DEPARTMENT OF DEFENSE

NATIONAL GUARD AND RESERVE EQUIPMENT REPORT FOR FISCAL YEAR 2011

February 2010

NATIONAL GUARD AND RESERVE EQUIPMENT REPORT FOR FISCAL YEAR 2011

(NGRER FY 2011)

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

February 2010

Prepared by
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FOREWORD

The goal for the Reserve components (RC) is to continue to be a force that is sustainable, seamlessly integrated with the Active components, and complementary in its capabilities to our overall national security requirements.

Today's Citizen Warriors have made a conscious decision to serve, with full knowledge that their decision may involve periodic recalls to active duty under arduous and hazardous conditions. They know this is no longer a "one weekend a month" organization, and they didn't join up just for the college tuition. In recent years, we have seen an unprecedented reliance on the RC—since 9/11, over 761,000 Citizen Warrior mobilizations have occurred; of that number, over 232,000 Selected Reserve members have been activated two or more times. Their service has been magnificent.

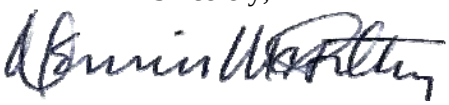
The Department set about transforming the Guard and Reserve from a purely strategic force to a sustainable Reserve force with both operational and strategic roles. In addition, we are implementing a "train-mobilize-deploy" construct, as opposed to the old Cold War model of "mobilize-train-deploy." This means that the RC must be ready, manned, trained, medically prepared, and equipped when their scheduled availability comes up; and they must be funded accordingly. A force must not encounter modern equipment for the first time after mobilization or after arriving in theater. Using the RC on a rotational basis, especially where the cycle can be pointed toward a predictable mission, maintains their readiness and expands their availability and capability. The readiness rotational availability models in use today—the Army Force Generation (ARFORGEN), the Air Force Expeditionary Force (AEF), etc.—are essential to ensuring that the Guard and Reserve are trained and ready.

Writing the next chapter in the history of our nation's use of its RC begins with the Quadrennial Defense Review and other strategic planning processes. The realization that the complexity of the current security environment and the uncertainty of future threats requires the nation to have "…a broad portfolio of military capabilities with maximum versatility across the widest possible spectrum of conflicts," as Secretary of Defense Robert Gates testified on February 2, 2010. If the RC are utilized in a deliberately planned way, and are seamlessly integrated as members of a true Total Force, the nation will reap the benefits deserved. We must recognize that Homeland Defense and Defense Support of Civil Authorities (DSCA) are Total Force responsibilities. The RC, particularly the National Guard, are the center of gravity for DoD Homeland Defense and DSCA response operations.

The Department continues to work the 53 Commission on the National Guard and Reserves recommendations Secretary Gates approved in his November 2008 memorandum. Several of these are improvements in the oversight of equipment readiness and transparency of RC procurement funding. We must ensure that the visibility, transparency, and accountability of National Guard and Reserve equipment, from planning, programming, and budgeting, through acquisition and fielding, occurs at all levels. Resetting the force is absolutely essential because it integrates the transformation, reconstitution, rebalancing, modernization, and recapitalization into a common action with a focus on the contribution to the Services' roles and missions.

I believe the Services should not hesitate to use National Guard and Reserve formations as the "force of first choice" for requirements for which they are well suited. This will require us all to transition from "what was," to "what is," then "what should be."

Sincerely,



Dennis M. McCarthy

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Chapter 1 Overview

I. Strategic Context

A. Equipping Strategy

In recent years, we have seen an unprecedented reliance on the Reserve components—since 9/11, over 761,000 Citizen Warrior mobilizations have occurred; of that number, over 232,000 Selected Reserve members have been activated two or more times. Their service has been magnificent and fully accessible with participation across the full spectrum of missions.

The Department is transforming the Guard and Reserve from a purely strategic force to a sustainable Reserve force with both operational and strategic roles captured in DoD Directive (DoDD) 1200.17, *Managing the Reserve Components as an Operational Force*. Effective management of the Guard and Reserve as an operational force required changes in numerous policies, including: mobilization, force structure rebalancing, personnel management, training, readiness, equipping, and family and employer support. These changes have been critical to our success during what is now the largest mobilization of the Guard and Reserve since the Korean War, in a war that has lasted longer than World War II. It is important to note that in addition to these expanded operational capabilities, the RC still provided strategic depth to meet U. S. defense requirements across the full spectrum of conflict.

Writing the next chapter in the history of our nation's use of its RC begins with the Quadrennial Defense Review (QDR) and other strategic planning processes, to include the findings and recommendations of the Commission on the National Guard and Reserves (CNGR). The Department continues to work the 53 CNGR recommendations the Secretary of Defense (SecDef) approved in his November 2008 memorandum. The CNGR recommendations that the SecDef approved will continue to be a high priority for us until they are fully implemented. The implementation of those recommendations will enable the proper utilization of the National Guard and Reserve, reducing the burden on all forces—a Presidential priority.

Effective utilization of the Guard and Reserve increases the strategic capacity of the Total Force. We have authored mobilization policies that institutionalized "judicious use" as the core principle of Reserve component participation, and are the foundation of predictability (one-year mobilization and 1:5 utilization goals) for the operational reserve. This principle is widely supported by military members, families, and employers alike. Of note is that the budget supports preparation of both units and individuals to participate in missions, across the full spectrum of military operations, in a cyclic or periodic manner that provides predictability for the combatant commands, the Services, Service members, their families, and civilian employers; potentially increasing the Department's overall capacity while reducing costs.

As the Services perfect their rotational readiness models, it will be increasingly common to notify units of upcoming missions up to two years in advance. We have streamlined the mobilization and pre-deployment training processes, and these and other changes are sustaining the RC during this extensive mobilization period. In addition, we are implementing a "train-mobilize-deploy" construct, as opposed to the old Cold War model of "mobilize-train-deploy."

This means that RC units must be ready, manned, trained, medically prepared, and equipped when their scheduled availability comes up, and they must be funded accordingly.

We need a roadmap to list the waypoints, foster dialog, and change some widely held traditional beliefs. Extracting full value from our RC will require a fundamental shift in the way many in DoD currently envision these forces. During the Cold War, military planning generally viewed the Guard and Reserve as essentially a "force of last resort," to be used after all possible Active component (AC) solutions had been attempted. Going forward, the Services should not hesitate to use National Guard and Reserve formations as the "force of first choice" for requirements for which they are well suited. This will require many minds to transition from "what was," to "what is," then "what should be."

Predictability is perhaps one of the most important keys to tapping into the reservoir of Guard and Reserve capabilities. The process by which roles and missions are assigned to the Reserve and Guard should be characterized by a belief that these forces can, and, frequently should, be the first choice for recurring or predictable missions within their capabilities, because they are and have been fully accessible. In this context, predictability encourages anticipatory planning—thinking ahead, not just in terms of the type of mission, but the timing and duration of the mission as well. Predictable missions create lead time for proper planning and training. That kind of anticipatory thinking can't be done when the RC is used as the "last option." The other important parts of this "best advantage" equation are the assignment of challenging and relevant missions to the National Guard and Reserves, and ensuring that resources are available in order to set the conditions for their success.

Using the RC on a rotational basis, especially where the cycle can be pointed toward a predictable mission, maintains their readiness and expands their availability and capability. The rotational availability models in use today—the Army Force Generation (ARFORGEN), the Air Force Expeditionary Force (AEF), etc.—are essential to ensuring that the Guard and Reserve are trained and ready when needed.

We must also ensure that the visibility, transparency, and accountability of National Guard and Reserve equipment, from planning, programming, and budgeting, through acquisition and fielding, occurs at all levels. In addition, resetting the force is absolutely essential because it integrates the transformation, reconstitution, rebalancing, modernization, and recapitalization into a common action with a focus on the contribution to the Services' roles and missions. The CNGR had two specific recommendations to address this challenge. The Deputy Secretary of Defense directed and agreed to an implementation plan that we have been executing since August 2009. The RC of each Military Department must be properly equipped not just to deploy, but to also sustain itself as a trained and ready force. The design of the RC equipping strategy is envisioned to procure and distribute required equipment and to maintain a degree of readiness that is responsive to the combatant commanders' requests, while sustaining capabilities to respond when called upon here at home. This strategy takes into account the Department's support to each state's Homeland Defense (HD) mission, while maximizing equipment availability throughout the force.

Our ultimate goal is for the RC to be a ready force, equipped and supported with facilities, ranges, and simulators to succeed in fulfilling their domestic and overseas missions. Our efforts include the development of strategies and processes to ensure RC equipment readiness levels are not adversely

affected by losses from "stay-behind" equipment, cross-leveling, and reset policies. We are striving to ensure the RCs have the right equipment, available in the right quantities, at the right time, and at the right place to support the "Train-Mobilize-Deploy" model for an operational reserve. We are expanding the use of simulators that increase proficiency while, at the same time, reducing equipment costs and range utilization. An effective "Train-Mobilize-Deploy" force must not encounter modern equipment for the first time after mobilization or after arriving in theater. We also support the RC in their HD and civil support roles. This is a Total Force responsibility, and one in which we are making considerable progress. Identifying and procuring critical dual use equipment (equipment that is used in both domestic and war fighting missions) is another effort that has realized tremendous dividends. As the Department embarks on a new RC equipment strategy, we are working hand-in-hand with the Services to improve the transparency of equipment from the appropriation of funding to the delivery of that equipment.

There is a direct correlation between readiness and facilities, particularly in the RC. The move from a strategic reserve to an operational reserve doesn't change the fact that we owe our Guard and Reserve members quality facilities in which to work and train. The FY 2011 Military Construction (MILCON) program request for the RC has increased, and will alleviate some facility deficiencies. We continue to pursue joint construction opportunities as a way to combine the space and functional requirements of two or more Service components into one facility, thereby eliminating the need to build separate buildings. The benefits of doing this go far beyond cost savings by promoting cooperation, building trust, and providing opportunities for joint training.

With appropriate advanced planning and proper support, Guard and Reserve forces have the potential to greatly increase the Department's capacity in both traditional and emerging mission areas. The long term, recurring, and predictable nature of many of the requirements we face in the contemporary strategic environment are ideally suited for the RC. Such missions include: post-hostility stabilization tasks, theater security cooperation requirements, and engagement activities that are essential to dissuade or deter potential foes and build partnership capacity.

A major factor in shaping the 2010 QDR was the realization that the complexity of the current security environment and the uncertainty of future threats requires the nation to have "…a broad portfolio of military capabilities with maximum versatility across the widest possible spectrum of conflict," as Defense Secretary Robert Gates testified on February 2, 2010.

Achieving the defense strategy articulated in the QDR requires a vibrant National Guard and Reserve, seamlessly integrated within the Total Force. If the RC are utilized in a deliberately planned way, and are seamlessly integrated as members of a true Total Force, the nation will reap the benefits deserved. We must recognize:

- The RC are cost-effective. Using a force in its one year of "rotational availability" permits a five year preparation with personnel costs that are only a fraction of a force on full time active duty, and without most of the support infrastructure and sustainment costs of active duty units.

- Using the RC increases AC dwell to deployment ratio, and helps to sustain that force for future use.

- Using the RC allows us to take full advantage of unique skills and capabilities resident in our RC. Guardsmen and Reservists bring valuable professional, technical, and managerial skills from the private sector that match well with many current and anticipated DoD requirements.

- HD and Defense Support of Civil Authorities (DSCA) are Total Force responsibilities. The RC, particularly the National Guard, are the center of gravity for DoD HD and DSCA response operations. RC roles continue to evolve in this complex environment, but one thing is certain—the community basis of the Guard and Reserve have them already "forward deployed" in this critical Area of Responsibility (AOR). They have the local knowledge necessary to succeed in times of greatest stress on local people and institutions.

- We can achieve higher utilization rates of expensive assets by increasing the use of equipment and facilities that are shared between AC and RC units. In particular, increasing the Active and Reserve crew and maintainer ratios of our most modern and expensive aircraft seems to make good sense and could be an immediate benefit.

