserve has 82 percent of approved CDU equipment on-hand (EOH), but 13 percent of the items are substitutions for the actual requirement. When called upon, the Army Reserve generates response forces by first employing on-hand equipment from within the responding organizations' chain of command and only cross-levels outside the organization if the capability resides elsewhere. The Army Reserve also maintains a robust cache of commercial off-the-shelf (COTS) equipment to employ during incident response operations. Use of COTS equipment enables quick response and integration with other agencies at federal, state, and local levels.

In FY 2011, the Army Reserve deployed Soldiers and equipment in support of the following domestic emergencies: Fort Leonard Wood, Missouri tornado, Midwest flooding, Japan earthquake/tsunami and nuclear incident, tornado response in Alabama and Missouri, Mississippi River flooding, and Missouri River flooding.

2. Status of Equipment

a. Equipment On-hand

The Army Reserve has 91 percent of required equipment OH, but only 67 percent of required OH equipment is considered modernized. This lags behind both the AC and ARNG at 74 and 72 percent respectively. Because of the shortfall of modernized equipment, the Army Reserve still faces challenges in terms of interoperability and integration of equipment within the current operational environment. Theater Provided Equipment (TPE) is continually relied upon to complete modernized operational equipment requirements. As we move away from our reliance on TPE, we must strike a balance between our newly procured modernized equipment, Army Reserve depot/rebuild programs, less modernized equipment and simulators.

The Army Reserve must equip to 100 percent of critical requirements to meet ARFORGEN Aim Points and posture the force for full spectrum operations.

b. Average Age of Major Items of Equipment

The Army has made great strides at equalizing the fielding of new equipment throughout the force. The Army Reserve major end items are being replaced and rebuilt to meet operational needs. There are a few major end items that have passed their planned service life, but are slowly

being replaced (e.g., 5-ton trucks, generators and construction equipment). The Army's modernization efforts have significantly improved Army Reserve equipment, and this will continue in upcoming fiscal years. *Table 2* provides the average age of major items of the fleet at the beginning of FY 2012.

c. Compatibility of Current Equipment with AC

The Army continues to make significant improvements in the modernization and compatibility of Army Reserve equipment. The use of TPE has served to overcome many of these issues for deployed units, and the Army has improved the equipment modernization status of the Army Reserve to 67 percent overall. This continued effort for new production and recapitalization programs, which convert older model trucks to the current modernized configurations, will ensure the Army Reserve is prepared to support full spectrum operations. *Table 7* identifies those authorized substitute items currently used by Army Reserve units and identifies items considered non-deployable in the current operational environment. By definition, substitute items are considered deployable for any unknown contingency and count as "equal to" the modernized item in unit readiness reporting. However, mission requirements and operating environment are largely considered in determining whether equipment is deployable to a specific theater. Failure to replace these older items with their modernized replacement assumes additional risk for the Army Reserve Soldiers that may be called upon for a short notice deployment under another contingency. Likewise, the current practice of not modernizing the MTOE documents to reflect the true requirements makes accurate readiness reporting more of a subjective effort than an objective measure. Failure to replace older items with modernized equipment may increase costs and negatively impact operational capability.

d. Maintenance Issues

i. Field Level Maintenance

The Army Reserve is concerned with the shortage of maintenance facilities to sustain and maintain equipment increases. Current facilities and the availability of special tools/kits are not adequate to support the larger, heavier vehicles of the Army's modern fleet. As the Army Reserve receives a higher level of fill for modernized equipment, the ability to maintain equipment will diminish unless upgraded maintenance facilities keep pace with modernization efforts. In addition, training for mechanics is limited to tasks that do not support standards required for the Army's two-level maintenance system.

ii. Sustainment Level Maintenance

The Army Reserve has a significant amount of older equipment that requires national level maintenance and sustainment programs to ensure readiness. Because formations are filled with older equipment, a means of extending the service life, reducing operating costs, and improving safe operation of equipment is required. Depot maintenance programs repair and return Army Reserve equipment to like new conditions with zero miles and zero hours. Sometimes, this includes technology insertions when original equipment manufacturer parts are no longer available. As an example, when our cranes were overhauled, the original mechanical control panel was unavailable and had to be replaced with a digital control panel. These programs repair damaged and failed components and help extend the service life, reduce sustainment costs, and improve safe operation of our aging equipment.

The following initiatives are examples of Army Reserve collaboration with industry to design and implement total rebuild and refurbishment programs:

- **Rough Terrain Forklift (4K)**: This capability is used primarily in supply holding areas and marshaling yards, and used by supply, maintenance, transportation, and engineer units to manage the movement of equipment and load/unload containers. There are three models of the 4K forklift and each exceeds the expected 15-year economic useful life (EUL). Between FY 2002–2011, the Army Reserve rebuilt 84 percent of the fleet and expects to complete the program by the end of FY 2012.

- **5-ton Cargo Truck (M923)**: The M923A2 cargo trucks are over 20 years old and are passed their EUL. Under the current Army tactical wheeled strategy divestiture time table, the M923A2 trucks will continue to substitute for and fill MTV shortfalls until no later than FY 2022. The Army Reserve has rebuilt 70 percent of the fleet and anticipates that the program will continue for the next 3–5 years.

- **5-ton Dump Truck (M929)**: The M929A2 is over 20 years old and passed its EUL. The Army Reserve has rebuilt 30 percent of the fleet to mitigate modern shortfalls and will continue the rebuild program for the next 5 years.

- **Semitrailer Tanker (M1062)**: Provides the capability of transporting 7,500 gallons of fuel over highways and limited unimproved roadways. The Army Reserve owns 90 percent of the total Army structure for this capability and has rebuilt 83 percent of the systems.

- **Heavy Expanded Mobility Tactical Truck (HEMTT) Wrecker (M984)**: The Army Reserve fleet currently consists primarily of A1 and A2 models (65 percent). The average age of the A1 model is 19 years. The modernized item is the M984A4. The Army Reserve has rebuilt 46 percent via the Army Reserve resourced depot rebuild program, the Army Reset program plus, and the TACOM RECAP program. The Army Reserve also established a RECAP program in coordination with TACOM and plans to process 39 vehicles in FY 2012.

- **Watercraft**: The Army Reserve is authorized several different watercraft including Landing Craft Mechanized (LCM), Landing Craft Utility (LCU), Logistics Support Vehicles (LSV), Tug Boats, Barges and Floating Cranes. These assets require On-Condition Cyclic Maintenance (OCCM) every 3 years for motorized craft and 4 years for barges and cranes. The cost ranges from $0.6M to $8M per asset. The annual expense for OCCM ranges from $15–22M.

iii. Automatic Reset Induction

All Army Reserve units in theater are required to induct 100 percent of their equipment identified as Automated Reset Induction into the Sustainment Level Reset program prior to redeployment to CONUS. The traceability for Army Reserve DoDD 1225.6 payback for equipment inducted into the Sustainment Level Reset program continues to be a challenge. There is no Army logistics information system that allows Army Reserve transparency and visibility of equipment undergoing the sustainment reset process.

e. Overall Equipment On-hand Readiness

The equipment EOH posture of the Army Reserve has significantly improved over the last decade and continues to advance with emphasis on modernization and replacing the older non-deployable equipment with new armor capable equipment. Approximately 91 percent of the total pieces of authorized equipment are on hand. While clearly an improvement, only 67 percent of on hand equipment is considered modernized, and some critical low density items remain below 50 percent fill. The Army Reserve continues to have the lowest level of equipment fill and modernization when compared to the AC and ARNG, placing a greater demand on cross-leveling and transportation.

B. Changes Since Last NGRER

1. Transparency

The Army Reserve continues to work with the Headquarters Department of the Army (HQDA) to improve current equipment delivery and distribution processes to enable accurate and reliable accountability, transparency, and traceability of equipment distributions. In FY 2011, HQDA, Army Reserve, and National Guard Bureau worked with the Office of the Secretary of Defense to streamline the format of the Equipment Delivery Report (EDR) to better present and track equipment delivery. However, transparency related processes continue to be manually-intensive in which equipment delivery quantities are collected, processed, and officially documented on the EDR. HQDA G-8, in collaboration with the Assistant Secretary of the Army for Acquisition, Logistics and Technology is developing a method to link contracts and appropriations to Army Reserve equipment deliveries. HQDA is establishing a systematic and consolidated process to capture information through databases and will incrementally implement the system. HQDA also continues to pursue the development of Item Unique Identification (IUID), another automated system that links appropriations and contracts to equipment delivery.

2. Army Reserve Equipping Strategy

The Army Reserve goal is to ensure that units and Soldiers have the most modern equipment to implement and sustain the Army Force Generation (ARFORGEN) model in support of full spectrum operations. The Army Reserve must strike a balance between the sustainment of on hand equipment and meeting readiness goals for ARFORGEN Aim Points.

As future Army equipping budgets decrease, the Army Reserve will have to increase its reliance on maintenance and sustainment programs. These programs are essential to the viability of the Army Reserve’s older systems that are retained in-lieu-of modernized items. The repairs conducted at Department of Army and Army Reserve field level facilities will ensure equipment is properly maintained for training or operational use. Equipment recapitalization will extend service life, reduce operating and support costs, enhance capability by adding new technological features, and improve system reliability. The Army Reserve continues to identify and divest older and excess systems in its inventory. This process has enabled the Army Reserve to determine true equipment capability requirements and replace it with the most modern systems available. The success of the Army Reserve equipping strategy will only be achieved through increased unit readiness.

3. Equipping Successes

Army Reserve units were the first in the Army to field both the M915A5 line haul tractor and the newest Palletized Load System (PLSA1) models. Transportation companies in Michigan (180th and 182nd) received the first 120 M915A5s, while the 730th Transportation Company (California) received the first 60 PLSA1s.

C. Future Years Program (FY 2013–FY 2015)

1. New Equipment Procurements

a. Base Budget

Army Reserve equipment funding averaged $1.7B per year for FY 2006–FY 2012, a 518 percent increase over the $275M that constituted FY 2005 equipment funding. By the end of FY 2012, the Army Reserve will realize significant increases in tactical vehicles, power generation, communication, and construction equipment. Much of this equipment displaces legacy equipment, improving readiness of deploying units. Despite these efforts, the Army Reserve still has critical unresourced equipment shortages for tactical vehicles, mission command, engineer construction, material handling, combat mobility, force protection, and civil affairs/military information support operations systems.

b. National Guard Reserve Equipment Appropriation (NGREA)

NGREA provides the Army Reserve a method to procure the most modernized CS and CSS equipment to fill critical equipment on hand gaps that are not otherwise scheduled for procurement via the Army budget. Therefore, NGREA directly increases readiness in the Army Reserve. CS and CSS enablers procured with NGREA include Command Post of the Future, heavy and medium tactical vehicles, tactical trailers, test and diagnostic equipment, material handling equipment, engineer equipment, power generation and distribution systems, and civil affairs/ military information support operations systems equipment. The Army Reserve received $794M of NGREA funding from FY 2005 to FY 2011, an average of $113M per year. For FY 2011 the Army Reserve received $140M in NGREA funding.

2. Anticipated Transfers from AC to RC

Table 5 reflects equipment transfers from AC to the RC from FY 2013–FY 2015.

3. Anticipated Withdrawals from Army Reserve Inventory

The Army Reserve does not anticipate any equipment withdrawals of major end items.

4. Simulators

The Army Reserve continues to aggressively pursue the use of simulations and simulators throughout the ARFORGEN process to give both individuals and units the capability to train in a safe and challenging environment. The Army Reserve developed a simulation and simulator plan to provide training support capabilities that enable efficient and effective full spectrum training. The plan is linked to the Army Campaign Plan objectives and its new Regional Collective Training Capability initiative to standardize collective training platforms to maximize home station collective training experiences. It is designed to support institutional, leader, and collective training domains to provide the nation with trained and ready Soldiers to help achieve

U.S. objectives and ensure national security. The Army Reserve is establishing the Distributed Simulation Network to reduce facility infrastructure by providing constructive simulations over a network rather than requiring Soldiers to come to a fixed Mission Training Center. Weapon Simulator Rooms are also being constructed in newer facilities to provide space for virtual marksmanship training prior to range qualification. Since FY 2010, the Army Reserve has fielded over 600 marksmanship simulators to more than 340 Army Reserve locations. The Army Reserve is also constructing multi-purpose simulation and simulator complexes on Fort McCoy and Fort Hunter Liggett to support training throughout all three domains.

5. Equipment Shortages and Modernization Shortfalls

a. Equipment Capability Categories

iv. Aviation

With four percent of the Army's aviation force structure, the Army Reserve has a current requirement of 202 fixed and rotary wing airframes. Of those, the Army Reserve has 94 percent on hand (this is a mixed fleet of new production aircraft and older cascaded aircraft). The Army Reserve is projected to have 100 percent of authorized UH-60 Blackhawk, AH-64 Apache, and CH-47 Chinook aircraft by the end of FY 2012. The fixed wing fleet is currently short four aircraft, pending HQDA decisions on aviation re-balance. Requirements for several of the airframes decrease through FY 2017. Assuming that funding in the current FYDP is executed as planned, the Army Reserve fleet will approach 100 percent of its aircraft requirement by FY 2015. Funding issues remain for the AH-64 and UH-60 rotary wing modernization initiatives.

v. Mission Command

- **Network Transport Systems:** Includes multiple satellite and functional network systems that provide the information infrastructure required to communicate in a tactical environment. Based on the current FYDP, the Army Reserve is expected to complete fielding of the Warfighter Information Network-Tactical, Secure Mobile Anti-Jam Reliable Tactical Terminal, Global Broadcast Service, and Phoenix systems.

- **C2 Systems:** Consists of various command post systems designed to facilitate digital planning, information sharing, and situational awareness during operations. The Army Reserve is on pace to field 90 percent or more of Command Post of the Future, Blue Force Tracker, and Battle Command Sustainment Support System requirements by FY 2015. However, the Army's decision to cut funding for the Standardized Integrated Command Post System (SICPS) in FY 2010 has created a large capability gap for the Army Reserve. SICPS is a critical piece of equipment for integrating command post systems and the ability to stand up a Tactical Operations Center, particularly for expeditionary missions. The Army Reserve has used NGREA funds to procure 15 percent of the Army G-3 approved requirements for SICPS to date.

vi. Logistics Systems

- **Quartermaster/Maintenance:** The Army Reserve provides 64 percent of the total Quartermaster structure for the Army. Combat Service Logistics Systems are comprised of maintenance, food service, mortuary affairs, and liquid logistics (fuel/water) systems. The Army Reserve has 70 percent of the Cargo Handling and 100 percent of the Force

Provider units in the Army Structure. Of particular concern, shortfalls for material handling and liquid logistics equipment diminish Army Reserve logistics capabilities. Additional funding is needed to procure/modernize critical logistics enablers, such as the Variable Reach Rough Terrain Forklift (ATLAS II) fleet highlighted in Table 2-13 (see Annex A at the end of this chapter for an explanation of narrative embedded tables).

Table 2-13. Quartermaster/Maintenance Systems

Equipment	FY 2015 Req	FY 2015 OH	FY 2015 Modern OH	FY 2015 Modern Shortage	Un-resourced Requirement
ATLAS II	1,042	1,042	905	137	$22.8M

- **Logistics Automation:** Logistics Automation covers the complete spectrum of logistics support and includes systems to manage maintenance, transportation, supply, combat health support, field services, explosive ordnance disposal, human resources, and financial management. The Army Reserve, with support from the AC, continues to aggressively field and maintain the logistics information systems to perform these functions. Fielding of these systems is almost 100 percent complete and transitioning to a sustainment posture as the Army prepares to replace them with the Global Combat Support System–Army (GCSS-A). The Army Reserve continues to encourage a technology refresh of legacy systems to ensure compatibility during fielding of GCSS-A. Though GCSS-A replaces numerous logistics applications, interoperability issues remain with multiple key enabler systems. The Army Reserve continues to aggressively field these systems and has completed fielding of Transportation Coordinators Automated Information System (TC-AIMS II), CSS Automated Information Systems Interface (CAISI), and CSS Very Small Aperture Terminal. In total, the Army Reserve provides over 10,000 logistics information systems to support combat operations. With the short life cycle of automation systems (average five years), resourcing for replacement systems or refresh will always be a general concern for the Army Reserve. The Army Reserve is projected to begin fielding GCSS-A in FY 2013.

- **Medical:** The Army Reserve is currently working three medical equipment initiatives: creation of an Early Entry Deployable Medical Systems hospital at the medical equipment concentration site at Ogden, UT for homeland defense and medical readiness training exercises to prepare expeditionary missions; a move to a Medical Baseline Equipment Set for the Army Reserve Combat Support Hospitals, as the current Deployable Medical Systems equipment is old and unsustainable; and across the board modernization of hospital equipment for combat hospital units.

- **Transportation:**

  Light Tactical Vehicle (LTV): HQDA has met the procurement objective for the HMMWV and will not seek additional production. The Army Reserve is projected to have 94 percent of the HMMWV requirement by FY 2013, with only 15 percent armor capable. The remaining LTV fleet is comprised of legacy, non-armored vehicles, limited to homeland defense or contingency operations that do not require modern armor capable equipment. The HMMWV fleet will remain in the Army Reserve inventory for another 25 years. The Army plans to

reallocate armored capable vehicles to the Army Reserve to replace legacy equipment as a bridging strategy until the Joint Light Tactical Vehicle is fielded.

Medium Tactical Vehicle (MTV): The MTV fleet as a whole is projected at 100 percent fill and 72 percent modernized by the end of FY 2013. The remaining fleet will be comprised of older legacy 800 and 900 series non-armored vehicles that are non-deployable for support of current Army Central Command combat operations. Of particular note, the Army Reserve 5-ton cargo and dump truck fleets are projected at only 58 and 45 percent modernized in FY 2015 as indicated in Table 2-14.

Heavy Tactical Vehicle (HTV): The Army Reserve is projected to have 100 percent of its HTV requirement on hand by the end of FY 2013. However, this includes legacy systems that are not armored or armor capable and cannot be deployed in support of current combat operations. The Army Reserve M915 line haul tractor fleet is only 39 percent modern, representing an $892M shortfall. The family of Heavy Expanded Mobility Tactical Trucks is projected at 73 percent on hand by FY 2013. The HEMTT wrecker fleet, a critical asset for recovery operations, is projected at 82 percent of the total requirement. The HEMMT Light Equipment Transport (LET), highlighted in Table 2-14, is projected at 74 percent modern by 2015. Additionally, the Army Reserve Palletized Loading System (PLS) fleet is projected at 93 percent by FY 2013, a $163M shortfall.

Table 2-14. Transportation Systems (Tactical Vehicles)

Equipment	FY 2015 Req	FY 2015 OH	FY 2015 Modern OH	FY 2015 Modern Shortage	Un-resourced Requirement
LTVs	20,690	20,690	10,119	10,571	$1.5B
MTV Cargo Truck (5T)	4,047	2,909	2,357	1,690	$338M
MTV Dump Truck (5T)	979	440	439	540	$108M
HEMMT LET	2,081	540	540	1,541	$503M

Mine Resistant Ambush Protected (MRAP): The Army decided to reduce the number of MRAP variants and begin placing retrograded vehicles from overseas missions in MTOE units. This decision will require full integration of MRAPs into the force structure, proper training and a mature support structure capable of ensuring operational availability. In some units, MRAPs will displace organic vehicles to provide a more capable convoy protection platform. The Army Reserve is projected to begin fielding MRAPs in FY 2016–FY 2017.

- **Watercraft:** The Army Reserve owns 50 percent of the structure for watercraft operations.

Harbormaster: The Army Reserve has four harbormaster units. These units control the flow of watercraft in an area of operations while providing a key level of control over all facets of watercraft operations utilizing the Harbormaster Command and Control Center (HCCC). The Army Reserve fielded two HCCC systems in FY 2011 and is scheduled to receive the remaining systems in FY 2012.

LCU-2000: The AC and the Army Reserve share this requirement equally with seven vessels each. The LCU-2000s were fielded between 1990 and 1993 and are quickly

approaching their end of useful life. The Army Reserve is currently providing the required crews to support the LCU-2000 requirement for operations in the CENTCOM area of operation and will continue to crew these vessels for the next three rotations. A service life extension plan is currently being coordinated for the LCU-2000 fleet.

vii. Intelligence and Electronic Warfare Systems

The Army is in the process of realigning and optimizing existing Intelligence and Electronic Warfare (IEW) capabilities within its force structure. The Army Reserve owns 17 percent of the overall IEW structure and 3.5 percent of the Shadow force structure. Army Reserve funding for Shadows within the Fires Brigades and Battlefield Surveillance Brigades is deferred until the Department of the Army can complete a study to validate the requirement. The Army Reserve remains a vital player within the IEW community, but the lack of modernized equipment for pre/post mobilization training, combined with lengthy individual training and security clearance requirements, pose daunting challenges to maintain unit readiness.

viii. Mobility

Mobility equipment consists mainly of bridging, countermine, and engineering equipment, all found in the engineer force structure. The Army Reserve retains approximately 31 percent of all the engineer units, which includes 32 percent of the Army's Multi-role Bridge Companies. Along with this large portion of the force structure comes several equipping and training challenges. Specific Route Clearance equipment such as Medium Mine Protected Vehicles and Mine Protected Clearance Vehicles are only fielded directly to theatre to support the warfighter. This lack of equipment in CONUS limits training opportunities. To combat this, the Army Reserve expects to be fielded Route Clearance Training Suites in the near future which will facilitate CONUS training. Modernized Construction equipment continues to be fielded to the Army Reserve. Future fielding will include the modern scraper, which increases capability by replacing the existing fleet of equipment that is over 25 years old and cannot be deployed to support current combat operations.

Table 2-15. Mobility Systems

Equipment	FY15 Req	FY15 OH	FY15 Modern OH	FY15 Modern Shortage	Un-resourced Requirement
Heavy Scraper	200	200	80	120	$70M

ix. Force Protection

Force Protection equipment includes CBRNE equipment and contains over 60 separate systems for the Army Reserve. A number of these systems are considered legacy or obsolete, and are currently being replaced by the more modern battlefield intrusion detection systems, chemical agent detectors, biological and protective shelters, and decontamination equipment. The on-hand quantities and modernization of these systems has improved over the last several years, but still has shortfalls in several key areas. The shortfall in modern Force Protection systems is over $8M across the FY 2013–FY 2017 budget period. The Army Reserve assumes an increased role in the Defense CBRN Response Force (DCRF) in FY 2012. DCRF is designed to respond to a CBRN event through a Request for Assistance by a Governor, Lead Federal Agency, or the President

through the Secretary of Defense. Much of the specialized equipment for these designated units is commercial off-the-shelf (COTS) items, funded and fielded above unit equipment authorizations.

x. Soldier

Soldier equipment consists mainly of individual weapons, night vision devices, and thermal weapon sights. These devices are found in many units, from military police to engineer. Fielding of the new M320 grenade launcher will begin to ramp up in FY 2012 along with additional M4 rifles to support growing requirements. Night vision and thermal weapon sight production procurement continues to meet Army Reserve requirements.

xi. Civil Affairs (CA) and Military Information Support Operations (MISO)

Since the 2006 re-alignment of CA and MISO from United States Army Special Operations Command to United States Army Reserve Command, a multitude of equipping challenges have contributed to a reduced readiness posture. Collectively, systems including the Special Operations Forces (SOF) Deployable Node-Lite, Mission Planning Kit, and Tactical Local Area Network (TACLAN) are projected at less than 30 percent on hand in FY 2015. HQDA has placed increased emphasis on funding equipment requirements during the programming process. HQDA also initiated a capability review process to provide oversight of current and future equipping actions that will improve the readiness of the CA and MISO communities.

Table 2-16. CA/MISO Systems

Equipment	FY 2015 Req	FY 2015 OH	FY 2015 Modern OH	FY 2015 Modern Shortage	Un-resourced Requirement
SOF Deployable Node-Lite	706	4	4	702	$105M
Mission Planning Kit	950	433	433	517	$15M
TACLAN	56	44	44	12	$9.6M

D. Summary

Over the last decade, the contribution of the Army Reserve to our Nation’s defense efforts has risen dramatically. As such, the Army Reserve must continue the transition to an operational force, with the focus on an equipment modernization strategy that will provide CS and CSS enablers for full spectrum operations and support of civil authorities. While the Army has made significant strides in funding and distributing equipment to address Army Reserve shortages, challenges with sourcing critical communication, material handling, engineer, liquid logistics, medical, and transport systems remain. Congressional appropriations are vital to the Army Reserve equipment modernization effort, and NGREA funds allow the flexibility to upgrade legacy systems.

Annex A
Explanation of Embedded Equipment Tables

Equipment	FY 2015 Req	FY 2015 OH	FY 2015 Modern OH	FY 2015 Modern Shortage	Un-resourced Requirement
ATLAS II	1,042	1,042	905	137	$22.8M

Equipment—General nomenclature of the equipment item.

FY 2015 Req—Based on the forecasted requirement at the end of FY 2015

FY 2015 OH—Based on the forecasted on hand at the end of FY 2015.

FY 2015 Modern OH—Removes equipment considered not modern from the *FY 2015 OH number*. Modern equipment is defined as the most current equipment item which meets global mission requirements.

FY 2015 Modern Shortage—*FY 2015 Req* minus *FY 2015 Modern OH*.

Un-resourced Requirement—The average estimated cost of the equipment multiplied by the *FY 2015 Modern Shortage.*

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Table 1

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of Equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve Component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of Equipment which should be in the inventory of each Reserve Component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Air Defense							
Center: Communications Operations	C18033	$3,000,000	0	1	1	1	1
Computer: Tactical AN/GYQ-88	C77755	$60,345	0	1	4	4	11
Aircraft							
Airplane Cargo Transport: C-12D	A29812	$1,967,301	4	4	4	4	0
Airplane Reconnaissance: RC-12N	Z04821		0	0	0	0	12
Helicopter Utility: UH-60A	K32293	$4,635,000	5	5	5	5	8
Helicopter: Attack AH-64D	H48918	$25,128,800	48	48	48	48	48
HH-60L MEDEVAC Helicopter	U84291	$7,908,000	6	6	6	6	24
Utility Cargo Aircraft: UC-35A	Z95382		9	9	9	9	16
Aviation							
External Stores Subsystem (ESSS): UH-60A	E21985	$676,111	10	10	10	10	64
Heater Kit Cabin: UH-60A	H40083	$75,789	0	0	0	0	64
Kit Aeromedical Evacuation: UH-60A	K40878	$130,839	0	0	0	0	48
Kit Air Transportability: UH-60A	K27251	$28,320	45	45	45	45	72
Kit Winterization: UH-60A	K44101	$10,026	0	0	0	0	64
Launcher Guided Missile: Longbow Hellfire XM299	L67410	$72,157	144	144	144	144	192
Modification Kit: Utility Hoist UH-60A	M59733	$7,547	6	6	6	6	48
Radio Set Personnel Locator: AN/ARS-6(V)2	R85011	$36,000	17	17	17	17	51
Radio Set: High Frequency AN/ARC-220 (V)2	R81623	$23,358	9	9	9	9	72
Radio Set: High Frequency AN/VRC-100 (V)1	R81691	$33,707	15	15	15	15	26
Seat Rescue: Forest Penetrating	S68271	$5,318	2	2	2	2	48
Battle Command C2							
Air Conditioner: 54000 Btu 208V-Ac 3Ph 50/60 Hz	A26852	$10,609	456	456	456	456	969
Air Conditioner: Fl/Wall A/C 18000 Btu Cmp Hz	A24017	$8,060	280	280	280	280	406
Btuh 60000 Enviromental Control Unit: Hd-1240/G	B29108	$6,500	0	0	0	0	202
Carrier Armored Command Post: Full Tracked	C11158	$374,086	1	1	1	1	24
Command System Tactical: AN/TYQ-155 (V)1	C61290	$79,168	87	87	87	87	99
Communications Central: AN/ASC-15E	C59313	$617,900	0	0	0	0	18
Computer Set: AN/UYK-128(V)3	C18378	$15,850	1,602	2,740	2,763	2,763	7,625
Computer Set: Digital AN/GYK-62B	C13866	$16,530	4	4	4	4	231
Distribution System Elec: 120/208V 3ph 40amp	F55485	$6,258	477	477	846	846	848
Distribution System Elec: 120V 1ph 60amp	F55553	$5,106	243	243	417	880	1,356
Gen Set DED TM: 10kW 60Hz	G42170	$25,757	279	279	297	297	501
Gen Set DED TM: 5kW 60Hz	G42238	$23,738	212	212	297	297	636
Gen Set: Ded Skid mtd 3kW 60Hz	G18358	$9,922	1,984	1,984	2,216	2,991	4,138
Generator Set Diesel Engine TM: PU-802	G53778	$31,481	284	284	286	287	498

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Loudspeaker Tact: Manpack	L26831	$13,035	498	498	594	594	640
Loudspeaker Tact: Vehicle/Watercraft	L26899	$35,000	372	372	420	420	640
Navigation Set: Satellite Signals AN/GSN-13	N96180	$39,152	0	0	0	0	53
Rigid Wall Shelter: Command Post	R98145	$162,800	2	2	2	2	18
Battlespace Awareness							
Data Analysis Central: AN/MSW-24	D77801	$318,673	2	2	2	2	8
Detecting System Countrmeasures: AN/MLQ-40(V)4	D04182	$1,400,000	0	0	0	0	16
Dig Topograph Sys: AN/TYQ-67(V)	D10281	$2,500,000	4	7	9	9	9
Battle Command Transportable Networks							
Battalion Command Post(Switching Group): OM-XXX	B67234	$198,555	2	39	39	39	146
Central Office: Telephone AutomaticAN/TTC-56	C20550	$1,250,000	2	2	2	2	10
Computer Set General: AN/GYK-33D	C18297	$26,000	48	49	80	83	92
Cryptographic Speech Equip: MTU TSEC/KY-100	C52700	$12,861	148	148	148	148	606
Encryption-Decryption Equipment: TACLANE KG 175	E08940	$10,950	109	109	109	109	214
Joint Base Station: TSC135 V4 Spec Oper Comm Assy	J00719	$400,000	12	12	30	50	41
MBITR: Urban Version	M18029	$11,900	1,510	1,510	1,693	1,693	2,259
Radio Set: AN/PRQ-7	R31430	$8,988	551	551	551	551	783
Radio Set: AN/GRC-106	Q32756	$18,602	32	32	32	32	145
Radio Set: AN/PRC-104A	R55200	$12,000	6	6	6	6	513
Radio Set: AN/PRC-126	R55336	$8,900	1,013	1,013	1,013	1,013	1,640
Radio Set: AN/PSC-5	R57606	$27,000	94	94	94	94	1,857
Receive Suite: AN/TSR-8	R30658	$148,583	18	22	50	50	50
Satellite Communication System: AN/TSC-156	S23268	$3,932	25	25	25	25	25
Terminal: Satellite Communication AN/TSC-154	T81733	$3,334	4	14	14	14	14
Combat Mobility							
Boat Bridge Erection Inboard Engine: Shallow Draft	B25476	$210,000	81	95	102	102	126
Bridge Armor Veh Launched Scissors: 63ft MLC 70	B31098	$304,952	46	46	46	46	102
Bridge Erection Set Fixed Bridge: UK Medium Girder Bridge	C22126	$488,354	4	4	4	4	14
Bridge Fixed: Highway Alum UK Medium Girder Bridge 100ft	C22811	$964,515	9	9	9	9	16
Bridge Heavy Dry: Supt (HDSB) 40m MLC96	B26007	$2,676,000	12	20	31	34	20
Cradle: Improved Boat (IBC) M14	C33925	$22,064	97	97	97	97	126
Detecting Set: Mine AN/PSS-14	D03932	$19,300	859	859	1,305	1,305	1,877
Instrument Set Recon / Surveying: AN/TKQ-5	D17191	$61,488	30	30	30	30	217
Launcher Heavy Dry Support Bridge: (HDSB)	L67660	$937,000	20	20	20	20	20
Launcher Mine Clearing Line Charge: (MICLIC)	L67342	$44,000	58	58	58	58	86
Loader Skid Steer: Type Ii	L77147	$31,390	74	114	193	194	202
Mine Resistant Vehicle	M74226	$850,000	0	0	4	37	264
Munition: Network Command (Spider)	M92387	$78,000	0	0	19	35	44
Pallet: Bridge Adapter (BAP) M15	P78313	$37,085	293	293	293	293	378
Ramp Bay Bridge Floating:	R10527	$134,112	81	88	89	89	108
Reinforcement Set: Medium-Girder Bridge	C27309	$498,940	5	5	5	5	14
Tool Outfit Pioneer: Hydraulic/Electric	W58486	$46,391	82	82	82	82	98
Tractor FT HS: Armored Combat Earthmover (ACE)	W76473	$887,050	52	52	52	52	68

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Transporter Common Bridge	T91308	$226,150	392	392	392	392	504
Field Logistics							
Crane Wheel Mounted: Hyd Rough Terrain (RTCC)	C39398	$450,194	17	17	17	17	4
Force Provider Module: Houses 550 Soldiers	F28973	$8,254,673	0	0	0	0	6
Fuel System Supply Point: Ptbl 60000G	J04717	$30,213	158	158	158	158	346
Hoseline Outfit Fuel Handling: 4in Dia Hose	K54707	$343,437	34	34	34	34	72
Laboratory Petroleum Semitrailer mounted	L33800	$650,000	10	10	10	10	13
Laundry Advanced System: (LADS) Trailer ounted	L70538	$620,000	46	46	72	75	108
Load Handling Sys: 2000G Comp Water Tank-Rack (HIPPO)	T32629	$131,839	20	20	59	75	33
Mobile Integrated Remains: Collection System	M57970	$360,000	15	15	15	15	105
Petroleum Quality Analysis System (PQAS)	P25493	$668,000	0	0	0	0	13
Pump Centrf: DED Skid mtd 6In 800 Gpm 1800 Ft Hd	P93102	$50,478	0	0	0	0	120
Refueling System: Aviation HEMMT tanker	R66273	$24,460	17	17	20	20	20
Rough Terrain Container Handler (RTCH): KALMAR RT240	R16611	$740,815	166	205	221	222	254
Shelter: Tactical Expandable Twoside	S01359	$223,219	61	61	66	66	151
Tank & Pump Unit Liquid Dispensing Truck Mounting	V12141	$9,015	764	764	764	764	918
Tophandler Attachment: 20ft Contr Mil-T-52951 ME	T67595	$19,709	63	63	63	63	167
Tophandler Attachment: 40Ft Contr Mil-T-52951 ME	T67731	$30,064	21	21	21	21	121
Tractor Wheeled Ind: 4X4 w/Forklift & Crane Att	T33786	$93,202	73	73	73	73	84
Lift Fork: 10000lb Cap 48In Ld Ctr Rough Terrain	T49119	$100,010	225	225	225	225	45
Lift Fork: 4000lb Cap Rough Terrain	T49255	$75,000	515	515	515	515	706
Lift Fork: 6000lb Cap Rough Terrain	X48914	$79,497	2	2	2	2	12
Truck Lift: Fork Variable Reach Rough Terrain	T73347	$166,639	593	756	905	905	997
Truck Tractor: Yd 46000 GVW 4X2	T60353	$96,051	95	95	95	95	280
Force Protection							
Alarm Biologicl Agent: (BIDS) M31E2	A48680	$1,118,000	280	343	364	364	350
Alarm Chemical Agent: Remote Sensing XM21	A32638	$173,447	13	13	13	13	144
Alarm Monitor Group: Nbc (MICAD) M27	A32778	$16,000	0	0	0	0	84
Alarm: Chemical Agent Automatic M22	A33020	$10,000	1,772	1,772	1,772	1,772	3,923
Armored Security Vehicle (ASV)	A93374	$809,500	198	225	229	229	348
Collective Protection Equipment: NBC Simplified M20	C79000	$18,167	644	644	644	644	1,104
Decontaminating Apparatus: Pwr Drvn Lt Wt	D82404	$23,121	490	490	490	490	657
Nuclear Bio Chem Recon Veh: (NBC RV)	N96543	$2,320,389	0	0	24	61	96
General Engineering							
Comp Unit Rty: Air Trlr Mtd Dsl Drvn 250cfm 100psi	E72804	$18,507	255	255	255	255	363
Distributor Water Tank Type: 6000G Semitrailer mtd (CCE)	D28318	$30,289	55	55	55	55	96
Distributor Water: Self Propelled 2500G	D28804	$309,526	10	10	10	10	10
Dump Body Module: PLS 14-ton	D17391	$37,755	90	90	90	90	94
Fire Fighting Equipment Set: Truck mtd	H56391	$151,000	1	1	1	1	8
M1158 Truck: Hemtt Based Water Tender	M31997	$420,058	41	41	41	41	42
Mixer Concrete Module: PLS 2600G	M81382	$127,160	27	27	27	27	33
Mixer Concrete Trailer Mounted: Gas Drvn 16 cu ft	M54151	$14,496	1	1	1	1	15
Mixing Plant Asphalt: Dsl/Elec Pwr 100 to 150 ton	M57048	$1,254,600	4	5	7	7	7

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Roller: Motorized Vibratory Type III	R19753	$54,383	0	0	0	0	20
Scraper Elevating: Self Propelled 8-11 cu yd	S29971	$162,596	0	0	0	0	10
Spreader: Bituminous Module PLS 2500G	S13546	$85,173	0	0	0	0	4
Surveying Instrument: Meas Long Rge IR AISI	S03794	$50,000	7	7	8	8	32
Surveying Set Topographic Section	U71275	$32,205	2	2	2	2	24
Tool Kit Pipe Cutting Grooving / Beveling	W48485	$69,282	27	27	27	27	36
Tractor Full Trkd: Air Dropbl w/Angdoz W/W	W76285	$71,441	0	0	0	0	30
Maneuver Combat Vehicle							
Carrier Personnel Full Tracked: Armored (RISE)	C18234	$405,815	149	149	149	149	347
Recovery Vehicle Full Tracked: Heavy M88A2	R50885	$2,748,846	3	3	3	3	0
Recovery Vehicle Full Tracked: Medium	R50681	$1,210,755	29	29	29	29	47
Maneuver Systems							
Drivers Enhancers: AN/VAS-5	D41659	$35,000	55	55	221	221	1,442
Mortar Quick Stow System: 120mm	H39473	$40,000	0	0	0	0	4
Night Sight Equipment: (TOW 2)	N04982	$116,014	0	0	0	0	8
Medical Field Systems							
Computerized Tomography Scanner Field	C79284	$816,101	0	0	1	1	4
Medical Equipment Set Ground Ambulance	M26413	$35,110	378	382	386	386	344
Medical Filmless Imaging Sys	M30817	$106,328	2	2	5	19	11
Medical Set Radiology Tomography Ct Aug	M09826	$897,250	3	3	3	3	4
Optical Equipment Set Multivision Augmentation	P47705	$103,714	0	0	0	0	9
Soldier Systems							
Armament Subsystem: Remotely Operated	A90594	$192,360	0	0	0	0	234
Armament Subsystem: Remotely Operated	Z00751		0	0	0	0	96
Binocular: M25	B67907	$6,120	288	288	1,308	1,308	1,406
Heavy Weapon Thermal Sight (HWTS): AN/PAS-13(V)3	S90603	$19,306	3,763	5,797	6,122	6,122	6,563
Helmet Unit: Integrated (IHADSS)	H35257	$19,573	127	127	127	127	150
Medium Weapon Thermal Sight (MWTS): AN/PAS-13(V)2	S90535	$17,591	4,442	7,111	7,798	7,798	8,918
Mini Eyesafe Laser IR Observation Set (MELIOS): AN/PVS-6	M74849	$22,015	2	2	2	2	1,807
Mounting Kit: F/M548A1	M18293	$50,000	38	38	38	38	76
Night Vision Devic: AN/PSQ-20	N07848	$18,500	0	0	464	1,152	2,575
Night Vision Sight Crew Served Weapon: AN/TVS-5	N04596	$3,500	503	503	503	503	1,189
Sight: Thermal AN/PAS-13B(V)1	S60356	$17,000	5,260	6,760	6,764	6,764	6,793
T-11: Personal Parachute System	T91035	$5,200	0	0	2,550	2,550	683
Soldier Weapons							
Command Launch Unit: (Javelin) 13305405-119	C60750	$231,671	27	75	90	90	90
Launcher Grenade: M320	L03621	$3,413	21	21	595	785	2,948
Launcher Grenade: M320A1	L69080	$3,413	107	107	2,517	2,517	3,005
Machine Gun: 5.56mm M249	M09009	$3,830	12,371	12,371	12,741	13,235	11,455
Machine Gun 7.62mm: M240L	M92454	$12,000	0	0	39	41	176
Machine Gun Caliber .50: Heavy Fixed Turret Type	L91701	$13,648	209	209	209	209	348
Machine Gun Grenade: 40mm Mk19 Mod III	M92362	$15,320	1,975	1,975	2,728	2,805	2,105
Machine Gun: Caliber 50	M39331	$8,493	0	0	950	1,590	849

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Machine Gun: 5.56mm M249 Light	M39263	$2,779	2,569	2,569	2,569	2,569	3,517
Rifle: 5.56mm M4	R97234	$1,329	20,850	20,850	42,387	43,854	23,253
Rifle: 7.62mm Sniper M24	R95387	$7,029	8	8	31	31	31
Shotgun: 12 Gage	S40541	$1,200	3	3	63	63	460
Strike							
Range Finder-Target Designator: Laser AN/PED-1	R60282	$300,000	0	0	5	5	6
Target Location and Observation: AN/PLQ-8	T27221	$40,000	10	10	10	10	194
Support Systems							
Container Handling Unit (CHU)	C84862	$34,613	55	55	55	55	1,308
Crane Barge: 89 to 250 ton	F36090	$8,000,104	2	2	2	2	3
Joint Precision Airdrop System: (JPADS)	J00947	$35,176	60	92	106	106	80
Landing Craft Utility: RO/RO Type 245 to 300ft Lg	L36989	$5,000,000	7	7	7	7	20
Parachute Cargo: 100 Ft Dia G-11B Vent Control	N66560	$8,092	100	100	100	100	2,350
Platform: Container Roll-in/Roll-out	B83002	$16,633	4,224	6,840	8,159	8,159	11,811
Railway Car Trailer	R04619	$20,310	9	9	9	9	24
Tug: Large Coastal and Inland Waterway Diesel	T68330	$12,500,000	2	2	2	2	3
X-Ray Apparatus: Radiographic Industrial	X91036	$18,575	3	3	3	3	18
Trailers							
Semitrailer Flatbed: Breakbulk/Cont Transporter 22-1/2-ton	S70027	$33,156	861	861	861	861	1,282
Semitrailer Low Bed: 25-ton 4 wheel	S70517	$7,729	111	111	111	111	167
Semitrailer Low Bed: 40-ton 6 wheel	S70594	$51,900	641	724	751	751	799
Semitrailer Low Bed: 70-ton Hvy Equip Transporter (HET)	S70859	$229,219	421	421	421	421	481
Semitrailer Tank: 5000G Bulk Haul Self-Load/Unload	S10059	$77,550	1,014	1,014	1,014	1,014	1,080
Semitrailer Tank: 5000G Fuel Dispensing Automotive	S73372	$97,413	405	405	405	405	410
Semitrailer Tank: Petroleum 7500G Bulk Haul	S73119	$27,774	346	346	346	346	480
Trailer Cargo: 1-1/2-ton 2 wheel	W95811	$10,245	0	0	0	0	33
Trailer Cargo: MTV w/Dropsides M1095	T95555	$62,829	538	618	825	1,063	2,098
Trailer Flatbed: 11-ton 4 wheel (HEMAT)	T45465	$34,714	123	123	123	123	374
Trailer Flat Bed: M1082 Trlr Cargo LMTV w/Dropsides	T96564	$34,569	998	1,282	1,487	1,547	1,893
Trailer: Palletized Loading 8X20	T93761	$46,731	2,220	2,220	2,392	2,430	2,642
Trucks							
Truck Ambulance: 4 Litter Armd HMMWV	T38844	$113,998	229	229	229	229	360
Truck Cargo: 2 1/2-ton 4X4 LMTV W/W LAPES/AD	T42063	$119,166	5	5	5	5	9
Truck Cargo: 5-ton 6X6 MTV W/W LAPES/AD	T41104	$119,265	0	0	0	0	1
Truck Cargo: 5-ton	T41515	$200,000	199	970	1,843	1,978	3,477
Truck Cargo: Heavy PLS Transporter 15-16.5 ton 10X10	T40999	$360,139	1,051	1,051	1,051	1,051	1,701
Truck Cargo: MTV LWB	T61704	$170,073	5	5	5	5	240
Truck Cargo: MTV W/W	T41135	$182,089	64	64	64	64	298
Truck Cargo: Tactical 8X8 HEMTT W/LHS	T96496	$321,057	55	55	55	55	913
Truck Cargo: Tactical HEMTT w/Lt Crane	T59278	$316,920	38	38	38	38	45
Truck Cargo: Tactical HEMTT W/Med Crane	T39586	$361,629	65	65	65	65	120
Truck Cargo: Tactical HEMTT W/W w/Lt Crane	T39518	$328,920	4	4	4	4	229
Truck Cargo	T59448	$200,000	740	1,137	1,244	1,244	3,302

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Truck Dump FMTV: 10-ton	T65047	$218,378	0	0	0	0	141
Truck Dump: 10-ton W/W	T65274	$200,000	32	105	114	119	112
Truck Dump: 10-ton	T65342	$200,000	70	210	285	290	215
Truck Dump: 5-ton 6X6 MTV LAPES/AD	T65526	$129,535	1	1	1	1	24
Truck Dump: MTV	T64911	$209,309	30	30	30	30	399
Truck Dump: MTV W/W	T64979	$139,015	0	0	0	0	112
Truck Tank: Fuel Servicing 2500G HEMTT	T87243	$384,130	137	137	137	137	180
Truck Tractor w/Main Recovery Winch: M983A2 LET	T59415	$289,352	12	12	12	12	594
Truck Tractor: Heavy Equipment Transporter (HET)	T59048	$256,704	430	430	430	430	481
Truck Tractor: Line Haul C/S 50000 GVW 6X4 M915	T61103	$162,968	1,551	1,551	1,551	1,551	2,280
Truck Tractor: M1088A1P2 W/W	T61375	$220,000	0	0	0	0	3
Truck Tractor: MTV	T61239	$167,746	369	369	369	369	1,420
Truck Tractor: MTV W/W	T61307	$175,733	33	33	33	33	46
Truck Utility Expanded Capacity Enhanced: M1152A1	T37588	$164,416	1,552	1,552	1,552	1,552	7,443
Truck Utility: Cargo/Troop Carrier HMMWV	T61494	$36,076	4,910	4,910	4,910	4,910	6,496
Truck Utility: ECV Armament Carrier M1151A1	T34704	$210,000	528	528	528	528	1,216
Truck Utility: Expanded Capacity Up-Armored HMMWV	T92446	$146,844	118	118	118	118	2,508
Truck Utility: Heavy Variant HMMWV 10000 GVW	T07679	$61,665	9,987	9,987	10,100	10,113	294
Truck Van: Expansible MTV M1087A1	T41271	$218,378	75	75	75	75	198
Truck Van: LMTV	T93484	$230,363	74	74	74	74	197
Truck Wrecker:	T94671	$200,000	0	56	67	72	67
Truck Wrecker: M984A4	T63161	$491,382	20	20	63	70	76
Truck Wrecker: MTV W/W	T94709	$331,680	108	108	108	108	200
Truck Wrecker: Tactical HEMTT W/W	T63093	$503,382	247	247	247	247	388
Truck: Expandable Van	T67136	$200,000	5	146	179	179	143

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Average Age of Equipment

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2012.

Nomenclature	Equip No.	Average Age	Remarks
Aircraft			
Airplane, Cargo, Transport, C-12R	A30062	15	
Helicopter, Cargo CH-47D	H30517	21	
Helicopter, Utility UH-60L	H32361	15	
Helicopter, Attack AH-64D	H48918	23	
Airplane, Cargo, Transport, UC-35A	Z95382	12	
Battle Command and Control			
Generator Set, 15kW, PU-802 TQG	G53778	8	
Generator Set, Trailer Mounted, PU-406	J36383	34	
Combat Mobility			
Loader Scoop Type, DED w/MultiPurpose Bucket	L76556	38	
HEMTT Common Bridge Transporter, M1977	T91308	11	
Field Logistics			
Crane, Wheel-mtd, Hydraulic, Rough Terrain (RTCC)	C39398	22	
Electronic Shop, AN/ASM-189	H01855	22	
Laundry Unit, Trailer Mounted	L48315	27	
Ramp Loading Vehicle	R11154	20	
Truck, Forklift, DED 50k lb, RT, Cont Hdlr	T48941	26	
Truck, Forklift, DED 6k lb, RT, Ammo Hdlg	T48944	20	
Truck, Forklift, Rough Terrain, M-10A	T49119	28	
Truck, Forklift, DED 4k lb, Rough Terrain	T49255	13	
Truck, Tractor, M878	T60353	23	
Truck, Forklift, ATLAS	T73347	9	
General Engineering			
Crane, Wheel-mtd, 25-ton, ATEC AT422T	C36586	12	
Distributor Water Tank, 6k gal, Tlr-mtd	D28318	26	
Crane, Truck-mtd, Hydraulic, 25-ton, CCE	F43429	34	
Fire Fighting Equipment Set, Truck-mtd	H56391	21	
Loader Scoop Type, DED w/5 Cy Gp Bucket	L76321	35	
Asphalt Mixing Plant	M57048	16	
Scraper, Earth Moving, Self-propelled, CCE	S56246	26	
TRACTOR (FT-LOW SPD)	W76816	37	
Maneuver Combat Vehicles			
Recovery Vehicle, Medium, M88A1	R50681	35	
Trailers			
Semitrailer Tanker, 5000-gal Bulk Haul, M967	S10059	20	
Semitrailer, 22.5-ton Flatbed, M871	S70027	19	

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Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
Semitrailer, 34-ton Flatbed, M872	S70159	23	
Semitrailer, Fuel Tank, M1062	S73119	20	
Semitrailer Tanker, 5000-gal POL, M969	S73372	17	
Semitrailer Van, Electronic, M373A2	S74353	25	
Semitrailer Van, 6-ton Repair Parts, M749/M750	S74832	37	
Semitrailer Van, Supply, M129A1C	S75175	30	
Trailer, HEMAT, 11-ton, M989A1	T45465	16	
PLS Trailer, 16.5-ton, M1076	T93761	15	
Trailer, Bolster, General Purpose, 4-ton, M796	W94536	36	
Trailer, Cargo, 3/4-ton, M101	W95537	32	
Trucks			
HMMWV Shelter Carrier, M1037	T07543	21	
HMMWV Shelter Carrier, Heavy, M1097	T07679	12	
HMMWV Ambulance, 2-litter, M996	T38707	23	
HMMWV Ambulance, 4-litter, M997	T38844	23	
HEMTT Cargo Truck, w/Lt Crane, M977 W/W	T39518	23	
HEMTT Cargo Truck, w/Med Crane, M985	T39586	22	
PLS Transporter, M1075	T40999	9	
PLS Transporter, M1074	T41067	18	
LMTV 2.5-ton Cargo Truck, w/ LAPES/AD, M1081	T41995	14	
HEMTT Fuel Tanker, 2500gal, M978 W/W	T58161	14	
Truck Tractor, HETS, M1070	T59048	18	
HEMTT Cargo Truck, w/Lt Crane, M977	T59278	16	
LMTV 2.5-ton Cargo Truck, M1078	T60081	11	
LMTV 2.5-ton Cargo Truck, M1078 W/W	T60149	10	
Truck Tractor, 14-ton Line Haul, M915	T61103	18	
Truck Tractor, 20-ton MET, M920	T61171	31	
MTV 5-ton Tractor Truck, M1088	T61239	12	
HMMWV Cargo/Trp Carrier, M998	T61494	19	
HMMWV Cargo/Trp Carrier, W/W, M1038	T61562	20	
MTV 5-ton Cargo Truck, M1085	T61704	4	
MTV 5-ton Cargo Truck, M1083	T61908	7	
HEMTT Wrecker, M984	T63093	17	
MTV 5-ton Dump Truck, M1090	T64911	16	
HEMTT Fuel Tanker, 2500gal, M978	T87243	17	
Truck Tractor, 14-ton LET, M916	T91656	17	
HMMWV Armt Carrier, Armd, M1025	T92242	15	
LMTV 2.5-ton Cargo Truck, M1079	T93484	10	
MTV 5-ton Wrecker, M1089	T94709	7	

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Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2013 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2013 would be expected to arrive in RC inventories in FY 2014 or FY 2015.