- As a community-based force, the RC provide a unique connection to the American people that facilitates an awareness and engagement on key national security issues. This connection is essential to maintaining the nation's commitment to our armed forces.

The 2010 QDR calls for a comprehensive review of the future role of the RC, including an examination of the balance between Active and Reserve forces. Effective use of the RC will act as a force multiplier, increasing the capacity and expanding the range of available capabilities; thus enhancing and preserving the All-Volunteer Force. Force multiplication is generated through lower overall personnel and operating costs, a right mix and availability of equipment, a more efficient and effective use of defense assets, and an increased sustainability of both the AC and RC. The RC have the capability and capacity to continue, if properly funded and equipped.

As we reinforce policies, implement strategies, and continue to call upon our RC, we must remember that judicious use is still the watchword. The RC continue to be a mission-ready, critical element of our National Security Strategy. Because our RC will be asked to continue in its role as an operational force, we must ensure a Total Force Policy exists that supports employment of the RC in both an operational and strategic role. We can ensure that the RC are trained, ready, and continue to perform to the level of excellence that they have repeatedly demonstrated.

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 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 trace 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 2011 NGRER highlights 914 major equipment types whose total dollar value comprises approximately 85 percent of the value of all RC equipment. Results of analyses of RC inventories are based primarily on the dollar value of the equipment because that allows for aggregation, comparison, and summary of diverse types of equipment. The total requirement and inventory for each major equipment type is weighted by the equipment's procurement cost. The procurement costs, from the Services' official data, are either the latest procurement costs adjusted for inflation or the current replacement costs.

The FY 2008 National Defense Authorization Act (NDAA) directed new equipment reporting requirements for the National Guard. This guidance is highlighted in its entirety in Appendix A. The National Guard Bureau responds to the requirements in Appendix B. The Army and Air Force do not currently have the ability to provide the procurement transparency required to complete the report but have been working with the Department to develop a process to more accurately answer these directives.

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 2006 NGRER	FY 2007 NGRER	FY 2008 NGRER	FY 2009 NGRER	FY 2010 NGRER	FY 2011 NGRER
ARNG	129	129	231	421	411	404
AR	249	249	233	222	220	212
USMCR	151	157	161	200	101	195
USNR	36	36	33	33	35	36
ANG	27	33	31	33	31	31
AFR	19	19	16	17	17	17
USCGR	16	15	15	15	19	19
Total	**627**	**638**	**720**	**941**	**834**	**914**

III. Equipment Shortages

The aggregate equipment shortage for all the RCs is approximately $45B. Chart 1-2 shows the dollar value of the current total major equipment requirements and inventories for each RC. This chart captures the requirement for new procurement for the RC; however, it does not indicate capabilities, shortfalls, or parity mismatch with the AC due to modernization requirements. For example, it does not include substitute items of equipment in determining shortages of Army RC equipment. Also, the Air National Guard (ANG) reflects a 35.6 percent shortage of its major items; however, about $6B of the ANG's equipment is not modernized to the level of its AC counterpart. These conditions are explained in more detail in each Service's respective chapter.

Chart 1-2. Beginning FY 2010 Reserve Component Equipment Shortages

Reserve Component	Requirements ($)	On-hand ($)	Shortage ($)	Shortage (% of Reqd $s))
ARNG	109,355,322,354	79,089,842,063	30,265,480,291	27.7%
AR	27,658,931,199	17,172,705,997	10,486,225,202	37.9%
USMCR	6,685,980,445	4,007,376,797	2,678,603,649	40.1%
USNR	10,006,953,474	9,476,356,474	530,597,000	5.3%
ANG	1,306,714,180	841,511,867	465,202,313	35.6%
AFR	23,205,600,000	22,432,600,000	773,000,000	3.3%
USCGR	34,940,000	30,352,000	4,588,000	13.1%
Total	**$219,553,427,801**	**$174,543,068,689**	**$45,010,359,113**	**20.5%**

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

The Service plans for new equipment procurement, both AC and RC, are provided in their respective Future Years Defense Plan (FYDP). Each year, the President's Budget submission provides the RC equipment procurement details in the P-1R budget exhibits. *Table 3*, which appears after each RC narrative section in this report, depicts the requested RC equipment procurements for FY 2011 through FY 2013.

IV. Equipment Procurement

Chart 1-3 shows funding levels from three RC procurement sources for FY 2005 through FY 2011. The FY 2011 funding does not include any NGREA or Congressional additions, since those funding amounts are not established until after the publication of the FY 2011 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
2005	President's Budget P-1R Submit	586.8	302.5	55.6	127.2	425.9	134.7	1,632.7	
	Congressional Adds to AC Accts for RC	194.1	126.2	0.0	60.1	86.4	11.0	477.8	
	Supplemental	787.0	0.0	0.0	0.0	38.4	0.0	825.4	
	NGREA	110.6	51.8	49.8	43.8	98.6	43.8	398.4	
	Total	**1,678.4**	**480.5**	**105.4**	**231.1**	**649.2**	**189.5**		**$3,334.3**
2006	President's Budget P-1R Submit	1,144.7	37.7	252.0	101.5	427.7	164.5	2,128.1	
	Congressional Adds to AC Accts for RC	59.3	97.5	0.0	1.5	257.8	26.1	442.1	
	Supplemental	1,403.0	520.0	67.0	0.0	10.0	0.0	2,000.0	
	NGREA	764.4	129.6	29.6	29.6	229.6	29.6	1,212.4	
	Total	**3,371.3**	**784.8**	**348.6**	**132.6**	**925.0**	**220.2**		**$5,782.5**
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								
	NGREA								
	Total								**$6,303.0**

Note 1: USNR figures include USMCR aircraft procurement funds.
Note 2: The above figures do not include Ammunition procured for the RC.
Note 3: 2005-2009 NGREA include both Title III & IX funding.
Note 4: 2006 Congressional Adds for ANG include plus up for 2 C-130J aircraft scheduled for delivery to ANG.
Note 5: 2006 Supplemental includes equipment in Title IX of PL109-148 that Services identified to go to RC.
Note 6: 2011 Congressional Adds and NGREA values will not be available until after publication.

Recent Service procurements have not always been sufficient to meet growing requirements to replace and modernize the RC equipment inventories; therefore Congress provides additional funds for the RC in the form of NGREA. These funds which vary from year-to-year have helped significantly to alleviate shortfalls in RC equipment procurement. NGREA projections beyond FY 2010 are not provided because the Services do not budget for these funds.

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 ARNG effectively manages its available resources at a time when domestic missions are competing with wartime requirements for resources. As of September 30, 2009, the ARNG had 62 percent of authorized equipment in the continental United States (CONUS) available to the governors. Fifteen percent of ARNG equipment is deployed, leaving the ARNG's total Equipment On-hand (EOH) percentage at 77 percent. This EOH percentage does not include Table of Distribution and Allowances (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, Homeland Security (HS), and DSCA missions. Due to ARNG conversion to a modular force, the Army estimates that the total ARNG authorized EOH percentage will fall from 77 percent to 74 percent in FY 2010.

In FY 2009, the Army allocated approximately $5.4B in funding for ARNG equipment. Highlights include $404M for High Mobility Multipurpose Wheeled Vehicles (HMMWVs), $246M for Stryker vehicles, $234M for Family of Medium Tactical Vehicles (FMTV), $177M for High Mobility Artillery Systems (HIMARS), and $92M for the Light Utility Helicopter (LUH) UH-72A program. Highlights of soldier systems and communication equipment include $170M for night vision goggles, $127M for thermal weapon sights, $104M for Javelin, and $62M for Warfighter Information Network-Tactical (WIN-T). While FY 2009 funding represents another considerable investment in the ARNG by the Army and Congress, modernization of the ARNG tactical wheeled vehicle and helicopter fleets continue to challenge the Army and requires a large and long-term investment in funding. The ARNG is anticipating the FY 2010 budget, overseas contingency operations (OCO), and Grow the Army funding for new procurement to total about $4.4B.

A new Army Equipping Strategy was published in September 2009. It provides equipping guidance to facilitate the Army's transition to an ARFORGEN-based force. The new strategy recognizes that, at any given time, approximately 20 percent of the Army's equipment is consumed by "friction" (equipment in theater, reset, training sets, or transit, and is an enduring operational cost resulting from prolonged OCO) and, therefore sets goals to equip units to mission rather than authorization documents, based on their position in the ARFORGEN cycle. The strategy recognizes that the RC units must be properly equipped to meet their obligations in support of HD, HS, and DSCA missions. The Army's goal is to equip ARNG units with at least 80 percent of their Critical Dual Use (CDU) equipment requirements.

1. The ARNG's equipping challenges are:

a. Transparency for Equipment Procurement and Distribution

The ARNG and ANG are still unable to completely satisfy Section 1826, FY 2008 NDAA reporting requirements *(a statement of the accuracy of past National Guard (NG) 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 for the National Guard in the preceding fiscal year, but were not received) because of a general lack of transparency within the Army and Air Force equipment procurement and distribution processes. Significant improvements to these processes have been made, but they cannot reliably tie a piece of delivered equipment back to its funding source. The Army has implemented equipment tracking processes for 30 systems with $50M or more in procurement funding. This effort is tracing FY 2009 funding and quantities throughout the acquisition process from request, to appropriation, to procurement, to delivery.

b. Equipping for Pre-Mobilization Training/Deployment

The ARNG's highest equipping priority is the support of mobilization and deployment of units, which includes equipment for pre-mobilization and post-mobilization training. Although the ARNG met its missions, it has required extensive cross-leveling of equipment to fill shortages. The ARNG has passed equipment requirements back to the Army when unable to source requirements because of systemic shortages.

In FY 2007, the Army adopted a 12 month mobilization policy for the ARNG that required a reduction of post-mobilization training to maximize "boots on the ground" (BOG) time in theater. ARNG units conduct pre-mobilization training in their home state prior to movement to the mobilization station. This pre-mobilization training requires the minimum amount of equipment to conduct individual and collective training tasks to shorten post-mobilization training. Units must have the majority of training equipment no later than 12 months prior to mobilization, although there are several modern systems that require fielding to units up to three years before mobilization to allow for essential individual and collective training. Additionally, there is competition between pre-/post-mobilization training equipment needs and domestic response equipment preparedness that directly affects equipment readiness of the non-mobilized units available to the governors for HD, HS, and DSCA missions.

c. Equipping for Homeland Mission Regardless of Position in ARFORGEN Cycle

The Army's equipping strategy is to leverage ARFORGEN to ensure units are always equipped for their mission—whether that mission is performing combat operations, training for deployment, or providing DSCA in either a Title 10 or a Title 32 role. Because of the intensive operational tempo for many high-demand ARNG units in this "era of persistent conflict," ARNG forces must be prepared to respond to domestic emergencies under the command and control of their respective governors regardless of their position in the ARFORGEN cycle. To accomplish their HD, HS, and DSCA missions, ARNG units leverage equipment listed in their equipment authorization documents. To assess a unit's readiness to perform these types of missions, the ARNG identified specific Line Item Numbers of standard Army equipment that are referred to as Critical Dual Use (CDU) items. These items are essential for both domestic and war-fighting missions.