Nomenclature	FY 2013	FY 2014	FY 2015
Aircraft			
RQ-11 (RAVEN)	$1,062,000	$354,000	$354,000
UH-60 Blackhawk M Model (MYP)			140,136,000
CH-47 Helicopter	198,000,000		198,000,000
Modification of Aircraft			
Utility/Cargo Airplane modifications	5,012,000	5,309,000	2,474,000
Communications, Navigation, Surveillance			1,963,000
Global Air Traffic Management (GATM) Rollup	2,713,000	2,769,000	4,928,000
Weapons and Tracked Combat Vehicles (WTCV)			
Stryker Vehicle	39,561,000		
Joint Assault Bridge		17,962,000	17,949,000
XM320 Grenade Launcher Module (GLM)	1,114,000	1,087,000	1,043,000
Common Remotely Operated Weapons Station	6,180,000	6,180,000	6,180,000
Spares and Repair Parts (WTCV)	4,306,000		
Tactical and Support Vehicles			
Tactical Trailers/Dolly Sets		1,693,000	3,386,000
Family of Medium Tactical Vehicles (FMTV)	84,659,000	63,628,000	
Family of Heavy Tactical Vehicles (FHTV)	12,231,000	12,921,000	3,630,000
Truck, Tractor, Line Haul, M915/M916		5,336,000	5,428,000
Heavy Expanded Mobile Tactical Truck (HEMTT) Extended Service Program (ESP)	2,737,000	45,898,000	7,119,000
Modification of In-service Equipment	7,131,000	10,501,000	8,401,000
Communications and Electronics Equipment			
Global Broadcast Service (GBS)	3,792,000	1,763,000	
Medical Communications for Combat Casualty Care (MC4)	926,000	942,000	935,000
Reserve Civil Affairs (CA)/Military Information Support Operations (MISO) GPF Equipment	28,781,000	72,865,000	84,166,000
Telecommunications Security (TSEC) - Army Key Management System (AKMS)	1,504,000		
Information Systems Security Program (ISSP)	1,995,000	3,717,000	3,315,000
Sense Through the Wall (STTW) Sensor	291,000		709,000
Night Vision Devices	6,989,000	10,987,000	22,935,000
Night Vision, Thermal Weapon Sight	1,979,000		3,789,000
Small Tactical Optical Rifle Mounted (STORM) Micro-Laser Range Finder (MLRF)		1,000,000	
Green Laser Interdiction System (GLIS)	500,000	500,000	
Tactical Operations Centers	20,161,000		
Battle Command Sustainment Support System (BCS3)	1,217,000	457,000	

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Table 3

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2013	FY 2014	FY 2015
Air & Missile Defense Planning and Control System (AMDPCS)		3,924,000	8,076,000
Network Management Initialization and Service	10,030,000	10,096,000	6,170,000
Maneuver Control System (MCS)	19,539,000	20,663,000	6,777,000
Single Army Logistics Enterprise (SALE)	39,813,000	39,082,000	54,694,000
Reconnaissance and Surveying Instrument Set	4,654,000	3,808,000	3,354,000
Items less than $5M (Surveying Equipment)	1,293,000	938,000	722,000
Other Support Equipment			
Family of Non-lethal Equipment (FNLE)	718,000	607,000	1,858,000
Base Defense Systems (BDS)	432,000	2,119,000	403,000
CBRN Soldier Protection	953,000	3,390,000	366,000
Tactical Bridging	8,050,000	348,000	
Tactical Bridge, Float-Ribbon	1,075,000		2,246,000
Ground Standoff Minefield Detection System (GSTAMIDS)		3,435,000	10,578,000
Robotic Combat Support System (RCSS)	2,114,000	1,862,000	1,800,000
Items Less Than $5M (Countermine Equipment)	296,000	342,000	366,000
Heaters and Environmental Control Units (ECUs)	7,469,000	4,111,000	6,267,000
Field Feeding Equipment	10,714,000	10,656,000	10,147,000
Cargo Aerial Delivery & Personnel Parachute System	6,465,000	281,000	1,640,000
Family of Engineer Combat and Construction Sets	7,903,000	10,182,000	3,728,000
Items Less Than $5M (Engineer Support)	907,000	993,000	913,000
Distribution Systems, Petroleum & Water	1,695,000	1,653,000	4,914,000
Combat Support Medical	12,300,000	12,837,000	11,718,000
Mobile Maintenance Equipment Systems	518,000	396,000	146,000
Items Less Than $5M (Maintenance Equipment)		198,000	223,000
Scrapers, Earthmoving		8,522,000	4,899,000
Mission Modules - Engineering	3,544,000	31,787,000	3,500,000
Tractor, Full Tracked	3,209,000	12,805,000	5,295,000
All Terrain Craines	.	1,964,000	2,076,000
Plant, Asphalt Mixing		5,493,000	
High Mobility Engineer Excavator (HMEE)	1,000,000	.	
Construction Equipment ESP	1,232,000	2,090,000	
Generators and Associated Equipment	5,129,000	16,566,000	18,818,000
Family of Forklifts	2,592,000	2,956,000	3,424,000
Training Devices, Nonsystem	2,776,000	9,448,000	9,437,000
Close Combat Tactical Trainer	1,325,000	1,923,000	1,720,000
Aviation Combined Arms Tactical Trainer	1,909,000	2,352,000	1,621,000
Gaming Technology in Support of Army Training	600,000	800,000	1,763,000
Integrated Family of Test Equipment (IFTE)	3,378,000	5,165,000	5,531,000
Test Equipment Modernization (TEMOD)	2,087,000	1,272,000	1,958,000
Modification of In-service Equipment (OPA-3)	12,846,000	25,343,000	7,218,000
Total	**$611,406,000**	**$526,276,000**	**$721,206,000**

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2012 would be expected to arrive in RC inventories in FY 2013 or FY 2014. All values are costs in dollars.

Nomenclature	FY 2010	FY 2011	FY 2012
FY 2010 Title IX NGREA Equipment			
Heavy Expanded Mobility Tactical Truck (HEMTT)	$49,090,942		
Route Clearance	7,500,000		
Material Handling	4,733,361		
Tactical Local Area Network (TACLAN)	4,698,000		
Power	3,462,596		
Liguid Logistics	3,410,736		
Command Post (Computer Set)	3,179,544		
Tactical Radios	2,771,650		
Field Feeding	2,426,368		
Power Support	1,574,370		
Battlefield Anti-intrusion System	1,021,300		
Diagnostic Test Set	417,705		
Enhanced Container Handling Unit	313,200		
Trailer Cargo: High Mobility	302,848		
Weapon Support (Mount Tripod Machine Gun)	69,251		
Tester Density-moisture Soil-Asphalt-Concrete: Nuclear Meth (CCE)	28,004		
FY 2011 Title IX NGREA Equipment			
Simulators, Collective and Individual		$35,550,000	
Command Post Systems		22,100,000	
Engineer Equipment		19,151,022	
Material Handling Equipment (MHE)		17,099,600	
Heavy Tactical Vehicles		15,350,000	
Medium Tactical Vehicles		15,077,950	
Civil Affairs & Military Information Support Operations (MISO) equipment		7,786,123	
Test and Diagnostic Equipment		4,287,280	
Power Generation and Distribution Systems		1,977,351	
Medium Tactical Vehicles Trailers		1,619,200	
Total	**84,999,875**	**$139,998,526**	

1. Service FY 2012 NGREA equipment list was not available in time for publication in the NGRER. Equipment list for FY 2012 will be provided in next year's NGRER.

Table 5

USAR
Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the AC receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks
Aviation					
Computer Sys: Digital	C18391			+1	
Battle Command C2					
Computer Set: AN/UYK-128(V)3	C18378		+23		
Distribution System Elec: 120/208v 3ph 40amp	F55485		+94		
Distribution System Elec: 120v 1ph 60amp	F55553		+174		
Feeder System Electrical: 3ph 100amp	F55621			+7	
Gen Set Ded Tm: 10kW 60Hz mtd on M116A2	G42170		+18		
Gen Set Ded Tm: 5kW 60Hz mtd on M116A2	G42238		+58		
Gen Set: Ded Skid Mtd 3kW 60Hz	G18358		+224	+5	
Generator Set Diesel Engine TM: PU-802	G53778		+2	+1	
Generator Set Diesel: 60Hz AC MEP-531A	G36237		+24		
Loudspeaker Tact: Manpack	L26831		+89		
Battlespace Awareness					
Dig Topograph Sys: AN/TYQ-67(V)	D10281		+2		
BC Transport Networks					
Computer Set: General AN/GYK-49(V)1	C78963		+3		
Combat Mobility					
Boat Bridge Erection Inboard Engine	B25476		+7		
Bridge Heavy Dry: Supt (HDSB) 40m MLC96	B26007		+7		
Field Logistics					
Forward Area Refueling Equipment: (FARE)	H94824		+35		
RTCH: KALMAR RT240	R16611		+4	+1	
Shelter: Tactical Expandable Twoside	S01359		+5		
Laundry Advanced System: Trailer Mounted	L70538		+14	+3	
Lift: Fork Variable Reach Rough Terrain	T73347		+2		
Force Protection					
Nuclear Bio Chem Recon Veh: (NBC RV)	N96543		+11		
General Engineering					
Surveying Instrument: Long Rge Infrared	S03794		+1		
Maneuver Systems					
Drivers Enhancers: AN/VAS-5	D41659		+135		
Medical Field Systems					
Analyzer Clinical Chemistry: (ACC)	A55800			+1	
Medical Equipment Set Ground Ambulance	M26413		+4		
Medical Filmless Imaging Sys:	M30817		+2	+3	

USAR
Projected Equipment Transfer/Withdrawal Quantities

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks
Waste Water Management Set Hosp 84 Bed	W49853			+2	
Analyzer Hematology (AH):	A84342		+1		
Monitor Patient Vital Signs: (MVS)	M66626			+176	
Fluid Warming Sys: (FWS)	F81245			+16	
Water Dist Set Hospital MRI 84 Bed:	W53123			+1	
Water Distribution Connect Set:	W53623		+3		
Soldier Systems					
Heavy Weapon Thermal Sight: AN/PAS-13(V)3	S90603		+10		
Medium Weapon Thermal Sight: AN/PAS-13(V)2	S90535		+2		
Monocular Night Vision Device: AN/PVS-14	M79678		+5,087	+744	
Night Vision Devic: AN/PSQ-20	N07848		+142		
Sight: Thermal AN/PAS-13B(V)1	S60356		+4		
Soldier Weapons					
Launcher Grenade: M320	L03621		+394	+9	
Machine Gun 5.56 Millimeter: M249	M09009		+89	+494	
Machine Gun Grenade 40mm: MK19 MOD III	M92362		+35	+77	
Machine Gun: Caliber 50	M39331		+186	+640	
Rifle 5 56mm: M4	R97234		+16,939	+1,467	
Rifle 7.62mm: Sniper M24	R95387		+23		
Shotgun: 12 Gage	S40541		+60		
Machine Gun 7.62 Millimeter: M240l	M92454		+13	+2	
Command Launch Unit: (Javelin) 13305405-119	C60750		+15		
Strike					
Range Finder-target Designator: AN/PED-1	R60282		+5		
Trailers					
Light Tactical Trailer: 3/4 Ton	T95992		+24	+4	
Trailer Cargo: Mtv W/Dropsides M1095	T95555		+142		
Trailer Flat Bed: M1082 Cargo W/Dropsides	T96564		+165	+2	
Trailer: Palletized Loading 8x20	T93761		+2	+3	
Trucks					
Truck Cargo: M977A4	T59532		+20	+37	
Truck: Heavy HMMWV 4x4 10000 GVW W/E	T07679		+113	+13	
Truck Wrecker: M984A4	T63161		+8		
Truck Van: M1079A1P2 wo/Winch	T62359		+1		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2009 with actual procurements and transfers. FY 2009 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2011. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2009 Planned Transfers & Withdrawals							
PLS Demountable Cargo Bed	B83002	+21	0				
Chemical Agent Monitor, ICAM	C05701	+20	0				
Crane, 7.5-ton, Whl-mtd	C36151	+1	0				
Battle Cmd Sustain Spt Sys (BCS3)	C56827	+1	0				
Decontaminating Apparatus, M17	D82404	+2	0				
Defibrillator Monitor Recorder	D86072	+9	+22				
Elect Transfer Key Device, KYK-13	E98103	+6	0				
Fwd Area Water Point Supply Sys	F42612	+1	0				
Decontaminating Apparatus, M12	F81880	+39	0				
Generator Set, MEP-804A	G12170	+1	+181				
Generator Set, PU-798	G42170	+2	+19				
Generator Set, PU-802	G53778	+3	+12				
Generator Set, MEP-803A	G74711	+4	+100				
Road Grader, Motorized, CCE	G74783	+6	0				
Helicopter, Cargo CH-47D (Chinook)	H30517	+2	0				
Radio Set, AN/GRC-193A	H35404	+18	0				
Facsimile, LtWt Digital, AN/UXC-7	L67964	+2	0				
Mask, CBR Protective Field, M17A1	M11895	+142	0				
Mask, Chemical-Biological, M40	M12418	+990	0				
Medical Equip Set, Field Sick Call	M30156	+1	0				
Medical Equip Set, Field Trauma	M30499	+1	0				
Laser IR Obs Set (Melios), AN/PVS-6	M74849	+2	0				
Machine Gun, Grenade, 40mm, Mk19	M92362	+70	0				
Night-vision Goggles, AN/PVS-7B	N05482	+786	0				
Power Supply, PP-6224/U	P40750	+2	0				
Power Plant, AN/MJQ-41	P42194	+6	0				
Power Plant, AN/NJQ-37	P42262	+1	0				
Radiacmeter, IM-93A/UD	Q20935	+4	0				
Radiac Set, AN/PDR-75	R30925	+1	0				
Radiac Set, AN/UDR-13	R31061	+103	+550				
Rifle, 5.56mm, M16A2	R95035	+675	0				
Speech Security Eq, TSEC/KY-57	S01373	+83	0				
Spectrum Analyzer, AN/USM-489(V)1	S01416	+2	0				
Food Sanitation Center	S33399	+38	+17				

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Semitrailer Van, Supply, M129A1C	S75175	+1	0				
Test Kit, Aviation Fuel Contamination	T05741	+2	0				
Shop Equipment, Auto Maint & Repair	T25756	+1	0				
Tractor, Whld Excavator, SEE	T34437	+3	0				
HEMTT Cargo Truck, M977 WW	T39518	+1	0				
Trailer, HEMAT, 11-ton, M989A1	T45465	+11	0				
Radio Terminal,AN/VRC-97	T55957	+255	0				
HEMTT Fuel Tanker, M978 WW	T58161	+32	0				
LMTV 2.5-ton Cargo, M1078	T60081	+18	0				
LMTV 2.5-ton Cargo, M1078 WW	T60149	+1	0				
Truck, Yard Tractor, M878	T60353	+15	0				
Truck Tractor, Line Haul, M915	T61103	+53	0				
MTV 5-ton Tractor Truck, M1088	T61239	+1	0				
HMMWV Cgo/Trp Carrier, M998	T61494	+37	0				
MTV 5-ton Cargo Truck, M1083	T61908	+39	0				
HEMTT Wrecker, M984	T63093	+2	0				
Truck, Forklift, ATLAS	T73347	+3	+34				
HEMTT Fuel Tanker, 2500gal, M978	T87243	+17	0				
PLS Trailer, 16.5 Ton, M1076	T93761	+42	+245				
MTV 5-ton Wrecker, M1089	T94709	+1	0				
Tank, Fabric, Water, 3000-gal	V15018	+5	0				
Tank, Liquid Dispensing Unit,TM	V19950	+1	0				
Trailer, Cargo, 3/4-ton, M101	W95537	+15	0				
FY 2009 P-1R Equipment							
Aircraft							
UH-60 Blackhawk (MYP)				$0	$103,500,000		
Support Equipment & Facilities							
Air Traffic Control				6,000,000	6,000,000		
Anti-tank/Assault Missile Systems							
Javelin (AAWS-M) System Summary				3,846,000	3,846,000		
Tracked Combat Vehicles							
Stryker Vehicle				130,590,000	0		
Modification of Tracked Combat Vehicles							
Improved Recovery Vehicle (M88A2 Hercules)				13,200,000	13,200,000		
Weapons & Other Combat Vehicles (WOCV)							
M240 Medium Machine Gun (7.62mm)				13,351,000	13,351,000		
Machine Gun, Cal .50 M2 Roll				2,609,000	2,609,000		
M249 Saw Machine Gun (5.56mm)				5,059,000	5,059,000		
Mk-19 Grenade Machine Gun (40mm)				2,721,000	2,721,000		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
XM320 Grenade Launcher Module (GLM)				439,000	439,000		
M4 Carbine				9,713,000	9,713,000		
Shotgun, Modular Accessory System (MASS)				32,000	32,000		
Modification of Weapons & Other Combat Vehicles							
M240 Medium Machine Gun Mods				807,000	807,000		
Support Equipment & Facilities (WOCV)							
Items Less Than $5M (WOCV-WTCV)				267,000	267,000		
Tactical Vehicles							
Tactical Trailers/Dolly Sets				38,336,000	12,320,000		
Semitrailers, Flatbed				8,343,000	8,343,000		
Semitrailers, Tankers				3,622,000	5,828,000		
Hi Mob Multi-purp Whld Veh (HMMWV)				92,599,000	92,599,000		
Family of Medium Tactical Veh (FMTV)				137,969,000	137,969,000		
Firetrucks & Associated Firefighting Equipment				4,064,000	4,064,000		
Family of Heavy Tactical Vehicles (FHTV)				221,424,000	246,424,000		
Armored Security Vehicles (ASV)				46,266,000	60,016,000		
Mine Protection Vehicle Family				65,606,000	67,090,000		
Truck, Tractor, Line Haul, M915/M916				7,457,000	2,500,000		
Hemtt Ext Serv Program				4,254,000	4,254,000		
Joint Communications							
WIN-T - Ground Forces Tactical Network				12,782,000	12,782,000		
Satellite Communications							
NAVSTAR Global Positioning System (Space)				4,880,000	4,880,000		
SMART-T (Space)				1,227,000	1,227,000		
Global Brdcst Svc - GBS				2,545,000	2,545,000		
Combat Communications							
Comms-Elec Equipment Fielding				2,000,000	2,000,000		
Soldier Enhancement Program Comm/Elect				143,000	143,000		
Medical Comm for Cbt Casualty Care (MC4)				11,957,000	11,957,000		
Information Security							
Tsec - Army Key Mgt Sys (AKMS)				1,134,000	1,134,000		
Information System Security Program-ISSP				2,951,000	2,951,000		
Tactical Intelligence & Related Activities (Tiara)							
All Source Analysis Sys (ASAS) (MIP)				333,000	333,000		
Digital Topographic Spt Sys (DTSS) (MIP)				148,000	148,000		
CI Humint Auto Reprting and Coll (CHARCS)				22,557,000	15,057,000		
Tactical Surveillance							
Night Vision Devices				24,133,000	24,133,000		
Night Vision, Thermal Weapon Sight				11,085,000	11,085,000		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Force XXI Battle Cmd Brigade & Below (FBCB2)				5,820,000	39,720,000		
Tactical Command & Control (C2) Systems							
Tactical Operations Centers				5,365,000	5,365,000		
Battle Command Sustainment Support System (BCS3)				8,062,000	8,062,000		
Air & Missile Defense Planning & Control System (AMD PCS)				502,000	0		
TC AIMS II				4,373,000	4,373,000		
Joint Network Management System (JNMS)				2,137,000	2,137,000		
Maneuver Control System (MCS)				6,542,000	6,542,000		
Single Army Logistics Enterprise (SALE)				3,657,000	3,657,000		
Other Communications & Electronics Equipment							
CSS Communications				977,000	7,149,000		
Items Less Than $5M (Surveying Equipment)				600,000	600,000		
Items Under $5M (SSE)				2,750,000	2,750,000		
Chemical Defensive Equipment							
Smoke & Obscurant Family: SOF (Non AAO Item)				1,900,000	1,900,000		
Bridging Equipment							
Tactical Bridging				14,041,000	14,041,000		
Tactical Bridge, Float-ribbon				16,279,000	15,817,000		
Engineer (Non-construction) Equipment							
Handheld Standoff Minefield Detection Sys-HST				12,880,000	12,880,000		
Combat Service Support Equipment							
Heaters and ECUs				3,350,000	3,350,000		
Field Feeding Equipment				22,784,000	22,784,000		
Laundries, Showers and Latrines				0	1,100,000		
Parachute & Aerial Del Sys				1,028,000	1,028,000		
Mobile Integrated Remains Collection System				17,803,000	17,751,000		
Items Less Than $5M (Eng Spt)				103,000	103,000		
Petroleum & Water Equipment							
Distribution Systems, Petroleum & Water				11,817,000	11,817,000		
Water Purification Systems				10,799,000	10,799,000		
Medical Equipment							
Combat Support Medical				30,667,000	30,667,000		
Maintenance Equipment							
Mobile Maintenance Equipment Systems				8,217,000	8,217,000		
Construction Equipment							
Grader, Road Mtzd, Hvy, 6x4 (CCE)				0	3,078,000		
Skid Steer Loader (SSL) Family of System				7,650,000	7,650,000		
Mission Modules - Engineering				687,000	687,000		
Loaders				5,726,000	7,164,000		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Hydraulic Excavator				5,896,000	5,868,000		
Tractor, Full Tracked				6,133,000	16,341,000		
Plant, Asphalt Mixing				3,070,000	3,070,000		
High Mobility Engineer Excavator (HMEE) FOS				989,000	989,000		
Construction Equipment ESP				3,694,000	3,694,000		
Items Less Than $5M (Construction Equipment)				2,624,000	2,624,000		
Other Support Equipment							
Harbormaster Command & Control Center (HCCC)				1,367,000	1,367,000		
Generators and Associated Equipment				51,855,000	51,859,000		
Rough Terrain Container Handler (RTCH)				24,024,000	24,024,000		
All Terrain Lifting Army System				9,990,000	9,990,000		
Integrated Family of Test Equipment (IFTE)				920,000	920,000		
General Purpose Electronic Test Equipment (GPETE)				1,718,000	1,718,000		
FY 2009 (Title III & Title IX) NGREA Equipment							
High Mobility Multipurpose Wheeled Vehicle (HMMWV)						39,404,250	0
Intelligence/Electronic Warfare Equipment						28,035,000	2,488,992
Heavy Expanded Mobility Tactical Truck (HEMTT)						22,500,000	26,727,426
Joint Small Transportable Decont System (JSTDS-SS)						8,599,000	6,200,000
Truck, Tractor Line Haul, M916A3						7,976,000	7,945,948
Radio AN/PSC-5D						6,565,000	0
Psychological Operations Equipment						5,502,500	5,381,265
Light Tactical Trailer, 3/4 Ton						3,645,000	3,190,800
Trailer, Palletized Load System						2,080,000	2,040,480
Line Haul Truck, Total Package Fielding						1,624,000	0
Truck Ambulance: 4 Litter Armd 4x4 (HMMWV)						980,000	0
Line Haul Light Equipment Transporter						429,510	6,846,893
Family of Medium Tactical Vehicles (FMTV)						0	17,679,091
Civil Affairs Communication Systems						0	10,620,930
Shop Equipment: Automotive Vehicle						0	9,746,582
Army Battle Command System (ABCS)						0	9,150,540
Power Distribution System						0	4,215,316
Power (Generators)						0	3,769,920
Liquid Logistics (Water Tank Trailer)						0	2,872,078
Maintenance Support						0	2,007,768
Scraper Earth Moving						0	1,798,402
Tool Outfit Test and Repair						0	1,339,550
Battlefield Anti-intrusion System						0	1,307,264
Field Feeding (Assault Kitchen)						0	1,239,819
Environmental Control Units						0	776,006

Table 6

USAR

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
TOTAL				$1,235,245,000	$1,266,978,000	$127,340,260	$127,345,070

USAR
Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Aircraft						
Helicopter Utility: UH-60A	K32293	Helicopter Utility: UH-60L	H32361	16	X	
HH-60L: MEDEVAC Helicopter	U84291	Helicopter Utility: UH-60L	H32361	4	X	
Utility Cargo Aircraft: UC-35A	Z95382	Airplane,Utility	BA1000	2	X	
Battle Command and Control						
Carrier Armd Command Post: Tracked	C11158	Carrier Command Post: Light Tracked	D11538	5		X
Gen Set DED TM: 10kW 60Hz	G42170	Gen Set: DED Skid-mtd 10kW 60Hz	G74711	3	X	
Gen Set DED TM: 10kW 60Hz	G42170	Gen Set DSL TM: 10kW 60Hz PU-753/M	G40744	31	X	
Gen Set DED TM: 10kW 60Hz	G42170	Gen Set DSL: 10kW 60Hz	J35825	4	X	
Gen Set DED TM: 10kW 60Hz	G42170	Power Plant: Utility (Medium)	P63462	7	X	
Gen Set DED TM: 5kW 60Hz PU-798	G42239	Gen Set DSL: 5kW 60Hz PU-751/M	G37273	54	X	
Gen Set DED TM: 5kW 60Hz PU-798	G42239	Gen Set DSL: 5kW 60Hz	J35813	12	X	
Gen Set DED TM: 5kW 60Hz PU-798	G42239	Generator Diesel	FD1500	67	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DED TM: 5kW 60Hz PU-797	G42238	18	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set: DED Skid-mtd 10kW 60Hz	G74711	4	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set: DED Skid-mtd 5kW 60Hz	G11966	97	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DSL TM: 5kW 60Hz PU-751/M	G37273	5	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DSL: 10kW 60Hz	J35825	15	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DSL: 5kW 60Hz	J35813	301	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set Gas: 3kW 60Hz	J45699	60	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Generator Diesel	FD1500	376	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Generator Set Diesel Engine Trailer	FD1503	8	X	
Gen Set: DED Skid-mtd 3kW 60Hz	G18358	Gen Set DED: 60Hz AC MEP-531A	G36237	102	X	
Gen Set: DED Skid Mtd 60kW 50/60Hz	G12034	Gen Set DSL: 100kW 60Hz PU-495	J35801	2	X	
Gen Set: DED Skid Mtd 60kW 50/60Hz	G12034	Gen Set DSL: 60kW 60Hz 3PH 50Hz	J38301	5	X	
Gen Set DSL TM: PU-802	G53778	Gen Set: Ded Skid Mtd 15kW 50/60Hz	G12170	4	X	
Gen Set DSL TM: PU-802	G53778	Gen Set DSL TM: 15kW 60Hz PU-405	J35492	26	X	
Gen Set DSL TM: PU-802	G53778	Gen Set DSL TM: 30kW 60Hz PU-406	J36383	37	X	
Gen Set DSL TM: PU-802	G53778	Gen St Dsl Eng: 60kW 60Hz PU-650	J35629	6	X	
Gen Set DSL TM: PU-803	G35851	Gen Set: Ded Skid Mtd 30kW 50/60Hz	G74575	3	X	
Gen Set DSL TM: PU-803	G35851	Gen Set DSL TM: 30kW 60Hz PU-406	J36383	13	X	
Gen Set DSL TM: PU-803	G35851	Gen St Dsl Eng: 60kW 60Hz PU-650	J35629	11	X	
Gen Set DSL: 60Hz AC MEP-531A	G36237	Gen Set: DED Skid-mtd 3kW 60Hz	G18358	3	X	
Gen Set DSL: 60Hz AC MEP-531A	G36237	Gen St Gas: 3kW 60Hz 1-3Ph Skd	J45699	10	X	
Gen Set: DSL TM 60kW	G78306	Gen St Dsl Eng Tm: 60kW PU-650	J35629	13	X	
Battle Command Transportable Networks						
Encrypt-Decrypt: TACLANE KG-175	E08940	Encryption-Decryption Equip: KG-175D	Z01717	91	X	
Radio Set AN/PRQ-7:	R31430	Radio Set: AN/PRC-112	R82903	25	X	
Radio Set: AN/PRC-104A	R55200	Radio Set: AN/PRC-74	Q38296	20	X	

USAR
Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Radio Set: AN/PRC-104A	R55200	Radio Set: AN/PRC-150C Manpack	R62247	406	X	
Radio Set: AN/PRC-126	R55336	MBITR: Urban Version	M18029	45	X	
Radio Set: AN/PRC-126	R55336	Radio Set	FA2008	140	X	
Radio Set: AN/PRC-126	R55336	Radio Set, AN/PRC 152 C	FA203M	39	X	
Radio Set: AN/PRC-126	R55336	Radio Set: AN/PRC-127 (NSUR)	N17818	175	X	
Radio Set: AN/PRC-126	R55336	Receiver/Transmitter Radio	FA2012	24	X	
Combat Mobility						
Bridge Armor Launch Scissors: MLC 70	B31098	Bridge Armor Launch Scissor:60 Span	C20414	48	X	
Bridge Heavy Dry: Supt 40M MLC-96	B26007	System, Dry Support	EB2076	8	X	
Detecting Set: Mine AN/PSS-14	D03932	Detecting Set Mine: AN/PSS-11	G02341	357	X	
Tractor FT: Armor Combat (ACE)	W76473	Tractor FT: w/Buldoz w/Scarif Winch	W76816	4	X	
Field Logistics						
RT Container Handler: Kalmar RT240	R16611	Tophandler: 20ft LC Freight Container	T67595	2	X	
RT Container Handler: Kalmar RT240	R16611	Lift Fork: DED 50000Lb Cont Hdlr Rt	T48941	7	X	
Tractor Wheeled: W/Forklift And Crane	T33786	Lift Fork: 6000Lb RT Ammo Hdlg	T48944	1	X	
Tractor Wheeled: W/Forklift And Crane	T33786	Lift Fork: DED 10000Lb RT	T49119	2	X	
Tractor Wheeled: W/Forklift And Crane	T33786	Lift Fork: DED 4000Lb Cap RT	T49255	24	X	
Fork Lift: DSL 10000Lb RT	T49119	Lift: Fork Variable Reach Rough Terrain	T73347	5	X	
Fork Lift: DSL 4000Lb RT	T49255	Lift Fork: Clean Burn Diesel 4000 Lb	T73645	2	X	
Fork Lift: DSL 4000Lb RT	T49255	Lift Fork: 6000Lb RT Ammo Hdlg	T48944	27	X	
Fork Lift: DSL 4000Lb RT	T49255	Lift Fork: DED 10000Lb RT	T49119	20	X	
Fork Lift: DSL 4000Lb RT	T49255	Lift Fork: DED 6000Lb RT	X48914	2		X
Fork Lift: DSL 4000Lb RT	T49255	Lift: Fork Variable Reach RT	T73347	8	X	
Lift: Fork Variable Reach RT	T73347	Lift Fork: 6000Lb RT Ammo Hdlg	T48944	9	X	
Lift: Fork Variable Reach RT	T73347	Lift Fork: DED 10000Lb RT	T49119	26	X	
Tractor: Yd 46000 GVW 4X2	T60353	Tractor: 5T 6X6	X59326	7		X
Tractor: Yd 46000 GVW 4X2	T60353	Tractor: Line Haul C/S 50000 M915	T61103	88	X	
General Engineering						
Roller: Motorized Vibratory Type III	R19753	Roller: SP w/Padfoot Shell Type I	R13167	14	X	
Scraper Elevating: SP 8-11 Cu Yd	S29971	Scraper Elevating: SP 9-11 Cu Yd	S30039	10		X
Survey Instrmnt: Long Rge IR AISI	S03794	Survey Instrmnt: Short Rge IR AISI	S03726	21	X	
Soldier Systems						
Heavy Weapon Thermal Sight: AN/PAS-13(V)3	S90603	Medium Weapon Thermal Sight: AN/PAS-13(V)2	S90535	8	X	
Heavy Weapon Thermal Sight: AN/PAS-13(V)3	S90603	Night Vision Sight CSW: AN/TVS-5	N04596	19	X	
Medium Weapon Thermal Sight: AN/PAS-13(V)2	S90535	Night Vision Sight CSW: AN/TVS-5	N04596	23	X	
Medium Weapon Thermal Sight: AN/PAS-13(V)2	S90535	Night Vision Sight: AN/PVS-4	N04732	3	X	
Night Vision Goggle: AN/PVS-7B	N05482	Monocular NVD: AN/PVS-14	M79678	27,825	X	
Night Vision Goggle: AN/PVS-7B	N05482	Night Vision Goggle: AN/PVS-5	N04456	856		X
Night Vision Goggle: AN/PVS-7B	N05482	Night Vision Sight: AN/PVS-4	N04732	82		X
Night Vision Sight CSW: AN/TVS-5	N04596	Heavy Weapon Thermal Sight: AN/PAS-13(V)3	S90603	1,484	X	

USAR
Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Night Vision Sight CSW: AN/TVS-5	N04596	Medium Weapon Thermal Sight: AN/PAS-13(V)2	S90535	629	X	
Night Vision Sight CSW: AN/TVS-5	N04596	Monocular NVD: AN/PVS-14	M79678	4	X	
Night Vision Sight CSW: AN/TVS-5	N04596	Night Vision Sight: AN/PVS-4	N04732	468	X	
Night Vision Sight CSW: AN/TVS-5	N04596	Sight: Thermal AN/PAS-13B(V)1	S60356	36	X	
Sight: Thermal AN/PAS-13B(V)1	S60356	Night Vision Sight: AN/PVS-4	N04732	60	X	
Soldier Weapons						
Launcher Grenade 40mm: Rifle-mtd	L44595	Launcher Grenade: M203A2	L69012	25	X	
Launcher Grenade 40mm: Rifle-mtd	L44595	Launcher: Grenade M203A1	L46007	8	X	
Launcher Grenade: M203A2	L69012	Launcher Grenade 40mm: Rifle-mtd	L44595	201	X	
Launcher Grenade: M203A2	L69012	Launcher Grenade: M320A1	L69080	45	X	
Launcher Grenade: M320	L03621	Launcher Grenade 40mm: Rifle-mtd	L44595	74	X	
Launcher Grenade: M320	L03621	Launcher Grenade: M203A2	L69012	19	X	
Launcher: Grenade M203A1	L46007	Launcher Grenade 40mm: Rifle-mtd	L44595	815	X	
Launcher: Grenade M203A1	L46007	Launcher Grenade: M203A2	L69012	215	X	
Machine Gun 5.56mm: M249	M09009	Machine Gun: 7.62mm M240B	M92841	63	X	
Machine Gun 5.56mm: M249	M09009	Machine Gun: Light 5.56mm M249	M39263	176	X	
Machine Gun 7.62mm: M240H	M92591	Machine Gun 7.62mm: Aircraft Light	L92260	10	X	
Machine Gun Grenade: Mk19 Mod III	M92362	Machine Gun Grenade	ZA1007	18	X	
Machine Gun: Light 5.56mm M249	M39263	Machine Gun 5.56mm: M249	M09009	981	X	
Rifle: 5.56mm M4	R97234	Rifle: 5.56mm M16A2	R95035	2,068	X	
Rifle: 5.56mm M4	R97234	Rifle: 5.56mm M16A4	R97175	307	X	
Trailers						
Light Tactical Trailer: 3/4T	T95992	Trailer Cargo: High Mobility 1-1/4T	T95924	153	X	
Semitrailer FB: Breakbulk/Cont 22-1/2T	S70027	Semitrailer FB: Breakbulk/Container 34T	S70159	39	X	
Semitrailer FB: Breakbulk/Cont 22-1/2T	S70027	Semitrailer Low Bed: 25T 4 Wheel	S70517	4	X	
Semitrailer Low Bed: 25T 4 Wheel	S70517	Semitrailer Low Bed: 40T 6 Wheel	S70594	26	X	
Semitrailer Low Bed: 40T 6 Wheel	S70594	Semitrailer Low Bed: 25T 4 Wheel	S70517	8	X	
Semitrailer Tank: 5K Bulk	S10059	Semitrailer Tank: 5K Fuel Dispensing	S73372	51		X
Semitrailer Tank: Petroleum 7500K	S73119	Semitrailer Tank: 5K Fuel Dispensing	S73372	35		X
Semitrailer Tank: Petroleum 7500K	S73119	Semitrailer: Tank	S11084	15		X
Semitrailer Van: 6T 4 Wheel	S74832	Semitrailer Van: Supply 12T 4 Wheel	S75175	11	X	
Trailer Cargo: High Mobility 1-1/4T	T95924	Light Tactical Trailer: 3/4T	T95992	169	X	
Trailer Cargo: High Mobility 1-1/4T	T95924	Trailer Cargo: 3/4T 2 Wheel	W95537	11	X	
Trailer Cargo: MTV W/Dropsides M1096	T95556	Light Tactical Trailer: 3/4T	T95992	4	X	
Trailer Cargo: MTV W/Dropsides M1096	T95556	Trailer Flat Bed: 7 1/2T 4 Wheel	T96838	9	X	
Trailer Cargo: MTV W/Dropsides M1096	T95556	Trailer Cargo: LMTV W/Dropside M1082	T96564	11	X	
Trucks						
Truck Cargo: 2-1/2T 6X6	X40009	Truck Cargo: 5T 6X6 XLWB	X41105	2		X
Truck Cargo: 2-1/2T 6X6	X40009	Truck Cargo: Drop Side 5T 6X6	X40794	7		X
Truck Cargo: 2-1/2T 6X6	X40009	Truck Cargo: WO/W	T59448	10		X
Truck Cargo: 5T W/W	T41447	Truck Cargo: Drop Side 5T 6X6	X40794	12		X
Truck Cargo: 5T WO/W	T41515	Truck Cargo: Drop Side 5T 6X6	X40794	6		X

USAR
Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Truck Cargo: 5T WO/W	T41515	Truck Cargo: MTV	T61908	7		X
Truck Cargo: PLS 15-16.5T	T40999	Truck Cargo: PLS 15-16.5T w/MHE	T41067	53		X
Truck Cargo: PLS 15-16.5T	T40999	Truck: Palletized Loading	T81874	60	X	
Truck Cargo: MTV LWB	T61704	Truck Cargo: 5T 6X6 XLWB	X41105	1		X
Truck Cargo: MTV LWB	T61704	Truck Cargo: Drop Side 5T 6X6	X40794	3		X
Truck Cargo: MTV LWB	T61704	Truck Cargo: Lwb WO/W	T93271	64		X
Truck Cargo: MTV W/W	T41136	Truck Cargo: 5T W/W	T41447	19		X
Truck Cargo: MTV W/W	T41136	Truck Cargo: 5T WO/W	T41515	5	X	
Truck Cargo: MTV W/W	T41136	Truck Cargo: Drop Side 5T 6X6	X40794	79		X
Truck Cargo: MTV W/W	T41136	Truck Cargo: Drop Side 5T 6X6 W/W	X40931	126		X
Truck Cargo: MTV W/W	T41136	Truck Cargo: MTV	T61908	58		X
Truck Cargo: MTV w/MHE	T41203	Truck Cargo: w/MHE WO/W	T59584	4		X
Truck Cargo:HEMTT w/LHS	T96496	Truck Cargo: PLS 15-16.5T 10X10	T40999	36		X
Truck Cargo:HEMTT w/LHS	T96496	Truck Cargo: PLS 15-16.5T w/MHE	T41067	7		X
Truck Cargo:HEMTT w/LHS	T96496	Truck Palletized (LHS): M1120A4	T55054	261	X	
Truck Cargo: HEMTT w/Med Crane	T39586	Truck Cargo: Drop Side 5T 6X6	X40794	3		X
Truck Cargo: HEMTT w/Med Crane	T39586	Truck Cargo: HEMTT w/Lt Crane	T59278	8		X
Truck Cargo: HEMTT W/W w/Med Crane	T39654	Truck Cargo: HEMTT w/Med Crane	T39586	8		X
Truck Cargo: HEMTT W/W w/Lt Crane	T39518	Truck Cargo: HEMTT w/LHS	T96496	2		X
Truck Cargo: HEMTT W/W w/Lt Crane	T39518	Truck Cargo: HEMTT w/Lt Crane	T59278	9		X
Truck Cargo: HEMTT W/W w/Lt Crane	T39518	Truck Cargo: HEMTT w/Med Crane	T39586	5		X
Truck Cargo: WO/W	T59448	Truck Cargo: LMTV	T60081	4		X
Truck Cargo: WO/W	T59448	Truck Cargo: Drop Side 5T 6X6	X40794	5		X
Truck Dump: MTV	T64912	Truck Dump: 10T W/W	T65274	6	X	
Truck Dump: MTV	T64912	Truck Dump: 10T WO/W	T65342	59		X
Truck Dump: MTV	T64912	Truck Dump: 5T 6X6	X43708	469		X
Truck Dump: MTV	T64912	Truck Dump: 5T 6X6 W/W	X43845	29		X
Truck Dump: MTV W/W	T64979	Truck Dump: 10T W/W	T65274	22	X	
Truck Dump: MTV W/W	T64979	Truck Dump: 5T 6X6	X43708	53		X
Truck Dump: MTV W/W	T64979	Truck Dump: 5T 6X6 W/W	X43845	10		X
Truck Tank: Fuel 2500G HEMTT	T87243	Tank/Pump Unit Liquid Dispensing	V12141	6		X
Truck Tank: Fuel 2500G HEMTT	T87243	Truck Tank: Fuel 2500G HEMTT W/W	T58161	35		X
Truck Tank: Fuel 2500G HEMTT	T87243	Truck Tank: WO/W	T58318	56		X
Truck Tractor: LET 6X6 W/W C/S	T91656	Truck Tractor: (LET)	T60946	5	X	
Truck Tractor: LET 6X6 W/W C/S	T91656	Truck Tractor: MET 8X6 W/W C/S	T61171	13		X
Truck Tractor: Line Haul M915	T61103	Tractor Line Haul: M915A5	T88858	616	X	
Truck Tractor: Line Haul M915	T61103	Truck Tractor	YF2088	7		X
Truck Tractor: Line Haul M915	T61103	Truck Tractor: 5T 6X6	X59326	34		X
Truck Tractor: Line Haul M915	T61103	Truck Tractor: MTV	T61239	14		X
Truck Tractor: Line Haul M915	T61103	Truck Tractor: MTV W/W	T61307	9		X
Truck Tractor: MTV	T61239	Truck Cargo: Drop Side 5T 6X6	X40794	5		X
Truck Tractor: MTV	T61239	Truck Tractor: 5T 6X6	X59326	715		X
Truck Tractor: MTV	T61239	Truck Tractor: 5T 6X6 W/W	X59463	85		X

USAR
Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Truck Tractor: MTV	T61239	Truck Tractor: LET 6X6 W/W C/S	T91656	6		X
Truck Tractor: MTV	T61239	Truck Tractor: Line Haul M915	T61103	22		X
Truck Tractor: MTV	T61239	Truck Tractor: MTV W/W	T61307	4		X
Truck Tractor: MTV	T61239	Truck Tractor: WO/W	T88983	47	X	
Truck Tractor: MTV W/W	T61307	Truck Tractor: 5T 6X6	X59326	6		X
Truck Expanded Capacity: M1165A1	T56383	Truck: Armt Carrier Armd 1-1/4T	T92242	42		X
Truck Expanded Capacity: M1165A1	T56383	Truck: Armt Carrier Armd 1-1/4T W/W	T92310	13		X
Truck Expanded Capacity: M1165A1	T56383	Truck: Cargo/Troop Carrier 1-1/4T	T61494	99		X
Truck Expanded Capacity: M1165A1	T56383	Truck: Heavy Variant HMMWV	T07679	200		X
Truck Expanded Capacity: M1165A1	T56383	Truck: Tow Carrier Armd 1-1/4T	T05096	55		X
Truck Expanded Capacity: M1152A1	T37588	Truck: Armt Carrier Armd 1-1/4T	T92242	20		X
Truck Expanded Capacity: M1152A1	T37588	Truck: Cargo/Troop Carrier 1-1/4T	T61494	3		X
Truck Expanded Capacity: M1152A1	T37588	Truck: Cargo/Troop 1-1/4T W/W	T61562	8		X
Truck Exp Capacity: M1152A1	T37588	Truck: Exp Capacity HMMWV M1113	T61630	144		X
Truck Expanded Capacity: M1152A1	T37588	Truck: Heavy Variant HMMWV	T07679	236		X
Truck Expanded Capacity: M1152A1	T37588	Truck: M1152-Exp Capacity Enhanced	T11588	8		X
Truck Expanded Capacity: M1152A1	T37588	Truck: S250 Shelter Carrier	T07543	4		X
Truck Expanded Capacity: M1152A1	T37588	Truck: Tow Carrier Armd 1-1/4T	T05096	25		X
Truck: Armt Carrier Armd 1-1/4T	T92242	Truck Expanded Capacity: M1165A1	T56383	3		X
Truck: Armt Carrier Armd 1-1/4T	T92242	Truck Expanded Capacity: M1152A1	T37588	15		X
Truck: Armt Carrier Armd 1-1/4T	T92242	Truck: Armt Carrier Armd 1-1/4T W/W	T92310	10		X
Truck: Armt Carrier Armd 1-1/4T	T92242	HMMWV: Cargo/Troop Carrier	T61494	357		X
Truck: Armt Carrier Armd 1-1/4T	T92242	HMMWV: Cargo/Troop Carrier W/W	T61562	4		X
Truck: Armt Carrier Armd 1-1/4T	T92242	Truck: Armt Carrier Armor-rdy M1151A1	T34704	11		X
Truck: Armt Carrier Armd 1-1/4T	T92242	Truck: Exp Capacity HMMWV M1113	T61630	1		X
Truck: Armt Carrier Armd 1-1/4T	T92242	HMWWV: Hvy Variant	T07679	1,054		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck Expanded Capacity: M1165A1	T56383	1,012		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck Expanded Capacity: M1152A1	T37588	330		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: Armt Carrier Armd 1-1/4T	T92242	214		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: Armt Carrier Armd 1-1/4T W/W	T92310	27		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: Cargo/Troop 1-1/4T W/W	T61562	85		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: Armt Carrier Armor-rdy M1151A1	T34704	14		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: Exp Capacity HMMWV M1113	T61630	9		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: Heavy Variant HMMWV	T07679	5,601		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: M1152-Exp Capacity Enhanced	T11588	18		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: S250 Shelter Carrier	T07543	3		X
Truck: Cargo/Troop Carrier 1-1/4T	T61494	Truck: TOW Carrier Armd 1-1/4T	T05096	104		X
Truck: Cargo/Troop 1-1/4T W/W	T61562	Truck Expanded Capacity: M1152A1	T37588	34		X
Truck: Cargo/Troop 1-1/4T W/W	T61562	Truck: Armt Carrier Armd 1-1/4T	T92242	18		X
Truck: Cargo/Troop 1-1/4T W/W	T61562	Truck: Heavy Variant HMMWV	T07679	33		X
Truck: Armament Carrier M1151A2	T34705	Truck: Armt Carrier Armd 1-1/4T	T92242	35		X
Truck: Up Armored HMMWV	T92446	Truck Arm: W/AOA	T91490	9		X
Truck: Up Armored HMMWV	T92446	Truck Expanded Capacity: M1165A1	T56383	24		X

USAR
Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No
Truck: Up Armored HMMWV	T92446	Truck Expanded Capacity: M1152A1	T37588	25		X
Truck: Up Armored HMMWV	T92446	Truck: Armt Carrier Armd 1-1/4T	T92242	607		X
Truck: Up Armored HMMWV	T92446	Truck: Armt Carrier Armd 1-1/4T W/W	T92310	121		X
Truck: Up Armored HMMWV	T92446	Truck: Cargo/Troop Carrier 1-1/4T	T61494	41		X
Truck: Up Armored HMMWV	T92446	Truck: Armt Carrier Armor-rdy M1151A1	T34704	439		X
Truck: Up Armored HMMWV	T92446	HMWWV: Hvy Variant	T07679	262		X
HMWWV: Hvy Variant	T07679	Truck Expanded Capacity: M1152A1	T37588	39		X
HMWWV: Hvy Variant	T07679	HMMWV: EC M1113	T61630	76		X
Truck Van:MTV M1087A2	T41272	Truck Van: Expansible 5T 6X6 (Army)	X62237	56		X
Truck Van:MTV M1087A2	T41272	Truck: Expandable Van WO/W	T67136	4	X	
Truck Van: LMTV	T93485	Truck Van: M1079A1P2 WO/W	T62359	120		X
Truck Wrecker: MTV W/W	T94710	Truck Wrecker: 5T 6X6 W/W	X63299	112		X
Truck Wrecker: MTV W/W	T94710	Truck Wrecker: 8X8 HEMTT W/W	T63093	6		X
Truck Wrecker: 8X8 HEMTT W/W	T63093	Truck Wrecker: 5T 6X6 W/W	X63299	49		X
Truck Wrecker: 8X8 HEMTT W/W	T63093	Truck Wrecker: M984A4	T63161	12	X	
Truck: Expandable Van	T67136	Truck Van: Expansible 5T 6X6	X62237	10		X

Table 8

USAR
Significant Major Item Shortages

NOTE: This table provides a RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	Medium Tactical Vehicles	10,636	4,931	$168,653	$831,629,493	25% of USAR fleet still comprised of legacy 800/900 series vehicles that are non-deployable for current combat operations.
2	General Engineering	1,506	182	$161,684	$29,426,567	USAR has 31% of the Army Engineer capability. Existing fleet of horizontal construction equipment is over 25 years old and not deployable for current combat missions.
3	Force Protection	12,785	3,199	$487,429	$1,559,284,153	Consists of over 60 systems for USAR, to include CBRNE. USAR assumes an increased role for DCRF in FY12. Includes Civil Affairs units, of which USAR owns 72% of the structure.
4	Combat Mobility	4,284	1,400	$411,238	$575,733,267	USAR owns 44% of route clearance assets. An Army wide shortage of equipment limits training opportunities for USAR units.
5	Mission Command Command and Control	23,153	7,838	$79,342	$621,881,460	Consists of critical C2 systems used for full spectrum operations across all SRCs. Mission Command systems also in high demand for HD/DSCA operations.
6	Mission Command Transport Networks	8,769	4,827	$243,239	$1,174,114,537	Consists of tactical satellite and functional network systems critical in providing the information infrastructure for communications.
7	Heavy Expanded Mobility Tactical Truck	2,545	1,688	$355,021	$599,274,604	Includes six configurations that provide line and local haul, unit resupply, and refueling capability in a tactical environment.
8	Material Handling	2,670	529	$169,364	$89,593,796	Equipment includes the family of rough terrain forklifts and container handlers. Army Reserve owns 70% of the cargo handling capability.
9	Liquid Logistics (Water & Fuel Systems)	1,595	338	$152,836	$51,658,645	Over 40% of the liquid logistics storage and distribution capabilities reside in the Army Reserve.
10	Tactical Trailers	19,826	1,456	$44,223	$64,389,005	Consists of multiple platforms designed for resupply, equipment transport, and unit mobility.

Chapter 3
United States Marine Corps Reserve

I. Marine Corps Overview

The increasingly dynamic and uncertain future requires a Joint Force with a full spectrum of capabilities. The Marine Corps, as an expeditionary "middleweight fighter," provides a key element to that Joint Force. Our global presence, achieved through basing and highly mobile Marine air-ground task force (MAGTF), gives the Commander in Chief a vast range of options to protect our Nation's interests.

Global demographic trends foretell of an explosive growth in urbanized areas within the littorals, an environment where the Marine Corps operates and has made laudable achievements throughout its history. This surge in global population, coupled with the interconnectivity of commerce, serves as a critical link for our own well being and protecting our interests. Marines operate in any clime or place and excel in the multi-nodal world, epitomizing the quote, "Marines, no better friend, no worse enemy."

The Marine Corps will engage in this environment in concert with the other Services and other instruments of national power. Our Marine Corps Reserve Component (RC) will seamlessly integrate with the Active Component (AC). The role of the Marine Corps is to be most ready when the Nation is least ready. This capability stems from our rapidly deployable nature and the ethos of our leadership which is captured in the title, Marine. Defending our Nation and winning its battles is the requirement upon which new techniques and technology will be evaluated.

The immediate challenge is to posture our Corps for these long term trends. To ask those difficult questions, challenge assumptions, and seek more from ourselves. The all-volunteer force is our best asset. This strategic element broadcasts to the world the best values of who we are as Americans.

"The Reserve component, too, is essential as it provides strategic and operational depth to the Joint Force. In turn, preserving it as an accessible, operational force also requires sustained attention."[1]

A. Marine Corps Planning Guidance

1. Strategic Concept of the Marine Corps

Our sustained efforts in Iraq and Afghanistan demonstrate our resolve to meet the Nation's call. Always alert and ready, the Marine Corps responds to the Nation's needs. The Marine Corps stands ready, with our Navy brethren, to engage in the full range of military operations. Able to swiftly disembark from our Navy's amphibious shipping, Marines are trained and equipped to address a broad spectrum of challenges from the sea. Our ability to ***project power*** directly aides the ***prevention*** of conflict and ***protection*** of national interests. This capability allows us to successfully operate on both land and sea to support the rapid introduction of joint, other agency, multinational, or non-governmental resources; it enables the joint force to go anywhere to solve problems, protect U.S. citizens, defeat adversaries, and contribute to deterrence; and create the access required to achieve national strategic requirements.

[1] *National Military Strategy*, February 2011, pg. 17.

2. Marine Corps Total Force Concept

The AC and RC are integrated as a total force. Through the employment of the concept of "mirror-imaging," AC and RC forces are manned, trained, and equipped to the same standards, enabling RC forces to be employed as part of the Marine Corps operating forces. These operating forces are prepared for short-fused notification, mobilization, and deployment for employment across myriad of scenarios. Neither entity harbors unique skill sets. The RC stands ready to give strategic depth to America's expeditionary force in readiness.

B. Marine Corps Equipping Policy

The Marine Corps develops an Approved Acquisition Objective (AAO) for each new item of equipment using an integrated system of dynamic processes that capitalizes on recent operational experiences to meet the emerging needs of the Marine forces and combatant commanders. These AAOs include equipment modernization plans and address initial issue quantities and planned sustainment requirements for both the AC and RC. To ensure adequate equipment support to current operations in Afghanistan, while maintaining a viable cost-effective strategy for force rotations, key operational equipment has been identified to remain in theater. This strategy has allowed the Marine Corps to focus on identifying, obtaining, and delivering the best equipment possible to forces in the combat theater, while substantially reducing equipment rotation costs. This policy also permitted the Marine Corps to focus on obtaining the equipment required to generate future rotations, and focus on materiel training deficiencies.

C. Plan to Fill Mobilization Shortages in the RC

Reserve units maintain equipment based upon the unit's Training Allowance (T/A), which is a portion of the warfighting equipment requirement set forth in the unit's Table of Organization and Equipment (TO&E). Marine Corps Systems Command procures equipment for the RC, all excess equipment above the T/A will be maintained "in-stores." In-theater assets, in conjunction with pre-positioned equipment, can be used to satisfy the delta of TO&E minus T/A for activated units. Due to current operations, this form of "global sourcing" has been used to satisfy both AC and RC unit equipment shortfalls.

D. Initiatives Affecting RC Equipment

The RC is currently undergoing an extensive Force Structure Review Group (FSRG). This strategic review will evaluate requirements capabilities as well as the geographic positioning of RC units with the evolving demographics of our Nation. This analysis is being conducted within the framework of "mirror-imaging" between the AC and RC units.

A second order effect of the FSRG will be the redistribution of equipment. As the location and capability sets of units across the Reserve community change, the equipment required to support their missions will also change.

E. Plan to Achieve Full Compatibility between AC and RC

Horizontal fielding of new equipment by Marine Corps Systems Command achieves common and interchangeable capability sets. This approach views the Marine Corps as a Total Force ensuring that equipment upgrades foster a harmonious rise in the level of readiness. This fielding policy complements our concept of "mirror–imaging" and satisfies the equipping task in a shorter time-frame.

II. Marine Corps Reserve Overview

A. Current Status of the Marine Corps Reserve

1. General Overview

Top RC Equipping Challenges

- Implementing results of strategic review from Force Structure Review Group (FSRG)
- Transitioning the KC-130 platform

The Marine Corps Reserve is an integral element of the Total Force Marine Corps. The RC shares the culture of deployment and expeditionary mindset that has dominated the Marine Corps ethos for more than two centuries. Accordingly, our Reserve units are organized, trained, and equipped in the same manner as their AC counterparts and are operationally interchangeable with them. All Marines stand ready to answer this Nation's call to arms.

The RC has been continuously engaged in combat operations in Iraq and Afghanistan, as well as in regional security cooperation and crisis prevention activities in support of the combatant commanders, over the past decade. Their operational experience has built a sustainable RC optempo and a depth of combat expertise throughout the force that is unprecedented in generations of Marine Corps Reservists.

As the RC begins to implement FSRG decisions and geographically positions units with the evolving demographics of our Nation, enabling the transfer and maintenance of the corresponding equipment will remain an equipping and maintenance challenge for the Force. As additional capabilities are increased within the RC, the capacity required to sustain the associated equipment will also increase. Our initial analysis indicates that up to forty percent of our Reserve units may be impacted by this review, and FSRG decisions will require at least five years to fully implement. Ensuring the most efficient transfer of equipment, while sustaining enduring programs for maintenance, will remain an equipping challenge.

The KC-130J has already been fielded to the AC Marine Corps while the KC-130T will remain in service in the RC until beyond the year 2020. The first RC KC-130J is not scheduled for delivery until 2015. These two aircraft are very different airframes, each having completely different logistical, maintenance, and aircrew requirements. The longer we maintain both airframes, the longer we have to invest in twice the logistics, twice the maintenance training, and twice the aircrew training. The total cost to purchase all 28 RC KC-130J required aircraft is more than $2B. Currently, only 5 of the 28 airframes are programmed within the Future Year Defense Program (FYDP).

2. Status of Equipment

Reserve equipment inventory levels continue to rise to meet Reserve training requirements. The National Guard and Reserve Equipment Appropriation (NGREA) remains a significant force multiplier for the RC, allowing the Marine Corps flexibility to balance requirements based on a Total Force perspective. Affording the Marine Corps the ability to purchase or accelerate the fielding of mission essential items for the Reserves directly impacts the RC's ability to train. The RC has been able to ensure units augmenting and reinforcing the AC are as proficient as their AC counterparts. The NGREA is a critical resource solution for the RC.

a. Equipment On-hand

The equipment on-hand, outlined in *Table 1*, reflects the items expected to be on-hand in the RC beginning in FY 2013. It does not capture the equipment that is available for global sourcing to meet the full wartime requirement and meet the delta between TO&E and the T/A. The majority of the $819M delta between the on-hand quantities and the wartime requirements is not a deficiency that has resulted from a lack of procurement funding. Rather, it is a result of the need for prioritizing fielding to meet operational requirements. The Marine Corps has maintained the RC's ability to train through its use of a training allowance that is not routinely tapped to meet operational requirements. The items outlined in *Table 8* reflect the modernization programs that will directly enhance the RC's current training allowance.

b. Average Age of Major Items of Equipment

Table 2 provides the average age of selected major equipment items. The average age of RC equipment is consistent with equipment in the AC. The majority of ground combat systems that are at the end of their life cycle have new equipment fielding already planned or have programs of record that are working towards a replacement.

c. Compatibility of Current Equipment with Active Component

Equipment compatibility between the AC and RC is closer than ever. Most existing cases where compatibility is lacking are more a result of fiscal constraints in fielding equipment quickly enough to maximize Total Force compatibility. The Marine Corps continues to use NGREA funding to improve compatibility in new equipment programs where fielding can be accelerated. The positive impact of NGREA on improving Total Force compatibility cannot be overstated, as outlined later in this chapter.

Complete compatibility is difficult to achieve due to

- high equipment demand for force generation training support and
- application of funds against ever-evolving higher priority requirements.

d. Maintenance Issues

The maintenance and sustainment of RC equipment remains a challenge. Minimal full-time active duty support and limited time to train and work on equipment require ingenuity, resources, and detailed maintenance management. Sufficient funding must be programmed to sustain the materiel readiness and capability of legacy systems and new acquisitions. The consistent high state of equipment readiness in the RC is due to the hard work of skilled Marines and Congressional funding to provide resources for maintenance and spare parts. Programs and initiatives that help maintain and improve the materiel readiness of the systems in the RC include

- leveraging multiple outsourced methods of maintenance to further extend the service life of equipment throughout the force.
- using a mobile preventive maintenance capability supported by Marine Corps Logistics Command that primarily targets engineer and motor transport equipment.

- the Marine Corps Enterprise Level Maintenance Program, which enhances equipment readiness across the total force. It enables the RC to proactively articulate its depot level maintenance requirements. But, as more equipment returns from overseas operations, RC depot level maintenance requirements will have to compete with the reconstitution effort.

- a contracted Small Arms Repair Team to augment the maintainers in preventive maintenance checks and services, performing annual gauging and pre-fire inspections necessary for sustained marksmanship training.

- corrosion Prevention and Control team support through Marine Corps Systems Command to refurbish equipment and apply anti-corrosion compounds to arrest corrosion-related degradation of equipment.

e. Modernization Programs and Shortfalls

The Marine Corps modernization programs are designed to keep pace with the ever-changing character of the current and future operations. The RC uses various funding sources to execute these programs and fill equipment shortfalls.

- Training and Simulators: The Marine Corps Reserve strives to incorporate the latest technological innovations to create cost-effective training and education opportunities for Reserve Marines, increasing their ability to perform at the same level as their AC counterparts. Fielding modern, state-of-the-art training systems is part of this effort. Through the use of NGREA, the Marine Corps has procured the Medium Tactical Vehicle Replacement-Operator Driving Simulator (MTVR-ODS), Virtual Combat Trainer-Marine (VCCT-M), Deployable Virtual Training Environment-Reserves (DVTE-R), and other training systems. Additionally, the incorporation of aircraft Flight Training Devices (FTDs) and their linkage via the Aviation Virtual Training Environment (AVTE) will not only allow aircrews to conduct more sorties via the simulator/training device but the FTDs will also allow the RC to train with other units and aircrews as a way to reduce costs in a resource-constrained environment. The Marine Corps continues to evaluate new training and simulation technologies to identify cost-effective training options.

- Combat Equipment Modernization: The Marine Corps' various combat equipment modernization programs are providing the RC with the latest generation of warfighting capabilities. These programs include the Logistics Vehicle System Replacement (LVSR), the A2 upgrade to the Light Armored Vehicle (LAV) family, and the development of the Joint Light Tactical Vehicle. The majority of the Marine Corps' modernization programs are already in the fielding phase or within the final phases of acquisition.

- Aviation Modernization: The RC is also included in the Marine Corps Aviation Plan. During this FYDP, Reserve squadrons will begin transition from the KC-130T to the KC-130J, the CH-46E to the MV-22B, and the UH-1N to the UH-1Y. The RC has used NGREA funding to provide upgraded capabilities to existing aircraft.

f. Overall Equipment Readiness

Equipment readiness of RC units remains consistent with AC reporting levels. The RC continues to effectively maintain its T/A in a high state of operational readiness.

B. Changes Since Last NGRER

The RC has completed an extensive ground equipment accountability campaign designed to validate on-hand equipment numbers and establish current training allowances. This review will become an established annual analysis. Additionally, the Marine Corps increased the coding and transparency of RC equipment procurement and modernization programs across the programming, budgeting, and execution spectrum.

C. Future Years Program (FY 2013–FY 2015)

1. FY 2015 Equipment Requirements

The Marine Corps' policies towards Total Force equipping have allowed the RC to remain on equal footing with regards to the fielding of new equipment and equipment modernization. RC equipment requirements are determined by the Deputy Commandant, Combat, Development and Integration who approves a single Total Force acquisition objective for the Service that is planned and programmed. In most cases, the decision of where to distribute purchased equipment (for both the AC and RC) does not occur until after the equipment is procured. This allows the Marine Corps flexibility in determining fielding priorities that impact training and combat operations. The RC competes equally with the AC for fielding decisions.

2. Anticipated New Equipment Procurements

a. MV-22 Osprey

The MV-22 is a multipurpose, tilt-rotor, vertical and/or short takeoff and landing aircraft developed to replace the current fleet of CH-46E helicopters. This aircraft has the capability to participate in amphibious and land assault operations, provide medium cargo lift, and perform aircraft and personnel recovery. The MV-22 is capable of carrying 24 combat-equipped Marines or a 10,000 pound internal load and has a 2,100 nautical mile range with a single aerial refueling. Under the current Marine Corps Aviation Plan, the RC will transition to the MV-22 from FY 2013 through FY 2017. The Marine Medium Helicopter Squadron 764 (HMM-764) is scheduled to begin transition in FY 2013 and the HMM-774 in FY 2016. The RC MV-22B transition schedule is an important goal for the Marine Corps.

b. KC-130J

The KC-130J is a multi-role, multi-mission tactical tanker/transport aircraft developed to replace the KC-130F/R/T models. The KC-130J has increased range and speed, lower cost per flight hour, better fuel efficiency, improved reliability, and better maintainability. The AC completed the KC-130J transition in FY 2009, leaving 28 RC KC-130T aircraft yet to begin transition to the KC-130J. Current policies prohibit the employment of the legacy aircraft in Operation Enduring Freedom. Budget challenges, resulting from competing Aviation Procurement Navy appropriation priorities within the Navy and Marine Corps, have resulted in a delay of 5 years in the fielding of the KC-130J to the RC. Fielding is scheduled to begin with five aircraft being delivered to the RC starting in FY 2015. Five aircraft are programmed for the current FYDP and 13 total aircraft between now and 2020. Compatibility differences between the KC-130J and KC-130T are creating significant challenges in training, manning, and logistical support of the KC-130T. Accelerating the RC transition to the KC-130J is a priority for the Marine Corps. It is also the most expensive Reserve equipment shortfall, costing $2B.

c. Joint Light Tactical Vehicle (JLTV)

The JLTV is a joint Army and Marine Corps multinational program for a family of light tactical vehicles and companion trailers. JLTV objectives include increased protection and performance, minimizing ownership costs by maximizing commonality and reliability, increasing fuel efficiency, and executing effective competition throughout the program development. The JLTV Family of Vehicles includes six configurations and companion trailers in three payload categories for the Army and two payload categories for the Marine Corps. Commonality of components, maintenance procedures, and training between all variants will minimize total ownership costs. The JLTV Family of Vehicles will be capable of operating across a broad spectrum of terrain and weather conditions. The Draft Capabilities Development Document identifies required capabilities for the next generation of light tactical vehicles needed to support joint forces across the full range of military operations and provide a vital force enabler, multiplier, and extender. The Marine Corps intends to replace a portion of the high-mobility multipurpose wheeled vehicle (HMMWV) fleet with JLTVs as part of the ground transportation modernization effort, but it is not meant to be a direct replacement for existing vehicles. JLTV will give the warfighter increased protection through the use of scalable armor solutions, while returning the payload currently traded by existing tactical vehicles for added armor protection. Using a system-of-systems approach, JLTV will increase warfighter maneuver capacity by providing protected mobility on the modern battlefield. JLTV performance characteristics will exceed the armored HMMWV and will return expeditionary mobility to the joint services. The JLTV is scheduled for fielding to AC and RC forces beginning in FY 2016.

d. Common Aviation Command and Control System (CAC2S)

CAC2S is a modernization effort to replace the existing Marine Air Command and Control System (MACCS) and to provide the aviation combat element with the necessary hardware, software, equipment, and facilities to effectively command, control, and coordinate aviation operations. CAC2S will accomplish the MACCS missions with a suite of operationally scalable modules to support the MAGTF, joint forces, and coalition forces. CAC2S integrates the functions of aviation command and control into an interoperable system that will support the core competencies of all Marine Corps' warfighting concepts. CAC2S, in conjunction with MACCS organic sensors and weapon systems, supports the tenets of expeditionary maneuver warfare and fosters joint interoperability. CAC2S capabilities will be fielded in two phases. For Phase I, CAC2S will be fielded to 4th Marine Aircraft Wing (MTACS-48, MASS-6A&B, and MACS-24) in the second quarter of FY 2013. Phase II of the program will provide increased common operating picture capabilities and is under acquisition development. The timeline for Phase II CAC2S fielding is still to be determined.

e. Logistics Vehicle System Replacement (LVSR)

The LVSR is the Marine Corps replacement to the aged Logistics Vehicle System (LVS), which has increasingly high maintenance costs. The LVSR provides the following enhanced capabilities relative to the original LVS:

- Improved survivability—factory-installed armor is integrated into the vehicle's design.
- Improved mobility—independent suspension system enhances off-road capabilities.

- In-cab vehicle diagnostics—effortless monitoring of engine, transmission, brakes, and other critical components.

- Increased performance—an advanced-design 600 hp engine allows for speeds up to 65 mph.

There are three basic variants used by the RC. The Cargo variant, which is already in production, provides the capability to long-haul supplies and smaller equipment. The RC has used prior NGREA funding to meet a portion of its Cargo-variant training requirement of 106 vehicles. To date, 50 vehicles have been purchased with NGREA. To meet its full training allowance, the Marine Corps requested and obtained FY 2011 Overseas Contingency Operations (OCO) appropriations, which will allow the RC to acquire the remaining 56 vehicles at a cost of $22M. The Tractor variant provides the capability to move larger end items. FY 2011 OCO funding was also utilized to acquire the required 52 of these variants to replace the current heavy-haul LVS versions. The anticipated cost to procure these vehicles is just over $17M. Lastly, the Wrecker variant is required to provide organic maintenance and recovery capabilities for the other two variants. FY 2011 OCO funding was used to acquire the 17 end items of this variant at a cost of $9.4M. The LVSR is a critical component for future logistics capabilities and will become the only long-haul, heavy-lift capability in the Marine Corps.

3. Anticipated Transfers from AC to RC

There are no anticipated transfers from the AC to the RC during FY 2013.

4. Anticipated Withdrawals from RC Inventory

Three AH-1W aircraft will be removed from the RC inventory for foreign military sales in FY 2012. These aircraft will be replaced starting in FY 2015, in synchronization with the AC AH-1Z fielding.

5. Equipment Shortages and Modernization Shortfalls at the End of FY 2015

The RC wartime requirements are addressed in *Table 1*, which delineates the major item shortfalls that are anticipated to exist at the end of FY 2015. This table does not reflect the on-hand equipment within the training allowance but the RC wartime requirement. *Table 8* presents the RC's ten highest priority unfunded equipment and modernization shortfalls affecting Reserve unit training allowances.

D. Summary

The Marine Corps is improving its Total Force integration and expeditionary capability. The RC is an operationally effective force, capable of augmenting and supporting the AC. While there are challenges before us, such as modernizing the RC with KC-130Js, quickly fielding new ground combat equipment, and developing technologies that allow better communication and logistics support, the Marine Corps Total Force stands ready to protect and defend our Nation. The successful completion of our force structure review, concurrent with the above activities, will enable the RC to possess the assets to accomplish its mission to augment and reinforce the AC. The Marine Corps' Total Force fielding concept provides the latest generation of combat equipment at the same rate provided to the AC and takes care of our greatest asset—the outstanding men and women who wear the Marine Corps uniform.

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Table 1

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve Component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve Component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Aircraft							
Aircraft, Fighter/Attack, F/A-18A+	F/A-18A+	$54,436,016	15	15	15	15	13
Aircraft, Refueling/Cargo, KC-130J	KC-130J	$92,290,000	0	0	0	1	1
Aircraft, Refueling/Cargo, KC-130T	KC-130T	$45,480,270	28	28	28	27	27
Aircraft, Utility/Cargo, UC-12W	UC-12W	$10,000,000	2	2	2	2	2
Aircraft, Utility/Cargo, UC-35C/D	UC-35	$8,179,661	5	5	5	5	5
Aircraft, Fighter, F-5F	F-5F	$14,830,970	1	1	1	1	1
Aircraft, Fighter, F-5N	F-5N	$702,466	11	11	11	11	11
Helicopter, Attack, AH-1W	AH-1W	$18,935,714	12	12	12	15	18
Helicopter, Cargo, CH-46E	CH-46E	$14,983,188	26	13	13	13	13
Helicopter, Cargo, CH-53E	CH-53E	$37,658,528	6	6	6	6	6
Helicopter, Utility, UH-1N	UH-1N	$7,061,681	12	6	3	3	3
Helicopter, Utility, UH-1Y	UH-1Y	$30,826,000	0	6	9	9	9
RQ-7B Shadow System	RQ-7B	$22,433,000	1	2	3	3	6
Tiltrotor, Cargo, MV-22B	MV-22B	$83,763,000	0	2	6	12	12
Flight Training Device, CH-53E	CH-53E FTD	$14,000,000	0	0	0	0	1
Flight Training Device, KC-130J	KC-130J FTD	$25,000,000	0	2	2	2	2
Flight Training Device, MV-22B	MV-22B FTD	$12,000,000	0	0	0	0	2
Flight Training Device, UH-1	UH-1 FTD	$16,500,000	0	0	0	1	3
Communications & Electronics							
Communications Platform, Air Defense (ADCP)	A0025	$907,000	3	3	3	3	3
Teams Antenna	A0061	$87,000	60	60	60	60	112
Radio Set, AN/MRC-148	A0067	$53,234	152	152	152	152	191
AN/TSR-9 E88XR Global Broadcast System TGRS	A0090	$194,063	7	7	7	7	14
Radio Set, AN/VRC-110, 50W	A0097	$14,000	392	392	392	392	1,549
Satellite Comm Terminal, Phoenix AN/TSC-156	A0122	$1,813,000	3	3	3	3	3
Remote Subscriber Access Module (RSAM) AN/TTC-63	A0124	$69,886	125	125	125	125	125
Deployable End Office Suite	A0125	$461,217	34	34	34	34	34
Radio System, AN/VRC-103(V)2	A0126	$39,000	73	73	73	73	487
Radio Set, AN/PRC-152 (V3)	A0129	$4,800	858	858	858	858	1,422
Deployable Integrated Transport Suite (DITS)	A0132	$302,104	19	19	19	19	19
Radio Set, AN/TRC-209	A0139	$47,828	73	73	73	73	99
Radio Set, AN/MRC-142C	A0153	$224,839	40	40	40	40	61
DDS-R/M Comm Security Module (CSM)	A0173	$46,630	24	80	80	80	80

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
DDS-R/M LAN Service Module (LSM)	A0174	$80,093	24	80	80	80	80
DDS-R/M Configuration Module (CM)	A0175	$2,597	24	80	80	80	80
DDS-R/M LAN Extension Module ON-704/TYC	A0176	$23,934	96	272	272	272	272
DDS-R/M Application Server Module (ASM) AN/TYQ-147	A0177	$92,629	24	80	80	80	80
DDS-R/M Data Storage Module (DSM)	A0197	$69,885	24	80	80	80	80
Support Wide Area Network (SWAN) D (V1)	A0234	$80,000	19	19	19	19	26
SWAN D (V2)	A0241	$90,000	9	9	9	9	9
Satellite Communication Subsystem	A0242	$295,000	0	0	0	0	10
SWAN D Network Package	A0243	$90,000	31	31	31	31	45
Support Wide Area Network MRT	A0244	$105,000	6	6	6	6	7
Combat Ops Center, Set III - AN/TSQ-239(V)3	A0254	$1,848,286	9	9	9	9	9
Combat Ops Center, Set IV - AN/TSQ-239(V)4	A0255	$1,372,700	25	29	29	29	30
Radio Set, AN/VRC-104(V)5	A0266	$50,755	31	31	31	31	103
Combat Operations Center	A0271	$2,500,000	1	1	1	1	3
Digital Tech Control (DTC), Facility, AN/TSQ-227	A0499	$1,213,000	0	6	6	6	6
Radar Set, Firefinder, AN/TPQ-36/46	A1440	$7,500,000	5	5	5	5	5
Radar Set, LW3D, AN/TPS-59(V)3	A1503	$1,521,756	2	2	2	2	2
Radio Set, AN/GRC-171B(V)4	A1818	$55,874	40	34	34	34	48
Radio Terminal Set, AN/MRC-142A	A1955	$218,193	17	0	0	0	61
Radio Set, AN/MRC-145A	A1957	$43,986	240	240	240	240	313
Radio Set, AN/PRC-150	A2042	$19,247	859	859	859	859	833
Radio Set, Multiband, FALCON II, AN/PRC-117F	A2068	$27,450	892	892	892	892	1,519
Radio Set, AN/PRC-119F	A2079	$4,346	881	714	714	714	743
Radio Terminal Digital, Troposcatter, AN/TRC-170	A2179	$1,500,000	18	18	18	18	24
Tactical Air Ops Module, AN/TYQ-23(V)4	A2525	$8,054,500	6	6	6	6	6
Target Locator, Designator & Hand-off System (TLDHS) (BLKII), AN/PSQ-19A	A2560	$42,000	121	110	110	110	150
UAV System, Raven RQ-11B	A3252	$143,546	0	45	45	45	70
Communications Interface Sys, AN/MRQ-12(V)3	A3270	$1,214,000	13	13	13	13	13
Computer Set, Digital (Blue Force Tracker)	A9001	$15,850	0	0	0	0	93
Engineer							
Air Conditioner, 5-ton, 60K Btu	B0008	$20,251	47	47	47	47	105
Environmental Control Unit (Air Conditioner)	B0014	$15,092	331	343	343	343	542
Integrated Trailer ECU	B0018	$90,000	40	39	39	39	39
MRAP Buffalo, Mine Protected Clearing Vehicle, BUFF701	B0035	$1,100,026	0	0	0	0	3
All Terrain Crane (ATC) MAC-50	B0038	$578,000	9	9	9	9	29
Tractor, Medium	B0060	$253,000	43	44	44	44	58
Tractor, Wheeled, Multipurpose (TRAM) 624K	B0063	$123,508	87	90	90	90	107
Boat, Bridge Erection, USCSBMK3	B0114	$249,187	8	6	6	6	42

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Bridge, Medium Girder (MGB), Dry Gap	B0152	$964,515	4	4	4	4	6
Bridge, Floating Ribbon, 70-Ton	B0155	$3,568,000	4	4	4	4	6
Container Handler, Rough Terrain, KALMAR	B0392	$525,000	4	4	4	4	11
Excavator, Armored Combat, M9 ACE	B0589	$1,000,000	4	4	4	4	20
Fuel System, Amphibious Assault, M69HC	B0685	$1,238,680	0	0	0	0	3
Generator Set, 3kW, 60Hz, MEP-831A	B0730	$11,000	130	136	136	136	339
Generator Set, 10kW, 60Hz, TQG MEP-803A	B0891	$21,000	142	158	158	158	322
Generator Set, 30kW, 60Hz, MEP-005A/805A/B	B0953	$26,000	95	98	98	98	234
Generator Set, 60 kW, 60Hz, MEP-006A/806B	B1021	$28,000	79	81	81	81	155
Generator Set, 100kW, 60Hz, TQG MEP-807A	B1045	$90,000	28	39	39	39	49
Fuel Pump Module (SIXCON)	B1580	$23,350	40	40	40	40	114
Roller, Compactor, Vibratory, SP, CS563D	B1785	$155,150	5	8	8	8	10
Storage, Tank, Module, Fuel (SIXCON)	B2085	$6,948	111	127	127	127	303
Storage, Tank, Module, Water (SIXCON) MWT166	B2086	$5,524	76	67	67	67	279
Forklift, Extended Boom	B2561	$85,556	54	67	67	67	75
Rough Terrain Forklift, Light Capacity	B2566	$70,000	66	70	70	70	87
Tactical Water Purification System (TWPS)	B2605	$350,000	15	15	15	15	33
General Supply							
Re-breather Unit, Oxygen, PHAOS, OXCON	C2288	$15,400	27	27	27	27	66
Container, Quadruple (QUADCON)	C4433	$3,126	4,094	3,983	3,983	3,983	4,991
Parachute, Personnel, Maneuverable (MMPS)	C5649	$16,000	181	181	181	181	266
Raiding Craft, Cmbt, Rubber, Inflatable, F470	C5901	$16,745	47	47	47	47	60
Motor Transport							
Truck, Cargo, MTVR 7-ton Armored, AMK23	D0003	$294,176	242	242	242	242	231
Truck, Cargo, MTVR 7-ton Armored, AMK27	D0005	$181,000	22	22	22	22	49
Truck, Dump, MTVR 7-ton Armored, AMK29	D0007	$173,900	3	3	3	3	29
Tractor, MTVR 7-ton Armored, AMK31	D0013	$220,000	22	22	22	22	10
Truck, Wrecker, MTVR 7-ton Armored, AMK36	D0015	$565,883	0	0	0	0	47
HMMWV, ECV, Enhanced, M1152	D0022	$62,665	234	23	23	23	43
MRAP JERRV, 4X4	D0025	$705,421	0	0	0	0	9
MRAP JERRV, 6X6	D0027	$680,000	0	0	0	0	7
HMMWV, ECV, Armament Carrier, M1151	D0030	$210,000	275	275	275	275	429
HMMWV, ECV, TOW Carrier, Armored, M1167A1	D0032	$222,487	0	0	0	0	98
HMMWV, ECV, Armored, M1152 (2-Door)	D0033	$177,000	256	256	256	256	315
HMMWV, ECV, C2/General Purpose, M1165	D0034	$179,800	147	147	147	147	1,514
Truck, Cargo, MTVR 7-ton, MK23/MK25	D0198	$141,022	710	703	703	703	570
Semitrailer, Refueler, 5000 gal., MK970A	D0215	$214,064	21	21	21	21	63
Semitrailer, 40-ton Low-bed, M870	D0235	$61,710	38	31	31	31	52
Trailer, Cargo, Resupply for HIMARS, MK38	D0861	$56,156	34	34	34	34	36
Trailer, Ribbon Bridge, MK18A1	D0881	$75,000	15	15	15	15	36

USMCR

Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Truck Cargo 22.5-ton, 10X10, LVSR	D0886	$420,000	44	52	52	52	219
Truck, Tractor, 10X10, LVSR	D0887	$410,000	0	52	52	52	52
HMMWV, Ambulance, 4 Litter, Armored, M997	D1001	$113,998	83	83	83	83	91
HMMWV, Ambulance, 2 Litter, Soft Top, M1035	D1002	$68,212	40	40	40	40	50
Truck, Cargo, MTVR 7-ton XLWB, MK27/MK28	D1062	$238,424	98	96	96	96	155
Truck, Cargo, MTVR 7-ton, MK37 w/Crane	D1063	$404,398	36	36	36	36	36
Truck, Aircraft Crash/Structure Firefighting, A/S32P-19A	D1064	$162,562	9	9	9	9	24
Truck, Dump, RTAA, 7-ton	D1073	$174,699	62	62	62	62	59
Truck, Wrecker, 10X10, LVSR MK15	D1214	$600,000	0	17	17	17	19
Ordnance & Weapons							
Rifle Combat Optic M4, TA31RCO-M4	E0017	$969	15,501	14,862	14,862	14,862	15,971
Night Sight, Scout Sniper Medium Range	E0020	$8,795	475	475	475	475	508
Range Finder, Laser	E0042	$79,400	32	32	32	32	53
Launcher, Tubular F/GM(TOW), M41A1 SABER	E0055	$1,010,000	73	100	100	100	100
Mk 2 Mod 0 MTRS EOD Talon	E0066	$134,000	0	0	0	0	3
Carbine, CQBW, 5.56MM, M4A1	E0190	$587	833	856	856	856	944
Carbine, MWS 5.56MM, M4	E0195	$1,329	13,008	14,376	14,376	14,376	15,020
Command Launch Unit, Javelin M98A1	E0207	$133,063	50	50	50	50	72
Sight, Thermal, AN/UAS-12C Hybrid	E0330	$116,014	51	26	26	26	28
Howitzer, 155mm, Towed, Lightweight, M777	E0671	$2,000,000	48	48	48	48	48
Assault Amphibious Vehicle, Command/Communications, AAVC7A1	E0796	$2,000,000	5	5	5	5	5
AAV, Personnel, AAVP7A1	E0846	$2,000,000	42	42	42	42	42
AAV, Recovery, AAVR7A1	E0856	$2,000,000	6	6	6	6	6
Launcher, Assault Rocket, 83mm, MK153 Mod 0	E0915	$15,000	224	224	224	224	270
Launcher, Tubular F/GM (TOW), M220E4	E0935	$75,742	49	24	24	24	24
Light Armored Vehicle, Anti-Tank, LAV-AT	E0942	$2,091,280	10	10	10	10	24
Light Armored Vehicle, Cmnd/Control, LAV-C2	E0946	$592,911	2	7	7	7	10
Light Armored Vehicle, 25mm, LAV-25	E0947	$3,224,110	73	74	83	83	88
Light Armored Vehicle, Logistics, LAV-L	E0948	$1,883,020	8	18	18	18	22
Light Armored Vehicle, Mortar, LAV-M	E0949	$435,797	10	10	10	10	12
Light Armored Vehicle, Maint/Recovery, LAV-R	E0950	$2,183,920	5	5	7	7	8
Machine Gun, .50 cal., Browning, M2	E0980	$8,118	506	496	496	496	585
Machine Gun, .50 cal., M48	E0984	$13,648	50	51	51	51	84
Machine Gun, Medium, 7.62mm, M240B	E0989	$6,000	1,109	1,103	1,103	1,103	1,371
Machine Gun, 40mm, MK-19 Mod3	E0994	$15,320	429	408	408	408	549
Mortar, 60mm, M224	E1065	$64,652	77	81	81	81	81
Mortar, 81mm, M252	E1095	$121,855	85	84	84	84	84
Recovery Vehicle, Heavy, Full-Tracked, M88A2	E1378	$2,748,846	6	6	6	6	6
Rifle, Sniper, 7.62mm, M40A5	E1460	$6,034	116	150	150	150	150
Rifle, Scoped, Special App (SASR), .50 cal.	E1475	$7,500	72	82	82	82	82

Table 1

USMCR
Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
High Mobility Artillery Rocket System (HIMARS)	E1500	$2,500,000	18	18	18	18	18
Tank, Combat, Full-tracked, 120mm Gun, M1A1	E1888	$2,393,439	48	48	48	48	48
Sight, Weapon, Thermal, Medium (MTWS)	E1975	$11,300	1,328	1,249	1,249	1,249	1,371
Sight, Weapon, Thermal, Heavy (HTWS)	E1976	$11,999	252	837	837	837	1,134

Note: The above table reflects estimated on-hand quantities against the full wartime requirement. USMC equipping strategy is that the RC maintains on-hand a Training Allowance only. The Training Allowance is the portion of the wartime requirement necessary to conduct home station training. USMC operating concepts rely on global sourcing and pre-positioned assets for combat. When activated, the USMC plans on RC units falling in on either prepositioned equipment or assets already in theater from previous rotations. The monetary value of the delta between the Beginning of FY 2013 O/H and the Wartime Requirement that is not already programmed with NGREA or Procurement, Marine Corps appropriations is $819,401,891. The corresponding monetary value of the delta between the FY 2013 O/H and the USMCR Training Allowance is $430,847,869. (See page 3-3; para. I.B.-I.C for more information.)

Table 2

USMCR
Average Age of Equipment

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2012.

Nomenclature	Equip No.	Average Age	Remarks
Aircraft			
Aircraft, Fighter/Attack, F/A-18A+	F/A-18A+	25	
Aircraft, Refueling/Cargo, KC-130T	KC-130T	20	
Aircraft, Utility/Cargo, UC-12W	UC-12W	1	
Aircraft, Utility/Cargo, UC-35C	UC-35C	12	
Aircraft, Utility/Cargo, UC-35D	UC-35D	9	
Aircraft, Fighter, F-5F	F-5F	33	
Aircraft, Fighter, F-5N	F-5N	32	
Helicopter, Attack, AH-1W	AH-1W	16	
Helicopter, Cargo, CH-46E	CH-46E	42	
Helicopter, Cargo, CH-53E	CH-53E	14	
Helicopter, Utility, UH-1N	UH-1N	28	
RQ-7B Shadow System	RQ-7B	4	
Communications/Electronics			
Communications Platform, Air Defense (ADCP)	A0025	10	
Teams Antenna	A0061	6	
Radio Set, AN/MRC-148	A0067	5	
AN/TSR-9 E88XR Global Broadcast System TGRS	A0090	4	
Radio Set, AN/VRC-110, 50W	A0097	3	
Satellite Comm Terminal, Phoenix AN/TSC-156	A0122	4	
Remote Subscriber Access Module (RSAM) AN/TTC-63	A0124	4	
Deployable End Office Suite	A0125	4	
Radio System, AN/VRC-103(V)2	A0126	5	
Radio Set, AN/PRC-152 (V3)	A0129	4	
Deployable Integrated Transport Suite (DITS)	A0132	4	
Radio Set, AN/TRC-209	A0139	5	
Radio Set, AN/MRC-142C	A0153	23	
DDS-R/M Comm Security Module (CSM)	A0173	4	
DDS-R/M LAN Service Module (LSM)	A0174	4	
DDS-R/M Configuration Module (CM)	A0175	4	
DDS-R/M LAN Extension Module ON-704/TYC	A0176	4	
DDS-R/M Application Server Module (ASM), AN/TYQ-147	A0177	4	
DDS-R/M Data Storage Module (DSM)	A0197	4	
Support Wide Area Network (SWAN) D (V1)	A0234	3	
SWAN D (V)2	A0241	3	
Satellite Communication Subsystem	A0242	3	
SWAN D Network Package	A0243	3	
Support Wide Area Network MRT	A0244	3	

Table 2

USMCR
Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
Combat Ops Center, Set III - AN/TSQ-239(V)3	A0254	2	
Combat Ops Center, Set IV - AN/TSQ-239(V)4	A0255	3	
Radio Set, AN/VRC-104(V)5	A0266	1	
Combat Operations Center	A0271	1	
Digital Technical Control (DTC), Facility, AN/TSQ-227	A0499	11	
Radar Set, Firefinder, AN/TPQ-36/46	A1440	12	
Radar Set, LW3D, AN/TPS-59(V)3	A1503	27	
Radio Set, AN/GRC-171B(V)4	A1818	3	
Radio Terminal Set, AN/MRC-142A	A1955	9	
Radio Set, AN/MRC-145A	A1957	9	
Radio Set, AN/PRC-150	A2042	7	
Radio Set, Multiband, FALCON II, AN/PRC-117F	A2068	5	
Radio Set, Manpack, AN/PRC-119F	A2079	10	
Radio Terminal Digital, Troposcatter, AN/TRC-170	A2179	3	
Tactical Air Operations Module, (TAOM), AN/TYQ-23(V)4	A2525	17	
Target Locator, Designator & Hand-off System (TLDHS) (BLKII), AN/PSQ-19A	A2560	2	
Communications Interface System, AN/MRQ-12(V)3	A3270	3	
Engineer			
Air Conditioner, 5-ton, 60K Btu	B0008	3	
Environmental Control Unit (Air Conditioner)	B0014	3	
Integrated Trailer ECU	B0018	4	
All Terrain Crain (ATC) MAC-50	B0038	4	
Tractor, Medium	B0060	4	
Tractor, Wheeled, Multipurpose (TRAM) 624K	B0063	4	
Boat, Bridge Erection, USCSBMK3	B0114	4	
Bridge, Medium Girder (MGB), Dry Gap	B0152	4	
Bridge, Floating Ribbon, 70-Ton	B0155	4	
Container Handler, RT, KALMAR	B0392	4	
Excavator Combat, M9 ACE	B0589	15	
Fuel System Amphibious Assault, M69HC	B0685	5	
Generator Set, 3kW, 60Hz, MEP-831A	B0730	6	
Generator Set, 10kW, 60Hz, TQG MEP-803A	B0891	10	
Generator Set, 30kW, 60Hz, MEP-005A/805A/B	B0953	3	
Generator Set, 60kW, 60Hz, MEP-006A/806B	B1021	3	
Generator Set, 100kW, 60Hz, TQG MEP-807A	B1045	6	
Fuel Pump Module (SIXCON)	B1580	5	
Roller, Compactor, Vibratory, SP, CS563D	B1785	2	
Storage, Tank, Module, Fuel (SIXCON)	B2085	5	
Storage, Tank, Module, Water (SIXCON) MWT166	B2086	5	
Forklift, Extended Boom	B2561	4	

Table 2

USMCR
Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
Rough Terrain Forklift, Light Capacity	B2566	3	
Tactical Water Purification System (TWPS)	B2605	4	
General Supply			
Re-breather Unit, Oxygen, PHAOS, OXCON	C2288	12	
Container, Quadruple (QUADCON)	C4433	15	
Parachute, Personnel, Maneuverable (MMPS)	C5649	5	
Raiding Craft, Cmbt, Rubber, Inflatable, F470	C5901	5	
Motor Transport			
Truck, Cargo, MTVR 7-ton Armored, AMK23	D0003	8	
Truck, Cargo, MTVR 7-ton Armored, AMK27	D0005	8	
Truck, Dump, MTVR 7-ton Armored, AMK29	D0007	8	
Tractor, MTVR 7-ton Armored, AMK31	D0013	8	
Truck, Wrecker, MTVR 7-ton Armored, AMK36	D0015	5	
HMMWV, ECV, Enhanced, M1152	D0022	5	
HMMWV, ECV, Armament Carrier, M1151	D0030	4	
HMMWV, ECV, Armored, M1152 (2-Door)	D0033	2	
HMMWV, ECV, C2/General Purpose, M1165	D0034	2	
Truck, Cargo, MTVR 7-ton, MK23/MK25	D0198	8	
Semitrailer, Refueler, 5000 gal., MK970A	D0215	2	
Semitrailer, 40-ton Low-bed, M870	D0235	10	
Trailer, Cargo, Resupply for HIMARS, MK38	D0861	5	
Trailer, Ribbon Bridge, MK18A1	D0881	16	
Truck Cargo 22.5-ton, 10X10, LVSR	D0886	1	
HMMWV, Ambulance, 4 Litter, Armored, M997	D1001	8	
HMMWV, Ambulance, 2 Litter, Soft Top, M1035	D1002	8	
Truck, Cargo, MTVR 7-ton XLWB, MK27/MK28	D1062	8	
Truck, Cargo, MTVR 7-ton, MK37	D1063	3	
Truck, Aircraft Crash/Structure Firefighting, A/S32P-19A	D1064	24	
Truck, Dump, RTAA, 7-ton	D1073	8	
Ordnance & Weapons			
Rifle Combat Optic M4, TA31RCO-M4	E0017	2	
Night Sight, Scout Sniper Medium Range	E0020	2	
Launcher, Tubular F/GM(TOW), M41A1 SABER	E0055	3	
Carbine, CQBW, 5.56mm, M4A1	E0190	6	
Carbine, MWS, 5.56mm, M4	E0195	6	
Command Launch Unit, Javelin M98A1	E0207	2	
Sight, Thermal, AN/UAS-12C Hybrid	E0330	37	
Howitzer, 155mm, Towed, Lightweight, M777	E0671	4	
Assault Amphibious Vehicle (AAV), Command/Communications, AAVC7A1	E0796	38	
AAV, Personnel, AAVP7A1	E0846	38	

Table 2

USMCR
Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
AAV, Recovery, AAVR7A1	E0856	38	
Launcher, Assault Rocket, 83mm, MK153 Mod 0	E0915	25	
Launcher, Tubular F/GM (TOW), M220E4	E0935	37	
Light Armored Vehicle, Anti-Tank, LAV-AT	E0942	24	
Light Armored Vehicle, Cmnd/Control, LAV-C2	E0946	24	
Light Armored Vehicle, 25mm, LAV-25	E0947	15	
Light Armored Vehicle, Logistics, LAV-L	E0948	23	
Light Armored Vehicle, Mortar, LAV-M	E0949	20	
Light Armored Vehicle, Maint/Recovery, LAV-R	E0950	24	
Machine Gun, .50 cal., Browning, M2	E0980	62	
Machine Gun, .50 cal., M48	E0984	20	
Machine Gun, Medium, 7.62mm, M240B	E0989	16	
Machine Gun, 40mm, MK-19 Mod3	E0994	14	
Mortar, 60mm, M224	E1065	32	
Mortar, 81mm, M252	E1095	26	
Recovery Vehicle, Heavy, Full-Tracked, M88A2	E1378	8	
Rifle, Sniper, 7.62mm, M40A5	E1460	9	
Rifle, Scoped, Special App (SASR), .50 cal.	E1475	16	
High Mobility Artillery Rocket System (HIMARS)	E1500	5	
Tank, Combat, Full-tracked, 120mm Gun, M1A1	E1888	14	
Sight, Weapon, Thermal, Medium (MTWS)	E1975	2	
Sight, Weapon, Thermal, Heavy (HTWS)	E1976	2	

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Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2013 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2013 would be expected to arrive in RC inventories in FY 2014 or FY 2015.

Nomenclature	FY 2013	FY 2014	FY 2015
Weapons and Combat Vehicles			
Assault Amphibious Vehicle (AAV7A1) Product Improvement Program (PIP)	$162,000	$176,000	$187,000
Light Armored Vehicle (LAV) PIP	941,000	954,000	47,458,000
Modification Kits	4,825,000	4,756,000	3,355,000
Weapons Enhancement Program			8,995,000
Guided Missiles and Equipment			
Follow-on to Shoulder-Launched Multipurpose Assault Weapon (SMAW)	4,502,000	2,875,000	1,918,000
Communications and Electronics Equipment			
Combat Support System	161,000		
Air Operations Command and Control (C2) System	276,000	2,101,000	41,000
Fire Support System	572,000	1,349,000	843,000
Common Computer Resources	1,329,000	167,000	338,000
Command Post Systems	1,605,000	4,854,000	7,976,000
Engineer and Other Equipment			
Environmental Control Equipment	4,199,000	1,424,000	1,382,000
Container Family	668,000	544,000	411,000
Total	**$19,240,000**	**$19,200,000**	**$72,904,000**

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2012 would be expected to arrive in RC inventories in FY 2013 or FY 2014. All values are costs in dollars.

Nomenclature	FY 2010	FY 2011	FY 2012
FY 2010 Title IX NGREA Equipment			
Light Armored Vehicle (LAV), 25mm A2 Variant (LAV-25A2)	$25,380,022		
LAV, Command & Control (C2) A2 Variant (LAV-C2A2)	14,251,904		
Support Wide Area Network (SWAN) D Network Package	2,340,000		
SWAN D V1	720,000		
SWAN D V2	90,000		
KC-130T Digital Engine Indicator Panels	1,785,714		
Air Traffic Control Simulation Package	308,000		
UC-12W Cargo-floor Decking & Seat Covers	50,000		
FY 2011 Title IX NGREA Equipment			
LAV, Logistics Variant (LAV-L)		$19,150,000	
Combat Convoy Simulators (CCS) Projectors and HW Refurbishment		17,000,151	
Indoor Simulated Marksmanship Trainer (ISMT) refresh systems		11,143,488	
ISMT Rifle Combat Optic (RCO) & Adaptors		1,207,330	
M1A1 Abrams Tank Suspension Upgrade Kits		6,000,000	
RQ-11B Raven B/Procurement of DDL Systems (UAV)		5,400,000	
RQ-11B Raven B/ISPS (Spares Package)		609,570	
RQ-11B Raven B/RSTA Kits (Laptop)		180,000	
RQ-11B Raven B/Vampire Licenses (Training Software on RSTA Kit for simulation)		135,000	
RQ-11B Raven B/SASSM GPS (3 per UAV)		135,000	
Virtual Combat Convoy Trainer (VCCT) and Reconfigurable Vehicle Simulator (RVS)- Proj/HW Refurbishment		4,700,000	
VSAT/VSAT Network Packages SWAN D		2,199,991	
VSAT/VSAT Small SWAN D (V) 1		1,600,000	
VSAT/VSAT Medium SWAN D (V) 2		39,474	
Combat Vehicle Training System (CVTS), procure spare parts for Amphibious Assault Vehicle (AAV) Turret Trainer		499,996	
Total	**$44,925,640**	**$70,000,000**	

1. Service FY 2012 NGREA equipment list was not available in time for publication in the NGRER. Equipment list for FY 2012 will be provided in next year's NGRER.

Table 5

USMCR
Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the AC receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks
Helicopter, Attack, AH-1W	AH-1W			+3	Qty 3 directed to FMS in Dec 2011. Will be paid back when AC begins fielding AH-1Z.
Helicopter, Cargo, CH-46E	CH-46E	-13			CH-46Es being replaced with MV-22Bs.
Helicopter, Utility, UH-1N	UH-1N	-6	-3		UH-1Ns being replaced with UH-1Ys.
Aircraft, Refueling/Cargo, KC-130T	KC-130T			-1	KC-130Ts being replaced with KC-130Js.

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2009 with actual procurements and transfers. FY 2009 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2011. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2009 Planned Transfers & Withdrawals							
USMCR indicated no planned transfers or withdrawals in the FY 2009 NGRER							
FY 2009 P-1R Equipment							
High Mobility Artillery Rocket System				$109,460,000	$1,427,000		
AAV7A1 Product Improvement Program (PIP)				0	54,000		
LAV PIP				0	11,535,000		
Radar and Test Equipment				0	1,100,000		
Radar Systems				0	770,000		
Bulk Liquid Equipment				0	1,249,000		
Tactical Fuel Systems				0	2,860,000		
Material Handling Equip				0	6,151,000		
Container Family				0	608,000		
Family of Construction Equipment				0	4,407,000		
FY 2009 Title III NGREA Equipment							
Light Armored Vehicle 25 A2 Variant (LAV-25A2)						$16,463,000	$16,463,000
BRITE STAR Forward-looking Infrared (FLIR)						7,200,000	7,045,000
Tactical Remote Sensor Suite (TRSS)						5,764,000	5,763,000
Tactical Laptop Computer Package						4,713,000	2,301,265
Supporting Arms Upgrade to Digital Training Environment						2,882,000	2,876,000
Embarkation Materials						200,000	0
Alternative/Renewable Energy Production Equipment						200,000	0
FY 2009 Title IX NGREA Equipment							
Logistical Vehicle Replacement System-Cargo						17,467,718	20,709,718
UC-35D Aircraft Survivability Upgrades						3,000,000	2,698,735
Tactical Remote Sensor System Upgrades						2,723,400	2,723,400
Commercial Satellite Communication Set						514,500	514,500
Data Processing Module						328,000	328,000
Digital Terrain Analysis Mapping System - Lite						315,000	315,000
Marine Corps Tactical Welding Shop						210,000	210,000
Advanced Imagery Module						137,000	137,000
Tactical Handheld Communication Set						132,000	132,000
Handheld Satellite Communication Set						96,600	96,600
Media Exploitation Set-Lite						75,000	75,000
TOTAL				**$109,460,000**	**$30,161,000**	**$62,421,218**	**$62,388,218**

Table 7

USMCR
Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No

Service Does Not Use Substitution to Satisfy Major Item Equipment Requirements

Table 8

USMCR
Significant Major Item Shortages

NOTE: This table provides a RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	KC-130J Aircraft	28	23	$92,290,000	$2,122,670,000	Fielding of the KC-130J begins in FY 2015 and continues through FY 2029. The extended nature of this fielding timeline results in significant operational and training compatibility issues as the AC has already fielded the KC-130J. Only 7 aircraft are programmed for the RC within the FY 2013 FYDP.
2	SWAN D V3/MRT Packages	10	6	$525,000	$3,150,000	Support Wide Area Network (SWAN) has realized a high demand signal from operating forces. It provides critical beyond-line-of-sight (BLOS) capability within the MAGTF infrastructure. Network Package, consisting of routers, switches, and encryption devices, provides for connecting user baseband equipment.
3	Flight Training Device, CH-53E	1	1	$14,000,000	$14,000,000	This simulator is required to conduct CH-53 aircrew refresher and proficiency training. It also enables an Aviation Virtual Training Environment (AVTE) for linkage to other training devices and crews, allowing crews to fly more sorties in a simulator/training environment.
4	Flight Training Device, UH-1	3	2	$16,500,000	$33,000,000	This simulator is required to conduct UH-1 aircrew refresher and proficiency training and also conversion training prior to UH-1Y aircraft delivery. It also enables an Aviation Virtual Training Environment (AVTE) for linkage to other training devices and crews, allowing crews to fly more sorties in a simulator/training environment.
5	Flight Training Device, MV-22B	2	2	$12,000,000	$24,000,000	This simulator is required to conduct MV-22B aircrew refresher and proficiency training and also conversion training prior to MV-22B aircraft delivery. It also enables an Aviation Virtual Training Environment (AVTE) for linkage to other training devices and crews, allowing crews to fly more sorties in a simulator/training environment.
6	KC-130T Digital Engine Indicator Panels	28	28	$357,143	$10,000,000	Engine Instrumentation Display System (EIDS) provides the interconnection and controls necessary to display/replace 43 different engine and flight control gauges. Removes the parts obsolesence issue with the "steam" guages, for which support has become unsustainable.

Table 8

USMCR
Significant Major Item Shortages

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
7	KC-130T Electronic Propeller Control System (EPCS)	28	28	$1,035,714	$29,000,000	Improves reliability and maintainability of the KC-130T propeller control system as well as increases aircraft availability within the fleet. EPCS will reduce maintenance hours expended on the propeller system as well as increase the mean time between failures. Relieves the KC-130T community's top degrader.
8	F-5 Helmet-mounted Cueing (HMC) System	12	12	$416,667	$5,000,000	This upgrade item will play a critical role in VMFAT-401's ability to provide adversary training until 2025 or beyond, and will significantly enhance the air-to-air training and readiness of USMC (AC & RC) aviation units. Currently, the F-5 is limited to bore-sight (nose on) infrared (IR) cueing of weapons to achieve a valid weapons shot opportunity in training. The HMC system will provide off bore-sight cueing of IR missile systems and will enable FMF pilots to better hone required skill sets to defeat real world aviation threats.
9	F-5 Electronic Attack (EA) Digital Radio Frequency Memory (DRFM) Pods	6	6	$665,500	$3,993,000	This upgrade item will play a critical role in VMFAT-401's ability to provide adversary training until 2025 or beyond, and will significantly enhance the air-to-air training and readiness of USMC (AC & RC) aviation units. These 6 pods will ensure that VMFT-401 will be able to provide real time, flexible, and continuous EA training to fleet units and MAWTS-1 for years to come.
10	KC-130T Tactical Air Navigation (TACAN) upgrade	28	28	$428,571	$12,000,000	Replaces obsolete TACAN and improves capability for establishing bearing and distance (slant-range) to a ground or ship-borne station.

Chapter 4
United States Navy Reserve

I. Navy Overview

A. Navy Planning Guidance

> "Our Sailors demonstrate daily that our Navy is flexible, adaptable, and ready to respond globally. We are made dominant by them. Our priority remains to prevail in the current conflicts in Afghanistan and Iraq, where we have more than 14,500 Sailors on the ground and another 12,000 offshore in support of joint and coalition operations in Central Command. Our national interests, however, extend far beyond Iraq and Afghanistan; therefore, so does our Navy. On an average day, more than 44,000 Sailors are deployed and almost half of our 288 ships are underway around the world. Combatant Commanders recognize the value our Navy provides through its ability to overcome diplomatic, geographic, and military impediments to access, and there is an increasing, not decreasing, demand for naval forces. As ground forces draw down in the Middle East, the need for a strong naval presence will grow in importance. Naval presence is essential to shaping a favorable security environment globally, especially in the Western Pacific and Indian Ocean, areas closely tied to our nation's economic prosperity. As articulated in the Maritime Strategy, our Navy remains committed to protecting national vital interests in these regions.
>
> We continue to be a ready and capable global Navy. As I look to the future, I see continued disorder in the global security environment, a slow economic recovery, and increasing demand on our Navy. While we have made sound investments in recent budgets to close warfighting and readiness gaps and support our people, the cost to man, operate, and equip our force has never been greater and continues to rise. Our national security remains closely linked to our economy, and in the coming years, we will continue to take bold steps to improve the efficiency of our operations and the effectiveness of our warfighting capability and capacity." (Chief of Naval Operations [CNO] Guidance for 2011, *Executing the Maritime Strategy*, dated October 2010)

The CNO's guidance articulates the Navy's core capabilities and priorities for executing the Maritime Strategy. Furthermore, the CNO has testified before Congress that, "we are one Navy today with a Navy Reserve whose efforts are clearly aligned with and support the CNO's priorities."

The Navy continues to experience a high tempo of global operations that is expected to continue even as combat forces draw down in Afghanistan. Global trends in economics, demographics, resources, and climate change portend an increased demand for maritime power and influence. America's prosperity depends upon the seas: 90 percent of world trade moves on the world's oceans, and underwater telecommunications cables facilitate about $3.2 trillion of commerce each year. As new trade patterns emerge, such as those that will result from the expansion of the Panama Canal and the opening of the Arctic, and as disruption and disorder persist in our security environment, maritime activity will evolve and expand. Seapower allows the Nation to maintain U.S. presence and influence globally and, when necessary, project power without a costly, sizeable, or permanent footprint ashore. The Navy will continue to maintain a forward-deployed presence around the world to prevent conflicts, increase interoperability with our allies, enhance the maritime security and capacity of our traditional and emerging partners, confront irregular challenges, and respond to crises.

B. Navy Equipping Policy

DoD Directive 1225.6, *Equipping the Reserve Forces*, policy is that:

> "The Reserve components of each Military Department shall be equipped to accomplish all assigned missions and shall have an equipment procurement and distribution program that is responsive to the Combatant Commanders' mission requirements and sustainable on those joint and other missions, including homeland defense. The Department of Defense's goal is to fill the mission equipment requirements of the Reserve components in accordance with the Total Force Policy."

The Navy's overarching equipping policy is delineated in the Office of the CNO (OPNAV) Instruction 4423.3 series, titled *Equipping Reserve Forces*. This instruction states that Navy Reserve units will be equipped to accomplish all assigned missions and will have an equipment and distribution program that is balanced, responsive to mission requirements, and sustainable. The priority for the distribution of new and combat serviceable equipment, with associated support and test equipment should be given to units scheduled to be deployed and/or employed first. Equipment priorities for Ready Reserve units will be established using the same methodology as Active Component (AC) units having the same mobilization or deployment requirements.

The Navy has established a seamless and fully integrated Total Force. The Reserve Component (RC) is a force multiplier to the Total Force that can be used periodically and predictably, providing operational support when and where it is needed at a cost savings to the Navy. Within the Fleet Readiness Enterprise, each Navy Warfare Enterprise (Naval Aviation, Surface Warfare, Undersea Warfare, Naval Network Warfare, and Naval Expeditionary Combat) identifies RC requirements for new equipment as part of the Navy's resource-allocation process. This equipment is used to generate and sustain fleet readiness during at-home training and forward-based operations, and is ready to surge forward as combat replacement or capacity in response to a request for forces to be sourced by the Navy.