For DSCA, the objective is to ensure that states and territories are always sufficiently equipped with assigned equipment to provide the necessary level of response to any domestic requirement. It takes more than 100 percent of a unit's equipment requirements to mobilize that unit. Any time equipment is in maintenance, in use for training at pre-mobilization or at mobilization stations, or is left behind in theater, the percentage of ARNG equipment available to support domestic missions drops. Cross-

leveling also takes equipment out of the available pool during the packing and transit phases. Approximately 12 to17 percent of all ARNG equipment is unavailable at any given time.

d. Modernizing Helicopter Fleet

The ARNG has a requirement of 1,463 fixed and rotary wing airframe authorizations. Of those, the ARNG has 1,457 or 99.6 percent on hand. This includes a mix of new production aircraft, older cascaded aircraft, and retiring legacy aircraft such as the UH-1H/V and OH-58A/C. For utility helicopters, the ARNG is projected to have all of the 786 currently required UH/HH-60 series "Blackhawk" helicopters by mid-FY 2010. Army leadership has approved an increase for Medical Evacuation Companies from 12 to 15 aircraft, which will add another 63 HH-60s to the total ARNG Blackhawk requirement. The ARNG is also projected to field 88 of 210 required UH-72A LUH by FY 2011. For cargo helicopters, the ARNG anticipates receipt of 137 of 161 required CH-47D/F "Chinook" helicopters by FY 2011. For attack/recon helicopters, the ARNG is on track to complete AH-64D "Longbow" Apache upgrades for six of its eight attack helicopter battalions. The ARNG is working to acquire an additional 18 AH-64Ds to meet training requirements at the Western Army/National Guard Aviation Training Site. For armed scout helicopters, the ARNG will have 22 of 30 required OH-58D "Kiowa Warrior" helicopters in FY 2011. The Army fields the vast majority of the new aircraft to the AC and cascades the older airframes to the ARNG. The significant lack of modernization funding continues to be an issue with two rotary wing programs in the ARNG, specifically, the UH-60 A to L upgrade and the AH-64D pure fleet conversion of the last two attack helicopter battalions.

e. Modernizing Tactical Wheeled Vehicle (TWV) Fleet

The ARNG continues to rely on Army funding and Congressional supplemental funding to procure modern TWVs to fill shortages. The immediate goal of the ARNG is to eliminate the M800-series 5-ton trucks, and M35 series 2 1/2-ton trucks that are non-deployable and approaching obsolescence. It is anticipated that these vehicles will be eliminated from the inventory by FY 2011. The decrease in reliability of these vehicles has created challenges, not only in preparing units for their OCO mission, but in the HD, HS, and DSCA mission areas as well. Modular conversion will fund some replacements, but with the growth in requirements for wheeled vehicles, the ARNG is heavily dependent on additional resources for long-term modernization.

The post-FY 2011 shortage of ARNG Light Tactical Vehicle (LTV), FMTV, Heavy Tactical Vehicle (HTV), and associated trailers and accessories is estimated at $5.1B. By the end of FY 2011, the ARNG is projected to have 86 percent of its LTV requirement; however, only 18 percent will be modern armor-capable HMMWVs. The remaining HMMWV fleet will be comprised of old legacy, non-armored vehicles that are non-deployable. The ARNG is also investing in M977A3 HMMWV ambulances to support HD and HS operations, increasing medical equipment readiness over 81 percent by FY 2011. With the FMTV fleet projected to be 44 percent fill by the end of FY 2011, ARNG units will be forced to cross-level equipment or perform missions at a degraded operational capability. Repair part shortages create maintenance readiness challenges as well. The majority of ARNG equipment, primarily trucks and combat tracked systems that remain in CONUS, are older models, which have a scarcity of repair parts. This results in a large percentage of the ARNG fleet being non-deployable and, in some cases, obsolete.

f. Interoperability with the AC

OCO deployments continue to demonstrate compatibility issues despite the Army's goal to equip all components to the same level of modernization. There is difficulty in locating repair parts for systems no longer maintained in the AC system. Also, obsolete ARNG equipment is less interoperable with modern AC equipment. Consequently, combatant commanders restrict the older equipment from theater. Some ARNG communications and electronic systems are not interoperable and have less capability than the systems used by the AC on the battlefield. System compatibility issues also affect the calculation of ARNG EOH. The Army provides guidance on equipment considered an authorized substitute for primary equipment. Although substitutes are counted in determining EOH, much of the substitute equipment is not suitable for deployment because it is not interoperable with AC equipment on the battlefield.

B. The Army Reserve (AR)

The AR has been successful in meeting the readiness requirements of its deploying forces, but success has come at a cost to the accelerating expenditure of programmed service life, and the repositioning of equipment to meet training and mobilization priorities. It continues to meet obligations as long as the operational tempo remains the same. Its ability to "surge" or deploy to support a second major contingency, foreign or domestic, is at risk. The AR would have to meet such a contingency by stripping equipment from its non-mobilized units and deploying units with non-modernized equipment. The remaining non-deployed units would be unable to execute even the basic levels of individual and collective training and would require significant time to equip and train should they be called upon to deploy. Even at 85 percent fill in FY 2016, the AR remains challenged to meet two simultaneous or near-simultaneous major contingencies while sustaining the rotational readiness of the ARFORGEN model.

There are three AR equipping concerns.

1. Modernization of AR Equipment and Maintenance Infrastructure to Support ARFORGEN

The Army has been supportive of AR deploying unit requirements; however, units in Years 2, 3, and 4 of the ARFORGEN model lag behind. Some systems are being cascaded that will be used as authorized substitutes versus the modernized authorization documents required types and quantities. Not all AR equipment is modernized to the level of the AC, which creates capability and training gaps. Modernization ensures compatibility and interoperability with Army and other Service Components. Equipping to the same standard ensures a consistent and predictable operational reserve that is trained and ready to deploy when called upon. Also, the age of primary major end items of equipment continues to plague the AR as many items are past or nearing their expected economic useful life. An aging fleet increases operational and sustainment costs and creates a decrease in equipment serviceability rates. Listed below are some of the AR's top modernization shortages.

The FMTV is a key logistics enabler and reduces the AR's logistical footprint by providing commonality of parts and components, reduced maintenance downtime, and lower operating and support costs than our older fleet of trucks. It replaces older maintenance-intensive trucks currently in the medium tactical vehicle fleet, such as the M900 series family of 5-ton vehicles. Typical missions include line haul, local haul, unit mobility, and unit re-supply. The AR has 9,049 of 12,043 authorized and a projection of 11,298 by FY 2015.

Heavy and medium cargo trailers have 9,716 of 11,469 authorized. Trailers are regularly fitted to vehicles to increase cargo capacity or to haul specialized equipment or weapons. Trailers typically need the same wheel and tire size, load height, and track as the specified towing vehicle to maximize performance under all conditions and to simplify logistics; hence, the older generation trailers have compatibility and capability issues when used with newer generation vehicles.

The AR has a Force XXI Battle Command Brigade and Below (FBCB2) system requirement of 9,547 with currently 319 on-hand and a projected on-hand in FY 2015 of 4,006. FBCB2 is a communication platform designed for commanders to track friendly and hostile forces on the battlefield. It increases a vehicle commander's situational awareness by gathering information graphically instead of collecting reports verbally.

Maintenance Full-time Support: The AR continues to meet or exceed the Army readiness standard of 90 percent Fully Mission Capable (FMC) status for its reportable equipment. However, one area of concern is the shortage of authorizations to fill our Full-time Support (FTS) mechanics in Area Maintenance Support Activities to 100 percent of their requirements. While the AR is able to maintain the FMC rate, it cannot meet the Army maintenance goal without additional personnel authorizations. The current maintenance workload requires the AR to have on-hand 5,932 full-time mechanics to complete all maintenance requirements to technical manual standards; however, current authorizations allow the AR to fill only 57 percent of those requirements. Without the full authorizations, the AR will be unable to maintain all of its equipment to technical manual standards.

Maintenance Facilities: Of concern is the shortage of maintenance facilities within the AR, specifically maintenance bays for mechanics to work. This limited space hinders their ability to utilize contract maintenance personnel to fill critical shortfalls. Current facilities within the AR are unable to support the larger and heavier vehicles of the Army's modernized fleet. As the AR receives a higher level of fill for modernized equipment, its ability to maintain this equipment adequately will be diminished unless upgraded maintenance facilities keep pace with the Army's modernization efforts.

2. Sustainment of Equipment to Support Deploying Units and ARFORGEN

The transformation and sustainment of the AR from a strategic to an operational reserve requires continual procurement of modernized equipment; new, expanded, and modernized facilities; and more FTS personnel, tools, and consumable supplies. The ARFORGEN process is central to the AR's ability to meet the Army's demand for forces in an era dominated by persistent conflict. The ARFORGEN process increases predictability for Citizen Soldiers, their families, and employers. This five-year cycle starts in Year 1 (Reset), when units and Soldiers reset themselves, their careers, and their families. Units and Soldiers then progress through increasingly more difficult individual and collective training objectives in Years 2 and 3 (Train/Ready 1 and 2), validate their readiness to mobilize in Year 4 (Train/Ready 3), and mobilize and deploy in Year 5 (Available). Upon completion of Year 5, units and Soldiers will return to Year 1 and begin the process again. The AR has established force pools so that 20 percent of the force is aligned in each phase of ARFORGEN. The force pools in Year 4 (Train/Ready 3) are available for a "surge" capability and the forces in Year 5 (Available) represent a portion of the Army's "operational reserve." The forces in Years 1, 2, and 3 are part of the Army's "strategic reserve" and require more equipment and training before they could be

committed to combatant commanders. Equipping the AR to its fully modernized Modified Table of Organization and Equipment (MTOE) authorization levels ensures that units are trained and available earlier rather than later in a conflict. This system produces a trained and ready force capable of deploying to any full-spectrum contingency, while, at the same time, retaining the AR's ability to mobilize fully for general war.

As an operational reserve, the AR is now expected to mobilize its units with 100 percent of their MTOE equipment for deployment and to be ready to deploy within days of mobilization. This paradigm shift requires that AR units receive the resources needed to attain the readiness objectives of the ARFORGEN model through intensive, realistic pre-mobilization training and the ability to "surge" to meet unanticipated demands without damaging the ability of the follow-on units in the ARFORGEN process to continue to meet their readiness objectives.

Unaddressed equipment shortages hamper the AR's ability to prepare for future missions, to include HD. To meet the requirements of ARFORGEN, the AR has internally transferred large quantities of equipment into deploying units from units in Years 1, 2, and 3 of the ARFORGEN cycle. This approach has resulted in a growing list of shortages in its non-deployed forces. The AR currently has about 50 percent of the modern equipment needed for OCO deployments and CDU equipment needed for HD missions. These shortages could adversely affect its ability to provide rapid support of civil authorities in the event of natural disasters. The AR must be equipped to leverage the full potential of all its Soldiers, not just those likely to deploy in Year 5 of the ARFORGEN cycle.

3. Increases in Procurement Funding

During the recent Army Enterprise Equipping and Reuse Conference (AEERC) 11.0, in August 2009, the AR was projected to receive approximately $3.6B of new production or existing equipment. This represents an increase from the previous AEERC 10.0 in which $2.6B of equipment was scheduled for distribution to the AR. Since 1981, the congressionally directed program, NGREA, has provided critical funds to the AR to improve readiness through procurement of new and modernized equipment. For the AR to sustain and continue its vital transformation from a strategic reserve into an operational reserve, it is paramount that Congress and the Army provide funding for the procurement and distribution of new and modernized equipment.

C. The United States Marine Corps (USMCR)

As a fully integrated Total Force, Marine Corps AC and RC Marines prepare side by side for employment across the full spectrum of conflict. The Marine Corps equipping policy ensures adequate equipment support to current operations in Iraq and Afghanistan, while maintaining a viable cost-effective strategy for force rotations. The Commandant directed that equipment required for operations in both Iraq and Afghanistan remain in theater as long as it is required and can be maintained. This policy has permitted 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 has also permitted the Marine Corps to focus on obtaining the equipment required to generate future rotations, especially training deficiencies. In addition, the Marine Corps practices horizontal fielding of new equipment across the Total Force. This means that, in most instances, new equipment is fielded to AC and RC

units simultaneously. This enables RC training to maintain pace with that of the AC. The Marine Corps equipping policy is to horizontally field or integrate new weapon systems and equipment to ensure compatibility and the highest degree of interoperability between the AC and RC. The USMCR top equipping concerns are:

- Ensuring deploying Marines continue to receive up to date individual combat clothing and protective equipment provided to U.S. Forces in theater. During August 2008, Marine Corp Logistics Command (MCLC) awarded a contract for a Consolidated Storage Program (CSP) of individual and organizational equipment. This program manages the issue, recovery, and sustainment of individual combat clothing and equipment; chemical, biological, radiological, nuclear, and high-yield explosive (CBRN) equipment; special training allowance equipment; and soft-wall shelters and their camouflage netting. The centralized management of this program by MCLC will eliminate the requirement for Marine Forces Reserve units to maintain individual and organizational equipment, allowing for greater storage space for training equipment and reducing the maintenance and accounting overhead for personnel.