C. Plan to Fill Mobilization Shortages in the RC

The Navy's Total Force is not just a concept; it is an operational and organizational reality. Operational Navy missions are executed by the AC and its equipment, the RC and its equipment, or a combination of both. AC and RC Sailors also provide strategic depth for maritime missions to ensure the Navy is always ready to respond globally to crisis situations while maintaining fiscal efficiency across the spectrum of operations.

Major operation plans and contingency plans require RC units to deploy as integrated parts of the Navy warfighting plan. Navy component commanders identify equipment requirements during the resource allocation process, which the CNO then prioritizes.

RC activities maintain equipment as either training or mobilization assets. In many instances, the RC will deploy with AC assets. Mobilization assets are stored at major embarkation locations in the United States as war reserve materiel stock (WRMS) or pre-positioned overseas/afloat. WRMS and pre-positioned equipment are distributed to both AC and RC according to operational requirements.

D. Initiatives Affecting RC Equipment

The Navy has multiple ongoing initiatives to modernize, improve, or change the operational capabilities of the RC. These initiatives include

- Replacement of the aging C-9B aircraft with the C-40A is a critical RC requirement. The goal of the C-9B aircraft replacement program, initiated in 1997, is to replace the original 27 DC-9 and C-9B transport aircraft with 17 C-40A aircraft. To date 13 of the 17 have been procured through a combination of National Guard and Reserve Equipment Appropriation (NGREA), Congressional adds, and the President's Budget request for DoD procurement funding as displayed in Table 4-1.

Table 4-1. RC C-40A Funding

FY	Quantity	Funding source
1997	2	NGREA
1998	1	NGREA
1999	1	NGREA
2000	1	President's Budget
2001	1	Congressional add
2003	1	Congressional add
2004	1	President's Budget
2005	1	President's Budget
2009	2	President's Budget
2010	1	President's Budget
2011	1	Congressional add

- The Navy is exploring cost-effective, RC integrated manpower and equipment solutions in meeting requirements challenges faced by its newest generation of unmanned aircraft system (UAS) programs, including the MQ-4C Broad Area Maritime Surveillance (BAMS) system and the MQ-8B Fire Scout vertical takeoff and landing tactical unmanned aerial vehicle (VTUAV). Specifically, the periodic and predicable nature of the BAMS mission is particularly well suited for the Navy Reserve Sailor. Effectively implemented, RC manpower and associated equipment procurement can significantly reduce operating costs through innovative solutions, such as strategic placement of BAMS mission control element stations in high Selected Reserve (SELRES) population density areas. Fire Scout emergent mission requirements lend themselves especially well to the strengths of the RC Sailor. When the Navy has an emergent need for the Fire Scout system capability, Navy reservists would be available to surge to meet the requirement, but also provide significant savings during periods of lower utilization.

- Our Tactical Support Wing consists of six squadrons, all with aging aircraft. These aircraft provide the most advanced adversary program within the Navy and also use veteran combat-skilled aviators to train our replacement aircrews and deploying carrier air wings while maintaining the ability to mobilize. These squadrons need to be

recapitalized with the F/A-18E/G and follow-on adversary platforms to sustain world-class adversary presentation and to be able to deploy in a joint environment.

- Replacement of the EA-6B Prowler aircraft with the EA-18G Growler is required to retain RC fleet electronic attack (EA) capability. RC EA-6Bs were previously programmed to retire by 2012, coincident with expiration of the expeditionary airborne electronic attack (AEA) requirements. However, recent direction mandated an extension of the expeditionary AEA mission and directed transition of four EA-6B squadrons to the EA-18G platform. This included the RC Prowler squadron and serves as the baseline for the Reserve EA-18G recapitalization plan.

- The Maritime Patrol and Reconnaissance P-3C aircraft continue to be impacted by advancing structural fatigue. Due to a shortage in P-3C aircraft, there is an increased AC utilization of RC P-3C aircraft. Despite Health of Naval Aviation monthly flight hour restrictions, the increased Fatigue Life Expended (FLE) on the RC aircraft inventory has caused concern that the Total Life Index of the RC P-3s may become insufficient for the RC squadrons to bridge the gap to the RC P-8A. Thus, the RC's two remaining Maritime Patrol and Reconnaissance squadrons need to be recapitalized with the P-8A aircraft.

- Procurement of additional C-130 aircraft to meet the *Naval Aviation Plan 2031* requirement and replacement of the aging and maintenance-intensive C-130T aircraft with the KC-130J are critical RC capability enhancements. C-130 aircraft are a critical part of the Navy-unique fleet essential airlift (NUFEA) mission; they serve as a connector between strategic airlift points and the carrier onboard delivery and vertical onboard delivery to the fleet, and specialize in oversized cargo.

- Baseline, Overseas Contingency Operations (OCO), and NGREA funding continue to fill critical equipment gaps in the modernization and recapitalization of Naval Construction Force (NCF), Navy Expeditionary Logistics Support Group (NAVELSG), and Maritime Expeditionary Security Force (MESF) equipment. $155M of funding is still required for the full modernization of the RC Navy Expeditionary Combat Command (NECC) units over the Future Years Defense Program (FYDP).

E. Plan to Achieve Full Compatibility between AC and RC

The Navy is a seamless and fully-integrated Total Force. As such, it plans and programs all equipment inventories to provide the most capable systems to meet mission requirements and minimize the effects of equipment shortfalls and incompatibility throughout the mission spectrum of the fleet. The Navy must have interoperability between all elements of the Total Force to ensure a war-winning team. AC and RC equipment acquisition and upgrade programs have virtually eliminated capability and compatibility gaps between RC, AC, and joint forces.

The Navy has leaned RC force structure to the appropriate capability and capacity required to sustain the operational reserve. The value and the return on investment our Sailors and equipment deliver to the Total Force are continually measured. Critical recapitalization is needed now, and budgetary dynamics make the RC reliant on a combination of the Service priority and the direct appropriation for recapitalizing aging and depreciated assets.

II. Navy Reserve Overview

A. Current Status of the Navy Reserve

1. General Overview

Top Navy Reserve Equipping Challenges

- Aircraft procurement (C-40A, E/A-18G, P-8A, KC-130J, F/A-18E, and F-5)
- Expeditionary equipment procurement (MESF, NCF, and NAVELSG)
- Navy Special Warfare equipment

In January 2010, the CNO, the Chief of Naval Personnel, and the Chief of Navy Reserve signed the Navy Total Force Vision for the 21st Century (NTF 21). This document clearly articulates Navy's vision for a Total Force and emphasizes that Active Sailors, Reserve Sailors, and Navy civilians are the Navy's most important resource and the critical component to meeting the demands of the Maritime Strategy, *A Cooperative Strategy for 21st Century Seapower* (CS-21). NTF 21 guides the Navy's personnel policies and strategies and serves to codify the blended forces as an organizational fact of life and a force of choice.

Operationally, the Navy Reserve is fully engaged across the full spectrum of Navy, Marine Corps, and joint force operations, from peace to war. At the tip of the spear, more than 6,000 mobilized or deployed Navy Reserve Sailors are providing about half of the Navy's ground forces serving in the Central Command (CENTCOM) and in other critical roles worldwide. Some deploy as rotational forces, such as the Seabee battalions and maritime security squadrons, and many other Sailors go forward as individual augmentees.

Mobilizations are but one form of duty performed by Navy Reserve Sailors. While executing these mobilizations in 2011, the Navy Reserve also provided valued capabilities for urgent requirements and ongoing operational support. For example, in the immediate aftermath of the devasting earthquake in Haiti, the Navy Reserve was an important part of Operation Unified Response and Joint Task Force Haiti. Within hours, Navy Reserve Fleet Logistics Support (VR) aircraft provided on-demand airlift delivering urgently needed food, medical supplies, and water to the people of Haiti. Navy Reserve doctors, nurses, and hospital corpsmen left their homes and families to serve ashore and on the hospital ship USNS *Comfort*. From medical professionals and Seabees to ground crews, logisticians, and communicators, providing "on-demand expertise" is what makes the Navy Reserve a highly-valued part of the Navy Total Force.

Every day, Navy Reserve Sailors provide important operational support to the Navy with approximately one-quarter of its Sailors on full-time active duty (Full-time Support [FTS], mobilizations, deployments, active duty operational support [ADOS], etc.), while many others provide their expertise on a "part-time" basis (inactive duty training [IDT], annual training [AT], active duty for training [ADT], etc.). Some examples include the skilled engineers and technicians in the Naval Sea Systems Command's Surge Maintenance (SURGEMAIN) program, executing shipyard projects; the FTS and SELRES aviators serving as instructors for 20 percent of the training sorties flown in the aviation pipeline; and the intelligence community providing key global intelligence support. Ideally suited to take on periodic and predictable work, this ready and accessible force of skilled Sailors provides valued capabilities on an ongoing basis. And, in the case of SELRES Sailors, when their work is done, they go back to their civilian employers and off the Navy payroll. Navy Reserve Sailors are both a highly-skilled and cost-effective workforce.

NGREA will be utilized, as available, to meet the needs of the Navy. NGREA has been a high-impact capital infusion for the Navy Reserve since its inception in 1981, but has taken on added

importance in recent years. The appropriation has bolstered the recapitalization of critical RC equipment in both Naval Aviation and the Surface Navy and has been instrumental in resourcing the capability of the NECC. In FY 2011, the Navy Reserve executed NGREA funding to equip Naval Aviation, Surface Warfare, Special Warfare units and NAVELSG, Maritime Civil Affairs and Security Training (MCAST), Navy Expeditionary Intelligence Command (NEIC), and Expeditionary Combat Camera (EXPCOMBATCAM), with aviation modernization upgrades, civil engineering support equipment, communications equipment, videography equipment, night vision, and table of allowance (TOA) equipment.

a. Fleet Air Logistics

The RC provides 100 percent of the Navy's organic intratheater, medium-airlift capability for combatant commands (COCOMs) worldwide, and airlift support to all military departments within the continental United States. The Fleet Logistics Support Wing consists of 15 squadrons operating C-40A, C-9B, C-20A/D/G, C-37A/B, and C-130T aircraft. The C-9B aircraft average more than 37 years in age and require substantial avionics upgrades and engine replacement to meet globally-mandated noise-abatement and navigation requirements. A 2008 Center for Naval Analysis C-9B study calculated an operational equivalency of 1.8 C-9Bs to 1.0 C-40A, which equates to the C-40A possessing nearly twice the lift capacity, range, and ready-for-tasking (RFT) rate of a C-9B. Significant airlift recapitalization was initiated in FY 1997 when $120M of NGREA funding was provided to procure the first 2 C-40A aircraft to begin the replacement of the aging C-9B fleet. Eleven more C-40As were procured between FY 1998 and FY 2011 utilizing funding through NGREA, Congressional adds, and the PRESBUD. To date, 12 C-40As have been accepted and are being operated by VR-56 (Naval Air Station [NAS] Oceana, VA), VR-57 (NAS North Island, CA), VR-58 (NAS Jacksonville, FL), and VR-59 (NAS Joint Reserve Base [JRB], Fort Worth, TX).

The C-130Ts are operating at a 5-plane shortfall and the current fleet is Communications, Navigation, Surveillance (CNS)/Air Traffic Management (ATM) compliant through FY 2014, although limited due to the lack of a certified Global Positioning System (GPS) and enhanced altitude reporting capability. The Navy has funded a prioritized list of requirements to upgrade these aircraft for CNS/ATM capability to extend the C-130T fleet past FY 2014. Conversely, KC-130Js have twice the RFT days as the C-130Ts and are the best investment option. The C-130T remains one of the most versatile and capable logistics aircraft in the Navy Reserve. Its ability to deliver outsized cargo or cargo requiring special handling to nearly any location worldwide remains a critical capability for combatant commanders.

b. Tactical Aviation

The Tactical Support Wing (TSW) provides a strategic reserve for the Navy's 10 carrier air wings (CVW) and adversary training, counternarcotics, and homeland defense (HD) operations. The TSW is comprised of 6 squadrons: 1 E/A-6B, 1 F/A-18A+, 1 F/A-18C, 2 F-5F/N, and 1 E-2C.

The E/A-6B squadron, VAQ-209, mobilized again to Afghanistan in support of Operation Enduring Freedom in the Fall of 2011. VAQ-209 is scheduled to fly the E/A-6B until FY 2015. The Navy is attempting to recapitalize the RC E/A-6Bs with five E/A-18G aircraft starting in FY 2013. Recapitalization and transition are required to mitigate the DoD-wide AEA capacity and capability gap across the FYDP and into the outyears. Without the RC E/A-18G transition, the Navy will lose critical operational and strategic reserve AEA capability and capacity.

The Navy is seeking to recapitalize the RC legacy Hornet squadrons with an F/A-18E squadron and a Joint Strike Fighter (JSF) squadron. The F/A-18E and JSF will provide sustainable platforms to meet the Navy's vision of future warfare capabilities as discussed in the *Sea Power 21* guiding principles. As the Navy tactical aircraft fleet shrinks and ages, there is a significant dependence on the remaining RC F/A-18 aircraft, which comprise 24 percent of the Navy's adversary capability and 52 percent of the radar-capable adversary sortie requirement.

The E-2C Hawkeye squadron, VAW-77, completed 3 counter illicit trafficking deployments totaling 180 deployed days within the Southern Command (SOUTHCOM) area of responsibility (AOR) during FY 2011, providing more than 1,700 flight hours in support of Joint Interagency Task Force South operations. Proficient E-2C tactical control among 10 foreign governments, 7 federal agencies, and all branches of the U.S. military led to the disruption of over $450M in illegal drugs and the capture of 10 narco-terrorists. FY 2011 was a ground-breaking year for the squadron as it demonstrated extended sustainability by completing its first ever deployment in excess of 90 days. Additionally, it orchestrated and executed its first ever deployment from Colombian soil.

c. Maritime Patrol and Reconnaissance Aircraft (MPRA)

The RC currently provides 8 percent of the Navy's useable maritime patrol aircraft providing antisubmarine warfare (ASW) surge capacity, counternarcotics operations, humanitarian assistance/disaster relief support, increased HD contingency options, and fleet and North Atlantic Treaty Organization (NATO) exercise support. The RC has two P-3C squadrons, composed of six antisurface warfare improvement program (AIP) and six block modification upgrade program (BMUP) aircraft. The AIP variant augments the AC P-3 inventory shortfall capable of intelligence, surveillance, and reconnaissance collection. The BMUP variant augments AC P-3 inventory shortfall capable of ASW. The 2 RC MPRA squadrons report directly to AC Patrol and Reconnaissance Wings under the guidance of Commander, Patrol and Reconnaissance Group. RC squadrons support the CNO's *Fleet Response Plan* by continuously providing six combat-ready aircrews for worldwide surge. Due to increased COCOM demand, grounding notifications issued through airframe bulletins, and increased readiness requirements, the increased AC utilization of remaining RC P-3Cs will force an aircraft replacement for the two RC P-3C squadrons sooner than previously anticipated. Twelve

AC squadrons are programmed to transition to the P-8A aircraft beginning in FY 2012. RC combat aircrews will continue to train and execute front-line missions, ensuring the MPRA community's ability to satisfy COCOM requirements while the AC fleet transitions to the P-8A. During the AC fleet transition, the Navy is pursuing a plan to replace the RC legacy P-3Cs with 12 P-8As.

d. Carrier and Expeditionary Strike Group Rotary Aviation

The RC currently provides 3 helicopter squadrons to the Navy's rotary-wing fleet. All 3 squadrons are fully integrated into AC wings. The RC also provides personnel and equipment (8 MH-53E helicopters) in support of 2 composite AC/RC airborne mine countermeasures (AMCM) squadrons, HM-14 and HM-15. RC rotary-wing assets currently provide the Navy's only dedicated Naval Special Warfare support squadrons, 12 percent of the Navy's total helicopter inventory, and 37 percent of its AMCM assets. The squadrons perform a variety of critical missions including search and rescue, logistics support, ASW, AMCM, and counternarcotics operations.

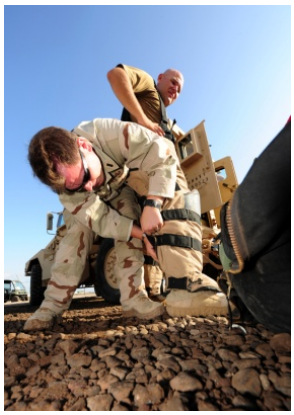
The RC helicopter inventory consists of the HH-60H, SH-60B, and MH-53E aircraft. The RC helicopter footprint in Iraq has been continuous since 2003. Personnel from HSC-84 (NAS Norfolk, VA) have been partially mobilized and deployed in support of OCO, supporting special operations ground force missions in urban and rural areas, psychological operations, and medical and casualty evacuations. HSC-85 (NAS North Island, CA) recently transitioned from the MH-60S to the HH-60H aircraft and is currently undergoing training to perform the same mission and provide the same capability as HSC-84. HSL-60 (Naval Station Mayport, FL) is tasked with counternarcotics operations, deploying for six-months per year with joint interagency task force organizations in the SOUTHCOM AOR. Additionally, this squadron is slated to provide the first Reserve detachment to deploy with MQ-8B Fire Scout VTUAVs onboard a Navy frigate in support of special operations.

e. Maritime Expeditionary Security Force (MESF)

The MESF is responsible for protecting and defending the littoral operating area for NECC and the Navy. NECC provides adaptive force packages for fleet and combined forces by rapidly deploying units, like MESF, into larger operations. MESF units are adaptive to mission requirements, scalable, and agile. MESF's primary mission is force protection. Antiterrorism/force protection (AT/FP) missions include harbor and homeland defense, coastal surveillance, and special missions. Units conduct force protection of strategic shipping and naval vessels operating in the inshore and coastal areas, anchorages and harbors, from bare beach to sophisticated port facilities. Specialized units work together with maritime expeditionary security squadron (MSRON) staffs providing intelligence and communications. MESF units deploy worldwide to detect, deter, and defend an area, unit, or high-value asset.

The MESF is comprised of 6,600 personnel (4,158 Reserve). All MESF units require individual combat equipment for assigned personnel and sufficient civil engineer support equipment (CESE) for the overland tactical movement of their assigned TOA equipment and personnel. The RC MESF equipment shortfalls are in the Boat Detachment and Security Detachment TOAs, which directly support tasked military operations missions including OCO, humanitarian assistance, and disaster relief. These shortfalls consist of the environmental control unit/generator trailers and force protection large patrol boats that will reach the end of service life and require replacement and modernization over the FYDP. MESF has a projected total shortfall of $91M across the FYDP.

f. Explosive Ordnance Disposal (EOD)



The Navy Reserve EOD Force consists of two RC Commands located in the fleet concentration areas of San Diego and Norfolk. Both commands report operationally and administratively to their respective EOD Group Commanders. The commands provide direct, periodic, and predicable operational support through the utilization of Reserve EOD officers and technicians, Reserve Navy divers, and a host of critical support ratings. Each RC has a manning structure of approximately 25 Active, FTS, and Reserve officers, and 130 Reserve and Active enlisted billets.

NECC has determined that the skill set required by EOD personnel is extremely perishable and that future EOD units will be all AC. As a result, both EOD RC commands are programmed to be decommissioned in FY 2014.

g. Naval Construction Force (NCF)

The Navy Reserve component of NCF consists of four Naval Construction Regiments (NCRs) and 12 Naval Mobile Construction Battalions (NMCBs) and augmentation forces composing 60 percent of the NCF. Thoroughly integrated with the AC, the Reserve force is vital to providing continual combat and construction capabilities in theater and sourcing NCF requirements worldwide. Under the operational control of First Naval Construction Division, the NCF supports the unified commands and meets Navy component command (NCC) requirements with the AC and RC components of the NCF combined to provide a fully integrated force, with all units having the same operational chain of command, mission, readiness standards, and equipment.

Through the use of TOAs structured and utilized conjunctively for both AC and RC, construction equipment is standardized across the force. The P47 TOA is utilized for NCRs and 12 Readiness Support Sites, while the P32 Construction Capability Augment TOA provides support for 14 NMCBs, of which 6 are specifically stratified to the RC component. The balance allows rapid deployment to support Marine Corps headquarters base camps and Navy expeditionary medical units. Furthermore, it has afforded the NCF greater capability to respond to chemical, biological, nuclear, radiological, and explosive incidents on deployment or within the United States.

The RC NCF continues to have equipment shortfalls in its deployment TOA sets. Shortfalls include NCR, NMCB, Naval Construction Augment, and NCF Training TOAs, and P25 Tactical Data Network upgrades that improve overall flexibility to resource detachments and provide Secret Internet Protocol Router Network (SIPRNET) capability for NMCBs. These investments will enhance the RC NCF's exceptional ability to rapidly mobilize, quickly refresh its military skills during post-mobilization training, and then deploy into a hostile theater at the same readiness levels as its AC counterparts. NCF has a projected total shortfall of $9.8M across the FYDP.

h. Navy Expeditionary Logistics Support Group (NAVELSG)

NAVELSG is responsible for providing expeditionary logistics capabilities for the Navy, primarily within the maritime domain of the littorals, and conducts surface and air cargo handling missions, cargo terminal and warehouse operations, fuels distribution, postal services, customs inspections, ordnance reporting and handling, and expeditionary communications.

NAVELSG is a deployable Reserve command organized and staffed to provide a wide range of supply and transportation support critical for peacetime support, crisis response, humanitarian, and combat service support missions.

NAVELSG deploys its Navy cargo-handling battalion (NCHB) capabilities worldwide to support cargo handling and logistics operations and has been deploying to support OCO since 2003. Due to required equipment shortfalls, NAVELSG's deployed forces utilized equipment assets from deployed Army forces and relied on host nation or contracted equipment in lieu of an organic TOA. Achieving complete TOA levels are critical with uncertainty in wartime host nation support and contract equipment support.

Currently, NAVELSG has on-hand only portions of its approved TOA. NAVELSG, NECC, and Naval Facilities Engineering Logistics Center developed a new consolidated TOA, which updated equipment to current technology and developed specific modular capabilities within the NCHBs. Once filled, the new TOA ensures NCHBs have the necessary equipment to execute their required operational capabilities. NAVELSG has a projected total shortfall of $54M across the FYDP.

NECC has determined that in light of reduced combat operations four of 10 RC NCHBs will be disestablished from NAVELSG. This has no impact on their TOA equipment sets as NECC intended to only outfit a maximum of 5 RC NCHBs.

i. Maritime Civil Affairs and Security Training (MCAST) Command

The MCAST Command, consisting of maritime civil affairs (MCA) and mobile training teams (MTT)/security force assistance, enables a Navy component or joint task force commander to establish and enhance relations between military forces, governmental and nongovernmental organizations, and the civilian populace across the maritime environment. Through the use of MTTs, MCAST provides customized military-to-military training to foreign militaries in areas

such as small boat operations and tactics, maritime combat operations, weapons handling, anti-terrorism/force protection, maintenance, and construction. These operations support the NCC in engaging the civil and military component to enhance the effectiveness of operations and assist in integrating the NCC or joint force maritime component command actions into the COCOM's overarching civil affairs and military-to-military training programs.

Shortfalls of infantry gear, containers, computers, communications equipment, and embarkation equipment identified in the last report were funded with FY 2011 NGREA.

j. Expeditionary Combat Camera Norfolk (EXPCOMBATCAM)

Recently aligned under the 20th Seabee Readiness Group of First Naval Construction Division, EXPCOMBATCAM provides combat documentation teams and imagery management teams that deploy in support of Navy, joint task force, COCOM, Chairman of the Joint Chiefs of Staff, and OSD. EXPCOMBATCAM forces provide specialized imaging acquisition and transmission capabilities to document force deployments and activities before, during, and after military engagements. The RC composes 40 percent of the EXPCOMBATCAM force and maintains the requisite skill set and qualifications to also provide directed imagery capability in a range of military operations.

Shortfalls of videography, communications, night vision, and infantry gear identified in the last report were funded with FY 2011 NGREA.

k. Navy Expeditionary Intelligence Command (NEIC)

The NEIC provides tactical force protection, indications and warning, and intelligence collection, enabling Navy commanders to conduct missions across the full spectrum of expeditionary operations. With intelligence, surveillance, and reconnaissance (ISR) collection capabilities, NEIC has unique access to areas and environments—from blue water to the coastal littoral, and far inland—that are unavailable to more traditional ISR assets.

NEIC capabilities give expeditionary, maritime, joint, and combined forces timely, relevent, and actionable intelligence to deny the enemy sanctuary, freedom of movement, and use of waterborne lines of communication while enabling friendly forces to find, fix, and destroy the enemy.

Shortfalls of intelligence gathering equipment, communications, night vision, and personnel gear identified in the last report were addressed with FY 2011 NGREA.

l. Surface Warfare

The Surface Warfare Enterprise is supported by more than 2,000 Surface Navy reservist billets across 86 RC units and detachments. These RC units support 7 major mission areas within Surface and Amphibious Warfare including: naval beach group, assault craft units, beachmaster units, amphibious construction battalions, Tactical Group/Squadron Amphibious Readiness Group Air Control, and Afloat Culture Workshops. Additionally, RC Sailors provided critical operational support to Surface Navy deployments to CENTCOM, Africa Command, SOUTHCOM, and U.S. 7th Fleet. With the disestablishment of the class squadrons (CLASSRONs), the associated ship support unit structure will be realigned to support the littoral combat ship (LCS) build plan and be positioned to deliver surge capability and mobilization support. Furthermore, the modular nature of the LCS will allow for future Reserve mine countermeasures (MCM) unit development and other warfare units for the different modules.

m. Naval Special Warfare

The Naval Special Warfare (NSW) RC is commanded by NSW Group Eleven (NSWG-11). The mission of NSWG-11 is to man, equip, train, sustain, and deploy assigned NSW RC forces to accomplish special operations missions assigned by NSW Command.

NSWG-11 is the immediate superior for two AC sea-air-land (SEAL) teams, with 20 RC operational support units and 18 regional NSW detachments, comprising 1,005 AC and RC billets. Currently, 96 percent of SEAL officers and 98 percent of enlisted SEALs have been mobilized in support of OCO and other active duty requirements, and fully 1/3rd of NSW RC personnel are providing operational support seamlessly integrated with the NSW total force. Overall, NSW RC personnel provided over 200,000 man-days of support to the NSW AC, with approximately 27 percent of the force serving on active duty at any given time. Since NSW RC was operationalized in 2008, its forces have had to rely heavily upon NSW's AC equipment inventory to perform Reserve training and deployment missions.

2. Status of Equipment

a. Equipment On-hand

Table 1 provides projected RC major equipment requirements and on-hand inventories to meet assigned missions.

b. Average Age of Major Items of Equipment

The RC possesses equipment requiring replacement and modernization. *Table 2* provides the average age of major equipment. Of particular concern are the C-9Bs (35 years old), P-3Cs (27 years old), and EA-6Bs (23 years old). These aircraft all operate at a significantly higher cost, produce lower RFT rates, and provide lesser capability than their projected replacement platforms. Additionally, significant amounts of the MESF, NCF, and NAVELSG TOA equipment, CESE, and material

handling equipment are at the end of/or will reach end of service life and be fully depreciated in the FYDP, which will require a significant capital investment to increase/sustain material and operational readiness for the expeditionary forces.

c. Compatibility of Current Equipment with the AC

Achieving equipment compatibility with the AC is one of the Navy's priorities. Procurement and upgrade programs, as well as Congressional adds, have improved RC equipment capability and compatibility.

For the NCF, MESF, and NAVELSG units, sustainability and interoperability remain challenging issues. Beginning in FY 2003, significant funding increases from Congressional adds and NGREA have aided these units in reducing these shortfalls.

d. Maintenance Issues

RC equipment maintenance is a top priority. Without properly maintained equipment, RC hardware units are unable to train and deploy mission-ready reservists in support of the Navy's Total Force. Accordingly, sufficient funds are programmed to sustain the material readiness and capability of RC unit equipment. As a result of this emphasis on ready assets, RC equipment readiness remains above minimum CNO-directed levels. This level of readiness has proven to be acceptable as the Navy Reserve has been ready and fully integrated into the Navy's worldwide missions; however, the accelerated service-life expenditure of these assets from OCO require increasing amounts of operation and maintenance accounts. Substantial cost avoidance in these accounts is available through modernized replacement assets.

e. Modernization Programs and Shortfalls

The Navy has a list of unfunded equipment replacement and modernization requirements. Periodically, the CNO develops an Unfunded Programs List and forwards it to Congress for resourcing consideration. The CNO's highest priority unfunded equipment requirements for the RC are provided in *Table 8*.

B. Changes Since Last NGRER

A recent Navy efficiency initiative removed operation and maintenance funding for the Navy Reserve's five Fleet Logistics Support Wing C-12 detachments beginning in FY 2012. As a result, C-12 detachments located at Joint Base (JB) Andrews, NAS JRB Fort Worth, NAS Jacksonville, JB McGuire, and NAS JRB New Orleans have been disestablished. Further significant changes that have occurred since the last NGRER have been described in Section I, paragraph D of this document.

C. Future Years Program (FY 2013–FY 2015)

1. FY 2015 Equipment Requirements

Table 1 provides projected FY 2013–FY 2015 major equipment inventories and requirements.

2. Anticipated New Equipment Procurements

Significant funding was provided to MCAST, NEIC, EXPCOMBATCAM, and NAVELSG to procure TOA equipment. This funding will reduce the RC TOA shortfalls for these units and increase material and operational readiness. *Tables 3* and *4* reflect these anticipated new equipment procurements.

3. Anticipated Transfers from AC to RC

Table 5 provides anticipated major equipment transfers between the AC and RC.

4. Anticipated Withdrawals from RC

Table 5 also provides major RC equipment to be decommissioned.

5. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2015

Tables 1 and *8* provide RC equipment inventories, shortfalls, and modernization requirements.

D. Summary

In summary, the Navy is seamlessly integrating the RC and AC into a cohesive Total Force capable of meeting all operational requirements. The Navy Reserve's top equipment priorities continue to be aircraft procurement, including completing the C-40A (airlift) procurement and recapitalizing the electronic attack capability that is fully integrated into the AEA deployment plan that has provided 12 years of combat deployments in support of COCOM requirements.

The Navy Reserve places great importance on the proper equipping of the Expeditionary Forces, including MESF, NCF, and NAVELSG. Available funds will be used for the recapitalization of critical RC equipment and TOA shortfalls. Additionally, as the Navy continues to develop UAS programs like BAMS and Fire Scout, the opportunity for Navy Reserve engagement will grow. The capacity to participate in these mission sets will enhance the Total Force as we continue to progress into the twenty-first century.

The Navy Reserve will play a vital role in Navy's Total Force that will deliver these capabilities. As stated in the 2010 Quadrennial Defense Review Report, "prevailing in today's wars requires a Reserve Component that can serve in an operational capacity—available, trained, and equipped for predictable routine deployment. Preventing and deterring conflict will likely necessitate the continued use of some elements of the Reserve Component—especially those that possess high-demand skill sets—in an operational capacity well into the future." Today's Navy Reserve provides both strategic depth and operational capabilities. Depending on the mission, we mirror or complement the AC. We mirror the AC and provide rotational forces for those missions where it makes operational and fiscal sense. We complement the AC by providing unique capabilities in other areas, such as in the intratheater logistics support, counternarcotics surveillance, and Naval Special Warfare helicopter support missions. The correct AC/RC mix varies with each of Navy's wide variety of missions and required capabilities.

USNR

Table 1

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve Component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve Component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Aircraft							
Aircraft, Transport, C-9B (Skytrain)	C-9B	$10,924,425	4	4	4	4	4
Aircraft, Transport, C-40A (Boeing 737-700)	C-40A	$81,700,000	12	12	13	13	17
Aircraft, Transport, C-130T (Hercules)	C-130T	$28,343,475	19	19	19	19	19
Aircraft, Transport, KC-130J (Hercules)	KC-130J	$84,000,000	0	0	0	0	5
Aircraft, Transport, C-20A (Gulfstream)	C-20A	$18,630,000	1	1	1	1	1
Aircraft, Transport, C-20D (Gulfstream)	C-20D	$21,874,725	2	2	2	2	2
Aircraft, Transport, C-20G (Gulfstream)	C-20G	$32,446,215	3	3	3	3	3
Aircraft, Transport, C-37A (Gulfstream)	C-37A	$48,317,940	1	1	1	1	1
Aircraft, Transport, C-37B (Gulfstream)	C-37B	$64,000,000	3	3	3	3	4
Aircraft, Patrol, P-3C (Orion)	P-3C	$74,471,355	12	12	12	12	12
Aircraft, Early Warning, E-2C (Hawkeye)	E-2C	$96,509,610	6	0	0	0	0
Aircraft, Electronic Attack, EA-6B (Prowler)	EA-6B	$87,419,205	4	4	4	4	4
Aircraft, Fighter/Attack, F/A-18A+ (Hornet)	F/A-18A+	$54,074,610	12	12	12	12	12
Aircraft, Fighter/Attack, F/A-18C (Hornet)	F/A-18C	$55,212,075	12	12	12	12	12
Aircraft, Fighter, F-5F (Freedom Fighter)	F-5F	$15,231,060	2	2	2	2	2
Aircraft, Fighter, F-5N (Freedom Fighter)	F-5N	$740,025	30	30	30	30	30
Helicopter, Combat SAR, HH-60H (Seahawk)	HH-60H	$15,564,330	24	24	24	24	24
Helicopter, Minewar, MH-53E (Sea Dragon)	MH-53E	$22,518,495	8	8	8	8	8
Helicopter, ASW, Frigate, SH-60B (Seahawk)	SH-60B	$19,190,970	6	6	6	6	6
Ships							
Frigate, Guided Missile (Perry Class) Flight III	FFG	$353,149,245	8	8	7	3	3
Naval Beach Group							
Maritime Prepositioning Force Utility Boat	MPF-UB	$1,000,000	10	10	10	10	10
Naval Beach Group TOA	NBG	$26,705,722	1	1	1	1	1
Maritime Expeditionary Security Force (MESF)							
MESF C2 Division TOA Equipment	G01C2DIV	$20,023,087	7	7	7	7	7
Boat Division TOA Equipment	G01BTDV	$67,974	7	7	7	7	7
Boat Detachment TOA Equipment	G01BTDET	$6,672,755	21	21	21	21	21
Security Division TOA Equipment	G01SCDIV	$67,975	7	7	7	7	7
Security Detachment TOA Equipmnet	G01SCDET	$3,158,527	21	21	21	21	21
Reserve Naval Construction Forces (NCF)							
Construction Battalion Maintenance Unit TOA	P05	$15,064,000	2	2	2	2	2

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Naval Mobile Construction Battalion TOA	P25	$70,730,950	6	6	6	6	6
Naval Construction Regiment TOA	P29	$12,189,846	4	4	4	4	4
Naval Construction Division TOA	P30	$6,119,877	1	1	1	1	1
Construction Capability Augment TOA	P32	$170,502,839	1	1	1	1	1
NCF Training Allowance TOA	P47	$49,730,022	1	1	1	1	1
Naval Explosive Ordnance Disposal (EOD) Forces							
Naval EOD Operational Support Unit TOA	J04EODSU	$57,195,489	2	2	0	0	0
Navy Expeditionary Logistics Support Group							
Navy Expeditionary Logistics Regiment Staff TOA	F01NLRSTF	$1,500,944	2	2	2	2	3
Expeditionary Communications Detachment TOA	F01ECD	$1,076,944	2	2	2	2	3
Navy Cargo Handling Battalion TOA	F01NCHB	$33,147,274	3	3	3	5	5
Maritime Civil Affairs & Security Training							
Maritime Civil Affairs Team TOA	EO1MCATR	$272,371	15	15	30	30	30
Maritime Civil Affairs Mobile Training Team TOA	EO1MTTR	$1,048,813	5	5	0	0	0
Maritime Civil Affairs OPS Planning Staff TOA	EO1MCATR	$58,585	1	1	1	1	1
Expeditionary Combat Camera (EXPCOMBATCAM)							
EXPCOMBATCAM TOA Equipment	COCAM	$2,800,000	1	1	1	1	1
Navy Expeditionary Intelligence Command (NEIC)							
NEIC TOA Equipment	G11 TOA	$2,788,125	1	1	1	1	1

Table 2

USNR
Average Age of Equipment

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2012.

Nomenclature	Equip No.	Average Age	Remarks
Aircraft			
Aircraft, Transport, C-9B (Skytrain)	C-9B	35	
Aircraft, Transport, C-40A (Boeing 737-700)	C-40A	7	New aircraft delivered.
Aircraft, Transport, C-130T (Hercules)	C-130T	17	
Aircraft, Transport, C-20A (Gulfstream)	C-20A	28	
Aircraft, Transport, C-20D (Gulfstream)	C-20D	24	
Aircraft, Transport, C-20G (Gulfstream)	C-20G	17	
Aircraft, Transport, C-37A (Gulfstream)	C-37A	9	
Aircraft, Transport, C-37B (Gulfstream)	C-37B	5	
Aircraft, Patrol, P-3C (Orion)	P-3C	26	
Aircraft, Early Warning, E-2C (Hawkeye)	E-2C	19	
Aircraft, Electronic Attack, EA-6B (Prowler)	EA-6B	25	
Aircraft, Fighter/Attack, F/A-18A+ (Hornet)	F/A-18A+	25	
Aircraft, Fighter/Attack, F/A-18C (Hornet)	F/A-18C	19	
Aircraft, Fighter, F-5 (Freedom Fighter)	F-5E/F/N	33	
Helicopter, Combat SAR, HH-60H (Seahawk)	HH-60H	19	
Helicopter, Minewar, MH-53E (Sea Dragon)	MH-53E	18	
Helicopter, ASW, Frigate, SH-60B (Seahawk)	SH-60B	26	
Ships			
Frigate, Guided Missile (Perry Class) Flight III	FFG	29	
Maritime Prepositioning Force Utility Boat	MPF-UB	3	
Naval Construction Forces			
Construction Battalion Maintenance Unit TOA	P05	13	Average age of major equipment in TOA
Naval Mobile Construction Battalion (NMCB) TOA	P25	7	Average age of major equipment in TOA
Naval Construction Regiment (NCR) TOA	P29	5	Average age of major equipment in TOA
Construction Capability Augment TOA	P32	11	Average age of major equipment in TOA
NCF Training Allowance TOA	P47	5	Average age of major equipment in TOA
Maritime Expeditionary Security Force			
MESF C2 Division TOA Equipment	G01C2DIV	6	Average age of major equipment in TOA
Boat Division TOA Equipment	G01BTDV	10	Average age of major equipment in TOA
Boat Detachment TOA Equipment	G01BTDET	5	Average age of major equipment in TOA
Security Division TOA Equipment	G01SCDIV	5	Average age of major equipment in TOA
Security Detachment TOA Equipment	G01SCDET	5	Average age of major equipment in TOA
Navy Expeditionary Logistics Support Group			
Navy Expeditionary Logistics Regiment Staff TOA	F01NLRSTF	7	Average age of major equipment in TOA
Expeditionary Communications Detachment TOA	F01ECD	4	Average age of major equipment in TOA
Navy Cargo Handling Battalion TOA	F01NCHB	7	Average age of major equipment in TOA
Naval Explosive Ordance Disposal Forces			
Naval EOD Operational Support Unit TOA	J04EODSU	5	Average age of major equipment in TOA

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Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2013 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2013 would be expected to arrive in RC inventories in FY 2014 or FY 2015.

Nomenclature	FY 2013	FY 2014	FY 2015
Other Aircraft			
KC-130J	$25,995,000	$161,702,000	$191,165,000
Modification of Aircraft			
Adversary Aircraft	4,289,000	2,992,000	1,497,000
H-53 Series	23,701,000	25,302,000	20,991,000
C-130 Series	19,097,000	18,910,000	22,130,000
Cargo/Transport Aircraft (A/C) Series	26,311,000	16,317,000	16,614,000
Other Procurement			
Standard Boats	1,105,000	1,105,000	1,132,000
Passenger Carrying Vehicles	335,000	340,000	344,000
Construction & Maintenance Equipment	349,000	354,000	362,000
Tactical Vehicles	11,841,000	12,047,000	12,254,000
Items Under $5 Million - Civil Engineering Support Equipment	1,120,000	2,439,000	2,482,000
Materials Handling Equipment	1,196,000	1,217,000	1,238,000
C4ISR Equipment	1,909,000	1,890,000	1,862,000
Physical Security Equipment	2,478,000	2,472,000	2,492,000
Total	**$119,726,000**	**$247,087,000**	**$274,563,000**

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2012 would be expected to arrive in RC inventories in FY 2013 or FY 2014. All values are costs in dollars.

Nomenclature	FY 2010	FY 2011	FY 2012
FY 2010 Title IX NGREA Equipment			
NCF Civil Engineering Support Equipment (CESE) (Tactical Equipment, Loader, Concrete Mixer)	$14,871,657		
F-5 Structural Sustainment	13,047,000		
EOD CESE (Cargo Truck, Forklifts, HMMWVs)	11,174,343		
C-130T Simulator Technical Refresh, Repair, and Upgrades	8,400,000		
SH-60B Forward Looking Infrared (FLIR) Turret and Electronic Unit	3,265,000		
Maritime Prepositioning Force Utility Boats (MPFUB)	3,000,000		
SH-60B Night Vision Goggle Head's Up Display Modification	1,242,000		
FY 2011 Title IX NGREA Equipment			
C-130T Electronic Propeller Control System		$15,600,000	
Navy Expeditionary Logistics Support Group (NAVELSG) Cargo Handling Battalion Tactical Vehicles, Construction Equipment, and Table of Allowance (TOA) Equipment		9,517,500	
Adversary Digital Radio Frequency Memory (DRFM) Electronic Attack (EA) Pods		7,596,000	
F-5 Radar Altimeter (RADALT), F-5 TAWS/TCAS		7,568,000	
C4ISR Equipment		5,000,000	
F/A-18 Helmet-mounted Sight Integration		4,152,000	
F-5 Block II Upgrade Demonstrator		4,000,000	
Maritime Civil Affairs and Security Training Command Civil Affairs Team TOA Equipment		2,962,000	
Navy Expeditionary Intelligence Command TOA Equipment		2,788,000	
Special Forces Personal Protection Equipment		2,352,000	
E-2C Hawkeye 2000 Family of Systems Synthetic Training Devices		1,800,000	
Maritime Expeditionary Security Force (MESF) TOA Equipment		1,390,500	
NAVELSG Expeditionary Communications Detachment TOA Equipment		1,120,000	
Optics/Night Vision Equipment		1,075,000	
Maritime Civil Affairs and Security Training Command Mobile Training Team TOA Equipment		1,059,000	
Deployment Operating Stock		740,000	
Combat Camera Table of Allowance (TOA) Equipment		680,000	
F-5 Maverick Missile Kits Program		410,000	
Small Arms Simulators for use in Helicopter Sea Combat Squadron 84 (HSC-84) and HSC-85		190,000	
Total	**$55,000,000**	**$70,000,000**	

1. Service FY 2012 NGREA equipment list was not available in time for publication in the NGRER. Equipment list for FY 2012 will be provided in next year's NGRER.

Table 5

USNR
Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the AC receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks
Frigate, Guided Missile (Perry Class) Flight III	FFG	+3	+2		Fleet transfers to the Reserves prior to decommissioning.
Frigate, Guided Missile (Perry Class) Flight III	FFG	-3	-3	-4	Fleet continues decommissioning FFGs.
Aircraft, Early Warning, E-2C (Hawkeye)	E-2C	-6			
Naval EOD Operational Support Unit TOA	J04EODSU		-2		Both EOD Operational Support Units are planned to be decommissioned. Equipment inventory will be transferred to the EOD AC to support mission requirements.
Maritime Civil Affairs Team (MCAT) TOA	E01MCATR		+15		15 AC MCATs are planned to be converted to RC in FY 2014.
Maritime Civil Affairs Mobile Training Team (MTT) TOA	E01MTTR		-5		The requirement for 5 MTTs will be eliminated in FY 2014.

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2009 with actual procurements and transfers. FY 2009 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2011. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2009 Planned Transfers & Withdrawals							
Aircraft, Fighter, F-5N (Freedom Fighter)	F-5N	+1	+1				
Aircraft, Fighter, F-5E (Freedom Fighter)	F-5E	-3	-3				
Ship, Mine Countermeasures (Avenger Class)	MCM 1 Class	-1	-1				
FY 2009 P-1R Equipment							
Airlift Aircraft							
C-40A				$154,994,000	140,986,000		
C-40A Landing Gear & Support Costs				$0	4,348,000		
Modification of Aircraft							
H-53 Series				7,412,000	7,412,000		
C-130 Series				356,000	356,000		
Cargo/Transport A/C Series				17,952,000	19,853,000		
Small Boats							
Standard Boats				637,000	5,637,000		
Civil Engineering Support Equipment							
Fire Fighting Equipment				446,000	0		
Tactical Vehicles				10,969,000	9,488,000		
Supply Support Equipment							
Materials Handling Equipment				1,151,000	1,151,000		
Command Support Equipment							
C4ISR Equipment				7,503,000	0		
Physical Security Equipment				459,000	0		
FY 2009 Title III NGREA Equipment							
Maritime Expeditionary Security Force (MESF) Equipment							
MESF Personnel Gear Issue						$4,613,000	$4,613,000
MESF C4I Gear						2,551,000	2,551,000
MESF Non-Lethal Weapons						502,000	502,000
Explosive Ordnance Disposal (EOD) Equipment							
EOD Items Under $5M - Kits						6,316,000	6,609,000
Naval Construction Force (NCF) Equipment							
Civil Engineering Support Equipment (CESE) Construction Equipment						3,055,000	3,055,000
Tactical Vehicles						1,403,000	1,403,000
Material Handling Equipment						792,000	878,000
Items Under $5M - NCW Equipment						321,000	321,000

USNR

Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Navy Expeditionary Logistics Support Group (NAVELSG) Equipment							
Items Under $5M - NAVELSG Equipment						2,200,000	1,821,000
120K Fuel System Supply Point						1,634,000	1,634,000
NAVELSG C4I (Kit)						1,446,000	1,446,000
Material Handling Equipment						1,026,000	1,026,000
Tactical Vehicles						340,000	340,000
CESE Construction Equipment						215,000	215,000
Other Equipment							
F-5 Operational Flight Trainer (OFT)						6,000,000	6,000,000
Maritime Prepositioning Force (MPF) Utility Boats						3,000,000	3,000,000
Rigid Hull Inflatable Boat (RHIB)						1,500,000	1,500,000
FFG Shaft Spares						300,000	300,000
Fall Safe Hangar Fall Restraint System						175,000	175,000
FY 2009 Title IX NGREA Equipment							
C-130T Electronic Propeller Control System (EPCS)						6,952,000	7,560,000
NCF TOA Equipment						6,640,000	8,127,000
NCF Tactical Vehicles and Support Equipment						5,477,000	3,485,000
F5 Wing and F5 Component Upgrade						2,500,000	2,500,000
NCF Collateral for Facilities						1,135,000	1,640,000
NAVELSG TOA Equipment						978,000	978,000
C-130T Cabin Altitude Warning Indicators						608,000	0
RHIB for EOD Unit						440,000	440,000
C-9B Full Face Oxygen Masks						270,000	270,000
TOTAL				**$201,879,000**	**$189,231,000**	**$62,389,000**	**$62,389,000**

USNR
Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No

Service Does Not Use Substitution to Satisfy Major Item Equipment Requirements

USNR

Table 8

Significant Major Item Shortages

NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	C-40A	17	4	$81,700,000	$326,800,000	Legacy C-9 aircraft do not meet operational requirement for range/payload. Recapitalization necessary due to C-9's increasing operating and depot costs, decreasing operational availability, and inability to meet future FAA /International Civil Aviation Organization (ICAO) avionics / engine mandates required to operate worldwide. Accelerated procurement will facilitate earlier divestitude of C-9Bs and increase lift capability to the Fleet.
2	Navy Expeditionary Logistics Support Group (NAVELSG) Table of Allowance (TOA) Equipment	various	various	various	$54,385,285	Funds 1.5 FO1 Navy Cargo Handling Battalion (NCHB) sub-components over a 3 year period starting in FY 2012.
3	Maritime Expeditionary Security Force (MESF) TOA Equipment	various	various	various	$91,174,511	Funds shortfalls of civil engineering support equipment (CESE) and communication equipment; also replaces aging patrol boats required to improve operational readiness in support of OCO.
4	Naval Construction Force (NCF) Tactical Vehicles and Support Equipment TOA	various	various	various	$9,832,787	Funds would improve NCF readiness by providing tactical communications equipment and tent camp facility support to fill shortages in TOAs that are aligned to train RC for deployment at Reserve Support Sites.
5	Special Forces Personal Protection Equipment	450	258	various	$3,169,000	Reliance upon active duty inventory and allocation result in inadequate equipment required to properly train, deploy, and sustain NSW personnel. Includes various personal and squad level tactical protective equipment.
6	NSW Mission Tasking Communication Equipment	various	various	various	$1,582,000	Reliance upon active duty inventory and allocation result in inadequate equipment required to properly train, deploy, and sustain naval special warfare (NSW) personnel. Includes various personal and squad-level tactical communications equipment.

Table 8

USNR
Significant Major Item Shortages

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
7	KC-130J	5	5	$84,000,000	$420,000,000	Procures KC-130J aircraft for the Navy RC. These aircraft will fill the shortfalls in the Navy Unique Fleet Essential Airlift (NUFEA) inventory bringing it to the NAVPLAN 2030 redline. Navy C/KC-130T RC fleet is currently short of required wartime capability requirements, reducing lift capability for personnel, medical evacuation, and cargo transport. Avionics Modernization Program (AMP) for C/KC-130T was cancelled Apr 2008 due to competing priorities of the Naval Aviation Enterprise, USMC divestiture, and KJ procurement strategy.
8	F/A-18E	24	24	$55,089,000	$1,322,136,000	Accelerates transition currently slated to commence in 2019. Current 24 F/A-18A+ aircraft are not network centric warfare capable (Multi-Functional Information Distribution System [MIDS]), non-CVW (carrier air wing) deployable, provide limited red air threat representation only. These aircraft in this configuration do not support the strategic reserve mission of VFA-204 and VFC-12 squadrons for CVW and UDP (Unit Deployment Program) deployments.
9	F-5 Radar/Electronics	44	44	$1,956,818	$86,099,996	The Navy F-5 fleet addresses 63% Navy shortfall for radar-equipped adversary support. F-5 aircraft in their current configuration are not threat representative and provide marginal real world threat simulation to fleet replacement squadron (FRS) students and deploying forces. The importance of utilizing electronic attack (EA) and developing counter-EA capabilities cannot be overstated. EA is inexpensive, highly prolific throughout the threat countries, and is a highly portable technology capable of disrupting possible COCOM-directed counterair effects in potential future conflicts.
10	P-8A	12	12	$224,600,000	$2,695,200,000	Procures 12 P-8As to fill patrol, reconnaissance, and intelligence gathering capability gap created by the aging P-3C aircraft. Additionally, disestablishment of P-3C support infrastructure prohibits continued P-3C operations.

Chapter 5
United States Air Reserve Components

I. United States Air Force Overview

A. Air Force Planning Guidance

In the United States Air Force Posture Statement 2011, the Air Force emphasizes the need for fiscal constraint while simultaneously preparing for and responding to the "diverse and complex security challenges that require a range of agile and flexible capabilities." Pursuit of this balance is reflected in acquisition priorities, which include the Regular Air Force, Air Force Reserve (AFR), and the Air National Guard (ANG).

The Air Force mission and the accompanying leadership priorities support the Joint mission and provide planning guidance for execution of our agile and flexible capabilities:

- Air Force Mission: "fly, fight and win…in air, space and cyberspace."
- Leadership Priorities
  - Continue to Strengthen the Nuclear Enterprise
  - Partner with the Joint and Coalition Team to Win Today's Fight
  - Develop and Care for Airmen and Their Families
  - Modernize Our Air and Space Inventories, Organizations, and Training
  - Recapture Acquisition Excellence.

In today's demanding, complex, and uncertain environment, the Air Force achieves its mission and leadership priorities through the efficient incorporation of the Reserve Component (RC). Historically, the Air Force has led the Department of Defense in maximizing the value of the RC, most notably through associating units from the Active Component (AC) and RC. In recent years, the Air Force has institutionalized this process in Total Force Integration initiatives and now in the broader view of Total Force Enterprise—an analytical framework used to provide insight into the mix of AC and RC.

B. Air Force Equipping Policy

Strategic placement of Air Force assets, such as aircraft, is determined through corporate level processes involving both the AC and RC. Modernization of aircraft is addressed through a partnership between the requirements of the Core Function Lead Integrator (CFLI) for mission capability as well as requirements determined by the RC to meet assigned missions.

The Air Force actively works to meet the equipment needs of the RC. Corporate processes are used to strategically place aircraft and CFLI and RC requirements are used as the basis for modernization. These efforts ensure a mission-ready, mission-capable force to meet the Air Force's vision, mission, and priorities.

As a point of clarity, while this report is being written, there are numerous pending budget decisions that may significantly affect force structure and associated modernization programs.

C. Plan to Fill Modernization Shortages in the RC

The Air Force continues to support the recommendations set forth in the Commission on the National Guard and Reserves final report, published in January 2008, titled *Transforming the National Guard and Reserves into a 21st Century Operational Force*. This report recognized the RC transition from a purely strategic force designed to meet Cold War threats to an operational force: "This operational reserve must be readily available for emergencies at home and abroad, and more fully integrated with the active component."

The Air Force champions many of the transformational concepts outlined in the report and, through continued partnerships between the AC and RC, mission-enabling requirements are identified, prioritized, and funded across the Air Force spectrum.

D. Initiatives Affecting RC Equipment

1. E-8C Joint Surveillance Target Attack Radar System (JSTARS)

a. Re-engining

This modification is a development program that includes continuing System Development and Demonstration (SDD) and the purchase of two shipsets of JT8D-219 engines, thrust reversers, nacelles, pylons, fan, exhaust duct, and all associated components. JT8D-219 engines will not be installed on fleet aircraft at this time to preclude a mixed fleet. Installation of one production shipset onto the test aircraft will facilitate SDD completion.

2. Remotely Piloted Aircraft (RPA)

a. MQ-1/9 Cockpit Improvements

Cockpit improvements continue to focus on human factors to provide intuitive, pilot-like controls, advanced visualization, and streamlined information presentation for Predator and Reaper crews. The advanced cockpit will use an open architecture to allow full integration of aircraft, sensor, and weapons control and will allow for new requirements from emerging missions.

3. B-52 Stratofortress

a. Military Standard 1760 Internal Weapons-Bay (1760 IWB) Upgrade

The 1760 IWB upgrade will modify the aircraft software and hardware to carry and employ Global Positioning System (GPS)-guided "smart weapons" from the B-52 internal weapons bay. The internal-only weapons carriage provides a 20 percent increase in B-52 range, reducing aerial refueling requirements.

b. Advanced Targeting Pod (ATP)

The B-52 ATP program fully integrates Sniper or LITENING targeting pods by altering aircraft software and linking pod control, display, and target geo-location with the aircraft's Offensive Avionics System. A fully integrated targeting pod improves timely support of friendly ground forces requesting fire support.

4. C-130 Hercules

a. Optimize Legacy C-130 Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM)

Optimize Legacy C-130 CNS/ATM provides a minimum CNS/ATM solution for the combat delivery fleet to meet the airspace mandates required for flight beyond 2020, completes fleet modification to meet CY20 RNP-1 mandates, and addresses obsolescence and diminishing manufacturing source (DMS) issues. The program will modify AC and RC aircraft; however, at this time, the specific numbers of each aircraft type have not been determined.

b. Large Aircraft Infrared Countermeasures System (LAIRCM)

LAIRCM provides a significantly improved defense capability for the C-130 to counter infrared (IR) man-portable air defense systems (MANPADS) missile threats. This defense system is fully automatic following power-up.

5. KC-135R Stratotanker

a. Avionics Obsolescence Upgrades and Safety of Flight Modifications

These programs address reliability, maintainability, and obsolescence issues to keep the aircraft viable until 2040. Modifications include Block 45, which replaces current equipment with Digital Flight Director, Digital Radar Altimeter, Digital Autopilot, and Electronic Engine Instrument Display; Enhanced Surveillance, which replaces the APX-100 with the APX-119 transponder and improves air traffic management in congested airspace; Global Air Traffic Management, an upgraded avionics suite that allows the aircraft to continue operating in the increasingly restrictive global civil airspace environment; the DoD-mandated Identify Friend or Foe system Mode 5; and the VHF omnidirectional radio (VOR)/instrument landing system (ILS) navigation antenna that replaces the obsolete VOR antenna.

6. C-5 Galaxy

a. Avionics Modernization Program (AMP)

AMP is the first part of a two-part modification effort to modernize the C-5 aircraft with modern digital avionic systems. AMP replaces unreliable and unsupportable engine/flight instruments and flight system components. It also installs CNS/ATM and navigation and safety modifications for the Terrain Awareness and Warning System and Traffic Alert and Collision Avoidance System. All C-5s planned for retention in the Air Force will receive the AMP modification.

b. Reliability, Enhancement, and Re-engining Program (RERP)

RERP is the second part of the two-part modification C-5 modernization effort and is designed to improve C-5 reliability, maintainability, and availability while increasing wartime mission capability rates to at least 75 percent. RERP replaces the TF39 engine with the General Electric F138-GE-100 engine. The new engine meets Stage III noise and emissions standards while improving payload capability and time-to-climb capability needed to meet airspace requirements. Reliability enhancements include upgrades or replacement of auxiliary power units and upgrades to the electrical, hydraulic, fuel, fire suppression, pressurization, air conditioning, landing gear, and airframe systems. Fifty-two aircraft (1 A-model, 49 B-models, and 2 C-models), 14 of which

are assigned to the AFR, are planned for modification to the C-5M configuration. The modification program is planned for completion in FY 2016.

c. Large Aircraft Infrared Countermeasures System (LAIRCM)

LAIRCM provides a significantly improved defense capability for the C-5 to counter infrared (IR) MANPADS missile threats. This defense system is fully automatic following power-up. There are currently 16 C-5B AFR aircraft scheduled to receive LAIRCM by the second quarter FY 2017. All C-5s retained in the Air Force inventory are planned for modification.

d. Mission Computer, Mission Systems Equipment, and Weather Radar

The Air Force initiates a modification effort in FY 2013 to continue modernization of C-5 aircraft. The existing mission computer has reached maximum capacity and cannot process/integrate required aircraft systems and capabilities. The new system capability is projected to support sufficient processor capacity to meet CY 2020 CNS/ATM mandates. The mission systems equipment modification is planned to modernize the C-5M lavatory/galley. Leaking fluids from the current system is a source of major corrosion and electrical problems, which compromise structural integrity and aircraft availability. Also, parts obsolescence and sole source issues resulting from diminishing manufacturing sources (DMSs) make it difficult to procure specific parts. The color weather radar system is also plagued with parts obsolescence and DMS issues and is planned for replacement with a commercial off-the-shelf (COTS) system.

7. C-17A Globemaster III

a. Block 13 to 17

This modification effort incorporates Block 14 Mobility 2000, 15 Communication Open System Architecture, 16 Weather Radar Replacement, and 17 Formation Flying System projects into one integrated retrofit work package into the Block 13 baseline for 152 C-17 aircraft to facilitate a homogeneous configuration. This project is accomplished in conjunction with the Extended Range (ER)/Onboard Inert Gas-Generating System (OBIGGS II) modification when possible.

b. OBIGGS II

The second generation OBIGGS is a new system that quickly and efficiently makes the gases in the fuel tanks inert, thereby preventing them from exploding if hit by enemy fire. In addition, the new system reduces the aircraft’s weight by almost 500 pounds. The retrofit effort includes structural improvements to the wing and fuselage and changes to subsystems and software. This redesign significantly increases system effectiveness, utility, and maintainability and reduces life cycle costs.

c. ER/OBIGGS

This project adds the ER fuel containment system and OBIGGS II to 70 C-17 aircraft that came off the production line without ER or OBIGGS II. ER adds a center wing fuel tank, increases the fuel capacity by 9,500 gallons, and adds 1,800 pounds to the empty weight of the aircraft.

d. LAIRCM

LAIRCM provides a significantly improved defense capability for the C-17 to counter IR MANPADS missile threats. This defense system is fully automatic following power-up.

8. F-15 Eagle

a. APG-63(V)3 Active Electronically Scanned Array (AESA) Radar

The APG-63(V)3 AESA radar upgrade provides significant improvements in detection, tracking, and engagement of multiple threats as well as improvements in system reliability and maintainability.

b. Advanced Display Core Processor (ADCP) II Central Computer Upgrade

The F-15C/D mission computer controls all aspects of aircraft operations. The current mission computer is obsolete and unsupportable. Its memory and throughput are also fully utilized and cannot support upgrades to the aircraft. The ADCP II will provide supportable technology, and will allow the Air Force to proceed with planned capability upgrades to the aircraft's radar and other sensor and weapons systems.

c. Beyond Line-of-Sight (BLOS) Satellite Communications Upgrade

The BLOS program will install a satellite radio system that will give the F-15C/D the capability to communicate with national command and control agencies that are not in line of sight of the aircraft. These agencies are charged with controlling homeland defense (HD) missions, and uninterrupted communications are essential.

9. F-16 Fighting Falcon

a. Falcon Structural Augmentation Roadmap

The Falcon Structural Augmentation Roadmap modification program is replacing or reworking known life limiting structural parts to preclude the onset of widespread fatigue damage, maintain flight safety, enhance aircraft availability, and ensure the aircraft can reach their design life of 8,000 flight hours. This modification is being installed on all AC and RC F-16s.

b. F-16 Block 40-52 Service Life Extension Program

Research and development will begin in FY 2012 to initiate a service life extension program (SLEP) for a select number of F-16 Block 40-52 aircraft in an effort to mitigate potential future force structure shortfalls. While the final number of aircraft requiring SLEP is scalable, the program is based on selection of 300 aircraft and dependent upon the individual aircraft's 8,000 hour service life projected date.

c. Beyond Line-of-Sight Communication Capability Modification

The BLOS modification includes a satellite communication antenna, amplifiers, and associated equipment to expand the secure line-of-sight (SLOS) capability provided by the ARC-210 radio. This BLOS capability is being installed in all combat coded aircraft.

d. Combat Avionics Programmed Extension Suite

Research and development will begin in FY 2012 to integrate a new AESA radar, center pedestal display, improved electronic warfare suite, integrated broadcast system, and other associated avionics on a selected number of Block 40-52 F-16s. This program will ultimately upgrade both ANG and AC Block 40-52 F-16s to keep them relevant in the threat environment beyond 2025.

10. F-22 Raptor

a. Common Configuration

This program includes numerous hardware modifications to reduce F-22 fleet configurations from six to three. This will increase combat capability of the fleet and will provide efficiencies in research, development, test, and evaluation (RDT&E) and sustainment.

b. Modernization Plan

This program includes Increments 2, 3.1, and 3.2. Each increment involves RDT&E and eventual installation of hardware and software that increases F-22 capabilities. Some capabilities include 4th Generation AESA radar, Small Diameter Bomb integration, AIM-120D and AIM-9X integration, and advanced data link.

c. Block 35

This program incorporates the Enhanced Stores Management System (ESMS) on Block 30 jets, enabling weapons incorporation to the earlier jets. This will bring the number of F-22s with full AIM-9X and AIM-120D capability to 150.

d. Reliability and Maintainability Maturation Program (RAMMP)

This program modifies hardware on existing F-22s to increase the fleet's reliability, availability, and maintainability. This program is a primary facilitator of the F-22 meeting the Joint Requirements Oversight Committee Key Performance Parameter requirements for Aircraft Availability.

e. F119 Engine Modifications

The F-22 Raptor F119 engine modification program is designed to improve overall safety, reliability, and maintainability and reduce total ownership costs.

11. A-10 Thunderbolt II

a. Replacement Wings

Of the Air Force's 345 A-10 aircraft, 233 have thin-skinned wings that require extensive wing refurbishment or replacement to prevent aircraft grounding. The current program includes the installation of 233 new, thick-skinned wings. The new wings will not require major structural inspections for the first 10,000 hours.

b. A-10 Missile Approach Warning System

The A-10 flies many of its missions at altitudes where it is particularly vulnerable to shoulder-launched IR surface-to-air missiles (SAMs). The AN/AAR-47 is a passive missile-approach warning system that will notify the pilot when a SAM is launched and will automatically dispense countermeasures. All A-10s will be equipped with AAR-47 by the fourth quarter of FY 2012.

12. C-130J

a. System Upgrades

Planned major system improvements include two pilot flight stations with fully integrated digital avionics, color multifunction and heads-up displays, state of the art navigation systems

incorporating dual inertial navigation systems, GPS, and multimode color radar and digital moving map displays. The aircraft uses new, more powerful turboprop engines and extremely efficient six-bladed propellers. The enhanced cargo handling system allows for more efficient loading. Current unfunded modernization requirements for the ANG C-130J fleet (and only partially funded for the entire mobility air forces fleet) include: Center Wing Box (CWB) replacement, LAIRCM integration, loadmaster crashworthy seats, and surface-to-air fire (SAFIRE) lookout capability.

E. Plan to Achieve Full Compatibility between AC and RC

The Air Force continues to provide a balanced portfolio of capabilities across the twelve Air Force Core Functions by maximizing the use of AC and RC forces. The analytical framework provided by Total Force Enterprise will provide insight into the right mix of AC and RC, and the tactical application of Total Force Integration initiatives will further build synchronicity.

This integrated approach, combined with lead command and RC requirements driving aircraft-related spending, will ensure the Air Force is ready to support the Joint Team as it meets the challenges of the future.

II. Air National Guard Overview

A. Current Status of the Air National Guard

1. General Overview

Top ANG Equipping Challenges

- Modernizing aging aircraft and other weapons systems for both dual-mission and combat deployments
- Acquire equipment to satisfy requirements for domestic operations in each Emergency Support Function (ESF)
- Define an Air Force validation process for both the federal mission and state domestic response needs

The Air National Guard (ANG) has a rich history of integrating and operating with civilian authorities and the United States Air Force in defending and protecting the interests at home and abroad for American citizens. Since its founding, the ANG has proven itself an integral part of Air Force capability. DoD 5105.77, *National Guard Bureau (NGB)*, May 21, 2008, makes significant provisions for increasing the influence of the National Guard in matters of support of civil authorities and, in conjunction with the FY 2008 National Defense Authorization Act (NDAA), grants the NGB the authority to facilitate and coordinate the use of non-federalized National Guard forces for operations conducted under Title 32, or in support of state missions. The equipment used by the Guard to support state missions, or operations under Title 32, is the same equipment used to support federal missions.

The ANG supports an aging aircraft fleet that faces significant sustainment and support costs. Maintaining and sustaining capabilities in this rapidly changing operating environment is one of the many current and future challenges the ANG mission support community faces. In partnership with the AC, the ANG is rapidly moving forward to develop adaptive and responsive management processes to meet the challenges of new operations tempos and paradigms. While ongoing overseas commitments and expanding domestic responsibilities for the ANG have resulted in the ANG responding to international disasters like Haiti, the ANG has responded to numerous domestic disasters throughout the country as well. All the while, the ANG continues to augment the AC with an operational force for contingencies around the globe, including Iraq, Afghanistan, and Libya.

Presently, the ANG provides almost half of the Air Force's (AF's) tactical airlift support, combat communications functions, aeromedical evacuations, and aerial refueling. In addition, the ANG currently has the responsibility for 17 of 18 air defense operations for the 54 states and territories of the United States. When ANG units are not directly supporting the AF, the ANG, under the provisions of state laws, provides protection of life and property and preserves peace, order, and public safety. The ANG accomplishes these missions through emergency relief support during natural disasters, such as floods, earthquakes, and forest fires; search and rescue operations; support of civil authorities; maintenance of vital public services; and counterdrug operations. To that end, the ANG has continually been called upon to support state governors and civil authorities for border patrols, hurricane relief, firefighting efforts, floods, earthquakes, and diverse security operations for events, such as the Super Bowl and Presidential inaugurations.

The operations tempo for the ANG has been high and prolonged, driving a need to concurrently modernize and recapitalize our aircraft fleets, a need shared by the AC. Due to the AF Total Force concept, the ANG has been extremely successful at utilizing newer aircraft and providing upgraded "tools of the trade" for Airmen through a capabilities-based requirements and acquisition program. This program enables the ANG to remain prepared, relevant, and dependable

in federal missions. While the Total Force concept has proved to be very successful for the Air Force in supporting federal operational missions, we are seeking solutions to overcome challenges in equipment availability for domestic support missions.

2. Status of Equipment

The FY 2008 NDAA, Sections 351(a) and 351(c)(1), "Reports on National Guard Readiness for Emergencies and Major Disasters," require an assessment of the extent to which the National Guard possesses the equipment required to support operations in an emergency or major disaster. Greater detail regarding this assessment is found in Appendix B.

Though issues of force structure, resources, and funding have long been the subject of debate among senior leaders and lawmakers, today these issues are framed by an unprecedented push to improve the way the AF utilizes and equips the RC. This is evident in the equipping strategy the AF has taken with the ANG. Currently, the ANG has a support equipment readiness rating near 91 percent, as compared to rates of 84 and 88 percent in 2007 and 2008. This rate is comparable to the overall Air Force availability rate and is achieved through the ANG and AF's teaming to equip the ANG as an operational reserve force.

ANG equipment is typically procured in support of federal missions with authorizations that are aligned to Tables of Allowances (TAs). These TAs prescribe the equipment necessary to perform federal missions. The ANG diligently leverages these TAs for both vehicles and aircraft support equipment to meet its responsibilities for both the federal and domestic support missions. Equipment priorities are determined in a Total Force environment, where the forces with the most pressing operational need get first priority, no matter which component owns those forces.

Although the aggregate equipment readiness level is near 90 percent of authorized equipment, shortages do exist, and requirements for domestic needs are ever present. The challenge is to obtain the assets that are most critical for the warfighter and military first responder for homeland operations. Approximately 88 percent of the assets the ANG possesses are considered "dual-use" (federal and domestic support missions). In addition, the ANG aligned all dual-use equipment and vehicles into the "Essential 10" categories. These are 10 core capabilities needed to respond to emergencies and major disasters in the United States. These "Essential 10" capabilities are: command and control (C2); chemical, biological, radiological, nuclear, high-yield explosives (CBRNE) consequence management; engineering assets; communications; transportation (surface); aviation/airlift; medical; security; logistics; and maintenance.

a. Equipment On-hand

i. Current Status

The majority of ANG equipment is classified as "dual use." Recent data indicates the ANG is approximately 9 percent short of filling its equipment requirements, as calculated from items in use/on-hand versus items authorized.

ii. ANG Equipment On-hand

Overall, the ANG has nearly 91 percent of all equipment on-hand and available for domestic support and federal operations. Refer to *Table B-1* in Appendix B for detailed information on equipment on-hand.

a) Average Age of Major Items of Equipment (MIE)

Overall, the average age of aircraft within the ANG is 27.1 years. See *Table 2* for the average age of selected aircraft MIE. Aging aircraft could negatively impact DSCA missions, but may not necessarily affect the ANG federal missions.

b) Compatibility of Current Equipment with AC

The Air Force continues to develop corporate level (lead command) management of aircraft tails. However, the ANG position is that unit ownership of specific tails promotes quality maintenance (aircraft availability) and unit cohesion. Additional detail is provided in the "Modernization Programs and Shortfalls" section of this report.

c) Maintenance Issues

The NGB Aircraft Maintenance staff's concern about sustaining legacy systems has led to the establishment of a Weapon Systems Sustainment Working Group. The charter of this group is to identify equipment sustainment shortfalls, prioritize them, and advocate for mitigation. Maintenance issues identified by the group include the following.

i) C-5 Sustainment and Modification Requirements

- C-5 Aft Crown Skins—indicators show signs of cracks beyond current inspection criteria, which led to the use of a Magnetic Optical Imaging (MOI) technique every 840 days. An overdue 840 day inspection will result in a 65 percent operating restriction. Twice overdue will constitute an 80 percent operational restriction. These restrictions should no longer occur since the ANG units now have their own MOI equipment. Estimated cost of the 26 skin replacement is $10.2M per aircraft. Once funding is received, replacements will occur at Warner-Robins Air Logistics Center or Lockheed Martin.

- C-5 Contour Box Beam Fitting—inspections revealed cracks in this critical structural component. Aircraft with cracks are limited to 6.0 pounds per square inch (PSI) and 25,000 feet and operationally restricted to local missions. Lockheed has developed a replacement technique for the fittings and is fielding replacements. Cost to replace is $3.1M per aircraft. Without additional funding, aircraft grounding will reduce aircraft availability for federal and domestic missions.

ii) Flight Line Generator (72kW)

The 72kW generator can be overhauled to like-new condition from the depot at Hill Air Force Base (AFB) with a cost of $54K per generator. As of April 2011, the new 72kW generator is scheduled to begin delivery mid-FY 2014.

d) Modernization Programs and Shortfalls

1. The ANG's modernization efforts are founded on capability requirements validated by the AF and combatant commanders. Critical capabilities are developed and vetted in an open and rigorous forum of warfighters, who are experts in their respective weapons systems, at an annual Weapons and Tactics Conference and approved by the Director, ANG. The capability requirements are translated into specific programs that are commercial or government off-the-shelf (GOTS), and require only non-developmental

integration into a weapons system. The process includes C2, cyber, intelligence surveillance and reconnaissance (ISR), training, and simulator systems as well as weapons delivery, airlift, and tanker platforms. These capabilities and associated programs are documented in the annual *Weapons Systems Modernization Requirements Book*. This process has documented a $9.7B shortfall for modernization and recapitalization of the ANG aircraft fleet and associated equipment.

2. The third annual Domestic Operations Equipment Requirements (DOERs) conference will be held in conjunction with the NGB Joint Domestic Operations Workshop in January 2012. The ANG will partner with the Army National Guard (ARNG) in developing and executing this conference. The objective of the conference is to define, validate, document, and prioritize materiel capabilities needed by ANG units to support civil authorities at all levels of government. The ANG and ARNG will use the direct output from this conference to jointly publish the annual *Domestic Operations Equipment Requirements (DOERs) Book*. The DOERs Book is organized using the Emergency Support Functions (ESFs) of the National Response Framework to ensure the states, federal and state agencies, Congressional leaders, and NGB staffs understand the ANG connections to our local communities and states. We also expect close monitoring of the process by the Federal Emergency Management Agency (FEMA) because it has been using the DOERs output to improve and delineate its requirements.

i) A-10

A/OA-10 Attack

The last ANG A-10A was upgraded to the A-10C configuration in 2011, and the AF continues to fund Operational Flight Program software updates for the common AC and RC fleet. The AAR-47 is a passive, missile-approach warning system that detects missile launches from 360 degrees around the aircraft and automatically dispenses countermeasures. Installation is complete on all ANG A-10 aircraft. A second ARC-210 radio, which allows simultaneous SLOS and BLOS capability with ground troops and C2, was procured using NGREA funds to fill a Central Command (CENTCOM) urgent operational need for a deployment to Iraq, and the remainder of the ANG A-10 fleet was equipped using overseas contingency operations (OCO) funds. This upgrade will be completed in 2012. An upgrade to the ALQ-213 countermeasures processor was also funded with NGREA.

The ANG A-10 fleet is planned to receive the following upgrades in the next two years through NGREA funding: 1) the combined F-16/A-10 helmet-mounted integrated targeting (HMIT) system and 2) the AN/ARS-6 V12, Lightweight Airborne Radio System (LARS), an upgrade that increases combat search and rescue situational awareness and reduces the time required to find a downed Airman. The A-10C will have capability shortfalls in the following unfunded programs: 1) the digital radar warning receiver (RWR) will significantly improve all RWR functions, reducing response times to threats; 2) the electronic attack (EA) pod upgrade that will enhance self-protection against current and emerging threats; 3) the A-10 engine upgrade or replacement has been identified as a critical need for years, but no program exists to redress the deficiency; and 4) a replacement intercom and 3-dimensional audio system to reduce the workload associated with interpreting communications from up to four radios simultaneously.

ii) C-5

C-5 Strategic Airlift Aircraft

The ANG operates the C-5A aircraft. The AC and AFR units operate the C-5B/M aircraft that are modified with aircraft defensive systems (ADS). The installation of ADS allows operations in hostile environments. ADS for ANG aircraft was funded with NGREA and OCO funds and is awaiting installation with anticipated completion in FY 2014. Without ADS, ANG C-5A aircraft are not permitted to enter certain airfields in the CENTCOM area of operations. Additionally, the lack of ADS decreases aircraft available to meet certain mission taskings, and increases the threat of undetected MANPADS launches. Aircraft must be modified with ADS prior to receiving the LAIRCM system. The C-5A is programmed to receive the avionics modernization program (AMP) upgrade, which is being fully funded by the Air Force. The AMP upgrades include modern avionics and will ensure compliance with Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO) equipment mandates for CNS/ATM. The C-5A will not receive the RERP upgrades and will continue to operate with older, less efficient, and less reliable engines that significantly reduce mission capable rates.

iii) C-17

C-17 Strategic Airlift Aircraft

Installation of LAIRCM on the C-17 remains a top priority. All eight ANG C-17 aircraft are funded by supplemental appropriations to receive LAIRCM upgrades. The LAIRCM contract was successfully renegotiated in the fourth quarter of FY 2011, and ANG aircraft should begin receiving the LAIRCM modification in the second quarter of FY 2012. The Air Force is successfully maintaining common configurations and capabilities between the ANG and AC C-17 fleets.

iv) C-130E/H

C-130E/H

AC and ANG C-130s operate worldwide in a low to medium threat environment where advanced defensive systems, avionics upgrades, and situational awareness capabilities are required. The ANG continues to work with Air Mobility Command (AMC) for funding to complete all C-130 units with LAIRCM systems and the C-130 AMP. Efforts have been initiated for Real Time Information in the Cockpit (RTIC) capability that provides timely information to aircrews so they can participate in the present day network-centric battlespace and greatly increase survivability in combat operations. Flight and ground evaluation was recently completed and the RTIC program is currently funded for 31 aircraft using NGREA. Available FY 2011 NGREA funding will allow for an additional 12 aircraft to be modified. Additional funds are required to complete the fleet-wide program. Other programs that have been fully funded with NGREA include the Chaff/Flare Yoke Mounted Switch and Square Window Doors for improved surface-to-air missile firing (SAFIRE) detection, and Loadmaster Wireless Headsets to improve safety in the cargo compartment. The Loadmaster Crashworthy Seat and the Active Noise Cancellation System programs are currently partially funded via NGREA/Congressional additions and will require additional funding to complete all aircraft.

v) C-130J

The C-130J brings major system improvements including: advanced two- pilot flight station with fully integrated digital avionics, color multifunction and head-up displays, state-of-the-art

navigation systems with dual inertial navigation system and GPS, digital moving map display, and new turboprop engines with six-bladed, composite propellers. Current unfunded modernization requirements for the ANG C-130J fleet include: LAIRCM, AAR-47 Missile Warning System (MWS) improvement, and Single Pass Precision-guided Airdrop capability. AF funding has been provided for the loadmaster crashworthy seat program. The Loadmaster Wireless Communication solution is funded via NGREA.

vi) EC-130J

EC-130J

The EC-130J Commando Solo program continues to modernize primarily through United States Special Operations Command (USSOCOM) Major Force Program (MFP)-11 funding. Major modifications funded by USSOCOM include Narrow Band Base Band (transmitter upgrade), K_u satellite communications suite, Special Mission Equipment 60 Hz frequency converters and the removable airborne military information support operations system (RAMS—modular airborne broadcast for multimission capability). Additionally, the EC-130J has received Congressional additions for LAIRCM and RAMS (FY 2009 and FY 2010). To complete the LAIRCM program, $17.41M of an FY 2010 Congressional addition for LAIRCM on other C-130 variants needs reprogramming for the EC-130J; the reprogramming is part of the FY 2011 OMNIBUS process. The EC-130J program has not received funding from NGREA. Minimum capabilities for the EC-130J to stay relevant are the continued production of RAMS, cargo compartment multi-mission power distribution panel, enhanced situational awareness suite, satellite communications (SATCOM) radios for flight crews, and loadmaster crashworthy seats. Additional future enhancements would include primary aircrew training devices (weapons system trainers and defensive system trainer) and external fuel tanks.

vii) LC-130

LC-130

The ANG and Congress funded several programs that will significantly improve the effectiveness of the LC-130. The ANG recently completed evaluation of an eight-bladed propeller from the Navy's E-2D for the C-130. Data from the flights indicates the new propellers will reduce reliance on costly Jet Assisted Takeoff motors for deep field missions and improve the takeoff capability of the aircraft in all conditions. The ANG is ready to begin production and fielding of the new propellers in all the LC-130s, but additional funding is required to update the aircraft technical orders and purchase propeller sets for installation. The ANG is also funding an effort to replace the existing mechanical propeller synchronizers with a digital version that improves reliability and maintainability of the LC-130 engines. A production contract was awarded and installation began in September 2011. Additionally, the ANG and Congress have funded the Crevasse Detection Radar. This radar allows the LC-130 to identify and avoid crevasses in the deep field locations where they typically land. This system is completing integration efforts and will begin operational use next Antarctic season. Future LC-130 requirements include CNS/ATM avionics upgrades to allow worldwide flight—ANG will work with other major commands with special mission aircraft to determine a funding strategy.

viii) HC/MC-130

HC/MC-130 Combat Rescue Aircraft

The AF has funded installation of Emergency Locator Transmitter and Airborne Direction Finder equipment, and dual rail modification allowing cargo to be quickly loaded and unloaded for mission flexibility. The ANG has funded an upgrade to the LARS v6 with the LARS v12, which provides the survivor's location from the latest survival radios, significantly reducing the time required to locate downed Airmen. The AF funded an upgraded communication suite, an oil cooler augmentation program, and loadmaster crashworthy seats, but funding was insufficient to cover all ANG aircraft. The shortfalls are being resolved with NGREA. The minimum capabilities for the HC/MC-130 to remain relevant are completion of the communication and data-link program and increased engine performance. The capabilities for optimum employment require modernization programs to include upgraded defensive system and an enhanced situational awareness suite to include an electro-optical (EO)/IR sensor. HC 130 recapitalization of ANG assets is scheduled to begin in 2018.

ix) E-8C JSTARS

E-8C JSTARS

The future roadmap of the JSTARS system has the attention of the highest levels of AF and Army leadership. An Analysis of Alternatives is underway to determine if continued investment in the E-8C is of value or if the AF should pursue other alternatives to field JSTARS capabilities. Until that decision is made, the ANG continues to address current operational priorities. Over the last three years, the ANG has funded with NGREA an effort to add a communications suite with an integrated internet-protocol (IP)-based chat capability to support an urgent operational need for the CENTCOM area of responsibility (AOR); initial spares purchase for the Enhanced Land Maritime Mode (ELMM)—a transformational capability to accurately track, target, and engage moving land and maritime targets using GPS-guided weapons from various platforms; enhanced cooling carts that resolve shortfalls with current support equipment that have caused air/ground aborts and prolonged maintenance downtime in the AOR; the purchase of 8.33 kHz VHF radios for frequency spacing and single-channel ground and airborne radio system voice-over-data capability; and the upgrade of the SATCOM telecommunications service from Swift64 to Swiftbroadband, which enables greater bandwidth and reduced operating costs. In addition to taking the lead on ELMM and the integrated chat modifications, the AF has funded upgrades to the Prime Mission Equipment to resolve DMS issues with the Radar Airborne Signal Processor, Operator Work Station computers, and Blue Force Tracker hardware. Additionally, the AF is replacing current Joint Tactical Information Distribution System terminal with Multi-functional Information Distribution System (MIDS) Joint Tactical Radio System. The current TF-33 engines are the biggest reliability problem and capability shortfall for JSTARS. The AF's 2004 and 2005 reports to Congress outline these issues and the sustainment cost savings to be gained by replacing the JSTARS E-8C engines. The resulting re-engining development program requires completion of SDD and the purchase of two shipsets of JT8D-219 engines, thrust reversers, nacelles, pylons, fan, exhaust duct, and all associated components. JT8D-219 engines will not be installed on fleet aircraft at this time to preclude a mixed fleet. Installation of one production shipset onto the test aircraft will facilitate SDD completion.

x) F-15C

F-15 A/B/C/D Air Superiority

The F-15C's number one modernization priority remains the APG-63(v)3 AESA radar. This is the same radar currently being installed by the AF on AC F-15Cs. To date, all ANG F-15C AESA procurement has been the result of congressionally directed funding. This funding has purchased 32 of the 48 AESA systems required by the ANG. In the last three years, the AC has provided funding for digital video recorders, an upgraded central computer/software load, and limited aircraft rewiring. During this same time period, the majority of ANG F-15C modernization was accomplished with NGREA funding. This funding purchased equipment to complete the installation of the joint helmet mounted cueing system (JHMCS) and night cockpit lighting modifications for all ANG F-15Cs not funded by the AC. It also purchased additional JHMCS pilot equipment and provided simulator upgrades for the initial F-15C flying training unit. These simulators support JHMCS and night-vision-goggle training for both the ANG and AC pilots. In response to a United States Northern Command (USNORTHCOM) urgent operational need for BLOS capability for alert aircraft, the ANG worked with the program office to field an initial, standalone SATCOM capability in 2011 with NGREA. This effort will meet the urgent need up to two years earlier than the FY 2012 program of record. The AC is planning to fund the remaining aircraft and develop a fully integrated installation in FY 2012–FY 2013. The ANG is also working with the F-15 program office to integrate the ATP and a new cockpit display to enable visual identification of targets of interest on night Air Control Alert missions. When complete, NGREA will be used to procure and install the hardware and wiring required to carry the ATP. NGREA will also be used to procure and install the hardware required to carry the back of launcher (BOL)-IR external countermeasures system. These programs will need future year funding to ensure all F-15s receive the much needed equipment.

xi) F-16

F-16 C/D Fighter Aircraft

Modernization efforts are underway with NGREA to improve the contingency war fighting and homeland defense (HD) capabilities of ANG pre-block F-16s by fielding SLOS and BLOS communications suites, higher data rate processors, high resolution center console display unit (CDU), HMIT system, enhanced self-protection suites, and the advanced identification friend or foe (AIFF) combined interrogator transponder. Additionally, USNORTHCOM identified AIFF and BLOS capabilities as critical requirements for HD. Over the last three years, ANG NGREA funding has supported Block 30 HMIT, CDU, AIFF, ALQ-213 processor upgrades, and Ethernet, X-Mux, and the Commercial Fire Control Computer (CFCC), which increases avionics processing power and bandwidth to enable carriage of advanced weapons, such as the small diameter bomb. The AF is funding the Operational Flight Program software updates required to support all of these systems, but all modification hardware and installs are NGREA-funded. ANG post-block funded programs include Block 42 ALQ-213, AIFF, and -229 engine upgrades and Block 40/50 JHMCS purchases. The AF has funded the Block 30/40/50 SLOS/BLOS and digital video recorder upgrades, Block 40 identification friend or foe transponders, and upgraded Block 50/52 AIFF. The lack of funding for Block 30 HMIT and CDU in the current AF procurement program generates significant risk for the procurement of these systems in FY 2013 and beyond. These are critical programs to achieve targeting and performance capability parity with the AC fleet. Minimum

programs required for ANG F-16s to stay relevant include HMIT, CDU, AIFF, simultaneous SLOS/BLOS, ALR-69 RWR upgrades, and enhanced countermeasures capability.

xii) HH-60G

HH-60G Combat Rescue Helicopter

The AF has funded programs to include a vibration monitoring system, Improved Altitude Hover and Hold Stabilization, and a defensive weapon system. The ANG HH-60G fleet is currently undergoing an NGREA-funded program that will enable direct communication with civil emergency responders. The program replaces SATCOM, VHF/FM, VHF/AM, and UHF/AM radios with four ARC-210 radios and also upgrades the LARS v6 with LARS v12 which provides position data from the latest survival radios, reducing the time required to find a downed Airman. The ANG has also funded a heater modification for the crew compartment during operations in extremely cold temperatures and smart, multifunction color displays (SMFCD) with data-link, which connects the HH-60 to the digital net-centric communication environment. The minimum capabilities required to stay relevant are the upgraded communication program, SMFCD, data-link solution, and improved defensive capabilities. The capabilities for optimum employment require modernization programs to include a helmet-mounted cueing system with point designation, and coordinate generation capabilities. The HH-60G fleet is rapidly aging and experiencing increased maintenance rates and component failures, which highlight the need for a recapitalization effort.

xiii) KC-135

KC-135 Air Refueling Tanker Aircraft

Due to current changes in employment concepts, the KC-135 continues to be positioned in high threat areas. This vulnerability demands the requirement to add LAIRCM capability. AMC, with ANG support, recently completed ground and flight test to evaluate a potential, low-cost podded solution to this critical capability. Follow-on flight evaluation is anticipated, and the ANG is partnering with the Navy to create an affordable path forward. Currently, there is no AF funding for the IR countermeasures on the KC-135. The AF has provided funding for numerous CNS/ATM compliance items, including an integrated flight director/autopilot and electronic engine instrument display; all of which are included in the Block 45 upgrade. For the KC-135 to continue its mission in the future, the ANG has established a critical need for a tactical data link (TDL)/RTIC system for crew situation awareness in high-threat environments and enhanced external overt/covert lighting to reduce the chance of midair collisions when operating at night in high-threat environments. Funding is required to achieve these capabilities.

xiv) RPA

MQ-9 Remotely Piloted Aircraft

The ANG has seven operational RPA units: five MQ-1, located in AZ, CA, ND, TX, and OH (initial operational capability [IOC] second quarter FY 2012), a classic associate in NV, plus one MQ-9 located in NY. The ANG also operates one MQ-1 Formal Training Unit (FTU)/field training detachment (FTD) in CA and a MQ-9 FTU/FTD (FTD IOC FY 2009) scheduled to begin operations the first quarter of FY 2012 in NY. As the requirement for ISR grows, the ANG could potentially stand-up additional RPA units. As new RPA missions are announced, the AF is responsible for funding the stand up of any new unit. MQ-1/MQ-9 RPA operations consist of aircraft, ground control stations, and squadron operations centers (SOCs). Until recently, the SOC was not part of the weapon

system or program of record. SOCs are the key element in RPA operations because they are the tactical C2 link between individual unit RPAs and deployed locations. Current plans call for Air Combat Command (ACC) to begin converting ANG MQ-1 units to MQ-9 units in FY 2014. As these units transition and new units stand up, the ANG must aggressively pursue a "balanced and concurrent" mix of MQ-1 and MQ-9 relative to the Total Force. Critical capabilities required for the MQ-1/MQ-9 include SOC upgrades to a common baseline, independent and redundant data architectures to improve mission reliability, improved human machine interface and airspace integration systems, and subsystems that allow flight in civilian FAA-controlled airspace during training and for domestic response to natural or manmade disasters.

xv) C-38

C-38

The C-38 has limited range, is becoming increasingly unreliable due to maintenance issues, and is expensive to operate due to diminishing manufacturing sources of aircraft parts. Replacing the C-38s will address several capability gaps identified in a capabilities-based assessment. Current requirements call for four small capacity executive support aircraft. Four aircraft would ensure consistent support and minimize the impact of unplanned maintenance.

xvi) C-40

C-40

LAIRCM systems have recently been installed on these aircraft along with Integrated Approach Navigation/Vertical Situation Display (IAN/VSD) and the Enhanced Vision System all with AF funding. The ANG has funded additional avionics upgrades that will bring the ANG C-40s to a common configuration with the AFR C-40Cs. ANG is also funding high speed data internet, which will allow passengers to be connected via non-secure internet and e-mail while airborne. Current C-40 requirements for the ANG fleet call for four aircraft, three of which have been procured. A fourth aircraft would ensure consistent mission support and minimize the impact of unplanned maintenance.

xvii) C-21

C-21

All 21 ANG aircraft have been modified to comply with reduced vertical separation minimum (RVSM) airspace requirements. AMC funded the two aircraft designated as pure distinguished visitor airlift, while the ANG used NGREA funds to install the RVSM upgrades on the 19 bridge mission aircraft. Enhanced Mode S (EHS) is currently required to operate in Europe; however, the C-21A has a waiver to operate without this equipment. The EHS modification is on hold, pending the outcome of the C-21 aircraft retirement decision. AMC has plans to fund the two ANG C-21A aircraft that will remain after the pending aircraft retirements.

xviii) Air Support Operations Group (ASOG), Air Support Operations Center (ASOC), Air Support Operations Squadron (ASOS)/Tactical Air Control Party (TACP)

TACP in Action

The AF has funded programs to include computers for digitally-aided close air support (CAS) and radios to include PRC-117Gs and PRC-148 (4)s. The ANG has funded multiple programs designed to fulfill identified shortfalls, which include an upgraded video down link capability, improved communication equipment, night vision devices, and body armor. The

minimum capability to stay relevant requires persistence in upgrading communication and radio equipment, particularly data-link solutions with integrated video down-link capability. The capability required for optimum employment is a Dismounted Interoperability Acquisition of Sensor Computer, which will provide the capability to simultaneously operate geospatial mapping, navigation, and precision targeting software with the option to provide direct, near real-time connectivity with supporting aircraft and ground forces. TACPs require light mobile equipment that can be easily carried by a battlefield Airman.

xix) Control and Reporting Center (CRC)/Air Control Squadron

Battle management C2 capabilities are undergoing significant mission asset changes and planned upgrades. Recent unit type code (UTC) changes and employment concepts reduced the overall tactical vehicle requirements by over 60 percent; virtually eliminating our CRC shortfall for tactical vehicles. Tactical generator requirements and shortfalls are now being evaluated to ensure the right-sized generator is identified to support mission requirements. This action will reduce our CRC requirements for tactical generators from $27M to less than $10M overall. However, Power Distribution Panel systems requirements will grow to $4.5M overall. Theater Deployable Communications (TDC) requirements are being tailored to meet specific UTC and battle management requirements, which will reduce the TDC footprint as well. NGREA will be used to address some ANG-specific requirements, but critical TDC shortfalls will still exist even with these actions. Lack of funding has crippling effects for the ANG, without the required assets to meet designed operational capability tasking, the combatant commands cannot rely on ANG CRC capabilities. ANG shortfalls exist within current combat air forces funding and are not addressed in outyear projected funding streams.

ACC's ongoing efforts through SLEPs for the AN/TPS-75 Radar, $36M, and AN/TYQ-23 Operations Module (OM), $40M, will enable these legacy equipment to remain viable for the foreseeable future. However, evolving and increased mission requirements exceed the capabilities for these assets. Planned replacement of the AN/TPS-75 with the 3-Dimensional Expeditionary Long Range Radar ($2.2B) and OM ($74M) upgrades will enable these systems to meet current and projected mission requirements.

The ANG has proposed integration of GOTS and COTS capabilities to enable a fully self-contained, rapidly-deployable, short-range sensor/radar and control capability to support HD, homeland security, DSCA, and drug interdiction missions. The integrated capabilities consist of two remote short range radars, a fully self-contained command post, and robust communication for four operator work stations. The estimated cost for the capability is $3.5M per system.

xx) Component Numbered Air Force (cNAF)/Air and Space Operations Center

ACC has finished fielding the Full Training Capability (FTC) suites of training equipment at all seven of the required air and space operations center (AOC) augmentation units during FY 2011. The FTC provides the basis for mission qualification and continuation training, but requires further capabilities to meet all training needs. For example, installation of the Core Radio Package (CRP) at each of the seven units with the FTC will provide more realistic training in both the combat operations and joint interface control cell. The CRP tentatively consists of multiple PRC-117G, URG-III, and MIDS LVT-11 capabilities with a per location cost of $617K (situation awareness data

link [SADL] and CT-II capabilities were not authorized for RC units under the FTC baseline). There is a shortfall for FY 2012 of $4.3M for the CRP capability.

xxi) C2 Simulation and Distributed Mission Operations

Distributed Mission Operations (DMO) with connectivity to the DMO Network and Distributed Training Operations Center is critical to current and future training venues. This DMO capability must be fielded to the seven AOC augmentation locations with FTC suites. The installation of gateways at each location provides a limited DMO capability. The cost of this gateway is approximately $30K per site for a total cost of $210K.

ACC fielded the Combat Reporting Center simulation package to the CRC/ACS community including the ANG for crew training. For Joint Terminal Attack Controller (JTAC) training, the ANG is required to provide an interim DMO capable simulator to meet future training and qualification requirements. This interim capability will meet standards until the program of record is fielded by ACC. DMO training requirements could begin as early as FY 2012. An estimated $25M is needed to acquire the next generation of ASOS/TACP trainers with capabilities that provide the C2 communities with high fidelity systems capable of integrating large-scale training exercises to train our personnel to the same proficiency as their AC counterparts.

xxii) Simulation and Distributed Mission Operations

The ANG has a dual track process for acquisition and modernization of modeling and simulation systems across the spectrum of devices from the very robust, high-fidelity simulator to lower-end trainer. Each is designed for a specific training audience and purpose at the squadron level. Partnering with AF research labs, technology centers, and industry, the ANG has deployed training systems with cutting edge technology at a fraction of the usual program cost. *Selective Fidelity* provides levels of capability matched to specific aircrew requirements in a hybrid device. Some components may be high fidelity while others, of lesser importance to the mission, are low fidelity, resulting in a purpose built capability targeting a specific training audience and mission. From FY 2009 to FY 2011, the ANG has invested over $50 million of NGREA in acquisition of new systems and upgrades to existing devices, including 30 KC-135 Boom Operator Simulation Systems, 3 A-10 Full Mission Trainers (FMT), 4 F-16C Full Combat Mission Trainers (FCMT), 4 C-130H2 Multi Mission Crew Trainers, 1 Advanced ANG Joint Terminal Attack Control Training System, significant upgrades to 4 F-15 FMTs, and 6 F-16 Unit Training Devices (UTD). During this same period, the lead commands delivered 1 C-17 Weapon System Trainer (WST) and 1 KC-135R Operational Flight Trainer. The near-term simulation priorities include 2 additional F-16C FCMTs with 8 devices ($32 million), 2 A-10C FMTs ($5M), and initial funding for the C-130/KC-135 Advanced Squadron Level Simulator program and the HH-60G Pave Hawk Aircrew Rehearsal and Operations Simulator.

xxiii) Cyber and Information Operations

ANG cyber warfare and information operations (CW/IO) force structure consists of eight units, together providing CW/IO capabilities supporting the AF, combatant commanders, and national-level agencies by conducting cyberspace force application, cyberspace defense, cyberspace support, influence operations, and related planning activities. These capabilities will continue to require regular modernization and technical refresh, as the information technology environment changes rapidly. Funding received through NGREA in FY 2010 ($1.7M) has allowed the ANG

to equip and modernize half of the ANG CW/IO units with a baseline Cyberspace and Critical Infrastructure Range (CCIR) infrastructure. FY 2011 NGREA ($3.8M) will enable the equipping of remaining units and add defensive and offensive training stations. A FY 2010 Congressional addition of $2.0M in addition to various year-of-execution funding by AF organizations have provided information technology (IT) equipment refreshes. The ANG CCIR and associated equipment is a minimum baseline for training; exercise; capability testing; analysis; and tactics, techniques, and procedures development. At least, two ANG IO units will require AF Information Operations Platforms (IOPs) beginning in late FY 2012. The AF has programmed ANG IOP and equipment sustainment beginning in FY 2013. Future enhancements to ANG CW/IO capabilities will greatly depend on the mission requirements and threats, but will require technology refresh of both existing fixed and deployable cyber platforms and software tools and platforms that can analyze and predict behavior of cyber-targeted systems.

xxiv) RC-26B

RC-26B

The RC-26B faces numerous modernization challenges. The aircraft is unique to the ANG and, thus, receives virtually no funding from the AF. Currently, the RC-26B is operationally tasked with providing USSOCOM capabilities to fill a long term capabilities gap. Six aircraft have been modified for Special Forces use with USSOCOM MFP-11 funding to a Block 25 standard, adding additional communication capabilities and self protection. The Block 20 variant continues to provide critical capability integration between military and civil authorities for a variety of domestic missions. Minimum capabilities to stay relevant include the replacement of the flight deck avionics suite, replacement of the onboard mission system operator station, upgrade of the onboard communications suite (including incorporation of civil/law enforcement radios, antenna mounts, and TDLs), and an aircraft weight reduction. Additionally, future enhancements will include aircraft performance upgrades, advanced electro-optical (EO)/IR turret, upgraded power source, and an external, podded, multi-mission capability. All upgrades are dependent on NGREA funding.

xxv) SENIOR SCOUT

Upgrade and modernization efforts funded in the SENIOR SCOUT program encompass Baseline 5 upgrades to four SENIOR SCOUT shelters. In addition to program funding, multiple capabilities were funded with FY 2010 NGREA; SENIOR SCOUT remote operations valued at $3.8M, Super Resolution Direction Finding valued at $4.5M, and an advanced, signal collection capability valued at $5.04M. FY 2011 NGREA funded engineering certification and interface kits for SENIOR SCOUT onboard a C-130J valued at $4.8M. There is an unfunded requirement for receiver modernization ($4.35M). Procurement funding is aggressively sought in the AF programming process to address the current shortfall of nearly $10M per year across the Future Years Defense Program (FYDP) for approved requirements.

xxvi) Pararescue/Special Tactics

The AF has funded programs to include personal protective equipment (PPE) to include helmets, body armor, and combat outer garments. They have also procured both light and heavy technical recovery kits, which assist in removing survivors from confined spaces and collapsed structures. Other items procured by the AC are boats, motors, handheld sonar, and high altitude oxygen kits to include oxygen bottles and masks. The ANG is using NGREA to fund close-quarter combat training devices, data-link and radio communication solutions, weapons accessories, video

down-link capability, night vision devices, assault zone operations equipment, and rescue water craft. The minimum capabilities required to stay relevant are upgraded communication equipment to include data-link with video down-link capability. The capabilities for optimum employment require air deliverable and tactical recovery vehicles and flexible weapons options to include less than lethal weapons.

xxvii) Distributed Common Ground System (DCGS)

Air Force Distributed Common Ground System (AF DCGS)

The ANG DCGS is currently on par with the AC DCGS. ANG DCGS is not provided independent procurement funding to support non-Title 10 operational support requirements. Currently, major modernization efforts are underway to standardize a more sustainable and rapidly updateable system for the DCGS in the AC and ANG. Since FY 2009, the AF has funded the fielding of three full DCGS systems to Kansas, Indiana, and Massachusetts. FY 2009 NGREA funding was used to provide the Mission Crew communications capability to the six existing standalone ANG Distributed Ground Station (DGS) units. This $12M project provides the units the ability to work virtually with other DGS units, both AC and ANG and, through the Distributed Mission Crew Communications systems, to the RPA SOCs and Ground Control Systems. NGREA has also provided the three original DGS units (Alabama, Arkansas, and Nevada) with a collateral enclave processing capability that allows them to process data and release it to supported warfighters without extensive delays created by moving data between classification levels. Minimum critical capabilities for the DCGS to remain relevant include a compatible communications suite between DGS and RPA SOCs, and a DCGS wideband link. Future enhancements would include an unclassified DCGS enclave necessary to support domestic operations.

xxviii) Security Forces

Air Force Security Forces

The ANG Security Forces forecast modernization shortfalls in FY 2012–FY 2015. 1) The combined Surveillance, Target Acquisition, and Night Observation (STANO): $13.0M is required to equip Security Forces. 2) Weapons: M320s, M9s, M240s, M249s, M107s, M24s, and M4s will significantly improve all our modernization needs. Weapons modernization will require $5.1M. 3) Infrastructure/ Intrusion Detection System (IDS) will require $35.0M. 4) Domestic Operations Civil Disturbance Kits will require $8.0M. 5) The Mobile Emergency Operations Center will require $3.1M. 6) Mobility bags and associated equipment will require $19.0M. 7) Close Combat Mission Capability Kits (dye marker used for force on force training, and individual shoot/move/ communicate training) will require $1.09M. 8) Tactical vehicles are essential to the eight key National Response Framework Scenario Sets as outlined in the ANG DOERs Book, and will require $190.0M. 9) Qualification Weapon Ranges and Weapon Simulators will require $100.0M. In conclusion, it will take $374.3M to modernize the Security Forces.

xxix) Medical

The ANG currently maintains four Block 11 Expeditionary Medical Support (EMEDS) +25 and +10 medical treatment platforms and is in the process of upgrading to the new Block 12 EMEDS.

The AF upgraded to the new Block 12 EMEDS in FY 2010. Additionally, we have significantly modified the CBRNE Enhanced Response Force Package (CERFP) medical assemblage to better meet the CBRNE enterprise Homeland Response Force (HRF) mission; replacing the AC-based Small Portable Expeditionary Aerospace Rapid Response assemblages with ANG-unique CERFP allowance standards. The 10 new HRF/CERFP units coming on board in FY 2011/FY 2012 have received the new modernized medical assemblages. The current 17 CERFP units will require the upgraded equipment assemblages to be current with the new standard. FY 2011 NGREA funds, $9.7M, have been approved to upgrade the current 17 CERFP units. There is also an additional shortfall of $1.7M to purchase initial oxygen systems, required for sustained medical operations during HD missions. In addition to the EMEDS capability, the medical component to CERFP has been modernized to better fit the mission.

The ANG anticipates total shortfalls of $4–$6M based on an anticipated new allowance standard block upgrade for the EMEDS +10/+25, the oxygen systems shortfall stated above, and the future replacement of the EMEDS Basic assemblage with the new Healthcare Response Team (HRT) assemblage. The HRT is still in design phase with the AC. The estimated completion date and fielding of this assemblage is projected for early next year.

xxx) Engineering

The overall engineering status is excellent at 89 percent. However, prime power, route clearance, search and rescue, and firefighting equipment shortages are inhibiting the ANG's ability to concurrently perform home station, overseas deployments, and domestic support missions. For example, prime power requires in excess of $12M in power generation capability that will be used to provide stable, reliable electrical power in deployed environments either abroad or during domestic support operations. During domestic support operations, this power would be a life-saving capability for the affected community. The equipment will be capable of increasing and maintaining emergency power for an extended period to a hospital center, shelter, or other facilities deemed critical to the community. These teams and equipment could power entire facilities or areas of the community. Additionally, the prime power makes possible the open the base capability, either expeditionary or contingency, for the ANG. Currently, insufficient capacity exists in the 10 FEMA regions. The ANG is taking all steps possible to acquire prime power capability to ensure safe, reliable, and effective power is available for federal and domestic support missions, when required. For example, the ANG acquired, through NGREA appropriations, power generation capability for the 150th Civil Engineering Squadron, which is the pilot unit for this capability.

b. Overall Equipment Readiness

Details can be gathered from the "Modernization Programs and Shortfalls" section and Appendix B of this report.

B. Changes Since Last NGRER

Although the underlying equipping philosophy of the ANG has not changed, significant mission and programmatic changes continue. To support a Total Force approach in modernizing the Combat Air Forces, the ANG, in concert with the AC, has an ongoing effort to build associations to maximize effectiveness for the Service to meet its federal requirements. As a result, fewer facilities, airframes,

support personnel, etc. are required to ensure the relevancy, reliability, and responsiveness of these units. We anticipate more associate unit relationships with other AF components.

The ANG continues to expand its role in space and information operations warfare as evidenced by the ANG's work with the AF to integrate and stand up Predator units within the FYDP. With this partnership, the potential exists for more Predator units outside the FYDP.

To answer the concerns of Congress about management of the NGREA, the ANG developed process improvements to enable longer-term, higher-confidence planning by Program Management Offices (PMOs), thus helping the ANG meet the OSD obligation rate standards for procurement funds. Each fall, three-year investment plans are developed using ranges of potential funding levels, based on NGREA appropriations in recent years. Prioritizing procurement requirements in funding bands (highest likelihood of funding, significant likelihood of funding, and potential likelihood of funding) will enable PMOs to accomplish advanced planning to incorporate NGREA into planned contracts and separate NGREA-funded equipment purchases. Specifically, procurements with the longest contractual lead times will be prioritized in the band with the highest likelihood of funding. In this way, PMOs will plan for NGREA as if it was budgeted, and they can have confidence that resources invested in advance planning and preparation will not be wasted. Three-year plans will be updated and shared with the PMOs when the actual amount of NGREA becomes known for the next fiscal year and as execution of NGREA progresses, thus enabling the ANG to meet the OSD obligation rate standards.