- Maintaining the "right amount" of equipment on-hand at RC units to train in a pre-activation environment. The Marine Corps Reserve continues to strive to incorporate the latest technological innovations to create cost-effective training and education opportunities for reserve Marines to enhance their ability to perform at the same level as their AC counterparts. Fielding modern, state-of-the-art simulators is part of this effort.

Although current overall AC and RC equipment compatibility is satisfactory, complete compatibility is difficult to achieve for several reasons: continuing high equipment demand for force generation training support; attrition of equipment through wear, damage, and destruction; procurement over the past several years of small quantities of new non-Program-of-Record equipment through the Urgent Universal Need Statement process to meet specific OCO mission needs; and application of funds against ever-evolving higher priority requirements.

As a part of its continued commitment to ensuring proper resource allocation and distribution, Marine Forces Reserve (MARFORRES) is currently executing an extensive equipment accountability campaign designed to give it the highest level of accuracy and accountability for all of its assets. The second phase of this campaign will include a complete review of all individual unit Training Allowances (T/As). The T/A is the portion of a reserve unit's wartime requirement that remains on-hand at the Reserve Training Center (RTC) to accommodate training. As operations, tactics, and techniques continue to evolve during the current conflicts, so should our level of on-hand equipment to accommodate these changes. The T/A review will also encompass the changes required to support recent Base Realignment and Closure (BRAC) realignments and other unit relocations.

The overall equipment readiness of Selected Marine Corps Reserve (SMCR) units remains above required levels. The Marine Corps Reserve has numerous unfunded equipment priorities that affect Marine air-ground task force (MAGTF) capabilities. Aviation modernization and fielding of new or upgraded ground equipment remain top priorities. The Commander, Marine Forces Reserve equipment modernization requirements continue to be (in order of precedence):

command and control (C2) systems and training systems, including innovations leading to cost avoidance to fund additional training, and essential warfighting equipment.

D. The United States Navy Reserve (USNR)

The Navy equipping policy 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 distribution of new and combat-serviceable equipment, with associated support test equipment, is to units scheduled to deploy first. The same methodology for prioritizing equipment distribution for AC units determines equipment priorities for RC units with the same mobilization mission or deployment requirements.

The Navy has established a seamless and fully integrated Total Force. The 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, Naval Network Warfare Command, 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 home training and forward-based operations, and is ready to surge forward as combat replacement or capacity in response to a Request for Forces (RFF) to be sourced by the Navy.

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 Chief of Naval Operations (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 incurred by OIF and OEF require increasing amounts of Operation and Maintenance accounts. Substantial cost avoidance in these accounts is available through modernized replacement assets.

The two top USNR equipping challenges are:

1. Aircraft Procurement (C-40A, E/A-18G, P-8, KC-130J)

Replacement of the aging C-9B aircraft with the C-40A is a critical Navy requirement. The goal of the C-9B aircraft replacement program, initiated in 1997, is to replace the original 27 aging DC-9 and C-9B transport aircraft with C-40A aircraft. To date, 9 C-40A aircraft have been procured, 2 have been funded in the FY 2009 budget, and a requirement for 6 more has been identified in the *Naval Aviation Plan 2030*. The C-40A provides twice the range, twice the cargo load, and twice the Ready for Tasking days of the C-9B it replaces. The overall burdened hourly operating cost of the C-9B is $8,147 per flight hour versus the C-40A cost of $6,141 per flight hour. As a result, a $42M per year cost avoidance will be realized by completing C-40A procurement and retiring the 15 remaining C-9Bs.

Replacement of the EA-6B Prowler aircraft with the EA-18G Growler is required to continue RC Fleet Electronic Attack (EA) capability. RC EA-6B's were previously scheduled to retire by 2012 coincident with expiration of the expeditionary EA requirements; however, recent direction proposing an extension of the mission past 2014 includes the RC capability. This extension provides increased viability to the reserve EA-18G recapitalization plan. The Navy and Air Force have stated in congressional testimony that an unfunded Airborne Electronic Attack (AEA) joint requirement capability and capacity gap will occur in FY 2012 and continue in the future. Without the RC E/A-18G transition, the Navy will lose critical operational and strategic reserve AEA capability and capacity. These aircraft will ensure combatant command (COCOM) requirements are supported with the ability to maintain the composition of an air wing with the transformational capability for Suppression of Enemy Air Defenses (SEAD), integrated air/ground attack, and OCO missions.

The Maritime Patrol and Reconnaissance P-3 aircraft continue to be impacted by advancing structural fatigue limitations. During the last 5 years, 35 RC P-3C aircraft have been transferred to the AC inventory as replacements from disestablished RC squadrons. Due to increased COCOM demand, grounding notifications, and increased readiness requirements, remaining RC P-3Cs will force an aircraft replacement sooner than previously anticipated.

Procurement of additional C-130 aircraft to meet the *Naval Aviation Plan 2030* requirement and replacement of the aging and maintenance-intensive C-130T aircraft with the KC-130J are critical Navy 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 with tanking capability. The C-130Ts are operating at a 5-plane shortfall per CNO's *Navy Aviation Plan 2030* requirement. The C-130T modernization effort, known as Avionics Modernization Program (AMP), was cancelled due to excessive cost and upgrade timeline. Instead, the Navy has funded a prioritized list of requirements to upgrade these aircraft for Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) capability in order to extend the C-130T fleet past 2014. Conversely, KC-130Js have twice the ready-for-tasking days as the C-130Ts and are the best investment option.

2. Civil Engineering, Material Handling, and Communications Equipment for OCO-related Units

The Navy Reserve provides approximately 54 percent of the Navy's combat and contingency construction capability in the Naval Construction Force (NCF), in support of unified commands and Naval Component Command (NCC) requirements. The RC NCF has equipment shortfalls in its deployment Table of Allowance (TOA) sets. Equipment shortfalls include tactical vehicles, civil engineering support equipment (CESE), and communications gear. Modernization and replacement of the Navy Expeditionary Logistics Support Group (NAVELSG) equipment TOA is necessary to improve current readiness and to ensure successful and safe cargo-handling operations. NAVELSG equipment (CESE, material-handling equipment [MHE], and communications gear) held by units and in war reserve materiel stock (WRMS) is serviceable, but requires modernization.

E. The Air National Guard (ANG)

The operational tempo for the ANG has been high and prolonged, driving a need to recapitalize its aircraft fleets, a need shared by the active duty Air Force. Due to the Air Force Total Force concept, the ANG has been extremely successful at modernizing legacy aircraft and providing upgraded "tools of the trade" for our Airmen through a capabilities-based requirements and acquisition program. This program has kept them ready, relevant, and reliable in HD as well as combat operations. Equipment priorities are determined in a Total Force environment, where the forces with the most pressing operational need get first priority.

Though issues of force structure, resources, and funding have long been the subject of debate among DoD senior leaders and lawmakers, today, these issues are framed by an unprecedented push to improve the way the Air Force utilizes and equips its RC. Currently, the ANG has an unprecedented support equipment readiness rating of 94 percent, as compared to rates of 84 and 88 percent just a few years ago. This rate is comparable to the overall Air Force availability rate and is achieved through the ANG and Air Force's teaming to equip the ANG as an operational reserve force.

Approximately 88 percent of the assets the Air National Guard possesses are considered "dual-use" (federal and state missions). Recent reviews to support recommendations from the CNGR have helped us refine our dual-use ratio from a previous 98 percent to today's 88 percent. While early in the process, this change in ratio demonstrates the amount of success National Guard Bureau (NGB) staff members are making to clearly match our current equipment inventories to our state mission requirements. In addition, the ANG aligned all dual-use equipment and vehicles into the "Essential 10" categories.

The Top ANG equipping challenges are modernizing aging aircraft and other weapons systems for both dual-mission and combat deployments and ensuring equipment available to satisfy "Essential 10" domestic response requirements.

The ANG's modernization efforts are founded on capability requirements validated by the Air Force 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 (WEPTAC) and approved by the Director, ANG. The capability requirements are translated into specific programs that are commercial or government off-the-shelf, and require only non-developmental integration into a weapons system. The process includes command and control, intelligence, surveillance, and reconnaissance systems as well as weapons delivery, airlift, and tanker platforms. This process has documented an $8.4B shortfall for modernization and recapitalization of the ANG aircraft fleet. The majority of ANG equipment is classified as "dual use." Recent data indicate the ANG is approximately 6 percent short of filling its equipment requirements, as calculated from items in-use/on hand versus items authorized. Overall, the ANG has 94 percent of all equipment on-hand and available for state and federal operations. Overall, the average age of aircraft within the ANG is 24 years.

Maintenance issues: The NGB Aircraft Maintenance staff has identified the following ANG maintenance issues: C5 Aft Crown Skins—Indicators show signs of cracks beyond current inspection criteria. Estimated cost of replacement is $10.2M per aircraft. Repairs will occur in 2010. Without additional funding, aircraft grounding will affect A/C availability. C5 Contour

Box Beam Fitting—Inspections revealed cracks in this critical structural component. Aircraft with cracks beyond limits are grounded and are operationally constrained to CONUS missions. A replacement technique for the fitting costs $3.1M per aircraft. Flightline Generators (72kW)—Generators used on the flightline are 30 years old and not repairable. A total of 555 generators are unfunded and, based on a unit cost of $65K, the total requirement for upgrade approaches $36M. LITENING Pod Common Configuration—The ANG has 13 LITENING advanced targeting pods (ATP) with cast rear sections versus machined rear sections. LITENING pods with cast rear sections have a 5,000 hour life cycle limitation. All 13 pods are between 3,200 and 4,200 hours and must be upgraded to machined rear sections with video data link capability or will exceed their life limits within two years. The machined rear section extends their life to 9,375 hours and allows for the video data link upgrade. Cost will be $1.37M.

A-10 aircraft: Due to funding constraints, the ANG A-10 fleet will have the following modernization shortfalls in FY 2010. The helmet-mounted integrated targeting system (HMIT) is in the proposal phase and will require $8M to start to outfit the A-10 fleet. A combined F-16/A-10 HMIT program has $10M in funding and is scheduled to start in the second quarter of FY 2010. The digital radar warning receiver (RWR) will significantly improve all RWR functions, reducing response times to threats and will require $18M to start the program. The electronic attack (EA) pod upgrade that will enhance self-protection against current and emerging threats will require $18M. The second ARC-210 radio will require $6M to complete installation on the entire ANG fleet. The A-10 engine upgrade or replacement has been identified as a critical need for years but no program exists to redress the deficiency with $75M needed to start this unfunded effort.

C-5 aircraft: Active duty C-5B aircraft are modified with aircraft defensive systems (ADS) which permit operations in hostile environments. Due to lack of ADS, ANG C-5 aircraft are not permitted to enter certain airfields in the Central Command area of operations. Additionally, the lack of ADS decreases C-5 aircraft available to meet certain mission taskings, and increases the threat of undetected man-portable air-defense system (MANPADS) launches. Due to funding constraints, the ANG C-5A fleet will have the following modernization shortfalls. 1) Stress corrosion cracking on the aft crown skin limits the cargo load factor to 80 percent and will be adjusted according to severity of the cracking. Total C-5A fleet cost to replace the aft skin is estimated at $279M. 2) ADS: Approximately 10 of the 33 ANG C-5As are funded through NGREA to receive the ADS modification. The modification contract is under negotiation and is estimated to start in the Spring of 2010. 3) Advanced infrared countermeasure (IRCM) self-protective suite: Aircraft must be modified with ADS before any modification for IRCM can go forward.

C-130 aircraft: AC and ANG C-130s operate worldwide in a low to medium threat environment where ADS and situational awareness capabilities are required. ANG continues to work with Congress and Air Mobility Command to fund the remaining eight C-130 units with Large Aircraft Infrared Countermeasures (LAIRCM). Real time information in cockpit (RTIC) capability will provide timely information to aircrews so they can participate in the present day network-centric battlespace and greatly increase survivability in combat operations. The RTIC program is currently developing an acquisition strategy to fund all aircraft. Virtual Electronics Combat Training System (VECTS) and infrared defensive system testers are a priority for the entire C-130 fleet, and have been funded. They are expected to be delivered in late FY 2010.