C. Future Years Program (FY 2013–FY 2015)

1. FY 2013 Equipment Requirements

The ANG fleet expects continued modernization in FY 2013 and beyond, enabling the ANG to fly aircraft well beyond their designed life. Further details can be gathered from the "Modernization Programs and Shortfalls" section and Appendix B of this report.

2. Anticipated New Equipment Procurements

Funding for procurement of major items of ANG combat and direct combat support equipment is programmed by the AC to meet planned total force employment plans. Congress, in its annual budget appropriation, may also direct additional ANG equipment procurements through NGREA.

3. Anticipated Transfers from AC to RC

Refer to *Table 5* and *Table 6* for detailed information on transfers from the AC to RC.

4. Anticipated Withdrawals from RC Inventory

Refer to *Table 5* and *Table 6* for detailed information on withdrawals from the RC.

5. Equipment Shortages and Modernization Shortfalls at the End of FY 2015

For equipment and modernization shortfalls at the end of FY 2015, see the discussion of individual weapons systems modernization in the "Modernization Programs and Shortfalls" section, as well as the status of equipment in Appendix B.

D. Summary

While support equipment levels remain comparable to AF levels, NGREA funding is vital to ANG modernization efforts. With the need to fully fund ongoing operations and continued pressure on defense budgets, obtaining adequate funding for procuring equipment and modernization efforts is a challenge. Without adequate Service funding, NGREA, or other sources, the ANG will be unable to modernize legacy platforms and equipment and will no longer remain an equal and effective partner in the Total Force.

Additionally, it must be noted that with ongoing TFI actions, the overall authorizations and on-hand balances continue to shrink, resulting in a smaller aggregate to define the ratios..

However, the ANG will continue to adapt to meet the needs of the combatant commanders for combat and combat support forces and of our states for support of domestic operations. The ANG is fully engaged at all levels in operations in Afghanistan and Iraq as well as in operations to directly defend our homeland. We are ready to respond to any tasking with fully mission-ready professionals equipped with capable, yet aging, weapon systems.

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Table 1

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve Component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve Component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Air Refueling							
Air Refueling, KC-135R	KC-135R	$57,700,000	136	126	130	130	130
Air Refueling, KC-135T	KC-135T	$54,000,000	24	24	24	24	24
Airlift							
Airlift, C-130H	C-130H	$29,200,000	119	98	98	98	98
Airlift, C-130J	C-130J	$64,000,000	19	19	19	19	19
Airlift, C-17A	C-17A	$219,200,000	17	17	17	17	17
Airlift, C-5A	C-5A	$119,300,000	18	5	4	4	0
Airlift, C-27J	C-27J	$31,000,000	15	0	0	0	0
Airlift, LC-130H [1]	LC-130H	$71,000,000	10	10	10	10	10
Airlift, WC-130H	WC-130H	$60,000,000	6	6	6	6	6
Electronic Warfare (EW)							
EW, E-8C	E-8C/AOT	$251,500,000	17	17	17	17	17
EW, EC-130J	EC-130J	$90,000,000	3	3	3	3	3
EW, RC-26B	RC-26B	$1,500,000	11	11	0	0	0
Fighter							
Fighter, A-10C	A-10C	$10,700,000	106	43	43	43	43
Fighter, F-15C	F-15C	$31,000,000	108	108	108	108	108
Fighter, F-15D	F-15D	$31,000,000	22	22	22	22	22
Fighter, F-16C	F-16C	$19,500,000	314	294	294	294	294
Fighter, F-16D	F-16D	$19,500,000	45	44	44	44	44
Fighter, F-22A	F-22A	$185,000,000	20	20	20	20	20
Operational Support							
Op Support, C-21A	C-21A	$3,100,000	26	2	2	2	2
Op Support, C-32B	C-32B	$91,000,000	2	2	2	2	2
Op Support, C-38A	C-38A	$12,000,000	2	2	2	2	2
Op Support, C-40C	C-40C	$70,000,000	3	3	3	3	3
Rescue							
Rescue, HC-130N	HC-130N	$19,100,000	6	6	6	6	6
Rescue, HC-130P	HC-130P	$19,100,000	3	3	3	3	3
Rescue, HH-60G	HH-60G	$17,600,000	17	17	16	16	16
Rescue, MC-130P	MC-130P	$75,000,000	4	4	4	4	4
Miscellaneous Equipment							
MC-12	MC-12	$17,000,000	42	42	42	42	42
MD-1A/B	MD-1A/B	$2,500,000	21	21	21	21	21
MQ-1B	MQ-1B	$4,500,000	42	42	42	42	42
MQ-9A	MQ-9A	$16,500,000	14	14	14	14	14

(1) Four LC-130s are National Science Foundation (NSF)-owned.

Table 2

ANG
Average Age of Equipment

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2012.

Nomenclature	Equip No.	Average Age	Remarks
Air Refueling			
Air Refueling, KC-135R	KC-135R	50	
Air Refueling, KC-135T	KC-135T	52	
Airlift			
Airlift, C-130H	C-130H	22	
Airlift, C-130J	C-130J	7	
Airlift, C-17A	C-17A	9	
Airlift, C-5A	C-5A	40	
Airlift, C-27J	C-27J	1	
Airlift, LC-130H	LC-130H	26	
Airlift, WC-130H	WC-130H	46	
Electronic Warfare (EW)			
EW, E-8C	E-8C	11	
EW, EC-130J	EC-130J	11	
EW, RC-26B	RC-26B	17	
Fighter			
Fighter, A-10C	A/OA-10C	31	
Fighter, F-15C	F-15C	28	
Fighter, F-15D	F-15D	28	
Fighter, F-16C	F-16C	22	
Fighter, F-16D	F-16D	23	
Fighter, F-22A	F-22A	6	
Operational Support			
Op Support, C-21A	C-21A	26	
Op Support, C-32B	C-32B	8	
Op Support, C-38A	C-38A	13	
Op Support, C-40C	C-40C	8	
Rescue			
Rescue, HC-130N	HC-130N	22	
Rescue, HC-130P	HC-130P	45	
Rescue, HH-60G	HH-60G	21	
Rescue, MC-130P	MC-130P	45	
Miscellaneous Equipment			
MQ-1B	MQ-1B	3	
MQ-9A	MQ-9A	2	

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Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2013 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2013 would be expected to arrive in RC inventories in FY 2014 or FY 2015.

Nomenclature	FY 2013	FY 2014	FY 2015
Modification of Inservice Aircraft			
A-10	$25,698,000	$23,389,000	
F-15	67,712,000	74,080,000	$64,228,000
F-16	715,000	5,470,000	1,755,000
F-22A	31,714,000	19,925,000	23,188,000
C-5	156,000		
C-17A	4,460,000	27,664,000	10,366,000
C-130	7,643,000	916,000	1,008,000
C-135	12,111,000	20,972,000	21,597,000
E-8	45,027,000	24,603,000	16,672,000
H-60	6,058,000	4,164,000	3,650,000
Vehicular Equipment			
Passenger Carrying Vehicles	214,000		
Medium Tactical Vehicle	1,877,000		
Security and Tactical Vehicles	174,000		
Fire Fighting/Crash Rescue Vehicles	7,067,000		
Electronics and Telecommunications Equipment			
Air Traffic Control & Landing System	2,111,000		
National Airspace System	2,416,000		
Batttle Control System	994,000		
Theater Air Control System Improvements	7,406,000		
General Information Technology	2,833,000		
AF Global Command & Control System	560,000		
Theater Battle Management C2 System	150,000		
Air & Space Operations Center - Weapon System	2,000,000		
Base Information Infrastructure	6,975,000		
Tactical Communications-Electronic Equipment	22,172,000		
Base Communications Infrastructure	6,975,000		
Communications & Electronics Mods	954,000		
Other Base Maintenance and Support Equipment			
Night Vision Goggles	1,099,000		
Mechanized Material Handling Equipment	200,000		
Total	**$267,471,000**	**$201,183,000**	**$142,464,000**

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2012 would be expected to arrive in RC inventories in FY 2013 or FY 2014. All values are costs in dollars.

Nomenclature	FY 2010	FY 2011	FY 2012
FY 2010 Title IX NGREA Equipment			
Fatality Search and Recover Team (FSRT) Equipment and Vehicles	$17,031,209		
A-10/F-15/F-16/HH-60 Helmet-mounted Cueing System	14,810,526		
A-10/F-15/F-16 Communication Suite Upgrade	13,462,839		
Firefighting Vehicles	8,762,356		
A-10/F-15/F-16 Defensive Systems Upgades	8,153,747		
Senior Scout Advanced Signals	5,040,000		
Senior Scout High Frequency Direction Finding Equipment	4,500,000		
F-15/RC-26/KC-135/A-10 Simulators	4,447,350		
KC-135 Boom Operator Simulator System	4,421,092		
LC-130 Crevasse Detection Radar	4,175,000		
Special Tactics Survivability Suite	4,023,250		
Mass Field Feeding - Ultimate Mobile Airtronic Kitchen	3,900,000		
Senior Scout Remote Operations	3,800,000		
Mobile Command Post Trailers	3,500,000		
A-10/HC-130/HH-60G LARS(V)12	3,300,000		
JSTARS Avionics Upgrades	3,135,750		
Disaster Relief Bed-down Sets	2,904,456		
Less than Lethal Crowd Control / Civil Disturbance Kits	2,750,000		
Remotely Piloted Aircraft (RPA) Improved Communication Suite	2,714,861		
Mobile Control Tower Vehicles	2,551,578		
Weapons of Mass Destruction/Installation Protection Units	2,247,852		
Cyber and Critical Infrastructure Range	2,178,520		
Security Forces Personnel Protective Equipment and Weapons	2,162,370		
JSTARS Cooling Carts	1,844,000		
Pararescue Vehicles and Combat Survivability Suite	1,557,345		
Ballistic Missile Range Safety Technology	1,400,000		
F-15/F-16 Avionics Upgrades	1,389,814		
Senior Scout Radio Frequency Cancellation	1,250,000		
C-5/C-17/C-130/KC-135 Defensive Systems	724,779		
C-130 Loadmaster Seats	702,561		
C-130 ISO Stands	555,050		
MQ·9 Reaper Mission Training Devices	494,958		
HC-130/MC-130 Sensor and Data Link Upgrades	407,339		
C-130/KC-135 Real Time Information in the Cockpit (RTIC)	359,520		
RC-26 Avionics Modernization	165,545		
Weather Data Communication Equipment	154,000		
ARCNet Gateways	22,332		

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2010	FY 2011	FY 2012
FY 2011 Title IX NGREA Equipment			
Air Superiority/Global Precision Attack			
Advanced Targeting Pods		$68,047,424	
E-8C Communications Suite Upgrade		14,999,996	
A-10/F-15/F-16 Helmet Mounted Cueing System		10,056,143	
A-10/F-15/F-16 Communication Suite Upgrade		2,943,045	
A-10/F-15/F-16 Avionics Upgrades		8,662,747	
A-10/F-15/F-16 Advanced Identification Friend or Foe (AIFF) and Sensor Enhancements		1,693,250	
A-10/F-15/F-16 Defensive Systems Upgrades		1,557,148	
Rapid Global Mobility			
C/HC/MC-130/KC-135 Data Link and Sensor Upgrades		17,136,636	
C-40C High Speed Data		8,500,000	
Large Aircraft Infrared Countermeasures (LAIRCM) Self Protection Suite		3,428,969	
C-130 Propulsion Improvements		1,764,550	
C-130/C-17/C-5 Loadmaster Safety Equipment		1,600,000	
LC-130 Polar Ice Crevasse Detection Radar		200,000	
Simulation/DMO/Training			
KC-135 Boom Operator Simulator System		12,482,801	
JTAC Desktop Trainers with ARCNet Gateway		1,020,000	
F-16 Weapon System Trainer/Unit Training Device Technology Refresh		721,250	
MQ-9 Reaper Mission Training Device		125,000	
Search and Rescue/Special Operations/Agile Combat Support			
Special Tactics/JTAC Assault Zone Equipment		12,605,982	
Urban Search and Rescue Kits		9,179,082	
Security Forces Equipment		4,999,003	
HH-60G Communication and Avionics Upgrade		4,885,000	
Guardian Angel Combat Survivability Equipment		3,759,466	
Personnel Recovery Task Force Operations Center		2,404,138	
Multiple Mission Design Series (MDS) Leak Detectors		1,188,500	
H/MC-130 Cargo Equipment and Engine Upgrade		1,031,998	
Battlefield Airman Communication and Data Link Equipment		679,827	
Global Integrated ISR/Space Superiority/Cyberspace Superiority/C2/Incident Awareness and Assessment			
Senior Scout Modernization		4,800,000	
Cyber Modernization - Cyber and Critical Infrastructure		2,999,200	
Domain Infrastructure Capability Enhancement		672,000	
Transportation			
R-11 Fuel Servicing Tank Truck Adapters		36,800	
Communications			
Joint Incident Site Communications and ASA Command Post Consoles		9,917,237	
Public Works and Engineering			
Airfield and Route Clearance Equipment		5,523,198	
Potable Water Production and Storage Equipment (ROWPU)		1,163,057	

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2010	FY 2011	FY 2012
Explosive Ordnance Disposal personal protective Equipment (PPE)		200,000	
Firefighting			
Personal Protective Equipment Structural Firefighting		4,142,935	
Emergency Management			
Mobile Emergency Operations Center (MEOC)		5,111,070	
Common Operating Picture (COP)		82,191	
Mass Care			
Disaster Relief Bed down Sets (DRBS)		7,120,425	
Religious Support Team Equipment for EMEDS, FSRT and CERFP		242,500	
Fatality Search and Rescue Team Equipment		92,000	
Public Health			
Modernization of Existing Expeditionary Medical Support		9,218,368	
HAZMAT Response			
HAZMAT Response Package		3,007,065	
Total	**$135,000,000**	**$250,000,000**	

1. Service FY 2012 NGREA equipment list was not available in time for publication in the NGRER. Equipment list for FY 2012 will be provided in next year's NGRER.

Table 5

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Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the AC receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks
Air Refueling					
Air Refueling, KC-135R	KC-135R	-10	+4		
Airlift					
Airlift, C-130H	C-130H	-21			
Airlift, C-5A	C-5A	-13	-1		
Airlift, C-27J	C-27J	-15			
Electronic Warfare (EW)					
EW, RC-26B	RC-26B		-11		
Fighter					
Fighter, A-10C	A-10C	-63			
Fighter, F-16C	F-16C	-20			
Fighter, F-16D	F-16D	-1			
Operational Support					
Op Support, C-21A	C-21A	-24			
Rescue					
Rescue, HH-60G	HH-60G		-1		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2009 with actual procurements and transfers. FY 2009 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2011. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2009 Planned Transfers & Withdrawals							
Air Refueling							
Air Refueling, KC-135R	KC-135R	+2	-35				
Airlift							
Airlift, C-130E	C-130E	-3	-3				
Airlift, C-130J	C-130J	-2	0				
Airlift, C-17A	C-17A	+1	0				
Fighter							
Fighter, A/OA-10A	A/OA-10A	-11	-8				
Fighter, F-15A	F-15A	-15	-7				
Fighter, F-15B	F-15B	-1	0				
Fighter, F-15C	F-15C	+16	+4				
Fighter, F-15D	F-15D	+1	+1				
Fighter, F-16C	F-16C	-25	0				
Miscellaneous Equipment							
MQ-1B	MQ-1B	-1	0				
FY 2009 P-1R Equipment							
Modification of Aircraft							
A-10				$43,310,000	$40,318,000		
F-15				3,522,000	22,329,000		
F-16				88,814,000	109,661,000		
C-5				163,533,000	50,389,000		
C-17A				15,284,000	199,000		
C-130				133,863,000	149,477,000		
C-130J Mods				17,455,000	20,553,000		
C-135				53,595,000	20,126,000		
E-8				30,657,000	6,635,000		
H-60				0	493,000		
Aircraft Support Equipment & Facilities							
Aircraft Replacement Support Equipment				0	2,169,000		
Other Production Charges				521,357,000	0		
Vehicular Equipment							
Passenger Carrying Vehicles				2,491,000	212,000		

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Medium Tactical Vehicle				2,761,000	919,000		
Security and Tactical Vehicles				1,561,000	0		
Fire Fighting/Crash Rescue Vehicles				0	4,424,000		
Runway Snow Removal & Cleaning Equip				2,328,000	8,036,000		
Items Less Than $5M (Vehicles)				3,080,000	0		
Electronics & Telecommunications Equipment							
Intelligence Comm Equipment				0	11,173,000		
Air Traffic Control & Landing Sys				0	4,633,000		
National Airspace System				756,000	0		
Theater Air Control Sys Improvement				22,263,000	0		
Weather Observation Forecast				1,146,000	0		
AF Global Command & Control System				775,000	1,918,000		
Air Force Physical Security System				0	3,987,000		
Theater Battle Mgt C2 System				1,892,000	475,000		
Air & Space Operations CTR-Wpn System				3,961,000	4,000,000		
Base Info Infrastructure				10,115,000	0		
NAVSTAR GPS Space				0	401,000		
MILSATCOM Space				0	38,307,000		
Tactical C-E Equipment				81,497,000	42,829,000		
CCTV/Audiovisual Equipment				96,000	0		
Base Comm Infrastructure					50,722,000		
Comm Elect Mods					4,277,000		
Other Base Maintenance and Support Equipment							
Night Vision Goggles				1,062,000	18,177,000		
Mechanized Material Handling Equipment				4,207,000	1,571,000		
Base Procured Equipment				1,550,000	4,747,000		
Items Less Than $5M (Base Support)				1,239,000	1,200,000		
FY 2009 Title III NGREA Equipment							
Medical							
Expeditionary Medical Support (EMEDS+25)						$1,700,000	$7,978,000
Expeditionary Medical Support Pediatric Packages						1,116,000	0
Advanced Electronic Support Equipment						670,000	0
Communications							
Wireless LAN Enhancements						1,080,000	0
Joint Incident Site Communications						1,125,000	12,400,000
ASA Command Post Consoles						1,150,000	0
Logistics							
Reconnaissance, Surveillance, and Targeting for Expeditionary Medical Suport						415,000	210,868
Reconnaissance, Surveillance, and Targeting for Fatality Search & Recovery Team						36,000	36,000

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
SPEK Kitchen Component Parts, Phase IV						1,700,000	1,511,000
Vehicles						231,000	190,680
Transportation							
P-22 Pumpers Firefighting Vehicles						1,284,000	2,175,947
P-26 Water Tenders Firefighting Vehicles						1,276,000	1,596,000
P-19 & P-23 Firefighting Vehicles						751,000	780,000
Engineer							
Night Vision Goggles for Firefighters						1,004,000	846,275
Reverse Osmosis Water Purification Unit						940,000	0
Communications Sets (4F9ER)						548,000	0
Explosive Ordnance Disposal IED Equipment						773,000	213,000
Civil Support Teams (Force Protection)							
Powered Air Purifying Respirators (PAPR)						660,000	0
Hazardous Material Equipment for Firefighters						592,000	190,798
Mobile Emergency Operations Center Trailers w/C2 (IOC)						1,168,000	1,295,000
Fatality Search & Recovery Team Equipment						660,000	7,919,147
Maintenance							
TC MAX Tool Control System						1,700,000	1,675,000
Sensitor Extirma Fuel Leak Detector						468,000	0
Hydromite Strut Servicing Equipment						708,000	0
C-130/F-16 Infrared Receiver Tester						225,000	0
Munitions Storage Area Documentation						50,000	0
Security							
Security Forces Equipment & Training Upgrades						1,248,000	1,248,000
Body Armor						1,440,000	462,427
Night Vision Goggles						1,000,000	6,104,470
Weapons Upgrades						2,850,000	2,850,000
Aviation							
F-16 Advanced Interrogator, Friend/Foe (AIFF)						320,000	0
HH-60/PJ/ST Data Link						1,000,000	2,918,380
C-130/KC-135/F-15/HH-60 Data Link						4,000,000	806,607
HC/MC-130 Enhanced Air Mobility Command						1,250,000	0
Precision Strike							
F-15/F-16/A-10/HH-60 HMCS						9,000,000	9,277,000
F-15/F-16 Avionics Enhancements						3,500,000	3,034,000
F-16/A-10 Advanced Targeting Pod						1,000,000	0
F-16/A-10 Advanced Targeting Pod Modifications						10,000,000	14,864,000
Data Link/Combat Identification							
F-16/A-10/HC-130 Beyond Line of Sight Radios						3,000,000	367,000

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Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
C-130/KC-135 Beyond Line of Sight Radios						2,100,000	0
RC-26 Avionics Modification						500,000	0
A-10/HH-60/HC-130 Low Altitude Radar System						1,000,000	0
24-hour Operations							
JSTARS 8.33 Radios						2,200,000	0
F-15/F-16 Digital Video Recorder						500,000	0
C-130 Joint Precision Airdrop System						600,000	0
C-21 Avionics Upgrades						1,000,000	0
C-40 Avionics Enhancements						900,000	3,456,687
Enhanced Survivability							
C-130/C-17/C-5A Defensive Systems						5,600,000	29,000
PJ/ST Special Tactics Suite						1,500,000	1,011,654
C-17/C-130/C-5 Enhanced Lookout Capability						500,000	700,000
HH-60 Defensive Armament Upgrade						2,252,000	836,000
KC-135/C-5/C-130 Counter Measures						1,000,000	0
C-130 Chaff/Flare Dispensers						1,500,000	0
A-10/F-16 Defensive Systems Upgrades						3,500,000	3,180,230
Propulsion Modernization							
C-130 Propulsion System Upgrade						3,500,000	5,032,785
F-16/A-10 Propulsion System Upgrade						5,100,000	0
Simulation Systems							
KC-135 Boom Operator Simulator						1,500,000	1,250,000
HH-60 Pave Hawk Aircrew Rehearsal & Operations Simulator (PHAROS)						2,000,000	0
Unmanned Aircraft System (UAS) Desktop Simulator						300,000	286,950
Intelligence, Surveillance, Reconnaissance (ISR)							
Senior Scout PL-2 Security Accreditation						150,000	0
Distributed Common Ground						5,850,000	6,000,000
P.L. 110-329, Section 8101 Reduction						(310,000)	(310,000)
FY 2009 TITLE IX OVERSEAS EQUIPMENT							
F-16/A-10/HH-60 Helmet Mounted Cueing System						10,000,000	10,089,746
F-16/A-10 Targeting Pod Modifications						10,000,000	17,433,921
HC/MC-130 Enhanced Situational Awareness Suite						9,000,000	0
Senior Scout Enhancements						6,000,000	9,150,000
HH-60 Defensive Armament/Cabin and SA Upgrade						5,000,000	5,070,428
Large Aircraft Defensive Systems						4,000,000	4,000,000
A-10 Secure Line-of-sight (SLOS)/Beyond Line-of-sight Radios (BLOS)						3,000,000	4,600,000
A-10 Defensive Systems Upgrade						3,000,000	1,613,000
TOTAL				**$1,214,170,000**	**$624,357,000**	**$154,380,000**	**$154,380,000**

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Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No

Service Does Not Use Substitution to Satisfy Major Item Equipment Requirements

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Table 8

Significant Major Item Shortages

NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	Large Aircraft Infrared Countermeasures (LAIRCM) for C-130H/J, EC-130J, KC-135	373	216	$2,336,245	$504,628,920	Allows combat delivery/CSAR aircraft to survive attacks from rapidly proliferating shoulder-launched missiles. Cost includes 216 aircraft integration kits and 139 LAIRCM systems.
2	A-10 Situation Awareness Upgrade	108	108	$289,713	$31,288,993	Helmet-mounted cueing enables pilots to engage high-value fleeting targets. LARS(V)12 provides the ability to quickly locate downed airmen and securely pass vital survivor data between all CSAR aircraft cockpits, allowing for a better coordinated and more covert rescue. 3D audio reduces extraneous noise and radically increases the pilot's ability to process information coming simultaneously from multiple radios and warning systems. ALR-69 radar warning receiver (RWR) upgrade replaces overloaded processors that do not provide adequate response time or threat detection capabilities.
3	C-130/KC-135 Real Time Information in Cockpit (RTIC) data link and comm	328	297	$430,000	$127,710,000	Provides secure line-of-sight and beyond line-of-sight radios and data link to enable C-130/KC-135 aircrews to participate in network-centric operations. Provides continuous positions of friendly and hostile forces to expedite mission execution.
4	F-16 Situation Awareness Upgrade	213	213	$380,967	$81,145,971	Helmet-mounted cueing for Block 30 aircraft enables pilots to engage high-value fleeting targets. Center display unit allows offboard image transfer and displays full resolution of latest 4th generation targeting pod sensors. Block 42s require the ALQ-213 to integrate the aircraft electronic warfare and countermeasure systems. The Advanced Identification, Friend or Foe (AIFF) provides an interrogator capability enabling aircraft to meet established rules of engagement and rapidly find tracks of interest in saturated Federal Aviation Administration (FAA) airspace. ALR-69 radar warning receiver upgrades replace overloaded processors that cannot provide adequate response time or threat detection capabilities.
5	F-15 Radar and Radar Warning Receiver (RWR)	178	144	$1,146,528	$165,099,989	APG-63(V)3 radar replaces 14 mechanically scanned radars with an active electronically scanned array (AESA), which provides detection and tracking in multiple directions simultaneously and enables tracking of small asymmetric targets. Replaces 130 non-sustainable RWRs with a more capable, sustainable RWR fully compatible with the AESA radar.

Table 8

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Significant Major Item Shortages

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
6	HC-130 Navigation and Sensor Upgrade	13	13	$2,430,769	$31,599,997	CNS/ATM compliance by 2015 provides precision navigation, civil data link, enhanced surveillance, and addresses obsolescence issues. Electro-optical/infrared sensor upgrade provides better surveillance of threats near survivor.
7	HH-60 Situational Awareness Upgrade	18	18	$4,027,777	$72,499,986	Hostile Fire Indicator provides aircrew warning and direction of small arms and RPG fire. Helmet-mounted Cueing System and Point Designation provides the crew flight and survivor awareness. New radios enable communication with multiple agencies during domestic response.
8	Battlefield Airman Combat Equipment	94,463	94,463	$1,070	$101,075,410	Battlefield Airman includes Security Forces, Guardian Angels, Special Tactics and Terminal Air Controllers. Required items include communication equipment, personal protective equipment, night vision devices, weapons and weapons accessories, training devices, and exposive detection equipment.
9	Domestic Disaster Response Equipment	115	115	$1,878,174	$215,990,000	Many units are not equipped or have substandard equipment required to perform their mission when responding to natural and man-made disasters, to include firefighting vehicles, Disaster Relief Bed Down Sets, Route Clearance Equipment, and Prime Power Generators.
10	Advanced Simulators for F-16, C-130, KC-135	28	24	$4,000,000	$96,000,000	With reduced flying hours and range limitations, ANG flying units will be unable to maintainfull combat readiness without high fidelity tactical simulators.

III. Air Force Reserve Overview

A. Current Status of the Air Force Reserve

1. General Overview

The mission of the United States Air Force is to "fly, fight, and win… in Air, Space, and Cyberspace." The AFR, through Air Force Reserve Command (AFRC), supports that mission by organizing, training, and equipping forces that assist in providing global reach, global power, and global vigilance. It shares the AF priorities in: strengthening the nuclear enterprise, partnering with joint and coalition teams, caring for families, modernizing our air and space inventories, and recapturing acquisition excellence. The AF fully integrates the air, space, and cyberspace power of the AC and RC forces into a Total Force to achieve success. Since hostilities began in 2001, the AFR has consistently functioned as an operational reserve while still maintaining a strategic capability. Its operations and deployment tempo continues to remain high as it supports the AC in meeting the force requirements of combatant commanders. The high pace of operations will continue to wear equipment at an accelerated rate, causing increased sustainment costs and speeding the need for recapitalization of equipment and airframes.

Top AFR Equipping Challenges

- **Defensive Systems:** Equip aircraft with adequate missile protection and system integration for combat operations: LAIRCM, ADS, and MWS
- **Data Link and Secure Communications:** Implement data link network supporting image/video, threat updates, and SLOS/BLOS communications for combat missions
- **C-5 Maintenance:** Ensure aircraft structural integrity through replacement of failing major fuselage structures and funding for depot maintenance

The primary equipment requirements for the AFR are defined by whether a squadron is unit equipped (UE) and possesses assigned aircraft, or is an associate unit that shares aircraft and equipment.

The AFR has 34 flying wings and one space wing with 32 UE squadrons and 53 associate units. There are also nine associate units in the AFR operating space mission partnerships including: satellite C2; missile warning; Joint Space Operations Center; warfare center research, development, and testing; space aggressor; and the National Security Space Institute. Additionally, AFR has more than 620 mission support units equipped and trained to provide a wide range of services, including medical and aeromedical evacuation, aerial support, civil engineering, security forces, intelligence, communications, mobility support, logistics, and transportation operations.

To meet these missions, AFR has 344 primary aircraft assigned to UE squadrons including the F-16C/D, A-10, B-52H, C-A/B, C-40C, C-17A, MC-130E, C-130H, C-130J, WC-130J, HC-130N/P, KC-135R, and HH-60G. These units, aircraft, crews, and support personnel stand ready for assignment to our partner commands. Additionally, many of our Agile Combat Support units, Security Forces, Aerial Port Squadrons, Space Trainers, etc., have sophisticated equipment requirements that require modernization and replacement.

2. Status of Equipment

a. Equipment On-hand

i. Fighter Aircraft

a) F-16C Block 30 “Fighting Falcon”

The F-16 is a highly maneuverable multi-role fighter with capabilities for offensive and defensive counterair, air interdiction, suppression of enemy air defenses, close air support, nontraditional ISR, and forward air control–airborne missions. AFR has 48 Block 30 F-16C/D aircraft assigned between Joint Reserve Base (JRB), Ft. Worth, TX, and Homestead Air Reserve Base (ARB), FL. AFR F-16s are equipped with Enhanced Position Location Reporting System (EPLRS)/SADL, data link, and LITENING ATP with video data link capabilities. Recent AFR F-16 modifications have improved the F-16’s capability to employ the latest generation of precision-guided air-to-ground and air-to-air weapons and installed ARC-210 SLOS/BLOS radios.

b) A-10C “Thunderbolt II”

The A-10 is specifically designed for close air support and forward air control missions. AFR has 42 A-10 aircraft assigned between Whiteman AFB, MO, and Barksdale AFB, LA. The AFR A-10s have received the Precision Engagement (PE) modification, adding the Joint Direct Attack Munition (JDAM) capability. The AAR-47 MWS was also installed to provide an integrated and automatic missile warning and threat response to defeat IR missile threats. A second ARC-210 SLOS/BLOS radio capability was installed to meet combatant commander requirements, providing the first ever capability in AF fighter aircraft. AFR A-10s are also equipped with the LITENING ATP for targeting and working with ground parties.

ii. Bomber Aircraft

a) B-52H “Stratofortress”

The B-52H performs strategic attack, air interdiction, offensive counterair, air-to-surface, suppression of enemy air defenses, mine-laying, joint maritime operations, close air support, and nuclear missions. Sixteen B-52H aircraft are assigned to the AFR 307th Bomb Wing at Barksdale AFB, LA, for training aircrews to employ laser guided bombs, conventional air launched cruise missiles, the precision GPS-guided JDAM, the Wind Corrected Munitions Dispenser (WCMD), the Joint Air-to-Surface Stand-off Missile, and unguided gravity conventional munitions. The 307th Bomb Wing also has associate aircrews that support these B-52 capabilities in a combat role.

The AFR B-52 aging fleet has recently transitioned to a FTU mission. The challenge of providing the force with highly trained crewmembers has brought new equipment shortfalls to the forefront of AFR B-52 unfunded requirements. The most important shortfall of these requirements is a Digital Mission Data System (DMDS). FY 2010 funds in the amount of $3.2M have been allocated to equip AFR B-52s. The DMDS is seen as critical to timely and accurate debriefs of students in the FTU. Presently, mission records are maintained and debriefs are conducted manually with paper notepads and pencils. Other important upgrades supporting the FTU mission are Alternate Mission Equipment (AME) and Combat Network Communications Technology (CONECT). AME is funded with FY 2010 funds and starts deliveries in FY 2011. AME, coupled with aircraft Operational Flight Program (OFP) BSB-04/05, will allow full

control of our LITENING targeting pods. Funds are still required to support aircraft OFP updates to enable B-52 aircraft to carry the advanced versions of targeting pods. AFR B-52Hs are equipped with LITENING capability to allow crews to self-designate targets, visually clear a target area in support of other conventional munitions, improve accuracy by updating target coordinates for JDAM and WCMD, and collect target bomb damage assessment.

iii. Airlift Aircraft

a) C-5 "Galaxy," Inter-theater Airlift

The C-5, with its tremendous payload capability, provides inter-theater airlift in support of U.S. national security. The AFR has 14 C-5As at Lackland AFB, TX and 14 C-5Bs at Westover ARB, MA. The C-5 Reliability Enhancement and Re-engining Program (RERP), scheduled for C-5B models only, replaces engines with commercially-proven, more powerful engines, addresses high failure system components, and changes the aircraft designation to the C-5M. C-5 RERP production started in FY 2009 with completion scheduled for late FY 2016. AFR's C-5s are equipped with a flare-based defensive system, but require the LAIRCM system to maintain optimal defense against advanced MANPADS.

b) C-130 "Hercules," Intra-theater Airlift

AFR's 92 C-130H/J aircraft provide intra-theater airlift support from Keesler AFB, MS; Pope AFB, NC; Dobbins ARB, GA; Peterson AFB, CO; Maxwell AFB, AL; Youngstown Air Reserve Station (ARS), OH; Pittsburgh International Airport (IAP), PA; Niagara Falls IAP, NY; and Minneapolis-St. Paul ARS, MN. AFR C-130s also provide 25 percent of our Nation's military aerial firefighting capability, 100 percent of aerial spray requirements, and 100 percent of the weather reconnaissance mission. Two additional C-130J aircraft are anticipated for delivery to Keesler AFB by mid-FY 2012.

c) C-17A "Globemaster III," Inter- and Intra-theater Airlift

The C-17 is the nation's core military airlifter. AFR maintains a fleet of 16 C-17s located at March ARB, CA, and Wright Patterson AFB, OH. The C-17 provides a wide-body, heavy-lift aircraft capability that spans intercontinental ranges and can operate into austere tactical airfields. Long-term modernization initiatives include block upgrades to maintain a common fleet configuration, required navigation performance improvement, high-frequency data link, airdrop improvements, and BLOS secure voice.

d) C-40C Global VIP Airlift

AFR operates four assigned C-40C aircraft at Scott AFB, IL. The C-40C provides safe, secure, and reliable transportation for U.S. leaders to locations around the world. The C-40C's primary customers include members of the Cabinet and Congress. The aircraft also performs other operational support missions. The high speed data requirement, which would allow passengers to remain connected via non-secure internet and e-mail while airborne, is essential in providing relevant support to primary customers.

iv. Special Mission Aircraft

a) WC-130J "Hurricane Hunter"

AFR conducts 100 percent of the AF weather reconnaissance missions using ten WC-130J (Hurricane Hunter) aircraft assigned to the 403rd Wing located at Keesler AFB, MS. These aircraft are specially equipped to penetrate hurricanes and typhoons to collect and transmit real-time storm data to the National Hurricane Center. This national asset operates with a base crew of pilot, copilot, navigator, meteorologist, and weather reconnaissance loadmaster (dropsonde operator). The Hurricane Hunters have proven critical in forecasting the movement of dangerous storms—increasing the accuracy of storm forecasting by as much as 30 percent.

Upgrades for the WC-130J include an updated display panel for the Aerial Reconnaissance Weather Officer (ARWO) pallet and installation of a commercial satellite phone. The ARWO pallet modification (funded with FY 2009 NGREA) replaces obsolescent and increasingly unsupportable display panels, while the commercial satellite phone installation (funded with FY 2010 NGREA) will enable communication with FAA air traffic controllers when operating over the ocean at low altitudes.

b) MC-130E "Combat Talon I"

AFR has four MC-130E Combat Talon I aircraft located at Duke Field, FL, that provide 16 percent of Air Force special operations infiltration/exfiltration capabilities and 25 percent of special operations tanker capabilities. These unique aircraft are equipped with terrain-following radar and unique defensive and navigational equipment that allows the crews to conduct low-level, deep-penetration missions at night and in adverse weather, inserting personnel and supplies into hostile and non-permissive environments. Additionally, these aircraft conduct aerial refueling of special operations helicopters.

Air Force Special Operations Command (AFSOC) (the Lead Command) has indicated it will reduce the Talon I fleet over the next three years, eventually retiring the fleet. AFSOC has requested the AFR retain four Talon I aircraft from 2013–2015 to maintain capability until new MC-130J aircraft are fielded. MC-130 aircraft operate in highly demanding tactical environments, which may drive limited future modifications. Any Talon I modifications through 2014 will be mission driven and will be temporary modifications. An upgrade of Talon I radar altimeter capability (funded by FY 2008 supplemental funding) is in progress to ensure greater flight safety, with installations beginning in early FY 2012. Re-missioning of AFR special operations personnel began in 2009 and will accelerate as more Talon I aircraft are retired.

c) HC-130N/P "King"

AFR has five HC-130N/P aircraft assigned at Patrick AFB, FL. The HC-130N/P supports the combat search and rescue (CSAR) mission. This mission includes insertion, infiltration/exfiltration, and resupply of rescue forces engaged in isolated personnel rescue. The HC-130N/P also conducts air refueling of rotary wing rescue assets. Due to the versatility of the HC-130N/P, national rescue authorities task the HC-130N/P to perform missions across the range of military operations, including civilian search and rescue, emergency aeromedical evacuation, disaster relief, international aid, counter drug, and National Aeronautics and Space Administration astronaut rescue and recovery support.

The entire HC-130 fleet is awaiting replacement through the HC/MC tanker recapitalization program, although some current aircraft will remain in the inventory through FY 2021. Modifications in progress include SADL and over-the-horizon communication systems. An interim data link installation was completed in FY 2009, to be followed by a more robust and permanent data link and SLOS/BLOS communications suite planned in FY 2012. Future upgrades include crashworthy loadmaster seats, defensive system suite integration, and engine oil cooler upgrades.

d) HH-60G "Pave Hawk"

AFR has 13 HH-60G assigned helicopter aircraft located at Patrick AFB, FL, and Davis-Monthan AFB, AZ. These aircraft conduct CSAR for recovery of downed aircrew and other distressed personnel from hostile environments. Other HH-60G support missions include civilian search and rescue, emergency aeromedical evacuation, disaster relief, international aid, counter drug activities, and eastern launch range support.

Major ongoing modifications include improved aircraft ballistic armor and Improved Altitude Hold Hover Stabilization. A LARS v12 is ready to be fielded. Combat operations have highlighted a requirement for a hostile-fire indicating system capability, which would improve survivability.

Cancellation of the AF's CSAR-X helicopter replacement program will have a major impact for the AFR as an estimated 58 percent of the entire AF Pave Hawk fleet of 99 helicopters will exceed service life of 7,000 hours by FY 2015. This adds new urgency to execution of a HH-60 recapitalization plan. Current medical evacuation requirements in Operation Enduring Freedom are exhausting AF rescue resources; three aircraft are in Depot Level Maintenance.

v. Aerial Refueling Aircraft

a) KC-135 "Stratotanker"

Sixty-four AFR KC-135R Stratotankers conduct global aerial refueling operations for U.S. and allied aircraft and can carry a maximum of 200,000 pounds of fuel for use and transfer to receivers in flight. The KC-135 can also airlift cargo and personnel and conduct aeromedical evacuation. AFR KC-135R aircraft are assigned to Andrews AFB, MD; Grissom ARB, IN; March ARB, CA; Seymour-Johnson AFB, NC; and Tinker AFB, OK. AFR squadrons equipped with KC-135 aircraft provide 15 percent of the AF KC-135 aerial refueling capability.

vi. Training Systems

a) C-130 H2 and H3 Weapon Systems Trainers (WSTs)

AFR uses C-130H WSTs to train AC and RC C-130H pilots, flight engineers, and navigators. The C-130H WSTs simulate all cockpit instruments, including ground-mapping radar and air defensive systems. The WSTs support night vision goggles, and provide tactical, low level, and airdrop training. Standalone navigation trainers supplement each C-130H WST to provide C-130H navigators with quality training in over-water flight procedures and airborne radar approaches.

b) C-5 Weapon Systems Trainers

AFR has three C-5 WSTs. The C-5 WST at Westover ARB, MA, has the unique capability to train crews in both air refueling and conventional air-land mission procedures. The other two C-5 WSTs, located at Lackland AFB, TX, have state-of-the-art hydraulic motion bases and large

wraparound, out-the-window visual systems, and they comply with FAA level C+ Standards. Lackland C-5 WSTs support the training of the Pilot, Copilot, and Flight Engineer positions for mission qualification, upgrade, and continuation training. In addition, all C-5 WSTs provide maintenance personnel Maintenance Engine Run training.

c) C-17 Weapon System Trainers

AFR currently has one C-17 WST. The C-17 WST at March ARB, CA, has the unique capability to train crews in both air refueling and conventional air-land mission procedures. This WST has state-of-the-art hydraulic motion bases and large wraparound, out-the-window visual systems, and complies with FAA level C+ Standards. A second WST is expected to be delivered to Wright-Patterson AFB, OH in FY 2012 for AFR crews that have transitioned from the C-5A to the C-17. These WSTs support the training of the Pilot, Copilot, and Flight Engineer positions for mission qualification, upgrade, and continuation training. These WSTs are fully DMO-capable and have been used in virtual training exercises since their inception. In addition, all C-17 WSTs provide maintenance personnel Maintenance Engine Run training.

d) A-10 Full Mission Trainer (FMT)

AFR A-10 FMTs currently operate in a networked/DMO and Live-Virtual-Constructive training environment. AFR A-10 FMTs support critical-to-mission training capabilities along with normal, emergency, instrument, weapons, and tactics procedures. DMO training adds new war-fighting capability allowing geographically separated A-10 FMTs and ground-based joint terminal attack controllers to participate in realistic training scenarios.

AFR has four A-10 FMTs: two at Whiteman AFB, MO, and two at Barksdale AFB, LA, and is purchasing a fifth FMT for the Reserve Associate Unit at Moody AFB. A-10 FMTs must have Helmet Mounted Integrated Targeting and LARS v12 installed to keep them synchronized with the aircraft.

e) F-16 Multi-Task Trainer (MTT)

The five AFR F-16 MTTs support mission training capabilities and normal, emergency, instrument, weapons, and tactics procedures as well as systems training for F-16 Block 30 qualified AFR, ANG, and ACC pilots. Once facility construction is complete, AFR will have two operational F-16 MTTs located at Homestead ARB, FL, and two at JRB Fort Worth, TX. The fifth is located at Mesa, AZ, and is used for testing purposes. Multi-terabyte hard drive systems allow the F-16 MTTs to use the same mapping databases as the A-10 FMTs.

AFR F-16 MTTs can connect to ARCNet allowing them to participate in networked training on a limited basis. The F-16 MTTs will not have full DMO network capability until current efforts are complete to purchase ACC-funded 360-degree visual systems. The F-16 MTTs are currently upgraded to Software Core Upgrade 7 and provide Tactical/Theater Airborne Reconnaissance System training. AFR requirements specify upgrading these devices to full tactical mission capability and full DMO over the next several years.

vii. Guardian Angel

Guardian Angel (GA) is an AF weapon system consisting of combat rescue officers; pararescuemen; survival, evasion, resistance, and escape specialists; and support personnel and

equipment dedicated to prepare, report, locate, support, recover, and reintegrate isolated personnel. Three AFR GA squadrons assigned to the 920th Rescue Wing augment both the HH-60 and HC-130 rescue platforms.

AFR is accomplishing GA modernization through two increments funded by ACC, the lead command, and some NGREA funds. Increment One is focused on sustaining and modernizing existing capabilities and equipment and is currently in progress. Increment Two is focused on developing a fully integrated family of systems interoperable with HH-60 and HC-130 programs.

b. Average Age of Current Equipment

As the average age of aircraft increases, there is a direct correlation to a demand for more operation and maintenance funding to continue the capability. This increased funding demand is driven by a number of factors: 1) greater demand for part replacement, which have exceeded the projected life cycle, is complicated by disappearing vendors as a result of the industry shifting to newer aircraft, 2) the operational costs of these less efficient aircraft drive up flying hour costs, and 3) the increasing age of these aircraft has driven a decrease in the mean time between failure. These factors combine to create a greater maintenance burden and, simultaneously, a decrease in aircraft availability. These contributing factors must be addressed to sustain the capabilities required to meet national defense demands.

See *Table 2* for the average age of selected major items of equipment as of the beginning of FY 2012.

c. Compatibility of Current Equipment with AC

AFR equipment requires compatibility with the AC to support applicable AF missions with the exception of “unique” missions performed by AFR, e.g., weather, aerial spray, and firefighting. With Congressional funding received to-date, AFR is able to keep its mission equipment compatible with the AC.

d. Maintenance Issues

i. C-5A/B Maintenance Issues

C-5A aircraft floor fitting end caps are developing corrosion cracks, and, when found, lead to flight restrictions and potential aircraft grounding. Floor fitting end cap costs are unfunded at approximately $610K per aircraft. If not corrected, significant restrictions and aircraft groundings will occur and negatively affect aircraft availability. Delamination repair of C-5A exterior panels are also an unfunded cost averaging $2.5M per aircraft. Delaminated panels may not be repairable, and availability of replacement panels is limited. Unfunded costs for C-5A program depot maintenance (PDM) total $35.2M (one aircraft in FY 2012).

ii. A-10 Maintenance Issues

The A-10 wing replacement program replaces thin-skinned wings. The new wing will extend aircraft life to 16,000 hours. Delivery of the first aircraft with a new wing is expected in the second quarter of FY 2012. Most AFR aircraft have thin-skinned wings.

iii. C-130 Maintenance Issues

The major issue for the C-130 fleet is PDM late deliveries. The C-130 is scheduled for 180–210 days (organic). Organic PDMs are running an average of 89 days late. For AFR, only one out of three aircraft were delivered on time in FY 2011.

e. Modernization Programs and Shortfalls

There are several areas that need attention to ensure modernization of AFR equipment requirements. Primarily, these modernization efforts stress aircraft defense, safety, and data link communications. AFR aircraft require self-protection suites that are effective against modern anti-aircraft missile systems. The information demands of modern warfare require a fully integrated data-link network. A robust, persistent airborne gateway system and SLOS/BLOS voice and data communications support that integrated data-link requirement. The current urban battlefield demands low collateral damage and drives a requirement for spiral procurement of advanced sensors to include LITENING G4 (fourth generation) ATP and Helmet Mounted Integrated Targeting (HMIT). Simulators and other training devices must keep current with aircraft systems and provide high fidelity for realistic mission training. Linking simulators in diverse locations provides realistic training opportunities and helps overcome issues created by operations tempo and resource limitations. Compounding this is the operations tempo of our Agile Combat Support units and the requirement to replace and modernize equipment.

The following are the AFR shortfalls categorized by major weapon systems as identified through the AFRC corporate process in the development of the FY 2013 Equipment Modernization Roadmap.

i. Fighter Aircraft

a) F-16

HMIT allows pilots to rapidly target sensors and advanced weapons and stay aware of critical developments in flight. A HMIT would also allow the F-16 to take full advantage of the AIM-9X off-bore sight capability. The LITENING G4 ATP spiral upgrade will provide advanced sensors in conjunction with the HMIT that will significantly improve target location and identification, weapons employment, and battle damage assessment. Modern electronic self-protection equipment is essential to mission success.

b) A-10

As with the F-16, HMIT, in conjunction with the LITENING G4 ATP spiral upgrade, would allow rapid targeting of sensors and advanced weapons and would help pilots stay aware of critical developments in flight. Modern electronic self-protection equipment is essential to mission success. Finally, the present tactical employment of the A-10 requires operations at airfield elevations and environments where the engines are thrust deficient. This results in reduced weapons and fuel loads. Engine improvements would regain designed combat payload and range capabilities.

ii. Bomber Aircraft—B-52H

Near-term AFR B-52 fleet enhancements still under consideration are electronic warfare (both defensive and offensive capabilities to support standoff and penetration missions) and bomb bay smart weapons carriage capabilities. These enhancements currently lack full funding and system development maturity. The B-52H has an immediate requirement for TDL capability to provide

near real-time situational awareness updates of friendly positions and enemy air/ground threats. The battlespace can change significantly during the long duration of B-52H missions, and a data link system would provide critical target updates during flight. While the CONECT program goes a long way to providing a data link solution for the B-52, EPLRS/SADL is lacking in the CONECT program to provide critical real-time friendly positions during close air support missions. Installing EPLRS/SADL radios on the B-52 in conjunction with Aviation Modernization Improvement is a potential interim solution to provide TDL capability without delay to CONECT. The LITENING G4 ATP spiral upgrade will improve the B-52 capability for target location and identification, weapons employment, and battle damage assessment. The B-52 has no DMDS. Now that the primary function of AFR B-52Hs is to support flying training, the ability to properly train and debrief students is imperative for the 307th Bomb Wing mission.

iii. Airlift/Special Missions Aircraft

a) HH-60G and HC/MC-130—Combat Search and Rescue (CSAR)

Military contingency operations require CSAR support. The 920th Rescue Wing HH-60G helicopters and HC-130 aircraft are low-density/high-demand (LDHD) assets in constant demand by multiple agencies and support ongoing operational and contingency missions. To remain a viable combat platform, the HH-60 requires significant modifications and upgrades. Additional Congressional funding was received by ACC in FY 2008 for the HH-60 modernization program; however, contractual issues have created significant delays in upgrading the aircraft. Program delays could extend into late FY 2012. For the long term, an AF program attempting replacement of the aging HH-60 helicopter fleet has been delayed. As a result, the AFR may fly this aircraft well beyond FY 2020, thus creating long-term sustainment issues.

The AFR expects to replace HC-130 tankers starting in FY 2018, as many of these airframes have over 45 years of service. For the AFR to maintain the capability to meet combatant commander requirements and HD taskings in the near future, it is critical that both the HH-60 and HC-130 aircraft are replaced on a one-for-one basis. The demands being placed on these airframes as LDHD assets are wearing these airframes out at an accelerated rate. Both these replacement aircraft have been programmed. AFR HC-130 replacements will run approximately $600M, the HH-60 replacement costs have not yet been determined.

AFR MC-130E aircraft are planned to be retired no later than FY 2015. In the next several years, however, AFR MC-130E aircraft will continue to be in very high demand, and use in harm’s way will drive the requirement for low cost temporary communications and situational awareness systems to fulfill mission demands. AFR and AFSOC are working to capture experienced Special Operators into a new UE mission.

b) WC-130J

The National Hurricane Operations Plan requires tasked reconnaissance missions to be flown at altitudes too low for radar coverage and line-of-sight communications, yet within FAA-controlled airspace. To ensure maximum safety for aircrews during hazardous hurricane weather conditions or even investigating “Low Pressure” areas and to update the FAA with airspace requirements during tasked weather missions, real-time, dependable communications with the FAA are essential. A significant shortfall in the WC-130J capability is its lack of a civilian

SATCOM radio. FY 2010 NGREA funds have been applied to procure a civilian satellite phone to provide aircrews this needed capability.

Another current upgrade to the WC-130J aircraft is replacement of the ARWO pallet flat-panel displays. Displays are used by the ARWO to confirm data prior to forwarding to the National Hurricane Center. Current displays are analog and are no longer manufactured or supportable. FY 2009 NGREA funds have been applied for the replacement of the displays with digital displays.

c) C-130

Current ongoing modifications to AFR C-130H aircraft include Night Vision Imaging System (NVIS) windscreens (funding completed with FY 2009 NGREA), a Yoke-mounted Countermeasures Dispenser Switch (funding completed with FY 2010 NGREA), an APN-241 navigation and ground mapping radar (funding completed with FY 2010 NGREA), LAIRCM, large square–window troop doors for improved SAFIRE lookout capability (funding completed with FY 2009 NGREA), crashworthy loadmaster seats, new improved aircraft armor for critical aircraft components and crew protection, and an RTIC system that provides SLOS/BLOS communications and data link for dynamic re-tasking and to improve aircrew situational awareness, protection, and weapon system reliability. Additionally, funding has been applied for computerized takeoff and landing data, oil cooler augmentation, improved NVIS cockpit lighting until AFR aircraft receive the AMP modification, and a new Modular Aerial Spray System (MASS) for the AF's only aerial spray unit, located at Youngstown ARS, OH. The following mission critical upgrades are required for the continued modernization and success of the C-130H: next generation MWS with IR video capability, an upgraded Radar Warning Receiver (RWR), single pass precision air drop capability, a terrain avoidance warning system, an electronic propeller control system, T56-A-15 3.5+ engine upgrade, defensive systems integration, and virtual electronic warfare training capability.

A major long-term modernization program, the C-130 Avionics Modernization Program (AMP), will convert the entire C-130H fleet to a standard avionics configuration to include a "glass" cockpit and updated equipment to meet international CNS/ATM requirements. This upgrade will also install NVIS-compatible lighting throughout the cockpit of the aircraft. AMP (along with center wing replacement) will allow C-130 aircraft to execute their missions both domestically and internationally for the next 20–30 years.

d) C-5

Structural issues within the C-5 fleet are a significant concern: aircraft crown skins, contour boxes, and Vertical Stabilizer Attachment fittings are developing corrosion cracks that, if not addressed, will result in a significant reduction in aircraft availability beginning in FY 2013. Approximately $176M is required; $44M beginning FY 2012–FY 2015.

LAIRCM for AFR C-5 aircraft is currently not funded. Reduced aircraft availability is projected for the C-5 fleet due to major maintenance issues (structural cracks) and reduced Weapons System Sustainment (WSS)/Depot Purchased Equipment Maintenance (DPEM) funding.

iv. Aerial Refueling Aircraft

KC-135 average age is over 40 years and the oldest KC-135 in active service is approaching 50 years. The Stratotanker will require several upgrades to remain viable and effective until replaced by the future KC-46A tanker. Installing LAIRCM on the KC-135 will reduce the risk of losing an aircraft to an IR-guided missile during takeoff, landing, or low-level aerial refueling operations. In addition, night vision compatible lighting (internal and external) and data link communications will keep the KC-135 viable and able to support receiver aircraft in a combat environment.

v. Equipment for New and Expanding Missions

Expanding and new missions dictate new equipment requirements to support those missions. Our Security Forces require weapons upgrades for sniper teams (24 startup unit type codes), and our new missions in RPA, C2, and ISR require training equipment to provide mission-ready personnel as part of the Total Force.

vi. Agile Combat Support (ACS) Equipment

ACS is a distinctive AF capability used to deploy military power, respond to global tasking, and establish forward base structures. It creates, sustains, and protects all air and space capabilities. ACS includes Expeditionary Combat Support and 26 functional areas that organize, train, equip, employ, control, and sustain forces. ACS ensures operations are established within days instead of weeks or months and is crucial to meeting the demands of today's rapidly changing environment. The AFR has identified at least $248M in unfunded procurement and Operation and Maintenance requirements from these 26 functional areas.

a) Support Equipment and Vehicles

AFR has a current shortfall of approximately $186M for support equipment sustainment across all functional areas within the command. Assets required for procurement includes such items as maintenance stands, avionics test stations, tow bars, radios, small arms, and night vision devices. AFR also has a current shortfall of $17M for vehicle procurement and replacement. At this rate, the AFR recapitalization period for vehicles is approximately 20 years. Maintaining vehicles that have surpassed their service life requires more funding for vehicle maintenance accounts.

b) Security Forces and Civil Engineering

AFR Security Forces personnel train for contingency deployments and provide home-station security for continental United States AFR installations. With over 3,000 assigned Security Forces members, they provide security of personnel and priority resources at home-station and deployed locations through law enforcement patrols, integrated base defense, and antiterrorism/ force protection initiatives.

Prime base engineer emergency forces (Prime BEEF) are combat support forces that are generally configured as squadrons and teams. Their mission is to provide combat civil engineering support to the air combat forces which are, or may become, a part of a theater, command, or task force formed for combat operations. Rapid Engineer Deployable Heavy Operational Repair Squadron Engineer (RED HORSE) civil-engineering squadrons are wartime-structured units that provide a heavier engineering capability than the civil engineering Prime BEEF units.

AFR Security Forces, Prime BEEF, and RED HORSE personnel require modern tactical equipment and weapons suites with which to train and deploy. Due to the integrated Total Force nature of current deployments and force utilization strategies, weapons systems parity with AC forces is critical. Increased manning, concurrent with new mission growth (including precision engagement requirements for Security Forces), exacerbates current equipment and weapons allocation shortfalls. AFR expeditionary combat support personnel perform outside-the-wire patrols, convoys, and mission operations in forward-deployed areas. Modern tactical equipment, vehicles, and weapons suites including M4/M203/M240B/M249 are required to attain and sustain parity with AC forces and ensure success for today's missions.

c) Communications

The environment in which AFR operates is increasingly reliant on a vibrant and responsive electronic communications infrastructure to ensure success. AFR has identified, through the Directorate of Communications (A6) and the Chief Information Officer processes, approximately $45M in infrastructure replacement, upgrades, or backup for our AFR units and installations that require procurement funding. These include mass notification systems, control tower equipment, telephone switches, E-911 systems, voice-over-IP, and a list of other items. AFR receives limited annual procurement funding ($0.3M) to begin satisfying these needs. Lessons learned from real-world events, such as the Fort Hood incident, natural disasters, and others have shown the increased reliance on communications infrastructure to help responders in these situations.

f. Overall Equipment Readiness

Presently, AFR weapons systems maintain equipment readiness on par with the AC, except where limited by modernization restrictions or WSS/DPEM funding. AFR achieves readiness through constant close coordination with the lead commands to assure inclusion of AFR assets and mission capabilities in current requirements and funding.

B. Changes Since Last NGRER

- KC-135 fleet PDM improved late deliveries. Last year, AFRC reported that the KC-135 was scheduled for 180 days (organic) and 220 days (contracted). At that time, organic PDMs ran approximately 220 days and contracted PDMs ran close to 300 days. The depot improvements in organic PDM now are getting the process down to 150 days with the goal of 130.

- HMIT for AFRC A-10s and F-16s is in test and installation should begin by September 2012. HMIT is a low-cost cueing system that fills an identified capability gap. HMIT can generate accurate target location information for near real-time transmission by data link to other ground and air platforms.

- All AFR A-10s have received the Precision Engagement upgrade making them "C" models. All AFR A-10s have the wiring installed for the AAR-47 Missile Warning System. Complete delivery of AAR-47 sensors and processors is scheduled over the next eight months.

- Half of AFR's A-10 have completed the second ARC-210 radio install. Installations are ahead of schedule and all AFR aircraft should be completed in 10 months.

- Install of Software Capability Upgrade 7.1 software, X-Mux and Ethernet Phase I and II hardware, and SLOS/BLOS ARC-210 radios in AFR F-16s should be completed before 2013.

- Seven AFR C-5B aircraft scheduled to be modified to C-5M's in FY 2015.

- Headquarters (HQ) United States Air Force (USAF) approved Program Change Request (PCR) 10-01which extended four MC-130E aircraft to the end of FY 2015.

- Contract for upgrade of digital displays for the ARWO pallet on AFRC WC-130J aircraft was awarded in September 2011.

- Installation of APN-241 Radar upgrade on all AFR C-130Hs was completed.

- Initiated procurement of a civilian satellite phone for WC-130J "Hurricane Hunter" aircraft, with the integration and production contract awarded in September 2011.

- Initiated procurement of new, more robust, lighter-weight armor for C-130 aircraft, with contract award expected in late FY 2012 or early FY 2013.

- Procured large square window doors for all AFR C-130H2 aircraft to provide increased SAFIRE lookout capability.

- Initiated procurement actions to secure Electronic Takeoff and Landing Data for all AFR C/HC-130H/N/P aircraft.

- Initiated procurement of an upgrade MASS, with contract award expected in late FY 2012 or early FY 2013.

- Purchased two water jet cutter machines to repair large C-5 aircraft fuselage components.

C. Future Years Program (FY 2013–FY 2015)

1. FY 2015 Equipment Requirements

2. Anticipated New Equipment Procurements

Table 3 provides the list of planned procurements for the AFR from the FY 2013 President's Budget.

Table 4 provides a complete list of AFR planned NGREA-funded procurements for FY 2010–FY 2012.

3. Anticipated Transfers from AC to RC

No transfers are programmed in the FY 2012 President's Budget for AFR.

4. Anticipated Withdrawals from RC Inventory

AFR MC-130E inventory is reduced to four beginning in FY 2013 to the end of FY 2015 as per PCR 10-014. AFSOC is programmed to retire all AFSOC MC-130E aircraft after FY 2015.

5. Equipment Shortages and Modernization Shortfalls at the End of FY 2014

The AFR annually publishes Equipment Modernization Roadmaps as formal documents that are the culmination of a formal AFRC requirements process. This process begins at the squadron level and is finalized at the command through the Corporate Structure. AFRC Corporate Structure Panels receive the AFR mobility air forces, combat air forces, and Agile Combat Support requirements, rank those requirements, and forward them through the Reserve Requirements Tribunal and Corporate Council for approval of unfunded requirements. Available funding only covers a small percentage of equipment requirements for the AFR. Recently finalized Procurement Unfunded Requirements List total approximately $1B.

D. Summary

AFR Selected Reserve units continue to be fully capable of meeting required contingency taskings. This impressive capability is the RC model of integration. Modernization is the key to not only maintaining this effective force, but also improving the capability of the warfighter.

The AFR receives its modernization funding through three main sources: the Air Force Budget, Congressional Adds, or the NGREA. In today's fiscally constrained budget environment, the life-blood of the AFR's modernization effort is NGREA funding. This resource is vital to the AFR's ability to present and maintain a relevant, combat ready force.

The AFR continues to focus on three areas of increased capability to the warfighter through modernization. Those areas are self-defense, real-time communications/data link, and greater precision/target identification. COTS products continue to allow major improvements in SLOS/BLOS and data link communications, advanced digital/analog secure video data link to ground forces, and improved weapons capability in the F-16, A-10C, HH-60, HC-130, and B-52. The AFR has significantly enhanced combat defensive capabilities of both strategic and tactical airlift, to include CSAR platforms, with C-130/HC-130 LAIRCM, improved all-weather situational awareness, C-130 APN-241 radar, and improved the C-17A airlift capability with palletized seats.

The AFR is nearing completion on several enhancements: SLOS/BLOS on all AFR fighters, permanent TDL for AFR CSAR assets, fourth-generation LITENING ATP sensors, and capabilities on AFR A-10C/F-16/B-52 platforms. Additionally, several other enhancements have been initiated: procurement of C-130 SAFIRE tactical lookout, C-130 crashworthy loadmaster seats, HC-130 defensive systems integration, and installation of C-5 ADS. Additionally, acquisition of a modern Modular Aerial Spray System will be initiated. Many of these efforts directly address capability shortfalls identified by theater combatant commanders during combat operations.

The AFR continues to expand its existing missions as well as moving into new mission areas. The increased missions in RPA, ISR, C2, and security forces will require a corresponding increase in investment in tactical and training equipment.

The AFR is committed to modernization efforts that meet the Total Force capability needs of the AF and the combatant commanders. For those modernization needs that remain unfunded, the AFR internal requirements review process prioritizes and validates vital unfunded warfighter requirements for NGREA and supplemental funding consideration.

Table 1

AFR
Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve Component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve Component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Air Refueling							
Air Refueling, KC-135R	KC-135R	$72,000,000	64	64	64	64	64
Air Support							
Air Support, MC-130E	MC-130E	$93,000,000	4	4	4	4	4
Weather, WC-130J	WC-130J	$69,800,000	10	10	10	10	10
Airlift							
Airlift, C-130H	C-130H	$37,400,000	84	84	84	84	84
Airlift, C-130J	C-130J	$63,900,000	10	10	10	10	10
Airlift, C-17A	C-17A	$273,300,000	16	16	16	16	16
Airlift, C-5A	C-5A	$199,300,000	14	14	14	14	14
Airlift, C-5B	C-5B	$228,600,000	14	14	7	7	7
Airlift, C-5M	C-5M	$328,000,000	0	0	7	7	7
Airlift, C-40C	C-40C	$80,700,000	4	4	4	4	4
Bomber							
Bomber, B-52H	B-52H	$96,000,000	16	16	16	16	16
Fighter							
Fighter, A-10C	A-010C	$13,500,000	42	42	42	42	42
Fighter, F-16C	F-16C	$21,000,000	46	46	46	46	46
Fighter, F-16D	F-16D	$21,000,000	2	2	2	2	2
Rescue							
Rescue, HC-130N	HC-130N	$22,600,000	1	1	1	1	1
Rescue, HC-130P	HC-130P	$22,600,000	4	4	4	4	4
Rescue, HH-60G	HH-60G	$27,000,000	13	13	13	13	13

Table 2

AFR
Average Age of Equipment

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2012.

Nomenclature	Equip No.	Average Age	Remarks
Air Refueling			
Air Refueling, KC-135R	KC-135R	52	
Air Support			
Special Ops, MC-130E	MC-130E	48	
Weather, WC-130J	WC-130J	15	
Airlift			
Airlift, C-130H	C-130H	24	
Airlift, C-130J	C-130J	8	
Airlift, C-17A	C-17A	11	
Airlift, C-5A	C-5A	42	
Airlift, C-5B	C-5B	26	
Airlift, C-40C	C-40C	7	
Bomber			
Bomber, B-52H	B-52H	52	
Fighter			
Fighter, A-10A	A-010A	33	
Fighter, F-16C	F-16C	26	
Fighter, F-16D	F-16D	26	
Rescue			
Rescue, HC-130N	HC-130N	43	
Rescue, HC-130P	HC-130P	48	
Rescue, HH-60G	HH-60G	22	

AFR

Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2013 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2013 would be expected to arrive in RC inventories in FY 2014 or FY 2015.

Nomenclature	FY 2013	FY 2014	FY 2015
Modification of Inservice Aircraft			
B-52	$1,141,000	$7,892,000	$6,002,000
Large Aircraft Infrared Countermeasures (LAIRCM)		4,043,000	1,500,000
A-10	17,088,000	4,842,000	
F-16	719,000	634,000	
C-5M	256,803,000	703,907,000	264,736,000
C-17A	9,818,000	10,374,000	23,188,000
C-130	13,710,000	21,762,000	308,000
C-135	3,852,000	6,656,000	6,631,000
H-60	5,263,000	4,164,000	2,893,000
Aircraft Replacement Support Equipment	941,000		
Vehicular Equipment			
Passenger Carrying Vehicles	202,000		
Medium Tactical Vehicles	2,692,000		
Security and Tactical Vehicles	64,000		
Electronics and Telecommunications Equipment			
Air Traffic Control & Landing System	603,000		
National Airspace System	1,228,000		
Mobility Command and Control	260,000		
Theater Battle Management C2 System	145,000		
Air & Space Operations Center - Weapon System	2,000,000		
Base Information Infrastructure	353,000		
Tactical C-E Equipment	341,000		
Base Communications Infrastructure	353,000		
Communications & Electronics Mods	477,000		
Other Base Maintenance and Support Equipment			
Night Vision Goggles	280,000		
Base Procured Equipment	200,000		
Total	**$318,533,000**	**$764,274,000**	**$305,258,000**

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2012 would be expected to arrive in RC inventories in FY 2013 or FY 2014. All values are costs in dollars.

Nomenclature	FY 2010	FY 2011	FY 2012
FY 2010 Title IX NGREA Equipment			
C-130 Secure Line of Sight (SLOS)/Beyond Line of Sight (BLOS)	$15,838,892		
WC-130 Civil Satellite Communications (SATCOM)	5,440,993		
A-10/F-16 Helmet-mounted Integrated Targeting (HMIT)	5,250,000		
F-16 Center Display Unit	4,500,000		
HH-60 Smart Multi-Function Color Display (SMFCD) & Situation Awareness Data Link (SADL)	4,000,000		
C-130 Oil Cooler Augmentation	3,950,000		
HC-130 Oil Cooler Augmentation	3,300,000		
A-10 Simultaneous SLOS/BLOS	2,339,268		
B-52 Mission Data Recording System	2,063,548		
F-16 "Flair-Up" Modification for Pylon Integrated Dispenser System (PIDS) Flare Dispensers	2,000,000		
A-10/F-16 Advanced Targeting Pod (ATP) Procurement & Spiral Upgrade	1,800,000		
C-17 Palletized Seats	1,493,091		
F-16 Simulation Training Device Upgrade (PA)	1,100,000		
C-130 Crash-resistant Loadmaster Seats	761,108		
C-130 Computerized Takeoff and Landing Data (TOLD)	500,000		
C-130 Yoke-mounted Chaff/Flare Dispensers	500,000		
Security Forces Weapons and Tactical Equipment	100,000		
C-130 Improved Night Vision Imaging System (NVIS) Cockpit Lighting	63,100		
FY 2011 Title IX NGREA Equipment			
C-130 Large Aircraft Infrared Countermeasures (LAIRCM)		$22,600,000	
C-130 Secure Line of Sight (SLOS)/Beyond Line of Sight (BLOS)		8,100,000	
HC-130 Integrated Electronic Warfare Suite (ALQ-213) with Visual Electronic Training System (VECTS)		6,000,000	
Combat Search and Rescue (CSAR) Common Data Link (Microlite)		6,000,000	
C-130 Armor		5,800,000	
C-130 Modular Aerial Spray System (MASS)		4,500,000	
A-10/F-16 Helmet-mounted Integrated Targeting (HMIT)		4,400,000	
A-10/F-16 Center Display Unit		2,600,000	
Tactical Communication Headset		2,500,000	
Wireless Intercom		2,230,000	
Security Forces Weapons & Tactical equipment		2,200,000	
MC-130 Integrated BLOS Situational Awareness (SA) Feed (T-1 Mod)		1,500,000	
R-12 Refuelers		900,000	
Support Equipment		570,000	

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2010	FY 2011	FY 2012
Vehicles		100,000	
Total	**$55,000,000**	**$70,000,000**	

1. Service FY 2012 NGREA equipment list was not available in time for publication in the NGRER. Equipment list for FY 2012 will be provided in next year's NGRER.

Table 5

AFR
Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the AC receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks
Airlift, C-5B	C-5B		-7		C-5Bs converting to C-5Ms

AFR

Table 6

FY 2009 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2009 with actual procurements and transfers. FY 2009 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2011. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2009 Planned Transfers & Withdrawals							
AFR indicated no planned transfers or withdrawals in the FY 2009 NGRER							
FY 2009 P-1R Equipment							
Modification of Aircraft							
B-52				$4,724,000	$434,000		
A-10				21,482,000	41,735,000		
F-16				12,235,000	4,660,000		
C-5				215,562,000	9,195,000		
C-17A				14,588,000	199,000		
C-130				92,891,000	58,361,000		
C-130J Mods				14,475,000	7,492,000		
C-135				19,149,000	9,150,000		
H-60				0	16,000		
Vehicular Equipment							
Passenger Carrying Vehicles				1,697,000	740,000		
Medium Tactical Vehicle				1,887,000	0		
Security and Tactical Vehicles				2,203,000	0		
Fire Fighting/Crash Rescue Vehicles				406,000	1,710,000		
Runway Snow Removal & Cleaning Equipment				2,512,000	1,495,000		
Items Under $5M (Vehicles)				6,358,000	3,817,000		
Electronics & Telecommunications Equipment							
National Airspace System				1,464,000	4,795,000		
Weather Observation Forecast				206,000	0		
AF Global Command & Control System				775,000	654,000		
Mobility Command and Control				0	264,000		
Theater Battle Mgt C2 System				0	475,000		
Air & Space Operations CTR-Wpn System				7,956,000	8,000,000		
Base Info Infrastructure				11,127,000	0		
NAVSTAR GPS Space				0	127,000		
MILSATCOM Space				0	5,746,000		
Tactical C-E Equipment				11,140,000	7,174,000		
CCTV/Audiovisual Equipment				386,000	0		
Base Comm Infrastructure				0	3,088,000		

AFR

Table 6

FY 2009 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Other Base Maintenance & Support Equipment							
Night Vision Goggles				503,000	286,000		
Mechanized Material Handling Equipment				517,000	0		
Base Procured Equipment				188,000	200,000		
Items Under $5M (Base Support)				542,000	300,000		
FY 2009 NGREA (Title III and Title IX) Equipment							
LITENING Advanced Targeting Pod (ATP)						$11,700,000	$11,700,000
C-130 Surface-to-air Fire (SAFIRE) Lookout Capability						9,200,000	8,851,786
C-130 APN-241 Radar						5,840,000	1,280,674
A-10 Missile Warning System						5,730,000	3,680,426
F-16 Secure Line of Sight (SLOS)/Beyond Line of Sight (BLOS) Capability (ARC-210 RADIO)						5,410,000	0
HC-130 SLOS/BLOS Comm/Datalink						5,400,000	5,400,000
C-5A Airlift Defensive Systems (ADS)						5,200,000	0
A-10/F-16 Helmet-mounted Integrated Targeting (HMIT)						4,000,000	7,900,000
Advanced Targeting Pod (ATP) Procurement & Spiral Upgrades						3,049,000	8,915,848
Helmet-mounted Cueing System; Non-recur Engineering (NRE) & Low Rate Initial Production (LRIP)						3,000,000	497,714
F-16 Imagery & Data Transfer/Cursor On Target						2,000,000	2,000,000
F-16 Upgraded Commercial Fire Control Computer (CFCC)						1,860,000	2,075,000
WC-130 Aerial Reconnaissance Weather Officer (ARWO) Pallet						0	3,205,074
Security Forces Tactical Equipment Purchases						0	3,100,000
HH-60 Smart Multifunction Color Display (SMFCD)/Tactical Data Link						0	2,142,478
A-10/F-16 Countermeasure Set (CMS) (ALQ_213)						0	1,640,000
TOTAL				**$444,973,000**	**$170,113,000**	**$62,389,000**	**$62,389,000**

AFR
Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No

Service Does Not Use Substitution to Satisfy Major Item Equipment Requirements

Table 8

AFR
Significant Major Item Shortages

NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost [1]	Rationale/Justification
1	C-130 Large Aircraft Infrared Countermeasures (LAIRCM)	94	10	$3,000,000	$30,000,000	System provides C-130s an advanced infrared countermeasures system designed to protect aircraft against man-portable (shoulder-launched) infrared-guided surface-to-air missiles.
2	C-130 Secure Line-of-sight (SLOS) Beyond Line-of-sight (BLOS) Capability	84	49	$417,000	$20,433,000	Modifies AFR C-130H aircraft with a Real Time Information in the Cockpit (RTIC) System that provides a secure data infrastructure with Secret-level data flows, processing, and information display.
3	A-10/F-16 Day/Night Helmet-mounted Integrated Targeting System (HMIT)	96	48	$144,417	$6,932,016	Funds HMIT for all AFR A-10 & F-16 aircraft. Helmet-mounted displays provide critical flight and weapons information directly to the pilot without looking at panel mounted instruments.
4	C-130 Crash Resistant Loadmaster Seat	84	71	$59,000	$4,189,000	Installs a crash-resistant loadmaster seat reducing risk of injury or death.
5	C-5 Large Aircraft Infrared Countermeasures (LAIRCM)	16	9	$10,500,000	$94,500,000	System provides C-5s an advanced infrared countermeasures system designed to protect aircraft against man-portable (shoulder-launched) infrared-guided surface-to-air missiles.
6	C-130 Modular Aerial Spray System (MASS)	6	6	$3,080,000	$18,480,000	Replaces the current MASS with a newly designed system. The current MASS system is no longer in production and becoming increasingly more difficult and expensive to maintain. The new system is required to meet current and future aerial spray applications directed by the Center for Disease Control, homeland defense, and DoD requirements.
7	Agile Combat Support Expeditionary Forces Tactical Equipment	4,096	2,224	Varies	$9,747,000	Provides modern small arms sets for deployable security forces and civil engineer troops to establish and maintain parity with active duty counterparts.
8	Guardian Angel Tactical Equipment	180	180	Varies	$1,800,000	Rescue personnel require this equipment to modernize and improve the safety and success of rescue operations. Includes weapons, communications, and personal protective equipment upgrades. Multiple missions in Operation Enduring Freedom have highlighted this need.

Table 8

AFR
Significant Major Item Shortages

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost [1]	Rationale/Justification
9	F-16/A-10 Cockpit Modernization: EFIS, CDU for Imagery and Data Transfer/Cursor on Target (COT) Integrated Display for imagery, maps, Digital CAS, photos, etc. (PA)	96	96	$132,292	$12,700,032	Replaces aging aircraft analog flight instrument and mechanical gauges with modern technology multifunction displays that improve aircraft availability and allow the aircraft to be more accurate and lethal.
10	C-130 Armor	94	39	$146,385	$5,709,015	Provides more robust aircraft armor to protect against current small arms threat; allows better protection for aircrew and sensitive aircraft parts.

1. Total shortage cost includes spares, and costs includes other costs such as Non-recurring Engineering, etc.

Chapter 6
United States Coast Guard Reserve

I. Coast Guard Overview

For more than two centuries, the Coast Guard has safeguarded the Nation's maritime interests in our ports and waterways, on the sea, and around the globe. The Coast Guard is a unique force that carries out an array of both civil and military responsibilities that touch nearly every facet of the U.S. maritime environment.

The Coast Guard's primary missions are

- ports, waterways, and coastal security;
- drug interdiction;
- aids to navigation;
- search and rescue;
- living marine resources;
- marine safety;
- defense readiness;
- migrant interdiction;
- marine environmental protection;
- ice operations; and
- other law enforcement.

A. Coast Guard Planning Guidance

The Coast Guard continues to demonstrate the highest competence in both execution and support of its varied missions. Its personnel develop and maintain knowledge, skills, pride, and experience through a nurtured environment built by a foundation of clear doctrine and training.

Demands for the Coast Guard's services are continually increasing as threats in the maritime environment increase in complexity. The Coast Guard must forge partnerships with local, state, federal, tribal, and international agencies to create more efficient means to achieve mission success. Strong partnerships are vital to the enhancement of Coast Guard capabilities and effectiveness throughout the maritime domain.

B. Coast Guard Equipping Policy

The Department of Homeland Security (DHS) budget provides equipment for Coast Guard domestic operations. The Coast Guard's Active Component (AC) owns and manages all equipment, including equipment that is allocated for the Reserve Component (RC). The AC provides equipment for Reserve mobilizations or surge operations from existing unit inventories, supporting units, or through procurement procedures using the DHS budget.

The Department of Defense (DoD) budget provides specific equipment for the Coast Guard to utilize while performing defense operations in support of the combatant commands (COCOMs). These include weapons and communications systems that are interoperable with the U.S. Navy and allied forces, and other special purpose equipment that meets DoD requirements. The Coast Guard Reserve's primary end users of DoD-funded equipment are the eight Port Security Units (PSUs) and the Surface Forces Logistics Center's two Mobile Support Units (MSUs), which deploy in support of the COCOMs on a rotating basis.

C. Plan to Fill Mobilization Shortages in the RC

In FY 2011, approximately 765 Selected Reserve (SELRES) personnel were mobilized in support of overseas contingency operations. The majority provided security for continental United States military outload operations; while others served as members of PSUs and Maritime Expeditionary Security Squadrons (MSRONs) operating in Iraq, Kuwait, and Bahrain, and as individual augmentees supporting Coast Guard missions.

In order for the Coast Guard Reserve to remain a ready operational force that can support and perform the Coast Guard's missions, the AC must be able to fully fund and provide equipment for RC training, augmentation during daily operations, and mobilizations.

D. Initiatives Affecting RC Equipment

The PSUs maintain a constant state of readiness to deploy for all threats and all hazards in support of the COCOMs as well as Coast Guard port security missions—their deployability is dependent on the availability of AC and DoD-funded training platforms and equipment for operations.

The DoD's transition out of Iraq will require the Coast Guard's Redeployment Assistance and Inspection Detachment (RAID) teams, comprised of RC and AC personnel, to deploy overseas to prepare, inspect, and placard military equipment and shipping containers before they are shipped back to the United States or to other locations. The RAID teams are an important asset to the DoD for every evolution that entails shipping equipment. They will require continued funding for operations and equipment.

E. Plan to Achieve Full Compatibility between AC and RC

Approximately 83 percent of the SELRES force is directly assigned to AC units. These reservists train and perform their duties side-by-side with AC personnel, executing daily operations to meet Coast Guard missions. The remaining 17 percent is assigned to Deployable Operations Group (DOG) units or to DoD units and staffs. The Coast Guard Reserve is a force multiplier for AC missions.

COCOM contingency plans validate requirements for deployable Coast Guard units. This includes the PSUs, the MSRONs, RAID teams, and the MSUs.

II. Coast Guard Reserve Overview

A. Current Status of the Coast Guard Reserve

1. General Overview

The Coast Guard maintains an operational reserve force, which requires its reservists to be ready for three core strategic functions: maritime homeland security, domestic and expeditionary support to national defense, and domestic disaster response and recovery. The Coast Guard Reserve is comprised of highly-trained and well-qualified personnel, who are ready for mobilization to active duty in times of war or national emergency, and for response to natural and manmade disasters or accidents. The Coast Guard Reserve provides added surge capacity including resources and flexibility to respond to all threats and hazards at all times.

The Coast Guard Reserve is staffed at 8,100 billets, which is about 20 percent of the Coast Guard's total force strength.

a. Funding

The Coast Guard Reserve Training Appropriation for FY 2011 provided $133.3M for necessary Coast Guard Reserve expenses as authorized by law: operations and maintenance of the Reserve program, personnel and training costs, and services. The Reserve Training Appropriation does not provide funding for equipment and machinery assets such as boats, vehicles, boat engines, rescue equipment, etc.

2. Status of Equipment

a. Equipment On-hand

Table 1 identifies the major equipment inventory for FY 2013–2015. All equipment is procured and accounted for by the AC.

The two main platforms used by the Coast Guard Reserve are the Defender Class Response Boat and the Transportable Port Security Boat (TPSB). The Defender Class serves as a mobilization platform for reservists assigned to Coast Guard stations throughout the Nation and for domestic military outload security operations involving the protection of DoD high-value assets. The TPSB serves as the platform for personnel assigned to PSUs.

Defender Class Response Boat

Transportable Port Security Boat

The current generation of TPSBs is being replaced during FY 2012 with the Generation IV TPSB. The new TPSB will allow for a significant increase in capability and performance when compared to the current Generation III TPSB. Due to its larger size and platform configuration, the new generation TPSB can operate in rougher sea states while incorporating better offensive and defensive capabilities. The Coast Guard intends to deliver 48 boats to PSUs and an additional 7 boats to the Special Missions Training Center in Camp Lejuene, North Carolina by the end of FY 2012.

Generation IV Transportable Port Security Boat

b. Average Age of Major Items of Equipment

Table 2 presents the average age of equipment used for Active and Reserve training and operations. The aging vehicles are of considerable concern, as they are utilized to haul personnel and tow mission-essential boats and equipment for training and mission execution.

c. Compatibility of Current Equipment with AC

The TPSBs are maintained only in the PSU inventories due to their unique mission requirements. The communications and weapons systems, as well as navigation packages, are the same as those found in the AC and require periodic maintenance, upgrades, and repairs.

All other platforms and equipment the RC uses are shared with the AC.

d. Maintenance Issues

Units maintain an adequate preventative maintenance schedule.

e. Modernization Programs and Shortfalls

The Coast Guard continues to pursue replacement of its aging assets. As boat platforms and other equipment are replaced, the RC will require additional training to become proficient on the new equipment and maintain operational readiness.

Current boat resources are inadequate to simultaneously support both SELRES training and rapidly changing in-theater COCOM requirements.

f. Overall Equipment Readiness

Equipment is in a manageable state of repair but continues to decline at a minimal rate due to increasing demand on Coast Guard services.

g. Summary/Conclusion

While there is no immediate negative impact on mission capability, the degradation in training capacity due to lack of available resources ultimately impacts unit operational readiness. The sporadic absence of equipment due to ongoing operational needs hinders Reserve unit training, qualification, and certification opportunities limiting their ability to remain optimally ready.

B. Changes Since Last NGRER

In FY 2011, the Coast Guard Reserve Training Appropriation received approximately $300K less than the year prior. The decrease in available funds directly impacted RC training opportunities and mobilization readiness.

An increase in the number of billets requiring personal protective equipment (PPE) for mission execution has raised the annual PPE shortfall by 10 percent, from approximately $495K to $542K. The Reserve Training Appropriation does not pay for PPE. The AC provides PPE for both AC and RC personnel using its operations and maintenance funds.

The current TPSB used by the PSUs will be replaced by the Generation IV TPSB during FY 2012.

C. Future Years Program (FY 2013–FY 2015)

1. FY 2013 Equipment Requirements

Table 1 provides projected FY 2013–FY 2015 inventories and requirements for major equipment. All equipment is procured and accounted for by the AC.

2. Anticipated New Equipment Procurements

The Generation IV TPSBs that are used solely by the RC will replace the Generation III TPSBs during FY 2012.

3. Anticipated Withdrawals from RC Inventory

The existing fleet of Generation III TPSBs will be removed from the PSU inventories during FY 2012 when the Generation IV TPSBs are fielded.

4. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2015

There are currently 14 Generation III TPSBs used by PSUs operating in Central Command and Southern Command supporting Operations Enduring Freedom and New Dawn. These 14 Generation III TPSBs will be replaced by Generation IV TPSBs directly out of PSU inventories, leaving a 14 boat deficit in their unit inventories. This deficit will strain training requirements and operations of these units.

Coast Guard unit operations and maintenance funds managers include PPE in annual budget requests. In recent years, budget constraints have created a gap between the amount of funding

available and the amount required. Funding for PPE is based on a five-year cycle, which provides the unit enough funding to fully outfit each member with new/serviceable equipment at the end of a five-year period. The five-year cycle was developed in part based on the equipment service life and member assignments or transfers.

Approximately 5,100 billets or 63 percent of the Coast Guard Reserve have mobilization requirements that call for PPE to safely conduct Coast Guard operations. The annual shortfall in PPE for RC personnel is estimated to be approximately $542K. Table 6-1 provides the FY 2012 PPE funding shortfall. The absence of PPE impedes Reserve mobilization readiness. Reservists who are not properly outfitted are unable to safely perform Coast Guard operations, which renders them unable to achieve or maintain mobilization competencies.

*Table 6-1. Coast Guard FY 2012 PPE Funding for the RC**

Unit/PPE Type	Cost	# of Personnel	Total	Total/Year
Ashore (Reserve) Basic Ensemble (Station)	$1,508	2044	$3,082,352	$616,470
Ashore (Reserve) Cold Ensemble (Station)	$1,450	1,493	$2,164,850	$432,970
Ashore (Reserve) Basic Ensemble (ANT)	$1,508	11	$16,588	$3,318
Ashore (Reserve) Cold Ensemble (ANT)	$1,450	9	$13,050	$2,610
Sector Ops (Reserve) Basic Ensemble	$1,508	740	$1,115,920	$223,184
Sector Ops (Reserve) Cold Ensemble	$1,450	416	$603,200	$120,640
Tactical (Reserve) Basic/Cold Ensemble (Maritime Security Response Team)	$2,958	124	$366,792	$73,358
Tactical (Reserve) Basic/Cold Ensemble (PSU)	$2,958	320	$946,560	$189,312
PPE per Person Total		5,157	$8,309,312	$1,661,862
Total	$8,309,312			
Total/Year	$1,661,862		Annual Shortfall	
Total Available	$1,119,775		$(542,087)	

* FY 2012 PPE funding based on a 5-year replacement cycle.

Tables 1 and *8* provide RC equipment inventories, shortfalls, and modernization requirements.

D. Summary

The Coast Guard protects those on the sea, threats delivered by sea, and the sea itself. The Coast Guard Reserve is a flexible and responsive operational force that performs Coast Guard missions each and every day. Ongoing shortfalls in funding and equipment will negatively impact the SELRES and the abilities of the Coast Guard Reserve to serve as an operational and ready reserve force.

USCGR

Table 1

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve Component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve Component. Unit cost values are in dollars.

Nomenclature	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Port Security Units (PSUs)						
32' Transportable Port Security Boat (6 per unit)	$495,000	48	48	48	48	48
Video Ray ROV (PSU 305,307,313 & 311 only)	$89,000	4	4	4	4	4
Vehicle, F550 Stakebed (1 per unit)	$56,000	8	8	8	8	8
Vehicle, F450 Pick-up (1 per unit)	$46,000	8	8	8	8	8
Vehicle, F350 Pick-up	$45,000	38	38	38	38	38
PRC-117F Radio, Tri-band, Base (2 per unit)	$45,000	18	18	18	18	18
PRC-117F Radio, Tri-band (1 per boat and 2 spares at each unit)	$45,000	64	64	64	64	64
Forklift (1 per unit)	$45,000	1	1	1	1	1
All Terrain Vehicle, Gator (1 per unit)	$14,000	8	8	8	8	8
Generator 15kW	$12,000	8	8	8	8	8
Water Buffalo (1 per unit)	$10,000	8	8	8	8	8
ISU 90 Shipping Container (20 per unit)	$9,600	160	160	160	160	160
Utlility Trailer (1 per unit)	$7,000	8	8	8	8	8
Generator 5kW (2per unit)	$5,000	8	8	8	8	8
Mobile Support Units (MSUs)						
Truck, Stakebed (2 per detachment)	$125,000	4	4	4	4	4
Generator, 240kW	$120,000	4	4	4	4	4
Forklift, 10,000 lb.	$90,000	1	2	2	2	2
Trailer, Administrative Support (1 per detachment)	$86,463	2	2	2	2	2
Trailer, Maintenance Shop	$83,688	7	7	7	7	7
Trailer, Logistic Support Parts (3 per detachment)	$58,462	6	6	6	6	6
Trailer, Open Bulk Storage (3 per detachment)	$49,600	6	6	6	6	6
Truck, Pick-up (1 per detachment)	$45,000	2	2	2	2	2
A/C - H/P (Air Rover Units) w/25kW Generators	$40,000	4	4	4	4	4
Forklift, 6,000 lb.	$40,000	1	1	1	1	1
CONNEX Boxes, 40' X 8'	$30,000	4	4	4	4	4
Portable Welding/Cutting Shops (1 per detachment)	$30,000	2	2	2	2	2
Generator, Microsilent 20kW	$20,000	4	4	4	4	4
CONNEX Boxes, 20' X 8'	$20,000	4	4	4	4	4
CONNEX Boxes, 8' X 8'	$15,000	2	2	2	2	2
Power Distribution Center	$12,000	2	4	4	4	4
AC&R Repair and Service Kits (1 per detachment)	$10,000	2	2	2	2	2
DC Kit, Compressed Air & GenSet (1 per detachment)	$8,000	2	2	2	2	2

Table 1

USCGR
Consolidated Major Item Inventory and Requirements

Nomenclature	FY 2013 Unit Cost	Begin FY 2013 QTY O/H	Begin FY 2014 QTY O/H	Begin FY 2015 QTY O/H	End FY 2015 QTY O/H	End FY 2015 QTY REQ
Gator, 6X6 Diesel Terrain Vehicle (1 per detachment)	$6,500	3	3	3	3	3
Generator, Light Tower	$5,716	5	5	5	5	5
Generator, Microsilent 10kW	$3,500	4	4	4	4	4
General Purpose Tents, 18' X 18' (3 per detachment)	$3,000	6	6	6	6	6
Diesel Powered Welder	$3,000	1	1	1	1	1
Special Missions Training Center (SMTC)						
32' Transportable Port Security Boat	$495,000	7	7	7	7	7
ECU (82-GET35KW8TN)	$103,185	1	1	1	1	1
ECU (HP4-DL)	$94,259	1	1	1	1	1
ECU (T2-93040G)	$82,922	4	4	4	4	4
Drash Shelter (M)	$28,000	3	3	3	3	3
Base X Shelter (6D31)	$27,966	1	1	1	1	1
Base X Shelter (505)	$24,190	1	1	1	1	1
Base X Shelter (307)	$18,445	4	4	4	4	4
Drash Shelter (L)	$18,331	12	12	12	12	12
Base X Shelter (305)	$13,008	8	8	8	8	8
15kW Generator	$16,160	2	2	2	2	2
Trailer, Tank	$12,955	2	2	2	2	2
Drash Shelter	$9,237	5	5	5	5	5
ISU 90 Shipping Container	$8,600	1	1	1	1	1
Base X Shelter (203)	$8,392	3	3	3	3	3
5kW Generator	$8,145	2	2	2	2	2

Table 2

USCGR
Average Age of Equipment

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2012.

Nomenclature	Average Age	Remarks
Port Security Units (PSUs)		
32' Transportable Port Security Boat	0.3	
Video Ray ROV (PSU 305,307,313 & 311 only)	5	
Vehicle, F550 Stakebed	3	
Vehicle, F450 Pick-up	0.3	
Vehicle, F350 Pick-up	4	
PRC-117F Radio, Tri-band, Base	7	
PRC-117F Radio, Tri-band	7	
Forklift (1 per unit)	10	
All Terrain Vehicle, Gator (1 per unit)	5	
Generator 15kw	6	
Water Buffalo (1 per unit)	5	
ISU 90 Shipping Container (20 per unit)	7	
Utlility Trailer (1 per unit)	3	
Generator 5kw (2per unit)	8	
Mobile Support Units (MSUs)		
Truck, Stakebed	5	
Generator, 240KW	3	
Forklift, 10,000 lb.	5	
Trailer, Administrative Support	3	
Trailer, Maintenance Shop	3	
Trailer, Logistic Support Parts	3	
Trailer, Open Bulk Storage	2	
Truck, Pick-up	6	
A/C - H/P (Air Rover Units) w/25kW Generators	4	
Forklift, 6,000 lb.	6	
CONNEX Boxes, 40' X 8'	12	
Portable Welding/Cutting Shops	6	
Generator, Microsilent 20kW	5	
CONNEX Boxes, 20' X 8'	4	
CONNEX Boxes, 8' X 8'	8	
Power Distribution Center	1	
AC&R Repair and Service Kits	4	
DC Kit, Compressed Air & GenSet	4	
Gator, 6X6 Diesel Terrain Vehicle	5	
Generator, Light Tower	6	
Generator, Microsilent 10kW	5	
General Purpose Tents, 18' X 18'	1	

Table 2

USCGR
Average Age of Equipment

Nomenclature	Average Age	Remarks
Diesel Powered Welder	6	
Special Missions Training Center (SMTC)		
32' Transportable Port Security Boat	0.3	
ECU (82-GET35KW8TN)	4	
ECU (HP4-DL)	5	
ECU (T2-93040G)	6	
Drash Shelter (M)	6	
Base X Shelter (6D31)	4	
Base X Shelter (505)	4	
Base X Shelter (307)	5	
Drash Shelter (LG)	7	
Base X Shelter (305)	4	
15kW Generator	8	
Trailer, Tank	10	
Drash Shelter (SM)	7	
ISU 90 Shipping Container	13	
Base X Shelter (203)	4	
5kW Generator	8	

USCGR
Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2013 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2013 would be expected to arrive in RC inventories in FY 2014 or FY 2015.

Nomenclature	FY 2013	FY 2014	FY 2015

Table 3 not applicable for USCGR

USCGR

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2012 would be expected to arrive in RC inventories in FY 2013 or FY 2014. All values are costs in dollars.

Nomenclature	FY 2010	FY 2011	FY 2012

Table 4 not applicable for USCGR

Table 5

USCGR
Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the AC receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2013 Qty	FY 2014 Qty	FY 2015 Qty	Remarks

Service has no planned transfers or withdrawals for the years FY 2013 thru FY 2015.

Table 6

USCGR

FY 2009 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2009 with actual procurements and transfers. FY 2009 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2011. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2009 Transfers (# of items)		FY 2009 Procurements ($s)		FY 2009 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual

USCGR had no planned or actual transfers or procurements of major equipment during FY 2009

USCGR
Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2013 Qty	Deployable?	
					Yes	No

Service Does Not Use Substitution to Satisfy Major Item Equipment Requirements

Table 8

USCGR
Significant Major Item Shortages

NOTE: This table provides the RC highest priority (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short [1]	Item Cost	Total Shortage Cost	Rationale/Justification
1	32' Transportable Port Security Boat	64	14	$495,000	$6,930,000	Port Security Units (6 per unit)
2	Truck, Class 8 Stake Body	2	2	$126,000	$252,000	Mobile Support Unit (2 current have high mileage)
3	Trailers, Tools / Equipment	1	1	$150,000	$150,000	Mobile Support Unit
4	Forklift, Hyster 10,000 lb.	2	1	$90,000	$90,000	Mobile Support Unit
5	15000lb Forklift	8	8	$108,800	$870,400	Port Security Units
6	Generators w/ Distribution Panel	24	24	$500,000	$12,000,000	Port Security Units (3 per unit to support heat, a/c and lighting for tents)
7	Power Distribution Center	4	2	$12,000	$24,000	Mobile Support Unit
8	Loader, Skid Steer	16	16	$17,800	$284,800	Port Security Units
9	Generator, Diesel 25kW	8	4	$20,000	$80,000	Mobile Support Unit
10	Potable Water Tanks	4	4	$1,150	$4,600	Mobile Support Unit (2 per detachment)
11	Grey Water Tanks	4	4	$800	$3,200	Mobile Support Unit (2 per detachment)
12	Heater, Multi Fuel	20	20	$5,300	$106,000	Port Security Units
13	Portable Scales	16	16	$9,300	$148,800	Port Security Units
14	Searchlight Set	8	8	$7,700	$61,600	Port Security Units
15	Vidmar, Storage Container	88	88	$3,200	$281,600	Port Security Units
16	Fuel Bladder	88	88	$4,000	$352,000	Port Security Units
17	Tents	112	84	$38,000	$3,192,000	Port Security Units
18	Tents, GP	8	2	$7,000	$14,000	Mobile Support Unit
19	Fuel Containment Boom	48	48	$4,000	$192,000	Port Security Units
20	Computer, Laptop	4	4	$4,000	$16,000	Mobile Support Unit (2 per detachment)

1. Shortage items are required for AC recapitalization of outdated equipment. The AC manages all equipment for the Coast Guard Total Force.

Appendix A
Report Requirements, Terminology, and Definitions

I. Report Requirements

A. Overview of Statutory Requirement

The DoD Authorization Act of 1982 (Public Law 97-86) established the requirement for DoD to provide an annual report to the Congress, by February 15th of each year, on the status of National Guard and Reserve equipment; hereafter referred to as the NGRER. The Goldwater-Nichols DoD Reorganization Act of 1986 amended Title 10 of the United States Code (U.S.C.) placing the reporting requirement under Section 115(b). The Congress in Public Law 103-337 transferred reporting requirements to a new Subtitle E, Reserve Components, Part I, Chapter 1013, which was re-designated Section 10541. In compliance with the FY 1993 National Defense Authorization Act (NDAA), Section 1134, Title XI, the NGRER was expanded to include a description of the current status of equipment incompatibility between the Active Component (AC) and Reserve Component (RC), the effect of that level of incompatibility, and the plan to achieve full compatibility. Finally, the FY 2008 NDAA, Sections 351(a), 351(c)(1), and 1826 added additional National Guard equipment reporting requirements to the NGRER. Sections 351(a) and 351(c)(1) added the requirement for an assessment of the extent to which the National Guard possesses the equipment required to support operations in an emergency or major disaster. Section 1826 required a statement of the accuracy of past National Guard equipment inventory projections, and a certification from the Chief of the National Guard Bureau setting forth the inventory of equipment items that were due to be procured in the preceding fiscal year, but were not received.

This report is prepared by the Office of the Assistant Secretary of Defense for Reserve Affairs with the assistance of the Department of the Army, the Department of the Navy, the Department of the Air Force, and the Department of Homeland Security (U.S. Coast Guard).

B. Current Law

The section below is an excerpt from Section 10541, Title 10, U.S.C. Changes required by the FY 2008 NDAA are highlighted.

National Guard and Reserve Component Equipment: Annual Report to Congress

(a) The Secretary of Defense shall submit to the Congress each year, not later than February 15, a written report concerning the equipment of the National Guard and the reserve components of the armed forces for each of the three succeeding fiscal years.

(b) Each report under this section shall include the following:

(1) Recommendations as to the type and quantity of each major item of equipment which should be in the inventory of the Selected Reserve of the Ready Reserve of each reserve component of the armed forces.

(2) A statement of the quantity and average age of each type of major item of equipment which is expected to be physically available in the inventory of the Selected Reserve of the Ready Reserve of each reserve component as of the beginning of each fiscal year covered by the report.

(3) A statement of the quantity and cost of each type of major item of equipment which is expected to be procured for the Selective Reserve of the Ready Reserve of each reserve component from commercial sources or to be transferred to each such Selected Reserve from the active-duty components of the armed forces.

(4) A statement of the quantity of each type of major item of equipment which is expected to be retired, decommissioned, transferred, or otherwise removed from the physical inventory of the Selected Reserve of the Ready Reserve of each reserve component and the plans for replacement of that equipment.

(5) A listing of each major item of equipment required by the Selected Reserve of the Ready Reserve of each reserve component indicating -

(A) the full war-time requirement of that component for that item, shown in accordance with deployment schedules and requirements over successive 30-day periods following mobilization;

(B) the number of each such item in the inventory of the component;

(C) a separate listing of each such item in the inventory that is a deployable item and is not the most desired item;

(D) the number of each such item projected to be in the inventory at the end of the third succeeding fiscal year; and

(E) the number of non-deployable items in the inventory as a substitute for a required major item of equipment.

(6) A narrative explanation of the plan of the Secretary concerned to provide equipment needed to fill the war-time requirement for each major item of equipment to all units of the Selected Reserve, including an explanation of the plan to equip units of the Selected Reserve that are short of major items of equipment at the outset of war.

(7) For each item of major equipment reported under paragraph (3) in a report for one of the three previous years under this section as an item expected to be procured for the Selected Reserve or to be transferred to the Selected Reserve, the quantity of such equipment actually procured for or transferred to the Selected Reserve.

(8) A statement of the current status of the compatibility of equipment between the Army reserve components and active forces of the Army, the effect of that level of incompatibility on combat effectiveness, and a plan to achieve full equipment compatibility.

(9) (Added by FY 2008 NDAA, Sections 351(a) and 351(c)(1)) An assessment of the extent to which the National Guard possesses the equipment required to perform the responsibilities of the National Guard pursuant to sections 331, 332, 333, 12304(b) and 12406 of this title in response to an emergency or major disaster (as such terms are defined in section 102 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122)). Such assessment shall–

(A) identify any shortfall in equipment provided to the National Guard by the Department of Defense throughout the United States and the territories and possessions of the United States that is likely to affect the ability of the National Guard to perform such responsibilities;

(B) evaluate the effect of any shortfall on the capacity of the National Guard to perform such responsibilities in response to an emergency or major disaster that occurs in the United States or a territory or possession of the United States; and

(C) identify the requirements and investment strategies for equipment provided to the National Guard by the Department of Defense that are necessary to plan for a reduction or elimination of any such shortfall.

(c) Each report under this section shall be expressed in the same format and with the same level of detail as the information presented in the annual Future Years Defense Program Procurement Annex prepared by the Department of Defense.

(d) (Added by FY 2008 NDAA, Section 1826) Each report under this section concerning equipment of the National Guard shall also include the following:

(1) A statement of the accuracy of the projections required by subsection (b)(5)(D) contained in earlier reports under this section, and an explanation, if the projection was not met, of why the projection was not met.

(2) A certification from the Chief of the National Guard Bureau setting forth an inventory for the preceding fiscal year of each item of equipment–

(A) for which funds were appropriated;

(B) which was due to be procured for the National Guard during that fiscal year; and

(C) which has not been received by a National Guard unit as of the close of that fiscal year.

II. Report Objective

Based upon the law, the Office of the Assistant Secretary of Defense for Reserve Affairs (Materiel & Facilities), with concurrence from all Services, has identified the following objectives:

- Provide the Services' plan to equip their Reserve forces in a time of constrained DoD budgets.
- Concentrate on FY 2013 to 2015 RC requirements, procurements and changes.
- Provide an overview of current RC equipment from three perspectives:
  - current status of equipment on-hand.
  - future year equipment procurements for FY 2013–FY 2015
  - remaining shortfall for FY 2016 and beyond.
- Focus primarily on major items of equipment.

III. Report Contents

A. Overview (Chapter 1)

Chapter 1 presents a composite DoD perspective on National Guard and Reserve equipment and serves as the executive summary of the report.

B. Service Narratives and Data Tables (Chapters 2–6)

Chapters 2 through 6 present the status of each Service and their respective RC in terms of RC equipping policies and methodologies. Each chapter contains a Service and RC overview, and includes a discussion of current equipment status, future equipment procurements, and remaining shortfalls and unfunded requirements. Each chapter includes a review of the current status of equipment compatibility and interoperability between the AC and the RC of each Service, the effect of that level of compatibility/interoperability, and a plan to achieve full compatibility/interoperability.

RC data tables for each Service contain specific information on major items of equipment selected for review in this report and are placed at the end of each RC narrative section. The NGRER articulates data in eight tables (*Tables 1-8*) for each RC. In a situation where data tables are not applicable to a particular RC, a blank page has been inserted to note that table data is not applicable. The "Data Table Explanation" at the end of this section defines the data contained in *Tables 1-8*.

IV. Terminology and Definitions

Major Items of Equipment include aircraft, tanks, ships, trucks, engineer equipment and major items of support equipment. These items normally will include large dollar value requirements, critical RC shortages, Service and NGREA procured items, and any RC specific item which the Chief of the specific RC wishes to highlight.

Required Quantity is the total number of an item required to be on-hand or available to RC units to go to war and accomplish their mission(s). This includes requirements for war reserve and other stocks. The simplified term "requirement," as used in this report, is synonymous with "full wartime requirement," and satisfies the requirement in Title 10 to provide a "recommendation" as to the type and quantity of equipment needed in RC inventories.

On-hand Quantity is the equipment physically on-hand in RC or AC units or in war reserve and other stocks specifically designed for wartime use by the RC or AC.

Deployable Item is an item which, considering its suitability, operability, compatibility and supportability, will provide an expected degree of mission success sufficient to warrant its wartime operational employment.

Compatibility/Interoperability denotes the capability of two items of equipment to operate together in the same environment without interfering with one another and without degrading function or unit capability.

Substitute Item is not the most desired item but based upon its capability can be employed in wartime in lieu of a combat essential required item of equipment. It may not function at the same level of capability as the item in the AC for which it is the substitute.

Equipment Shortage (Shortfall) is the difference between the quantity required and the quantity on-hand, excluding substitute items and excess quantities beyond the required quantity.

Modernization Shortfall is the difference between the required quantity of the most modern item and the on-hand quantity of that item. Modernization shortfalls are not necessarily equipment shortages as most Services substitute older versions of an item for the most modern item. Therefore, modernization shortfalls are shortages of the most modern item only, and can have a significant effect upon compatibility and interoperability.

V. Data Tables

A. Table Contents

A separate set of Data Tables (*Tables 1-8*) is provided in Chapters 2 through 6 for each RC. These tables contain the required information relative to major items of equipment identified in the report. The following list identifies the separate data tables that are included in the report for each RC.

- Table 1: Consolidated Major Item Inventory and Requirements (This is an all-inclusive table while other tables are subsets of *Table 1*.)
- Table 2: Average Age of Equipment
- Table 3: Service Procurement Program - Reserve (P-1R)
- Table 4: National Guard and Reserve Equipment Appropriation (NGREA) Procurements
- Table 5: Projected Equipment Transfer/Withdrawal Quantities
- Table 6: FY 2009 Planned vs Actual Procurements and Transfers
- Table 7: Major Item of Equipment Substitution List
- Table 8: Significant Major Item Shortages

B. Table Explanations

The following paragraphs provide an explanation of the data table columns and data criteria by Table.

Table 1: Consolidated Major Item Inventory and Requirements. This table provides a comprehensive list of selected major items of equipment the RC chooses to highlight, by providing key administrative data, on-hand inventories and wartime requirements.

RC is the specific Reserve or National Guard entity, i.e., ARNG, USAR, USMCR, ANG, AFR, USNR, or USCGR.

Nomenclature is the description or common name of the item of equipment.

Equipment Number is the individual Service equipment identification code: Line Item Number for the Army; Table of Authorized Materiel Control Number for the Marine Corps; Equipment Cost Code for Navy engineering items; and National Stock Number for the Air Force.