Active noise cancellation systems reduce cockpit noise, decrease crew fatigue, improve inter-crew communications on the flight deck, and increase operational readiness and have been funded through NGREA and congressional additions for 14 aircraft. Additional funds are required to modify the entire fleet. Additional C-130 modernization capabilities vetted on the requirements matrices, but currently only partially funded through NGREA, include loadmaster seats and Surface-to-air Fire (SAFIRE) Lookout capability.

The C-130J brings major system improvements including: advanced two-pilot flight station with fully integrated digital avionics, color multi-function displays and head-up display (HUD) state-of-the-art navigation systems with dual inertial navigation system and global positioning system, digital moving map display, and new turboprop engines with six-bladed, composite propellers. Current unfunded modernization requirements for the ANG C-130J fleet and only partially funded for the entire Mobility Air Forces (MAF) fleet include: LAIRCM integration, AAR-47 Missile Warning System (MWS) improvement, and loadmaster crashworthy seats. Additionally, SAFIRE Lookout capability is unfunded for the MAF fleet.

There is a current effort to integrate LAIRCM through the C-130J program. FY 2009 supplemental emergency bridge funds are sufficient to complete LAIRCM on the three Commando Solo equipped and one Super J aircraft. The remaining three Super Js will be configured for LAIRCM, but additional funding will be required to complete the LAIRCM modification. Current unfunded requirements include: satellite communication installation for compatibility and interoperability with other special operations forces (SOF) assets and theater C2, wideband satellite connectivity for timely and effective psychological operations broadcast capability, and direction finding equipment to improve transmission targeting.

E-8C, JSTARS: There are several modernization efforts underway to include phase II of a computer and networking upgrade. Re-engining is the top priority but FY 2011 money and beyond has been withdrawn from the budget by the Air Force. Modernization programs within Joint Surveillance Target Attack Radar System (JSTARS) are primarily funded by the Air Force.

C-40 aircraft: LAIRCM systems have been funded and are being installed on these aircraft. Other items currently being installed are Integrated Approach Navigation/Vertical Situation Display (IAN/VSD) and the Enhanced Vision System (EVS). The installation of IAN/VSD will bring the ANG C-40s to a common configuration with the Air Force Reserve C-40Cs. Current requirements call for four C-40C aircraft. Four aircraft would ensure consistent mission support and minimize the impact of unplanned maintenance.

Training systems: The ANG has embarked on an ambitious training system modernization program to meet significant equipment shortages. As part of the Guard's "design before you buy" policy, both flight and mission crew simulator prototypes are constructed in partnership with Air Force trainer technology development centers and industry. The focus of all of the programs is to deploy squadron-level trainers to meet current and near term shortages across the entire spectrum of fidelity. The ANG funded the development of prototypes for the KC-135 Boom Operator Simulation System (BOSS), HH-60G Pave Hawk technology demonstrator, RC-26 Combined Mission Crew Trainer (CMCT), the KC-135/C-130/RC-26/C-27J Crew Resource Management Trainer (CRMT), and the F-16C (Block 30) Full Combat Mission Trainer (FCMT). Funding to deploy production versions of these trainers in large numbers is not available.

F. The Air Force Reserve (AFR)

Presently, AFR weapons systems maintain equipment readiness on par with the AC except where limited by modernization restrictions or 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.

In general, there are several areas that will need attention to ensure modernization of AFR aircraft. 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) and beyond line-of-sight (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 Cueing System (HMCS). AFR aircraft require self-protection suites that are effective against modern anti-aircraft missile systems. 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. Below is a summary of the AFR top three equipping challenges and associated examples.

1. Defensive Systems

LAIRCM, ADS, and MWS: equip aircraft lacking adequate infrared missile protection for combat operations. Currently, six AFR C-5As do not have ADS to allow the aircraft to fly in hostile areas. Modifying the C-5A with an ADS consisting of the AAR-47 MWS and ALE-47 Countermeasures Dispenser System will increase aircrew and aircraft protection, support the Air Mobility Master Plan, and reduce the operations tempo on current AC ADS-equipped aircraft. An ADS funding shortfall of $10.3M remains for six AFR C-5A aircraft. 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 funding.

The AFR operates three C-40C aircraft assigned 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. One C-40C received the LAIRCM upgrade in FY 2009 with the remaining two aircraft scheduled to receive the upgrade in FY 2010.

The KC-135 average age is over 40 years and will require several upgrades to remain viable and effective until replaced by the future KC-X tanker. Installing LAIRCM on the KC-135 will reduce the risk of losing an aircraft to an infrared 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 directly support receiver aircraft in a combat environment.

2. Data Link and Secure Communications

Data Link Network supporting image/video, threat updates, and SLOS/BLOS communications for combat missions. The B-52H has an immediate requirement for tactical data link capability to provide near real time situational awareness updates of friendly positions and enemy air/ground

threats. The data link system would provide critical target updates during long flights. While the Combat Network Communications Technology (CONECT) program goes a long way to providing a data link solution for the B-52, Enhanced Position Location Reporting System (EPLRS)/Situation Awareness Data Link (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 the Avionics Midlife Improvement (AMI) program is a potential interim solution to provide tactical data link 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 flight data recorder. Now that the primary function of AFR B-52Hs is to support flying training, filling this void is imperative to properly debrief students.

The C-17A, which provides inter and intra-theater airlift, is the nation's core military airlifter. Eight C-17 aircraft assigned at March AFB, CA provide a wide-body, heavy-lift aircraft capability that spans intercontinental ranges and can operate into austere tactical airfields. Long-term modernization initiatives include LAIRCM, required navigation performance improvement, and high-frequency data link, airdrop improvements, and BLOS secure voice.

Future C-130 upgrades include the modernization of the Yoke-Mounted Countermeasures Dispenser Switch, LAIRCM, 12.7mm resistant aircraft armor for crew protection, C-130 computerized take-off and landing data, Night Vision Imaging System (NVIS) windscreens, improved SAFIRE Lookout capability, next generation MWS, Radar Warning Receiver (RWR), and SLOS/BLOS with data link to improve aircrew protection and weapon system reliability.

3. C-5 Maintenance

Failing major fuselage structures and funding for depot maintenance. The C-5, with its tremendous payload capability, provides inter-theater airlift in support of U.S. national security. AFR has 38 C-5A/B aircraft assigned. The C-5 weapon system currently faces avionics obsolescence and CNS/ATM compliance challenges. Structural issues within the C-5 fleet are a significant concern; aircraft crown skins and contour boxes are developing corrosion cracks and, if not addressed, will result in a significant reduction in aircraft availability beginning in FY 2013. The C-5 historically has low mission capable and logistic reliability rates due to some of these issues.

The Avionics Modernization Program (AMP) addresses CNS/ATM compliance issues and many avionics obsolescence concerns. AMP is complete for AFR C-5Bs and ongoing for C-5A models with completion expected in FY 2016. 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. RERP production starts the end of FY 2009 with completion in late FY 2016. LAIRCM is a critical follow-on defensive system enhancement that is currently only funded for AC C-5s. C-5A aircraft crown skins and contour boxes are developing corrosion cracks, and, when found, lead to flight restrictions and potential aircraft grounding. Crown skin and contour box repair costs are approximately $12.2M per aircraft. If not corrected, significant restrictions and/or aircraft groundings will occur between FY 2013–FY 2015 and negatively affect aircraft availability. Also, C-5B horizontal tie boxes are developing corrosion cracks and, when found, require severe flight restrictions.

The Air Force has accepted increased risk on funding for weapon system sustainment (WSS). AFR has seen a corresponding trend, along with increased requirements and costs. Starting in FY 2010, AFR has experienced a decrease in baseline funding for WSS and an increased reliance on supplemental funding and command reprioritization of enacted resources. AFR Depot Purchased Equipment Maintenance (DPEM) for FY 2011 is funded at 65 percent of the requirement. Without supplemental funding, there will be aircraft Program Depot Maintenance (PDM) deferrals. One KC-135 PDM, two C-5A PDMs, two C-5B PDMs, four A-10 service life extension programs (SLEPs), and six A-10 Scheduled Structural Inspections (SSI) are projected for deferral in FY 2011 due to underfunded DPEM. KC-135, C-5, and A-10 aircraft availability are adversely affected without fully funding WSS and DPEM, resulting in a reduction of aircraft availability with loss of global strategic aerial refueling and airlift capability.

G. The United States Coast Guard Reserve (USCGR)

The Coast Guard's fully integrated operational reserve force serves as a force multiplier for the AC in all missions. As a result, Selected Reserve (SELRES) training and mission execution are performed side-by-side with AC personnel. Reservists are required to be operationally ready for three core strategic functions: maritime homeland security, domestic and expeditionary support to national defense, and domestic disaster response and recovery. Approximately 80 percent of the SELRES force is directly assigned to AC units. The remaining 20 percent is assigned to the Coast Guard's 8 Port Security Units (PSU) or to DoD units and staffs.

The Department of Homeland Security (DHS) provides equipment for Coast Guard domestic operations, and the Coast Guard's AC units provide equipment for mobilization for surge operations, from existing unit inventories, from supporting units, or through procurement procedures using the DHS budget. The Coast Guard AC owns and manages all RC equipment. DoD provides selected equipment for the Coast Guard to perform defense operations in support of the combatant commanders. This includes weapons and communications systems that are interoperable with the U.S. Navy and allied forces, and other special purpose equipment needed for the Coast Guard to meet DoD requirements.

USCGR equipment is in a manageable state of repair. Continued operational tempo indicates that the equipment continues to decline at a minimal rate. Current boat resources are inadequate to support rapidly changing in-theater combatant commander requirements. The Coast Guard has launched an initiative to re-evaluate operating requirements and environments in an effort to update its boat resources to better support outside the continental United States (OCONUS) contingency requirements. Project completion is expected to occur during the first half of FY 2011.

The May 20, 2008 Memorandum of Agreement (MOA) between DoD and DHS on the "Use of U.S. Coast Guard Capabilities and Resources in Support of the National Military Strategy" identifies certain U.S. Coast Guard National Defense capabilities and improves the process by which the U.S. Coast Guard serves as a force provider for DoD missions.

The Coast Guard supports the National Security Strategy and related defense strategies as a complement to U.S. Navy capabilities and as an essential component of the National Fleet and operates alongside the U.S. Marine Corps, as it has done throughout the past two centuries. As part of the U.S. Armed Forces, the Coast Guard provides unique support to the military

combatant commanders, including maritime interception, military environmental response, port security, peacetime military engagement, and coastal sea control.

The Deployment Operations Group (DOG), commissioned in 2007, provides organized, equipped, and trained adaptive force packages to Coast Guard, DHS, DoD, and interagency operational and tactical commanders. Twelve percent of USCG SELRES are assigned to DOG units. The DOG includes the National Strike Force, Tactical Law Enforcement Teams, PSUs, Maritime Safety and Security Squadrons (MSSTs), and the Maritime Security Response Team. The DOG maximizes and sustains superior mission execution by ensuring interoperability and standardization.

Chapter 2
United States Army Reserve Components

I. Army Overview

A. Army Planning Guidance

The first decade of the 21st Century witnessed incredible changes for the Army. Nearly every facet of the Army changed, driven in a large part by the attacks of September 11, 2001. Since that day, the nation has been engaged in a protracted conflict among state, non-state, and individual actors who increasingly use violence to achieve their political and ideological goals. overseas contingency operations (OCO) necessitate a paradigm change in the way the Army fights. It is imperative that the Army strengthens its long-standing relationships between the Active component (AC) and the Reserve components (RC) to restore balance and ensure total force utilization to meet the demands of this new strategic context. The extensive and frequent use of the RC, at home and abroad, since 9/11 demonstrates that the legacy strategic reserve is no longer viable.

While our foremost objective is the proliferation of peace via OCO, adequate protection of the homeland requires equal attention. The Army must prepare to operate across the full spectrum of conflict by securing funding in accordance with the equipping strategy to not only support our efforts abroad, but also resource the Army to meet homeland defense (HD) and homeland security (HS) requirements, including natural disasters.

Properly equipping the RC with compatible, interoperable, and modernized equipment is an important part of this strategy and requires equipment be provided to units commensurate with their planned wartime deployment, regardless of component. The challenge is to modernize the RC with compatible, interoperable equipment within fiscal constraints while maintaining current stocks, resetting returning units, and restructuring into a modular force during a time of war.

The Army is also continuously strengthening its joint and combined war fighting capabilities through the fielding of new systems and integrating new technologies and capabilities into existing systems for both the AC and RC. Despite extraordinary efforts to equip all units deploying to theater, the Army continues to address the lack of modernized equipment within the RC as one of the top concerns for both the Army National Guard (ARNG) and Army Reserve (AR). Decreased mobilization to deployment and employment timelines makes it imperative that the modernization and equipping of RC units be at the same level as the AC prior to mobilization. The Army Equipping Strategy incorporates this objective to achieve equipment parity between the AC and RC.

B. Army Equipping Policy

The Army Equipping Strategy encompasses three major efforts to improve the equipping of all AC and RC. The first one, focusing on the unit, is Army Force Generation (ARFORGEN)-Based Equipping; the second, called Managing Friction, focuses on the equipping phases; and the third, Building Enduring Readiness, targets the institutional processes. This strategy provides a

framework for full partnership between the Active Army, ARNG, and AR, effectively managing the limited equipment resources to meet mission requirements.

The Army Campaign Plan (ACP) continues to drive the ARFORGEN-Based Equipping Line of Operation. Today's Army is out of balance due to the sustained high demand for U.S. Army land power exceeding the sustainable supply. Our RC are performing magnificently in an operational role for which they were not originally designed or resourced. The ARFORGEN process aims to remedy this operational gap through increased cycle time for RC units and by properly equipping them to meet their obligations in support of HD and Defense Support of Civil Authorities (DSCA).

The Army's equipping goal is to ensure that Soldiers always have the equipment they need to execute their assigned mission as they progress through the cyclic readiness model. By equipping to mission, the Army ensures that units have the equipment they need to accomplish their mission at each phase of the ARFORGEN cycle. Equipment must be aligned to properly equip today's formations as they progress through cyclic readiness, entering and exiting combat on a repetitive basis. For example, the Reset phase requires minimal equipment and the strategy accepts that as an acceptable level of equipping fill. Units in the Train/Ready phase require more equipment but not always at full Modified Table of Organization and Equipment (MTOE) authorization or full modernization level. The Army synchronizes the war fight with the transformation process through the ACP. The ACP includes planning guidance for a balanced fielding of equipment to both AC and RC units to achieve timely and progressive operational readiness for the Army.

Managing Friction Lines of Operation measures how well the Army can see its equipment inventories and make informed management decisions about how to allocate that inventory to build Army readiness while meeting the goals established in the ARFORGEN-Based Equipping Line of Operation, while determining if new equipping goals are feasible over time. The Army uses five key means to measure the friction line of operations.

- The Army must procure to the Army Acquisition Objective (AAO). Procuring to AAO provides the Army the ability to mitigate friction and meet the ARFORGEN equipping requirements.

- The Army will continue to pursue full transparency and asset visibility in its equipment inventories.

- The Army will ensure that equipment it allocates to equipping sets is included in its overall readiness reporting.

- The Army must find ways to foster effective equipment stewardship.

- Continuous Reset and Improved Life Cycle Management: an ARFORGEN-based Army, operating in an era of persistent conflict, will always have some portion of its equipment in Reset.

The Building Enduring Readiness Line of Operation will increase the Army's ability to improve the utility of equipping goals and guidance over time as we improve our understanding of how varying levels and types of equipment affect Army readiness in all phases of ARFORGEN. This enables the Army to bring resources and requirements into synchronization with cyclic equipping readiness requirements.

C. Plan to Fill Mobilization Shortages in the RC

The Army ensures units are always "Equipped to Mission." Units may not always have their full MTOE set of equipment; however, the Army mitigates by providing the necessary equipment for training and mission via Pre-deployment Training Equipment (PDTE) sets and Theater Provided Equipment (TPE). PDTE is prepositioned at key mobilization and training sites in support of individual and collective training requirements. Camp Shelby and Camp Atterbury are the two primary mobilization sites supporting RC mobilization. Both sites have robust equipment sets that include Mine Resistant Ambush Protected (MRAP) vehicles facilitating both individual and unit training prior to deployment. TPE sets are forward in the theater of operations ensuring that units have the equipment they need for their OCO mission, while minimizing the cost and friction of deploying different equipment sets with each unit movement. These methods of managing friction ensure equipment is available to train and execute the mission.

D. Initiatives Affecting RC Equipment

1. Current Operations

The Army's operational tempo in support of OCO remains high, placing a tremendous strain on the force, including the RC. The ARFORGEN cycle provides predictability and early identification of when units will deploy. Based on the ARFORGEN cycle, unit equipment goals are met prior to mobilization or in the theater with TPE. The Army's goal ensures RC units are equipped properly with Critical Dual Use (CDU) capabilities to execute HD and DSCA missions effectively. The Army's strategy to procure 100 percent of AAO provides a sufficient pool of equipment that, within the constraints of overall Army equipping levels, meets the goal of ensuring units are always equipped for missions. These missions cross the breadth of full spectrum operations from combat to DSCA in either a Title 10 or a Title 32 role. For DSCA, the goal ensures states and territories are always sufficiently equipped—with assigned equipment or by support from Emergency Management Assistance Compact (EMAC) arrangements—to provide the necessary level of response to any domestic operational requirement. Additionally, five focus areas exist to bring the RC capabilities in line with future demands: Operationalizing the Reserves, Transparency, Homeland Security, Reset, and What We Bring to the Fight.

2. Operationalizing the Reserves

The events of September 11, 2001 changed forever how we guard ourselves against terrorist attacks. The Army adapted to meet the new requirements. Part of this change is the transformation of the RC from a strategic reserve to an operational force in recognition of the increased role it has in fighting OCO. The Army Chief of Staff stated that we must adapt our RC by transforming it from a strategic reserve to an operational reserve routinely employed at home and abroad. Transforming the RC requires national and state cooperation, as well as continued commitment from employers, Soldiers, and families. It requires changes in the way we equip, train, mobilize, and sustain the RC. There are four critical readiness components to

operationalizing the ARNG and AR on a sustained basis: personnel, equipment, training, and leadership. Our nation's sons and daughters are the most critical component of the Army; the equipment provided to them, their training, and their leadership will win this and future wars. Training moves from individual to collective all along the ARFORGEN cycle, culminating with the greatest demands just prior to mobilizing a unit. This shortens post mobilization training time and optimizes operational time. The Army's goal to fully equip our units to meet mission requirements while ensuring the right equipment is available for training in advance of need or mobilization.

3. Transparency

Over the course of the past year, significant effort was devoted to improving fiscal transparency throughout the acquisition process. The need for transparency and traceability was recognized through implementation of the FY 2008 National Defense Authorization Act (NDAA). This act mandated the Chief, National Guard Bureau (CNGB) verify whether the National Guard received the equipment from the funds allocated to that organization.

Prior to FY 2003, funding sources were not tracked at the component level creating challenges to achieving full transparency thru FY 2011. The Army is committed to ensuring full transparency. To achieve this goal, the Headquarters, Department of the Army (HQDA) G-8 assembled a team with expertise in process documentation; the Planning, Programming, Budgeting, and Execution System (PPBES); and the acquisition cycle. Through a collaborative effort, this team documented all of the steps in the procurement process from budget submission through equipment delivery to the unit. This effort identified several areas for improvement to bring about better transparency.

To close transparency gaps and facilitate full transparency, the Army created two teams, the Financial Synchronization and Transparency (FST) and the Delivery Certification (DC) Integrated Product Teams (IPTs). These two teams are comprised of members from HQDA G-8, HQDA G-4, Assistant Secretary of the Army (Acquisition, Logistics, and Technology), the Army Budget Office, AR, and ARNG. The FST IPT focused its efforts on correlating equipment to the correct fiscal year appropriation. The DC IPT concentrates its efforts on recording equipment deliveries to units and ensuring all receipts are properly recorded in the respective unit's property book.

After many months of diligent work, the two teams developed a process that tracks funding and equipment procurements from request through delivery. This process currently requires extensive collaboration and manual inputs. However, critical policy and procedures are being developed that can translate into automated tools and reports that provide a significantly improved and relevant transparency to this process. There are additional benefits outside supporting the ARNG's requirement to certify receipt of equipment. This process will improve the visibility of equipment delivery schedules and help managers and senior leaders identify problems and make informed decisions, while providing the RC Chiefs the visibility they and their staffs need to accurately track funds to equipment receipts and meet reporting requirements. The path forward includes expanding the programs covered, further identification of policies and procedures, and a special integrated project team oriented on automation.

4. Homeland Defense and Homeland Security

The Army plays an ever-increasing role in HD and HS. In accordance with the Chairman, Joint Chiefs of Staff's, Chemical, Biological, Radiological, Nuclear, and High-yield Explosives (CBRNE) Consequence Management Response Force (CCMRF) guidance, the Army provides specific capabilities for the Civil Military Response Force that provides federalized military assistance to civilian agencies in the event of an attack against the United States. These capabilities come from all Army components in support of Northern Command's (NORTHCOM's) mission to defend against attack and support civil authorities in the event of a disaster. The RC have always played a role in this mission. ARNG units serve as first responders to their individual states, answering to the orders of each governor, and the AR provides support when called upon by the President. During 2009, the RC were called upon to perform many critical HS missions, including mitigating the damage from ice storms in Missouri and Kentucky; assisting Texas Rangers with U.S. Customs and Border Protection; and supporting local, state, and federal authorities during hurricane season by providing much needed resources to secure, safeguard, and provide relief support to the affected areas. In 2009, RC Soldiers deployed in support of these catastrophic events in addition to OCO. As the role of the RC redefines and expands to include multiple overseas deployments, it is clear that both the ARNG and the AR will continue to play an indispensable role in these missions. Equipping for this dual role will remain critical to mission success. The Army needs Congress' continued support to ensure that RC units are properly manned, trained, and equipped to support not only the OCO, but also these critical HD and HS missions.

5. Reset

Reset consists of the repair, recapitalization, or replacement of equipment returning from OCO. The reset process incorporates critical materiel lessons learned from OCO. The goal of reset is to restore and enhance combat capability for returning units to an equipment readiness level of 80 percent or better within a prescribed timeline dependent upon component, AC or RC. For AC units, the goal is 80 percent equipping by Return+180 days. The goal for RC units is Return+365 days. The definition of Return is 51 percent of unit personnel having arrived at home station. The Army is working with the ARNG and AR to improve visibility and coordination throughout the reset process. This is important as we prepare to meet requirements for global contingencies and support HS and civil authorities within the United States.

6. What We Bring to the Fight

The ARNG and USAR continue to meet the HS mission requirements. Overseas, the RC provides forces in Iraq and Afghanistan, and virtually the entire Balkan contingent. For these missions, the RC provides additional combat forces and unique capabilities critical to the Army's success, such as civil affairs, engineering, medical, and logistics. The Army made significant progress during this period of unprecedented transformation; continuing to transform and improve the capabilities of Soldiers and the joint force to not only meet today's challenges, but also tomorrow's. Meeting future needs requires the Army to significantly accelerate the tempo of transformation while adapting more flexible, dynamic, and transparent resourcing processes. One method used to accomplish this is the Rapid Fielding Initiative (RFI), through which the Army purchases and fields state-of-the-art equipment to our Soldiers at an unprecedented pace. Examples are full fielding of improved body armor, advanced thermal sights, and personal

equipment to all Soldiers operating in Afghanistan and Iraq. The Army also continues to field innovative technology solutions directly to operational commanders through the Rapid Equipping Force (REF). Such innovative solutions include a variety of robotic systems, MRAP vehicles, technologies used in high-risk searches, technologies to counter improvised explosive devices (IEDs), and extensive improvements in the armor protection of armored and light-skinned vehicles.