Cost is the FY 2013 procurement cost per unit. If an item is no longer being procured, the inflation adjusted cost from the last procurement is shown. If an item is programmed for initial procurement beyond FY 2013, the data table depicts the projected unit cost at the time of procurement.

Quantity On-hand (QTY O/H) is the actual/projected item count for a particular item of equipment at a specified time.

Quantity Required (QTY REQ) is the authorized wartime requirement for a given item of equipment.

Table 2: Average Age of Equipment. This table is a subset of *Table 1* and highlights the average age of selected items of equipment.

Average Age is the calculated age of a given item of equipment. Since equipment is normally procured over several years, this figure provides an average age of the fleet at the start of FY 2012.

Table 3: Service Procurement Program - Reserve (P-1R). This table highlights items of equipment, which the Service intends to procure for their RC. The source of this data is the P-1R exhibit to the President's Budget.

Table 4: National Guard and Reserve Equipment Appropriation (NGREA) Procurements. This table highlights the items, which the RC plan on procuring with miscellaneous NGREA funds. Since these funds are available for three years, this table highlights those items in the current procurement cycle.

Table 5: Projected Equipment Transfer/Withdrawal Quantities. This table portrays the planned equipment transfers (AC to RC), withdrawals, and decommissioning. Transfers are commonly called "cascaded" equipment or equipment that is provided to the RC once the AC receives more modern equipment items. Although this table highlights a three-year period, many Services do not know exact quantities of transfers or withdrawals until year of execution due to the uncertainty of the procurement/delivery cycle of new equipment.

Table 6: FY 2009 Planned vs Actual Procurements and Transfers. This table compares what the Service planned to procure and transfer to the RC in FY 2009 with actual procurements and transfers. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2011.

Planned Quantity is the item quantity the Service programmed to deliver to the RC as part of the budgeting process.

Actual Quantity is the item quantity the Service actually delivered or has in the procurement cycle to deliver to the RC.

Table 7: Major Item of Equipment Substitution List. A list of equipment authorized by the Service to be used as a substitute for a primary item of equipment. This table also identifies whether this substitute item is suitable for deployment in time of war.

Nomenclature (Required Item/Substitute Item), see *Table 1* description for nomenclature.
Equipment Number (Required Item/Substitute Item), see *Table 1* description for equipment number.

Table 8: Significant Major Item Shortages. The top ten items of equipment and modernization/upgrades, which are not funded in the FY 2013–2015 Future Years Defense Program, are listed in this table in priority order. If additional funds were to become available, the RC would apply those funds to the highest priority item on this list.

Appendix B
National Guard Readiness for Emergencies and Major Disasters

I. FY 2008 National Defense Authorization Act Changes to Equipment Reports

The *Fiscal Year* (*FY) 2008 National Defense Authorization Act (NDAA)*, Sections 351(a), 351(c)(1), and 1826, added new reporting requirements for the status of National Guard (NG) equipment. This appendix provides the National Guard Bureau (NGB) response to each of the requirements of the NDAA. The Chief, National Guard Bureau (CNGB) must provide a statement of the accuracy of previous National Guard equipment inventory projections and an explanation of projections not met. Additionally, the FY 2008 NDAA requires the CNGB to certify the inventory of equipment items that were due to be procured for the NG in the preceding year, but were not received. In

Figure B-1, the CNGB memorandum addresses the certification required by Section 1826 of the FY 2008 NDAA.

NATIONAL GUARD BUREAU
1636 DEFENSE PENTAGON
WASHINGTON, DC 20301-1636

NGB-ZA DEC 0 2 2011

MEMORANDUM FOR Deputy Assistant Secretary of Defense for Reserve Affairs (Material & Facilities), 3010 Defense Pentagon, Washington, DC 20301-1010

SUBJECT: Section 1826 National Defense Authorization Act (NDAA) 2008 Certification

1. In conjunction with the Fiscal Year (FY) 2013 National Guard and Reserve Equipment Report (NGRER), 10 USC 10541(d) requires the National Guard Bureau (NGB) to provide a statement of the accuracy of previous National Guard inventory projections and an explanation for projections not met. Additionally, it requires a certification by the Chief, National Guard Bureau (CNGB) setting forth the inventory of equipment items due to be procured for the National Guard in the preceding FY, but not received.

2. Although tremendous progress has been made, Army and Air Force processes still do not provide the transparency needed to fully account for equipment delivered to National Guard units compared to what was budgeted and appropriated by Congress. Both Services have made significant improvements to processes, cooperative partnerships and supporting automation systems in recent years, towards reliably tracking a piece of equipment back to its funding source. The key to achieving full transparency is to continue the current level of effort and command emphasis by Senior Army, Air Force, Office of the Secretary of Defense Leaders, and Congress.

3. I fully acknowledge and respect the Service accomplishments as their processes continue to improve and expect they will provide the transparency needed during the next FY to satisfy my statutory reporting requirements in February 2013.

4. The point of contact for this matter is Colonel Richard Oxner, Deputy Director, NGB-J4 at (703) 607-1082, DSN 327-1082 or richard.c.oxner@us.army.mil.

CRAIG R. MCKINLEY
General, USAF
Chief, National Guard Bureau

CF:
Assistant Secretary of the Army (Manpower & Reserve Affairs)
Assistant Secretary of the Air Force (Manpower & Reserve Affairs)
Director, Army National Guard
Director, Air National Guard

Figure B-1. CNGB Memorandum

A. 2008 NDAA, Sections 351(a) and 351(c)(1), "Reports on National Guard Readiness for Emergencies and Major Disasters," requires an assessment of the extent to which the National Guard possesses the equipment required to support operations in an emergency or major disaster.

1. Overview

The equipment used by the National Guard "to perform its domestic emergency or major disaster responsibilities" comes from three broad sources: dual-use equipment provided by the Army, dual-use equipment provided by the Air Force, and special government off-the-shelf (GOTS) or commercial off-the-shelf (COTS) equipment acquired via a variety of sources to meet unique tasks, conditions, or standards for operating in the homeland. The latter are planned for and integrated by the NGB Joint Staff, but purchased by the Army National Guard (ARNG) and Air National Guard (ANG).

It is DoD and NGB policy that, to the extent practicable, emergency or major disaster functions are performed using dual-use equipment. It is also NGB policy to generate emergency or major disaster response forces, wherever possible, using existing Army or Air Guard units, either individually or in combination.

In 2010, DoD established 10 National Guard-sourced Homeland Response Forces (HRFs). The HRFs were launched as part of the DoD reorganization of its domestic chemical, biological, radiological, nuclear, and high yield explosive (CBRNE) consequence management enterprise, initiated during the 2010 Quadrennial Defense Review. The 10 HRFs will be regionally oriented; each of the Federal Emergency Management Agency (FEMA) regions will host a HRF. HRFs will increase the focus of DoD CBRNE Consequence Management Response forces on lifesaving objectives and increase operational flexibility, while recognizing the primary role the governors play in controlling the response to CBRNE incidents that occur in their states. HRFs will primarily be equipped to deploy via ground transport to CBRNE incident sites, but can be moved by air, if necessary. The core of each HRF is a CBRN Task Force capability similar to those found in the 17 existing CBRNE Enhanced Response Force Packages (CERFPs). However, HRFs will also have substantial command and control and security forces capabilities. The Ohio and Washington HRFs completed their External Evaluations in September 2011 and were validated by their respective adjutants general. The remaining 8 HRFs (Massachusetts, New York, Pennsylvania, Georgia, Texas, Missouri, Utah, and California) are expected to have completed their External Evaluations by the end of FY 2012.

To fill gaps and standardize communications within the 10 HRFs and the 17 CERFPs, the National Guard has fielded and is currently sustaining the Joint Incident Site Communications Capability (JISCC) package. The JISCC package provides capabilities, such as radio cross-banding, commercial internet access, public switched telephone network, Nonsecure Internet Protocol Router Network, and SECRET Internet Protocol Router Network (SIPRNET). These capabilities are required for the HRF and CERFPs to be interoperable with other government and civilian entities and are not currently provided within a DoD Program of Record. The JISCC package is currently supporting radio cross-banding and commercial internet access capabilities identified as gaps in support of NG's homeland defense (HD) and defense support of civil authorities (DSCA) missions.

In reference to CBRNE Enterprise operational sustainment, there is insufficient funding to provide the required 5 days of sustainment (stock levels) for CBRNE Enterprise operations. The current funding level will result in loss of operational capability required to support CBRNE Response Enterprise force elements. If the NG CBRNE Response Enterprise remains funded at the current levels, the units will not be able to sustain themselves for 5 days. The CBRNE Response Enterprise forces depend on Base Support Installations to meet sustainment requirements after 5 days. Stock levels are required to sustain operations and provide required supply support to the CBRNE Enterprise for 5 days during a CBRNE response. The basis for the gap is the NGB-J3 and Northern Command (NORTHCOM) J3 analysis of CBRNE Enterprise requirement for sustained operations. The total cost for the additional 2 days of required sustainment is approximately $8M.

Response forces are equipped first with dual-use equipment, and then augmented, as necessary, with the special GOTS/COTS. Dedicated Weapons of Mass Destruction Civil Support Team (WMD-CST) units are the notable exception to this unit approach.

The National Guard WMD-CSTs were established in 1999, with the initial 10 WMD-CSTs certified by the Secretary of Defense (SecDef) to Congress in August 2001. There are currently 57 such teams certified for operations. By statute and SecDef directive, these units perform duties, at the direction of the governor, to prepare for or respond to any emergency involving the use of a weapon of mass destruction in the United States. The WMD-CSTs provide an immediate response to the intentional or unintentional release of nuclear, biological, radiological, toxic, or poisonous chemical materials. Additionally, the WMD-CSTs respond to a natural or manmade disaster in the United States that results in, or could result in, catastrophic loss of life or property. The WMD-CSTs support civil authorities at the known or suspected domestic CBRN site by identifying CBRN agents/substances, assessing current and projected consequences, advising on response measures, and assisting with requests for additional state support. The WMD-CSTs have deployed in response to dozens of known or suspected CBRN incidents or catastrophic events, in support of local, state, and federal partners. This includes multiple state deployments, the wildfire disasters in Texas and Arizona, and Hurricane Irene and its associated tornados as they brushed up the Eastern Seaboard from North Carolina, across the mid-Atlantic, and near New York City. The WMD-CSTs participated in the first ever WMD-CST support plan between NORTHCOM, California, and Washington State for cross-border operation in the event of an incident at the 2010 Vancouver Winter Olympic Games; and many more local incidents over the past 10 years. In FY 2011, WMD-CSTs conducted 128 immediate response missions and 504 standby events. These numbers continue to steadily increase in each FY. Immediate Response missions are defined as WMD-CST deployments in response to validated requests for support from local, state, or federal agencies, other than NGB. Standby missions are deployments to provide WMD-CST expertise where the unit may be the only asset or staged with other state assets to conduct operations at a designated event for a VIP, an Incident of National Significance, or other special events. These standby events include pre-staging at event sites, CBRN monitoring and detection, reach back services for local first responders, and joint training operations.

In FY 2011, the WMD-CST operating tempo was extremely high. In addition to the missions described above, the WMD-CSTs conducted 1,092 liaison visits and briefings (assist missions) and 704 training exercises, for a total of 2,428 events. WMD-CSTs are in continuous use to

ensure the safety of Americans at major events throughout the country, and stand ready to deploy within 90 minutes of notification to complement and enhance (not duplicate) state CBRNE response capabilities and assets.

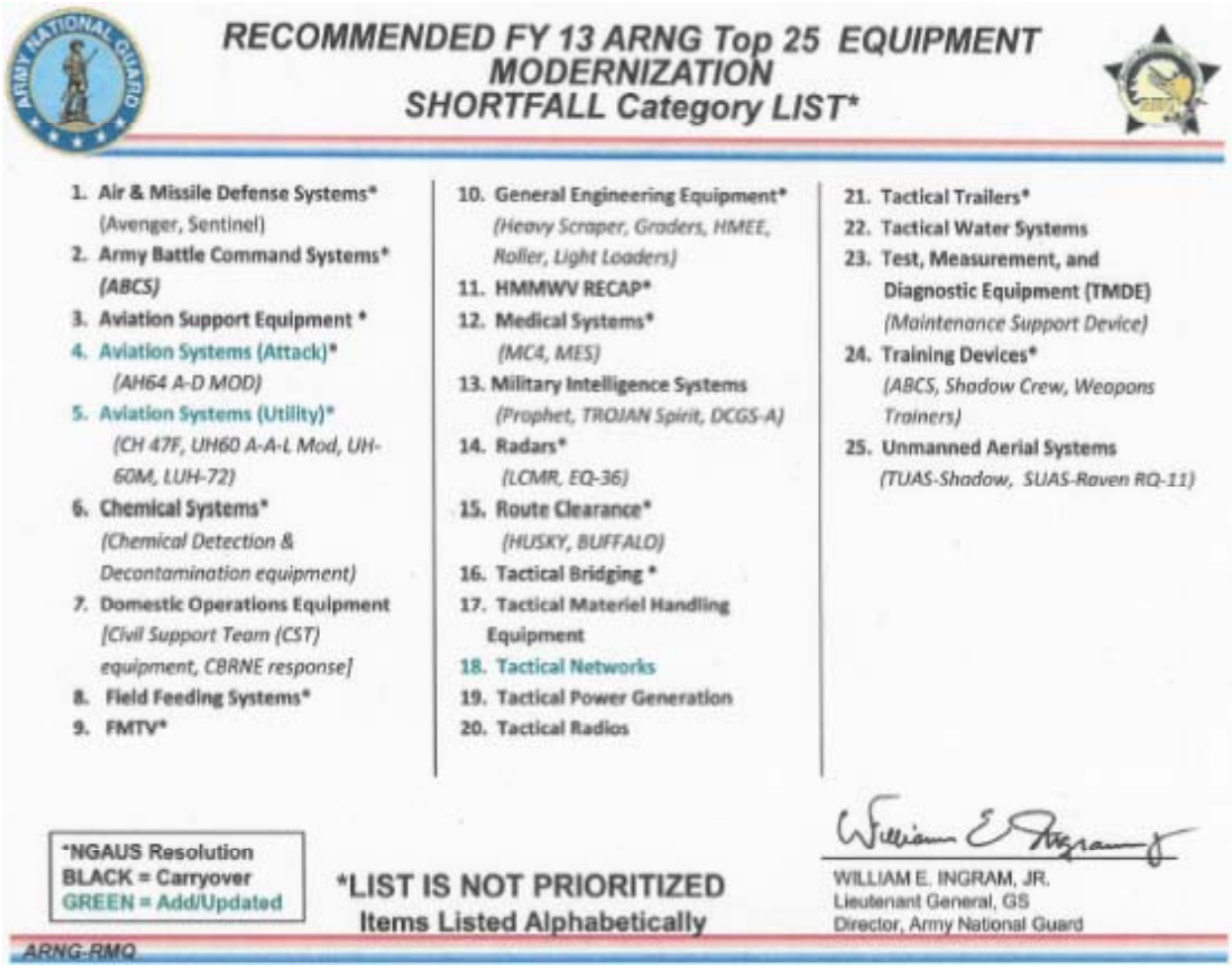
Domestic response is a critical mission in the NG support to civil authorities. The NGB is committed to the fundamental principle that every state and territory must have access to 10 core capabilities to respond to emergencies and major disasters in the United States. These National Guard "Essential 10" capabilities are: Joint Force Headquarters command and control, CBRN consequence management, engineering assets, communications, transportation (surface), aviation/airlift, medical, security, logistics, and maintenance.

The National Guard Reaction Force has established non-lethal capabilities to assist civilian authorities with domestic support missions. Each state's adjutant general, in conjunction with the state's governor and attorney general, must ultimately determine if state National Guard forces will utilize non-lethal capabilities during domestic operations. Non-lethal capabilities are employed with the intent to compel or deter adversaries by acting on human capabilities or materiel while minimizing fatalities and damage to equipment or facilities. Non-lethal capabilities are intended to have reversible effects on personnel and materiel to provide commanders with flexible options, both in time and range, to diverse and challenging threats National Guard forces face.

2. Army National Guard Equipment

a. ARNG Equipment Shortfalls

The ARNG continues to field equipment from FY 2009–FY 2011 funding. The ARNG still lacks funding for certain critical dual-use (CDU) items. Figure B-2 outlines the ARNG FY 2013 Top 25 Shortfall List, of which 22 systems are considered CDU and are filled to less than 80 percent. The most notable items on the list are in Aviation Systems (Utility), HMMWV RECAP, General Engineer Equipment, and Family of Medium Tactical Vehicles (FMTV) "Essential 10" capabilities. Table 8 (Significant Major Item Shortages) in the ARNG data tables section provides a top ten prioritized shortage list for major items of equipment required for wartime missions, but which are currently not fully funded in the Future Years Defense Program. Units must be prepared for HD and DSCA missions regardless of what phase they are in within the Army Force Generation cycle. The Army Equipping Strategy is to fill each of the approved 349 CDU equipment line items to at least 80 percent.



RECOMMENDED FY 13 ARNG Top 25 EQUIPMENT MODERNIZATION SHORTFALL Category LIST*

1. Air & Missile Defense Systems* (Avenger, Sentinel)
2. Army Battle Command Systems* (ABCS)
3. Aviation Support Equipment *
4. Aviation Systems (Attack)* (AH64 A-D MOD)
5. Aviation Systems (Utility)* (CH 47F, UH60 A-A-L Mod, UH-60M, LUH-72)
6. Chemical Systems* (Chemical Detection & Decontamination equipment)
7. Domestic Operations Equipment [Civil Support Team (CST) equipment, CBRNE response]
8. Field Feeding Systems*
9. FMTV*
10. General Engineering Equipment* (Heavy Scraper, Graders, HMEE, Roller, Light Loaders)
11. HMMWV RECAP*
12. Medical Systems* (MC4, MES)
13. Military Intelligence Systems (Prophet, TROJAN Spirit, DCGS-A)
14. Radars* (LCMR, EQ-36)
15. Route Clearance* (HUSKY, BUFFALO)
16. Tactical Bridging *
17. Tactical Materiel Handling Equipment
18. Tactical Networks
19. Tactical Power Generation
20. Tactical Radios
21. Tactical Trailers*
22. Tactical Water Systems
23. Test, Measurement, and Diagnostic Equipment (TMDE) (Maintenance Support Device)
24. Training Devices* (ABCS, Shadow Crew, Weapons Trainers)
25. Unmanned Aerial Systems (TUAS-Shadow, SUAS-Raven RQ-11)

*NGAUS Resolution
BLACK = Carryover
GREEN = Add/Updated

*LIST IS NOT PRIORITIZED
Items Listed Alphabetically

WILLIAM E. INGRAM, JR.
Lieutenant General, GS
Director, Army National Guard

ARNG-RMQ

Figure B-2. Top 25 Shortfall List

The most notable shortfall items on ARNG's Table 8 are in aviation modernization, transportation, and general engineering equipment.

i. Aviation Modernization

FY 2013 equipment on-hand (EOH) quantities comprise a mixed fleet of new build, cascaded, and retiring legacy aircraft. The LUH-72 Lakota is scheduled to be fully fielded by FY 2016. At the current UH-60 conversion and cascade rate (from the A model to the L models), it will take until 2023 to fully divest the UH-60A fleet. For unmanned aircraft systems, the Shadow will be fully fielded in FY 2012, and the Raven will be fully fielded by FY 2015. The planned divestiture of ARNG fixed-wing aircraft (C-23 and other utility aircraft) will create gaps in fixed-wing capabilities. The Aviation program utilizes a mix of programmed funds and National Guard and Reserve Appropriation (NGREA).

ii. Transportation

Although the Light Tactical Vehicle (LTV) on-hand percentage is 100 percent, only 39 percent of the fleet is armor capable. The ARNG fully supports the Army's strategy of modernizing and extending the HMMWV service life by recapitalization. The Army's HMMWV Recapitalization Plan, if

funded, will allow the ARNG to extend the economic useful life of over 3,300 legacy HMMWVs. The ARNG's plan to purchase 500 HMMWV Ambulances remains on target for deliveries beginning in the third quarter of FY 2012. At completion, the ARNG will increase the HMMWV Ambulance EOH to 100 percent by FY 2013. The Chief of Staff, Army–directed Tactical Wheeled Vehicle Reduction Study, may impact our overall LTV requirements and on-hand posture.

iii. General Engineering Equipment

This includes heavy/light horizontal construction, vertical, diving, and firefighting equipment critically under filled or passed its useful life cycle. These items are required for DSCA and combat missions, including homeland defense. If a steady rate of modernization is not viable, a secondary course of action is to take the existing equipment and either recapitalize or reset the system, based on its current lifecycle.

b. Effects of ARNG Shortfalls

ARNG shortfalls result in the continued use of the legacy systems and an HD/DSCA capability gap. For example, our aviation shortfall means the ARNG is still using the UH-60A fleet that is over 20 years old. Shortfalls of ARNG equipment also impact our ability to achieve full inter-operability with the Active Component (AC).

c. ARNG Investment Strategies

The ARNG has successfully used Congressional additions and NGREA funding to significantly mitigate key ARNG shortfalls. The ARNG invested NGREA dollars in CDU systems, such as the Tactical Operation Combat System (TOCS) and Standardized Integrated Command Post System (SICPS). Through this commitment, the ARNG spent $235M to purchase SICPS and Command Post Platform hardware and software products to field over 47 brigade/battalion level units. This capability provides standardized communication infrastructure for commanders and staff to digitally plan, prepare, and execute operations related to their mission. Future NGREA funds will continue to focus on the procurement of high-priority CDU items that have a projected shortfall.

3. Army National Guard

The Army continued aggressively pursuing transparency and traceability of procurement-funded equipment from the President's Budget request to delivery at the unit level during FY 2011. To this end, the Army has taken multiple steps toward achieving transparency, including institutionalizing a formal Post-Appropriation Reconciliation Process (PARP), supporting two Integrated Process Teams (IPTs) and an Enterprise Management Office, publishing quarterly Equipment Delivery Reports (EDR), maintaining component-specific funding information throughout the procurement cycle, and taking advantage of an Item Unique Identification (IUID) system for tracking equipment deliveries to their funding source. At the end of FY 2011, the Army's Transparency efforts were tracking all systems with greater than $5M; a total of 100 programs with a combined value of approximately $45B. The Army was in full compliance with OSD transparency guidance in FY 2011 by tracking all programs of interest that have Reserve Component allocations.

Despite the uncertainty of receiving formal appropriations in any given fiscal year, Headquarters, Department of the Army (HQDA) continues to utilize the PARP to realign enacted funding with

Congressional intent and HQDA budgetary requests. This process has the effect of re-establishing Component-specific funding splits so that the ARNG receives adequate funding to achieve its procurement strategy objectives and to maintain its high state of equipment availability and readiness. Core to the process, the PARP establishes a metric from which deviations can be identified and assessed to determine, among other actions, whether payback actions are warranted and to gauge the overall efficiency of post-appropriation funds execution.

4. Air National Guard Equipment

ANG equipment is procured in most cases in support of federal missions, utilizing authorizations that are aligned to Tables of Allowances (TAs). The TAs prescribe the equipment necessary to perform federal missions. These authorizations are filled using a priority system that considers the operational priority and first-to-fight logic to execute acquisition decisions, and as a rule, ANG and AC units are equitably treated when setting equipment distribution priorities. While some equipment items are acquired using COTS contracts, and are used to support both federal and domestic missions, the vast majority is acquired utilizing Service-unique and DoD logistics activities and systems.

The preponderance of equipment in the ANG can be used to support domestic support operations and federal requirements and is classified as "dual use." Current equipment tracking methods show, even though there has been a reduction in authorized equipment due to mission changes and associations, approximately 88 percent of all the authorized ANG equipment (417,133 pieces) has a valid use in either a federal mission or domestic support operation. The Total Force relationship between the Air Force (AF) and the ANG has resulted in excellent support for these dual-use items. Currently, the ANG has 91 percent (379,223 pieces) of all authorized dual-use items on-hand within the categories of the Essential 10 capabilities. The 91 percent equipment availability rate is comparable to the overall AF availability rate (see Table B-1).

Table B-1. ANG Support Equipment (SE) and Vehicles

September 2011							
CABABILITY	AUTH QTY	INUSE QTY	FILL RATE	AUTH COST	INUSE COST	NEEDED QTY	NEEDED COST
Aviation SE	64,094	60,287	94%	$4,364,481,198	$3,706,138,189	3,807	$658,343,009
Civil Support & Force Protection	2,788	2,581	93%	$906,436,715	$839,136,715	207	$67,300,000
Command & Control	11,216	11,130	99%	$638,746,522	$628,527,036	86	$10,219,486
Communication	6,536	6,535	100%	$46,860,963	$30,224,909	1	$16,636,054
Engineering	30,232	26,915	89%	$226,907,112	$170,381,019	3,317	$56,526,093
Logistics	93,739	76,203	81%	$95,624,045	$64,647,012	17,536	$30,977,033
Maintenance	115,806	110,834	96%	$2,420,959,269	$1,966,769,668	4,972	$454,189,601
Medical	9,282	9,735	105%	$3,562,867	$2,842,667	0	$0
Security	67,537	60,600	90%	$131,301,692	$108,250,152	6,937	$23,051,540
TOTAL SE	**401,230**	**364,820**	**91%**	**$8,834,880,383**	**$7,516,917,367**	**36,863**	**$1,317,242,816**
VEHICLES	15903	14403	91%	$941,207,326	$747,484,897	1,500	$193,722,429
TOTAL SE & VEHICLES	**417,133**	**379,223**	**91%**	**$9,776,087,709**	**$8,264,402,264**	**38,363**	**$1,510,965,245**

The ANG also benefits from the AF's general guidelines to use mostly AC equipment in support of overseas contingency operations (OCO). Currently, only 1.6 percent of ANG equipment is deployed in support of OCO. Another 0.7 percent of ANG equipment is deployed throughout the 54 states and territories in support of domestic operations.

a. ANG Equipment Shortfalls

Despite the equipment support provided by the AF, the ANG still has shortfalls in critical DSCA areas. Aggravating these critical shortfalls is the advancing age of some ANG equipment, which could result in a barrier to meeting ANG domestic support responsibilities. A more detailed review of the ANG equipment health is described in the following five categories of the Essential 10 capabilities.

i. Logistics

The overall ANG logistics fill rate status is good at 81 percent. However, the limited domestic availability of some Personal Protective Equipment (more than 5,882 items short) is driving the metric down. The decrease in the shortage of overall items is a result of the AF reducing the overall authorizations worldwide. However, the AF is in the process of procuring much of these requirements to fill both AC and RC requirements, as well as pre-positioning these items at locations in the area of operations for deploying personnel. The ANG is very sensitive to these shortages, and the AF makes every effort to ensure Guardsmen have body armor when deploying to support OCO. For example, the AF recently utilized resources in the area of responsibility (AOR) to meet deploying Guardsmen requirements upon their arrival at their deployed location eliminating the need to divert to Qatar for the equipment. However, the ANG "fight in place" domestic operations mission dictates that body armor be available constantly for a majority of our Airmen, and the AF is diligently working towards meeting this vital operational requirement as well.

ii. Engineering

The overall engineering fill rate status is excellent at 89 percent. However, prime power, route clearance, search and rescue, and firefighting equipment shortages are inhibiting the ANG's ability to concurrently perform home station, overseas deployments, or NG domestic support missions. For example, prime power requires in excess of $12M in power generation capability be used to provide stable, reliable electrical power in deployed environments either abroad or during NG domestic support operations. During domestic support operations, this power would be a life-saving capability for the affected community. The equipment will be capable of increasing and maintaining emergency power for an extended period to a hospital center, shelter, or other facilities deemed critical to the community. These teams and equipment could power entire facilities or areas of the community. Additionally, the prime power makes possible the "open the base" capability, either expeditionary or contingency, for the ANG. Currently, insufficient capacity exists in the 10 FEMA regions. The ANG is working diligently through the Domestic Operations Equipment Requirements (DOERs), NGREA, and central AF procurement processes to acquire prime power capability to ensure safe, reliable, and effective power is available for federal and domestic support missions, when required. For example, the ANG recently acquired, through NGREA appropriations, power generation capability for the 150th Civil Engineering Squadron (CES). The 150 CES is the pilot unit for this capability.

iii. Transportation

Vehicle on-hand status is excellent at 91 percent. However, greater than 25 percent of the ANG vehicles have exceeded or will soon meet the end of their useful economical life. Included in these aging vehicles are aircraft maintenance vehicles, refuelers, firefighting, heavy maintenance,

and snow removal vehicles, many of which have exceeded their expected age of utility. Such legacy vehicles tend to have frequent maintenance failures and are costly to maintain, further encumbering our already-stressed vehicle maintenance personnel. Additionally, such vehicles are those most in demand for domestic support operations, so the aging vehicle fleet could negatively impact domestic support missions. Existing and future funding plans cover less than 12 percent of the total ANG requirements, which means the age of these vehicles used in domestic and federal responses will continue to age without replacements, causing a greater draw on scarce resources. Currently, no ANG vehicles are deployed in support of federal missions. Lastly, despite vehicle funding constraints, the ANG continues to aggressively pursue the Presidential Directive to reduce fossil fuel use by 30 percent through acquisition of vehicles that use alternative fuels.

iv. Security

The overall security fill rate status is excellent at 90 percent. Currently, small arms (10,757 short), night vision devices (3,646 short), and all terrain low speed vehicles shortages are limiting the ANG security forces' ability to concurrently provide the public safety and security at home station or OCO and during DSCA missions. However, these shortages have previously been identified and the ANG is attempting to fill requirements through central AF procurement processes or through other funding sources, such as NGREA.

v. Communications

The overall communication fill rate status is excellent at nearly 100 percent. However, this status does not consider the many essential systems that are operating in a degraded state, have exceeded their economical useful life, or have not kept pace with the technological advancements, causing this equipment to become obsolete for all but the federal mission. Aggravating this situation is the immediate need to modernize this aging equipment to combat electronic intrusions or denials of service to the ANG communication infrastructure. Additionally, due to federal and domestic mission requirements, the ANG has a greater need for increased interoperable, National Incident Management System (NIMS) -compliant communication. Competing priorities have relegated these important communications systems to lower status, potentially impacting support to state and federal command authorities/centers.

The ANG continues to pursue sustainment, modernization, and acquisition of NIMS-compliant communications systems. These systems provide the ability to share and manage information in near-real time with all NG stakeholders, vertically (combatant commander, state, incident) and horizontally (interagency) as well as the ability to establish, maintain, and coordinate situation awareness of all NG command, control, communications, and intelligence assets among NG users and stakeholders. However, system life-cycle maintenance, modernization requirements, and integrated security controls remain a challenge as these systems have not been integrated into AF requirements as expected.

b. Effects of ANG Shortfalls

Shortfalls in equipment could prevent or delay an ANG response to natural or manmade disasters in the homeland, or impair the ANG's ability to perform as an integral part of the Total Air Force. Improved availability of equipment strengthens readiness for the ANG to defend not only U.S. interests abroad, but also facilitates the safety and security of the 54 states, territories, and

the District of Columbia. Additionally, the added equipment helps guarantee improved capability to train on mission-essential equipment used in both federal and domestic support missions.

See Chapter 5, Section II, for additional information on shortfalls in equipment and modernization.

c. ANG Requirements and Acquisition Strategies

Basic ANG requirements are determined through a Total Force process to determine standard support equipment required for federal missions. Variants are then made based on the unique missions and conditions of our ANG units. Once valid requirements have been established, those requirements are filled based on the mission priority of the unit and weapon system. The ANG staff then uses all available funding sources to fill equipment requirements. Most funding results from the annual DoD planning, programming, budgeting, and execution process, with other funding coming from AF central agencies for support items that are interchangeable across the AF enterprise, such as personal protective equipment, communications equipment, and some vehicles. The ANG has also been aggressive in seeking other funding sources to replace items that have been expended supporting federal and domestic missions. Lastly, the ANG takes full advantage of NGREA funding to procure any authorized support equipment items that increase a unit's ability to support domestic missions, or to modernize equipment to ensure its reliability, relevancy, and responsiveness to future federal or domestic missions.

5. Specialized Equipment

Specialized equipment is that unique equipment that is specific to the DSCA mission and is not considered dual-use. Funding, management, and accounting procedures may differ from the procedures used to manage equipment authorized to support federal missions. Much of this equipment is procured from COTS vendors and does not have organic sustainment support.

a. Specialized Equipment Shortfalls

The WMD-CSTs continue to have a limiting factor of non-redundant commercial CBRN equipment for monitoring, detection, and analysis of field incidents. Some critical COTS equipment is fielded to the CSTs without spares, such as generators and specialized vehicles. The result is likely a single point of failure for a CST mission, lessening the team's capability until replacements are obtained or suitable substitutes are repositioned from other WMD-CST units.

In addition, HRFs and CERFPs still have a potential limiting factor in the dual-use Small Portable Expeditionary Aeromedical Rapid Response (SPEARR) gear associated with the medical element. While the HRF and CERFP mission has not changed, the equipment has been significantly modernized to better fit the mission. The 10 new HRF units coming on board in FY 2011 and FY 2012 have received the new modernized medical assemblages. The new, modernized medical assemblage upgrades for the current 17 CERFP units have been funded through NGREA.

b. Effects of Shortfalls of Specialized Equipment

The CST and CERFP issues are limiting factors, with no specific effects unless equipment failure occurs.

Because the 17 CERFPs lack an organic reach-back capability and an interoperable, handheld communications platform in their equipment complement, they will remain dependent on

external sources for communications to maintain contact with higher headquarters and to interoperate with other first responders until the procurement referenced above is completed.

NGB purchased equipment according to the SPEARR allowance standards for the 10 HRFs and 17 CERFPs. However, these medical assemblages have been modified significantly to better meet the CBRN enterprise response mission. The current 17 CERFP units needs the upgraded equipment assemblages to be current with the new standard. $9.7M in NGREA FY 2011 funds are being used to upgrade the current 17 CERFP units. The ANG currently maintains 4 Block 11 Expeditionary Medical Support (EMEDS) +25 and +10 medical treatment platforms. ANG is in the process of upgrading to the new Block 12 EMEDS. The AF has upgraded to the new Block 12 EMEDS in FY 2010. A $1.7M shortfall exists in procurement of initial oxygen systems, critical to sustained DSCA medical operations. These shortfalls create a lack of standardization between units, which is critical during execution of DSCA operations.

c. Requirements and Acquisition Strategies for Specialized Equipment

Specialized GOTS/COTS equipment for emergencies or response to a major disaster is funded using a combination of Army, ARNG, AF, and ANG appropriations, along with DoD-wide appropriations (e.g., the Chemical and Biological Defense Program [CBDP] funds), as well as ANG and ARNG NGREA. NGB continues to work with DoD to pursue modernization for equipment used by CSTs as technology evolves. The CBDP has programmed increases for research, development, test, and evaluation; procurement; and life-cycle management for CST equipment, although significant unfunded requirements remain. One objective for this CBDP will be to mitigate or eliminate the single failure points in CBDP equipment mentioned above.

B. FY 2008 NDAA, Section 1826, "Additional Reporting Requirements Relating to National Guard Equipment," added the requirements for a statement of the accuracy of past NG equipment inventory projections and a certification from the Chief, National Guard Bureau setting forth the inventory of equipment items that were due to be procured for the National Guard in the preceding fiscal year, but were not received.

1. Chief, National Guard Bureau (CNGB) Statement

At the present time, the Service components are unable to completely satisfy either of the reporting requirements prescribed in Section 1826 of the FY 2008 NDAA due to a general lack of transparency within portions of the Army and AF equipment procurement and distribution processes. While both Services have made significant improvements to these processes and their supporting automation systems in recent years, we still cannot reliably tie a piece of delivered equipment back to its funding source. Because of the multi-year nature of the procurement process, this precludes NGB from adequately determining how much of the funding provided by Congress for NG equipment has been executed and how much is still to be executed. Ultimately, this makes it impossible to precisely determine if these funds are resulting in timely equipment deliveries to NG units.

To provide the level of transparency and accountability the CNGB needs to certify future NDAA, Section 1826 reports, Army and AF procurement processes must be modified to allow NGB staff to track funds and equipment from appropriations through execution to equipment delivery. Only then can we monitor the execution status of individual funding sources and provide the level of detail called for in the NDAA. OSD and the Services are developing process

and automation system solutions that will provide this level of transparency and accountability. However, even if these solutions are implemented immediately, it will still take two years or more to gain complete accountability due to the large quantity of funding and equipment currently in the procurement and distribution pipeline. This being the case, the Services would still need to conduct an extensive audit to determine if past deliveries, and those planned for FY 2011, FY 2012, and FY 2013 are commensurate with funding provided in past fiscal years.

2. Army National Guard

Over the past year, the Army has significantly improved and expanded transparency efforts within its equipment procurement and distribution processes. The Army is leveraging a Financial Synchronization and Transparency Integrated Product Team (IPT), a Delivery Certification IPT, and a Transparency General Officer Steering Committee to manage this effort. As of the third quarter FY 2010, the Army was collecting transparency data for 85 systems. These 85 major systems were selected based on their importance to the ARNG and Army Reserve. While this represents a significant increase from 30 systems that were initially identified in FY 2009, the plan is to collect transparency data on all major procurement systems beginning in FY 2011. As of the third quarter FY 2010, ARNG funding for the 85 systems included in data collection totals approximately $4.25B in FY 2009 and $3.19B in FY 2010.

As part of its expanded transparency efforts in FY 2010, the Army implemented a policy to improve the Congressional Budget Justification documents for component funding allocations (P-1R and P-40s) and stood-up a series of IPTs to develop enduring business rules using Lean Six Sigma approaches. The Army expects to gain efficiencies by automating the data collection process and using the data to enhance decision-making across the Headquarters Staff.

Despite the significant progress, the ARNG will still remain unable to assess delivered quantities against those that were due in, as specified in the NDAA reporting requirement, until all major procurement systems are included in transparency data collection.

3. Air National Guard

To meet the equipment transparency requirements in NDAA 2008, the Deputy Assistant Secretary of the Air Force for Acquisition Integration (SAF/AQX) has under development new guidelines for crafting the Reserve Component President's Budget exhibits. Additionally, the Expeditionary Combat Support System (ECSS), in concert with Item Unique Identification (IUID), is designed to improve warfighter capability by transforming Air Force logistics business processes and leveraging ongoing initiatives and capabilities information technology can deliver. These initiatives will combine with other Expeditionary Logistics for the 21st Century initiatives to provide a single data source for equipment from source of supply to the use of the equipment at the unit level. ECSS is projected to help make possible the statement of accuracy of the projections required by subsection (b) (5) (D) in earlier reports under this section. ECSS links with AF funding systems and will better allow all AF Components to trace equipment expenditures from procurement to delivery. ECSS is the AF's system that will provide the required solution for the ANG. The first phase of ECSS was fielded at AF test bases in July and August 2010 and the first ANG bases will be integrated. However, ECSS will not be fully operational until FY 2013. The IUID initiative is ongoing as well, including a select number of ANG bases. This initiative will eventually tag all ANG equipment with an informational "license plate" to allow the AF enterprise

to identify and track that piece of equipment wherever it is on the globe. While these initiatives progress, ANG staff personnel will use the new SAF/AQX reports and current data systems to best track the funding, procurement, delivery, and use of ANG equipment.

Overall, the ANG has adequate dual-use equipment to meet both the federal and domestic operations requirements. However there are equipment shortfalls in areas that are key support to our homeland mission. Lack of communications and personal protective equipment could hamper the ANG's ability to support a worst-case natural disaster, and the rapidly aging ANG vehicle fleet of general purpose and special purpose vehicles could be a concern if funding levels do not change to match requirements. In recent years, the Services have improved their processes and automation systems to facilitate the procurement and distribution of equipment, and to some extent, the tracking of these resources throughout the processes. While it is still not possible for the CNGB to verify that all funding intended for the NG is resulting in the delivery of equipment to our units, the Army, along with the SAF/AQX reports, offer the first valid attempts to meet that requirement. The maturation of these reports and the fielding of the ECSS logistics system should combine to provide the transparency desperately needed for our equipment procurement processes.

4. Conclusion

The Services have made tremendous progress to launch processes to facilitate the tracking of resources through the acquisition and distribution process. The Army is continuing to transition from a strategic reserve to an operational force while sustaining its homeland defense and NG DSCA missions. The ANG is rapidly moving forward to develop adaptive and responsive management processes to meet the challenges of new operations tempos and paradigms. Although equipment transparency and visibility are now much better than in years past, there is still much to be done to fully account for equipment delivered to NG units compared to what was budgeted and appropriated by Congress. Both the Army and the AF continue to demonstrate strong commitments to support ARNG and the ANG, respectively, through equipment procurement and modernization. The ARNG will continue to move towards the Army's Equipping Strategy by increasing interoperability and modernization of equipment. The ANG will continue to adapt to meet the needs of the combatant commanders for combat and combat support forces and of our states for support of domestic operations. I fully acknowledge and respect the Service accomplishments as their processes continue to improve and expect they will provide the transparency needed during the next fiscal year. The key to achieving full transparency is to continue the current level of effort and command emphasis by senior Army, AF, and OSD leaders, and Congress.

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Appendix D
Acronym Glossary

Acronym	Nomenclature
AAO	Approved Acquisition Objective (Marine Corps)
ABCS	Army Battle Command System
AC	Active Component(s)
ACC	Air Combat Command
ACS	Agile Combat Support
ADA	Air Defense Artillery
ADCP	Advanced Display Core Processor
ADOS	active duty operational support
ADS	Aircraft Defensive Systems
ADT	active duty for training
AEA	airborne electronic attack
AESA	Active Electronically Scanned Array
AF	Air Force
AFB	Air Force base
AFR	Air Force Reserve
AFRC	Air Force Reserve Command
AFSOC	Air Force Special Operations Command
AGSE	aviation ground support equipment
AIFF	advanced identification, friend or foe
AIP	antisurface warfare improvement program
AM	amplitude modulation
AMC	Air Mobility Command (Air Force)
AMC	Army Materiel Command (Army)
AMCM	airborne mine countermeasures
AMD	air and missile defense
AMDPCS	Air/Missile Defense Planning and Control System
AME	Alternate Mission Equipment
AMP	Avionics Modernization Program
ANG	Air National Guard
AOC	air and space operations center
AOR	area of responsibility
AR	United States Army Reserve
ARB	Air Reserve Base
ARFORGEN	Army Force Generation
ARI	Automatic Reset Induction (Army)
ARNG	Army National Guard
ARPL	Army Resourcing Priority List
ARS	Air Reserve Station
ARWO	Aerial Reconnaissance Weather Officer
ASOC	air support operations center
ASOG	Air Support Operations Group
ASOS	Air Support Operations Squadron
ASV	Armored Security Vehicle
ASW	antisubmarine warfare
AT	annual training
AT/FP	antiterrorism/force protection
ATM	Air Traffic Management

Acronym	Nomenclature
ATP	advanced targeting pod
AVTE	Aviation Virtual Training Environment
BAMS	Broad Area Maritime Surveillance
BLOS	beyond line of sight
BMUP	block modification upgrade program
BOG	Boots on the Ground
BOIP	Basis of Issue Plan
BOL	back of launcher
BOS	Budget Operating System
C2	command and control
C2CRE	C2 CBRNE Response Element
C4ISR	command, control, communications, computers, intelligence, surveillance and reconnaissance
CA	civil affairs
CAC2S	Common Aviation Command and Control System
CAS	close air support
CBPS	Chemical Biological Protective Shelter
CBRN	chemical, biological, radiological, and nuclear
CBRNE	chemical, biological, radiological, nuclear, and high-yield explosives
CCIR	Cyberspace and Critical Infrastructure Range
CDU	critical dual use
CDU	center console display unit
CENTCOM	United States Central Command
CERFP	CBRNE Emergency Response Force Package
CESE	civil engineering support equipment
CFCC	Commercial Fire Control Computer
CFLI	Core Function Lead Integrator
CHARCS	Counterintelligence/Human Intelligence Automated Reporting and Collection System
CLASSRON	class squadron
cNAF	Component Numbered Air Force
CNGB	Chief, National Guard Bureau
CNGR	Commission on the National Guard and Reserves
CNO	Chief of Naval Operations
CNS	Communication, Navigation, Surveillance
COCOM	combatant command
CONECT	Combat Network Communications Technology
CONUS	continental United States
COTS	commercial off–the-shelf
CRC	Control and Reporting Center
CRP	Core Radio Package
CS	combat support
CSAR	combat search and rescue
CSS	combat service support
CST	Civil Support Team
CVW	carrier air wing
CW	cyber warfare
CY	calendar year
DARPL	Dynamic Army Resourcing Priorities List

Acronym	Nomenclature
DART	Disaster Area Response Team
DCGS	Distributed Common Ground System(s)
DCGS-A	Distributed Common Ground System-Army
DCRF	Defense CBRN Response Force
DET	Displaced Equipment Training
DGS	Distributed Ground Station
DHS	Department of Homeland Security
DMDS	Digital Mission Data System
DMO	Distributed Mission Operations
DMS	diminishing manufacturing source
DoD	Department of Defense
DoDD	Department of Defense Directive
DOER	Domestic Operations Equipment Requirement
DOG	Deployable Operations Group
DPEM	Depot Purchased Equipment Maintenance
DSCA	defense support of civil authorities
DVTE-R	Deployable Virtual Training Environment-Reserves
EA	electronic attack
ECSS	Expeditionary Combat Support System
EDR	Equipment Delivery Report
EHS	Enhanced Mode S
ELMM	Enhanced Land Maritime Mode
EMEDS	Expeditionary Medical Support
EOD	explosive ordnance disposal
EOH	equipment on-hand
EPLRS	Enhanced Position Location Reporting System
ER	extended range
ESF	Emergency Support Function
ESMS	Enhanced Stores Management System
EUL	economic useful life
EXPCOMBATCAM	Expeditionary Combat Camera
FAA	Federal Aviation Administration
FBCB2	Force XXI Battle Command, Brigade and Below
FCMT	Full Combat Mission Trainer
FEMA	Federal Emergency Management Agency
FLE	Fatigue Life Expended
FM	frequency modulation
FMT	Full Mission Trainer
FMTV	Family of Medium Tactical Vehicles
FSRG	Force Structure Review Group
FST IPT	Financial Synchronization and Transparency IPT
FTC	Full Training Capability
FTD	field training detachment (Air Force)
FTD	Flight Training Devices (Marine Corps)
FTS	Full-time Support
FTU	formal training unit
FY	fiscal year
FYDP	Future Years Defense Program

Acronym	Nomenclature
GA	Guardian Angel
GCSS-A	Global Combat Support System-Army
GOSC	General Officer Steering Committee
GOTS	government off–the-shelf
GPS	Global Positioning System
HCCC	Harbormaster Command and Control Center
HD	homeland defense
HEMTT	heavy expanded mobility tactical truck
HIMARS	High Mobility Artillery Rocket System
HMIT	helmet-mounted integrated targeting system
HMM	Marine Medium Helicopter Squadron
HMMWV	high mobility multipurpose wheeled vehicle
HQ	headquarters
HQDA	Headquarters, Department of the Army
HRF	Homeland Response Force
HRT	Healthcare Response Team
HS	homeland security
HTV	Heavy Tactical Vehicle
Hz	hertz
IAN/VSD	Integrated Approach Navigation/Vertical Situation Display
IAP	International Airport
IDT	inactive duty training
IEW	intelligence and electronic warfare
IO	information operations
IOC	initial operational capability
IOP	Informations Operations Platforms
IP	internet protocol
IPT	Integrated Product Team
IR	infrared
ISR	intelligence, surveillance, and reconnaissance
IUID	Item Unique Identification
JB	Joint Base
JDAM	Joint Direct Attack Munition
JHMCS	joint helmet-mounted cueing system
JISCC	Joint Incident Site Communications Capability
JLTV	Joint Light Tactical Vehicle
JRB	Joint Reserve Base
JSF	Joint Strike Fighter
JSTARS	Joint Surveillance Target Attack Radar System
JTAC	joint terminal attack controller
kW	kilowatt
LAIRCM	Large Aircraft Infrared Countermeasures
LARS	Lightweight Airborne Radio System
LAV	light armored vehicle
LCS	littoral combat ship
LD/HD	low-density/high-demand

Acronym	Nomenclature
LET	light equipment transport
LMI	Lead Materiel Integrator
LRAS	Long Range Advanced Scout Surveillance System
LTV	Light Tactical Vehicle
LUH	Light Utility Helicopter
LVS	Logistics Vehicle System
LVSR	Logistics Vehicle System Replacement
MACCS	Marine air command and control system
MAGTF	Marine air-ground task force
MANPADS	man-portable air defense system
MASS	Modular Aerial Spray System
MCA	Maritime Civil Affairs
MCAST	Maritime Civil Affairs and Security Training (Command)
MCM	mine countermeasures
MEDEVAC	medical evacuation
MEEL	Mission Essential Equipment List
MESF	maritime expeditionary security force
MFGI	Mobilization Force Generation Installations
MFP	major force program
MIDS	Multi-functional Information Distribution System
MIE	Major Items of Equipment
MISO	military information support operations
MOA	memorandum of agreement
MOI	Magnetic Optical Imaging
MPRA	maritime patrol and reconnaissance aircraft
MRAP	Mine Resistant Ambush Protected
MSRON	maritime expeditionary security squadron
MSU	mobile support unit
MTOE	modified table of organization and equipment
MTT	Multi-task Trainer (Air Force)
MTT	mobile training team (Navy)
MTV	Medium Tactical Vehicle
MTVR-ODS	Medium Tactical Vehicle Replacement-Operator Driving Simulator
MWS	Missle Warning System
MYP	Multi-year Procurement
NAS	naval air station
NATO	North Atlantic Treaty Organization
NAVELSG	Navy Expeditionary Logistics Support Group
NBC	nuclear, biological, and chemical
NCC	Navy component command
NCF	naval construction force
NCHB	Navy cargo handling battalion
NCR	naval construction regiment
NDAA	National Defense Authorization Act
NECC	Navy Expeditionary Combat Command
NEIC	Navy Expeditionary Intelligence Command
NET	New Equipment Training
NG	National Guard
NGB	National Guard Bureau

Acronym	Nomenclature
NGREA	National Guard and Reserve Equipment Appropriation
NGRER	National Guard and Reserve Equipment Report
NIMS	National Incident Management System
NMCB	naval mobile construction battalion
NORTHCOM	United States Northern Command
NSW	naval special warfare
NSWG	naval special warfare group
NUFEA	Navy-unique fleet essential airlift
NVIS	Night Vision Imaging System
OBIGGS	Onboard Inert Gas-Generating System
OCCM	On-Condition Cyclic Maintenance
OCO	overseas contingency operations
OCONUS	outside the continental United States
OEF	Operation Enduring Freedom
OFP	Operational Flight Program
OH	on-hand
OIF	Operation Iraqi Freedom
OM	Operations Module
OPNAV	Chief of Naval Operations
OSD	Office of the Secretary of Defense
PARP	Post-Appropriation Reconciliation Process
PCR	Program Change Request
PDM	program depot maintenance
PDTE	Pre-deployment Training Equipment
PE	Precision Engagement
PLS	palletized load system
PMO	program management office
PPE	personal protective equipment
PRESBUD	President's Budget
Prime BEEF	Prime Base Engineer Emergency Force
PSU	port security unit
RAID	Redeployment Assistance and Inspection Detachment
RAMMP	Reliability and Maintainability Maturation Program
RC	Reserve Component(s)
RDT&E	research, development, test, and evaluation
RED HORSE	Rapid Engineer Deployable Heavy Operational Repair Squadron Engineer
RERP	Reliability Enhancement and Re-engining Program
RFT	ready-for-tasking
RPA	remotely piloted aircraft
RSMS	Readiness Sustainment Maintenance Site(s)
RTIC	Real Time Information in the Cockpit
RVSM	reduced vertical separation minimum
RWR	radar warning receiver
SADL	situational awareness data link
SAF/AQX	Deputy Assistant Secretary of the Air Force for Acquisition Integration
SAFIRE	Surface-to-air Fire
SAM	surface-to-air missile

Acronym	Nomenclature
SATCOM	satellite communications
SDD	System Development and Demonstration
SE	support equipment
SEAL	sea-air-land
SecDef	Secretary of Defense
SELRES	Selected Reserve
SICPS	Standardized Integrated Command Post System
SINCGARS	single-channel ground and airborne radio system
SIPRNET	Secret Internet Protocol Router Network
SLEP	service life extension program
SLOS	secure line-of-sight
SMFCD	smart, multi-function color display
SOC	squadron operations center
SOF	special operations forces
SOUTHCOM	United States Southern Command
SPEARR	Small Portable Expeditionary Aeromedical Rapid Response
SPIRIT	Special Purpose Intelligence Remote Integrated Terminal
T/A	Training Allowance (Marine Corps)
TA	Table of Allowances (Air Force)
TACLAN	tactical local area network
TACP	tactical air control party
TDA	Table of Distribution and Allowances
TDC	Theater Deployable Communications
TDL	tactical data link
TFI	Total Force Initiative(s)
TO&E	table of organization and equipment
TOA	table of allowance
TOCS	Tactical Operation Combat System
TPE	theater-provided equipment
TPSB	transportable port security boat
TSW	Tactical Support Wing
TWV	Tactical Wheeled Vehicle
U.S.	United States
U.S.C.	United States Code
UAS	unmanned aircraft system
UAV	unmanned aerial vehicle
UE	unit equipped
UHF	ultrahigh frequency
USAR	United States Army Reserve
USCGR	United States Coast Guard Reserve
USMCR	United States Marine Corps Reserve
USNORTHCOM	United States Northern Command
USNR	United States Navy Reserve
USNS	United States Naval Ship
USR	Unit Status Report
USSOCOM	United States Special Operations Command
UTC	unit type code
UTD	Unit Training Device

Acronym	Nomenclature
VHF	very high frequency
VIP	very important person
VOR	VHF omnidirectional range
VR	Fleet Logistics Support Squadron
VTUAV	vertical takeoff and landing tactical UAV
WCMD	Wind Corrected Munitions Dispenser
WIN-T	Warfighter Information Network-Tactical
WMD-CST	Weapons of Mass Destruction Civil Support Team
WRMS	war reserve materiel stock
WSS	Weapons System Sustainment
WST	Weapon Systems Trainer

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