E. Plan to Achieve Full Compatibility between AC and RC

The Army Equipping Enterprise fully integrates the RC and AC. This is necessary as RC units provide essential combat and support capabilities to the Army while comprising over half of the Army's total structure. The current shift from strategic reserve to an operational reserve force requires the assurance that RC units are equipped, trained, manned, and structured like the AC to provide the required land forces to support the nation's defense strategy and provide support to civil authorities. To accomplish this, the Army will equip through the ARFORGEN cycle, treating all AC and RC units equally. The Army also continues to pursue full transparency and traceability for tracking resources throughout the procurement cycle from budget submission through equipment delivery. The Army emphasizes asset visibility, providing leaders with in-depth knowledge of what assets are available for employment regardless of location. Together, these two elements ensure all the Army's components have the information they need to manage and allocate equipment in accordance with Army priorities and statutory requirements.

II. Army National Guard Overview

A. Current Status of the Army National Guard (ARNG)

1. General Operational Overview

The Army National Guard continued to provide forces for overseas and support operations throughout FY 2009, particularly in the areas of OCO. Army National Guard Soldiers mobilized to support three rotations for Operation Iraqi Freedom (OIF) with 38,618 Soldiers, three rotations for Operation Enduring Freedom (OEF) with 6,101 Soldiers, three rotations for Stabilization Force Bosnia with 2,507 Soldiers, two rotations for Multinational Force and Observers (MFO) with 976 Soldiers, and 6,742 Soldiers for several other deployments, for a total 54,944 Soldiers deployed.

Top ARNG Equipping Challenges

- Achieving full component-level transparency for equipment procurement and distribution
- Equipping ARNG units for pre-mobilization training and deployment
- Equipping ARNG units for their homeland mission regardless of their position in the Army Force Generation (ARFORGEN) cycle
- Modernizing the ARNG helicopter fleet
- Modernizing the ARNG Tactical Wheeled Vehicle (TWV) fleet
- Maintaining interoperability with Active Component (AC) forces

a. Status of Forces as an Operational Reserve

At the strategic level, the ARNG is undergoing extensive changes to its force structure, and is transitioning from a strategic reserve to an operational reserve. The proposed Army National Guard definition of an operational reserve is "a reserve of operational capabilities organized and resourced in a recurrent predictable cycle to support Army requirements, in peace and war." An operational reserve is fully manned, equipped, and trained to provide ready units across the full spectrum of operations. As an operational reserve, the ARNG will continue supporting OCO and the State Partnership for Peace (SPP) program in countries around the world. The ARNG also responded to presidential call-ups in the Balkans and the Sinai, as well as domestic operations that include securing the Southwest border and responding to natural disasters caused by hurricanes, floods, forest fires, and tornados. Soldiers, units, and organizations of this all-volunteer force continue to perform these missions with excellence in a continuing resource-constrained environment.

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

In February 2009, the highest attended presidential inauguration in U.S. history took place. The ARNG supported federal and state agencies by providing over 8,000 National Guard Soldiers from 14 states. Soldiers supported civil authorities by providing augmentation to the Washington, D.C. Metropolitan Police Department with traffic control points, reaction forces, and aviation support that ensured a safe and secure environment for the Inauguration. In addition, over 15,000 ARNG Soldiers were identified for activation if required for contingency operations.

In March 2009, 6 states sent 5,554 Soldiers to provide sandbagging support, dike reinforcement, search and rescue, and civil support to North Dakota in response to Red River flooding. The

ARNG also provided 23 helicopters with crews in support of the Red River floods at the request of the Federal Emergency Management Agency.

c. New Programs and Initiatives

i. Chemical, Biological, Radiological, Nuclear and High-yield Explosives (CBRNE) Consequence Management Response Force (CCMRF)

There are three CCMRFs designated to provide federalized military assistance to a lead federal agency in the event of a CBRNE attack in the homeland. The 63rd Theater Aviation Brigade (KY-ARNG) is providing the Aviation Task Force command and control for CCMRF 1 in FY 2009–2010. The 2-135th General Support Aviation Battalion (CO and NE ARNG), is providing the aircraft and crews for CCMRF 1 in FY 2009–2010. ARNG participation in CCMRF 2 began in FY 2009 as units from five states led by elements of the 218th Maneuver Enhancement Brigade (SC-ARNG), the 146th Medical Battalion (MI-ARNG), the 115th Signal Battalion (AL-ARNG), the 357th Signal Company (WI-ARNG), and the 3662 Ordnance Company (ND-ARNG), trained 12 months in preparation for mission acceptance in the fall of 2010 and will provide forces in the event of a Title 10 federal response.

ii. Domestic All Hazards Response Team (DART)

DART was established to formalize the ARNG's Title 32 (State) response to all hazards by utilizing the Division Headquarters. Of the eight Army National Guard Divisions, three will serve as the DART Headquarters on an annual rotation. The Division Headquarters task organizes force packages, performs Command and Control, and conducts Joint Reception Staging Onward Movement and Integration; all at the request of the affected states. The DART concept was formalized in FY 2009; and manning, equipping, and training will begin in FY 2010.

2. Status of Equipment

a. 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. As of September 30, 2009, the ARNG had 62 percent of MTOE equipment in the continental United States (CONUS) available to the governors. Fifteen percent of ARNG equipment is deployed, leaving the ARNG's total Equipment On-hand (EOH) percentage at 77 percent. This EOH percentage does not include Table of Distribution and Allowances (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. Due to ARNG conversion to a modular force, the Army estimates that the overall MTOE EOH percentage will fall from 77 percent to 74 percent in FY 2010.

The ARNG's highest equipping priority is the support of mobilization and deployment of units, which includes equipment for pre-mobilization and post-mobilization training. The ARNG consistently met its mission to mobilize and deploy forces, but it has required extensive cross-leveling of equipment to fill shortages. Often, the ARNG must pass equipment requirements back to the Army when unable to source requirements because of systemic shortages. *Table 1*

provides a comprehensive list of selected major items of equipment, based upon Army Flow Model data. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning or end of the selected FY. It also provides the required quantity (QTY REQ) to meet the full wartime requirements of the Reserve component.

i. Mission Essential Equipment List (MEEL)

Based upon the HQDA G-8 Equipping Strategy that was promulgated in August 2009, units will not be equipped to MTOE, they will be "Equipped to Mission" and a MEEL, less TPE. The MEEL defines the equipment that an ARNG unit needs to perform its specific assigned mission. Units often deploy to perform missions unrelated to their unit type; consequently, the equipment they have on-hand, as required by their MTOE, may not be the same equipment required to perform the mission as specified by the MEEL. For example, ARNG units routinely receive security force missions. The MEELs for security force missions require equipment fill levels of certain items to be at higher or lower levels than that specified by the unit MTOEs. For example, the M9 Pistol MTOE requirement for an Infantry Brigade Combat Team (BCT) is approximately 328 pistols, while a MEEL requirement ranges from 1,400 to 1,900 pistols. This sort of expanded MEEL requirement changes the quantity of equipment available to CONUS units for training and HD/HS/DSCA missions.

ii. Equipment to Support Training Requirements

Starting in FY 2007, the Army adopted a 12 month mobilization policy for the ARNG that required a reduction of post-mobilization training to maximize "boots on the ground (BOG)" time in theater. ARNG units conduct pre-mobilization training in their home state prior to movement to the mobilization station. This pre-mobilization training requires the minimum amount of equipment to conduct individual and collective training tasks to shorten post-mobilization training. Units must have the majority of training equipment no later than 12 months prior to mobilization, although there are several modern systems that require fielding to units up to three years before mobilization to allow for essential individual and collective training. Additionally, there is competition between pre-/post-mobilization training equipment needs and domestic response equipment preparedness that directly affects equipment readiness of the non-mobilized units available to the governors for HD/HS/DSCA missions.

iii. Table of Distribution and Allowances (TDA) Equipment

TDAs are authorization documents developed for non-doctrinal units that prescribe the organizational structure and the personnel and equipment requirements of a military unit to perform a mission for which there is no appropriate Table of Allowance (TOE). ARNG MTOE units, as well as TDA units, contribute to domestic response missions. Such units include States' Joint Force Headquarters, which consist of The Adjutants General (TAGs) and their staffs who provide command and control support for HD/HS/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 in order to provide assistance to local first-responders in determining the nature of an attack and to provide medical and technical advice. These CSTs pave the way for arrival of follow-on state and federal military emergency response assets. Other TDA units include logistics organizations, such as Aviation Classification Repair Activity Depots (AVCRADs), which have deployed in support of OCO aviation units. Although generally not a

deploying unit, the ARNG does have TDA unit equipment requirements that contribute to the readiness and availability of the ARNG to support HD/HS/DSCA missions. Due to the limited amount of equipment available, the equipping of TDA units directly impacts the EOH of ARNG maneuver brigades as equipment is diverted from these brigades to support TDA units.

iv. Equipment Cross-leveling

Cross-leveling to meet mobilization requirements negatively affects ARNG unit readiness and presents an equipping challenge for the ARNG. Equipment cross leveling immediately reduces donor unit EOH by the loss of equipment. Continual cross-leveling of equipment decreases the ARNG's ability to sustain the force through critical training periods in the Army Force Generation (ARFORGEN) cycle; it also increases training time, as equipment is not available until late in the cycle. ARFORGEN is the structured progression of increased unit readiness over time, resulting in recurring periods of availability of trained, ready, and cohesive units prepared for operational deployment in support of civil authorities and combatant commander requirements. Additionally, cross-leveling results in equipment second destination charges. Increased post-mobilization training decreases BOG time in theater. Decreased BOG time increases the rate of rotation of units; thus requiring additional cross-leveling of equipment. In order to support ARNG mobilization requirements, the ARNG directed the cross-leveling of over 26,900 items between states and territories in FY 2009 valued at $662.6M. Since there are significant amounts of equipment programmed for delivery to the ARNG by March 2011, it is anticipated that such dramatic cross-leveling requirements will be subsequently reduced in the future.

v. Stay Behind Equipment: DoD Directive (DoDD) 1225.6–Equipment Diversion to Support Theater

In prior years, some units departing theater were required to leave their equipment as TPE for use by follow-on forces of all components and Services. The ARNG was directed to leave approximately $3.7B of TPE in theater since OEF and OIF began. Together with HQDA, ARNG is maintaining accountability of ARNG equipment that has become TPE. The current DoD Directive (DoDD) 1225.6 payback balance is estimated at $772M at the end of FY 2009. Based on the improvement of the equipping posture of the ARNG during FY 2009 and FY 2010, it is anticipated that new DoDD 1225.6 payback actions will be limited during FY 2011. However, continued diligence in this area is required to prevent payback escalations in the future.

vi. Equipping Impacts of Transformation and Modularity

Additional challenges to the ARNG's equipping posture are transformation and modularity. The Army has transitioned from a division-centric force to a more flexible brigade-centric force. It is currently restructuring to create modular forces that are more stand-alone and alike, while continuing to enhance its full-spectrum capabilities. The ARNG continues to support the Army's goal of restructuring its forces to modular designs offering stand-alone units capable of full-spectrum missions. The ARNG BCTs are structured and manned identically to the Army. These units can be task organized with other BCTs and elements of the joint force to facilitate integration, interoperability, and compatibility across all components. Establishing one equipping standard for all components and units is a goal of the Army Modular Force. The ARNG is currently comprised of 114 MTOE Brigades (BDEs), to include 28 BCTs, 38 Functional BDEs,

and 48 Multi-functional BDEs. During FY 2011, the final six Functional and Multi-functional Brigades will have transitioned to the modular design.

b. Average Age of Major Items of Equipment

Historically, ARNG received much of its equipment through cascade actions from the AC, resulting in equipment that was at, or nearly at, the end of its planned service life. In the past, one of the ARNG's primary compatibility concerns was that the major systems were aging faster than the arrival of replacements or rebuilding efforts. It is anticipated that this problem will be overcome as new equipment arrives from production and recapitalization programs during FY 2011 and beyond. *Table 2* provides the average age of major items of ARNG equipment at the beginning of FY 2011.

c. Compatibility of Current Equipment with AC

OCO deployments continue to demonstrate an issue with compatibility despite the Army's goal to equip all components to the same level of modernization. First, it is difficult to locate repair parts for systems no longer maintained in the AC system. In addition, obsolete ARNG equipment is less interoperable with modern AC equipment. Consequently, combatant commanders restrict the older equipment from theater. For example, some ARNG communications and electronic systems are not interoperable and have less capability than the systems used by the AC on the battlefield. Finally, system compatibility issues also affect the calculation of ARNG EOH. The Army provides guidance on equipment considered an authorized substitute for primary equipment. Although substitutes are counted in determining EOH, much of the substitute equipment is not suitable for deployment because it is not interoperable with AC equipment on the battlefield. *Table 7* provides a list of authorized substitutes currently employed within the ARNG and identifies those substitute items considered non-deployable.

d. Maintenance Issues

i. Field Level Maintenance

Currently, ARNG Surface Equipment Maintenance Facilities (SEMFs) such as Field Maintenance Shops, Combined Support Maintenance Shops, Unit Training Equipment Sites, and Maneuver Area Training Equipment Sites are older facilities designed for organizational maintenance missions. In many cases, these facilities are not readily capable of accomplishing field-level maintenance, which directly affects equipment readiness. The current draft Fiscal Years Defense Program (FYDP) has budget lines for 27 ARNG SEMF projects costing $480M (19.96 percent of the total $3.209B Military Construction [MILCON] funding and 13.9 percent of the 195 total ARNG MILCON projects). In addition to these planned projects, the Planning Resource for Infrastructure Development and Evaluation (PRIDE) database Long Range Construction Plan shows 203 SEMF projects needed with $1.8B in federal MILCON requirements for ARNG SEMFs. These facilities are critical to maintaining a "ready-to-go" fleet.

ii. National Level Maintenance

Funding of the ARNG Depot Maintenance Program is the key to maintaining readiness of the ARNG fleet as this program continues to be an integral part of ARNG sustainment activities. Depot overhaul and rebuild programs sustain ARNG EOH and extend the service life of its aging

fleet. Currently, the ARNG Depot Maintenance Program is funded at $392.8M or 61 percent of the ARNG total requirement in FY 2010.

The ARNG's Readiness Sustainment Maintenance Sites (RSMSs) are also vital to supporting mobilized units by filling MTOE shortages that would otherwise have been cross-leveled from other units. In addition to the Army depot programs, the ARNG is refurbishing the following versions of legacy equipment: High Mobility Multipurpose Wheeled Vehicles (HMMWVs), Heavy Expanded Mobility Tactical Trucks (HEMTTs), Palletized Load Systems (PLSs), M915-M920 series Tactical Wheeled Vehicles (TWVs), M870-M872 series flatbed trailers, and M939 series trucks to fill EOH shortages within the ARNG fleet. Four RSMSs located in Kansas, Maine, Mississippi, and Texas currently perform this maintenance. A fifth RSMS, located in Oregon, repairs night vision devices and generators. During the 12-month period from July 2008 to June 2009, the RSMSs completed production on over 7,666 pieces of equipment.

The ARNG continues to rely on Army funding and Congressional supplemental funding to procure modern equipment to fill existing shortages. The immediate goal of the ARNG is to eliminate the M800-series 5-ton trucks, and M35 series 2 1/2-ton trucks that are non-deployable and approaching obsolescence. It is anticipated that the aforementioned vehicles will be eliminated from the inventory no later than FY 2011. The decrease in reliability of these vehicles has created challenges, not only in preparing units for their OCO mission, but in the HD/HS/DSCA mission areas as well. Modular conversion will fund some replacements, but, because of the growth in requirements for wheeled vehicles, the ARNG is heavily dependent on Congressional additions and the National Guard and Reserve Equipment Appropriation (NGREA) for long-term modernization.

iii. Home Station Reset (HS Reset)

During FY 2009, the ARNG continued to restore its equipment returning from Iraq and Afghanistan with a program known as HS Reset. Initiated in FY 2007, the HS Reset program has rapidly returned equipment to the states' control. This equipment can be used for HD/HS/DCSA missions, and to equip units mobilizing for overseas missions. States prioritize the HS Reset workload to fulfill anticipated requirements. The HS Reset program has reduced the burden on active duty installations, allowing them to concentrate on deploying units and their tenant activities. It has also saved the Army second-destination transportation costs.

Currently, the ARNG must go through a process of trans-loading equipment returning from theater via ocean-going containers to commercial transportation at one of several Equipment Demobilization Sites. The ARNG has proposed shipping unit equipment directly to a unit's home state in order to make ARNG equipment available earlier for HS Reset and use in state emergencies. The process of shipping containers directly to ARNG selected sites within a unit's home state is currently undergoing a Lean Six Sigma study commissioned by the Army Material Command (AMC). The Surface Deployment and Distribution Command is conducting this study, with an anticipated completion date in 2nd quarter FY 2010.

iv. Automatic Reset Induction (ARI)

The ARI program directs all OCO units in theater to induct 100 percent of identified equipment into Sustainment Maintenance under a supply transaction prior to exiting theater. HQDA G-4

and AMC dictate the list of equipment impacted by ARI. A supply transaction transfers all ARI identified Line Item Numbers (LINs) to Army Sustainment Command (ASC) property book accounts. This equipment is dropped from the owning units' property books, and is subsequently shipped to one of the Army's depots for the actual reset. The units and the ARNG lose visibility of this equipment upon induction. Under the current supply system, the ARNG cannot track its inductions and ensure proper return of equipment. This issue is significant in that the depot has up to one year to return the equipment to the ARNG. If not returned, the equipment becomes a payback item to the ARNG under DoDD 1225.6. HQDA G-8 and AMC are currently working to provide visibility and transparency of ARI equipment and provide methods to track all ARI equipment from turn-in to return (reissue to the unit). It is anticipated that systems will be in place to track ARI related transactions no later than January 2010.

e. Overall Equipment On-hand Readiness

Current equipping levels reflect decreased readiness due to the reset of units returning from deployments and units transforming under modularity. However, ARNG manages readiness by prioritizing limited resources using the ARFORGEN cycle in support of the National Military Strategy. To support the National Military Strategy, the ARNG must generate relevant and ready forces able to conduct continuous full-spectrum operations in order to prevail in an era of persistent conflict. To meet these strategic and domestic challenges, the ARNG must fully man, train, and equip units to be operationally ready. The ARNG must organize them to be identical to their AC counterparts to enable seamless integration into the Army force mix; and provide greater predictability of their readiness and availability for deployment. Data indicates that ARNG EOH will improve to an estimated 77 percent during FY 2010 but this figure will then decline slightly as requirements increase to accommodate modularity conversions.

f. Rapid Fielding Initiative (RFI)

The HQDA authorized the RFI pilot program to accelerate the fielding of specific types of Soldier and unit equipment from pre-mobilization to post-mobilization. Pending approval, two ARNG BCTs, a Division Headquarters and a Combat Aviation Brigade scheduled to deploy in FY 2011, will participate in the RFI pilot program. The program pushes the fielding of RFI Soldier and unit equipment to these units approximately 13 months prior to mobilization rather than fielding to the units at the mobilization station. Early RFI fielding enhances training for ARNG units, which is the real benefit of the program. Early RFI equipment fielding also enhances pre-mobilization certification training, reduces distractions at mobilization stations, and is a step toward reaching training parity on this equipment with the AC.

g. Other Equipment Issues

i. Equipment Maintenance Technician Support

Equipment readiness is directly affected by the lack of a fully funded maintenance technician workforce. The ARNG transition to an operational reserve combined with new equipment fielding at levels near 77 percent of requirements, and continued deployments will require a better funded and staffed maintenance technician workforce. While the ARNG strives to maintain equipment to the Technical Manual 10/20 standard, the mobilization and shortage of key state/territory maintenance technicians create maintenance readiness challenges. Nationwide, shop technician authorizations are currently staffed at 70 percent of requirements. Unit mobilizations

exacerbate technician shortfalls, resulting in the hiring of temporary technicians to alleviate the shortage of state maintenance technicians lost to mobilization. However, due to the limitation on Full-time Support, the states, on average, hire one temporary technician for every three maintenance technicians lost to mobilization, causing measurable degradation in equipment readiness.

ii. Repair Parts Shortages

Repair part shortages create maintenance readiness challenges as well. The majority of ARNG equipment, primarily trucks and combat tracked systems that remain in CONUS, are older models, which have a scarcity of repair parts. This results in a large percentage of the ARNG fleet being non-deployable and, in some cases, obsolete. One example is the M939-series truck, which has an obsolete power train. The MT654 Allison Transmission used by the M939-series has not been in production for over six years, making the truck non-deployable and acquiring repair parts difficult and expensive.

B. Changes Since Last NGRER

1. Transparency

Over the past year, the Army set in motion efforts to attain transparency within its equipment procurement and distribution processes. As part of this initiative, Army G-8, Assistant Secretary of the Army for Financial Management & Comptroller, and Assistant Secretary of the Army for Acquisition, Logistics and Technology implemented an equipment tracking process for 30 systems with $50M or more in procurement funding. This effort is tracing FY 2009 funding and quantities throughout the acquisition process from request, to appropriation, to procurement, to delivery. Because of this new process, the Army identified a total of $1.43B in decrements to ARNG resources during FY 2009, $772M of which may require a payback of some type. The ARNG is working with the Army staff to reconcile these discrepancies and develop payback plans, where appropriate.

The Army also began providing quarterly Equipment Delivery Reports (EDRs) to the Office of the Secretary of Defense (OSD) to summarize the transparency data collected during the FY. While the FY 2009 quarterly EDRs identified “delivered quantities,” they did not provide “due in” quantities. Because the CNGB is required by the FY 2008 NDAA 08 to report quantities received against those due in, the Army intends to work with OSD to modify the format of the report for FY 2010 to provide this additional data. These due-in quantities will provide a useful tool for determining if equipment distributions to the ARNG during semiannual Army Enterprise Equipping and Reuse Conferences (AEERCs) are commensurate with appropriated funding.

2. Army Equipping Strategy

The Chief of Staff of the Army (CSA) approved a new Equipping Strategy in September 2009, which provides equipping guidance to facilitate the Army’s transition to an ARFORGEN-based force. The new strategy recognizes that, at any given time, approximately 20 percent of the Army’s equipment is consumed by “friction” and, therefore, sets goals to equip units to mission rather than MTOE, based on their position in the ARFORGEN cycle. Friction includes equipment in theater, Reset, training sets, or in transit, and is an enduring operational cost resulting from prolonged OCO. Finally, the strategy recognizes that the RC units must be properly equipped to meet their obligations in support of HD/HS/DSCA missions. The Army’s

goal is to equip ARNG units with at least 80 percent of their Critical Dual Use (CDU) equipment requirements, even during Reset. CDU equipment is a subset of MTOE items and is critical to both overseas and domestic missions.

3. Equipping Successes

In FY 2009, the ARNG received 443,000 items valued at $5.9B. Continued focus on equipping priorities such as aircraft, small arms, night vision, and battle command systems resulted in substantial improvements in equipping levels for these items over the past year. Specific accomplishments include the cascading of UH-60 airframes to bring utility helicopter strength to near 100 percent EOH, delivery of over 45,000 M-4 carbines and over 36,000 PVS-14 Night Vision Goggles, and full fielding of the Warfighter Information Network–Tactical (WIN-T) system to 11 brigades and division headquarters during FY 2009. The Army also fully fielded 18 brigades and division headquarters with the Army Battle Command System (ABCS), which includes the Standardized Integrated Command Post System (SICPS). The ARNG reached 100 percent EOH for Single-channel Ground and Airborne Radio System (SINCGARS) (acceptable substitute LINs included) and completed fielding of the Tactical Fire Fighting Truck (TFFT). The following force-multiplier maneuver systems were also fielded to the ARNG during FY 2009: 128 Improved Target Acquisition Systems (ITAS) systems, 110 Long Range Advanced Scout Surveillance Systems (LRAS), 446 mortar systems, 790 Javelin systems, and 42 Light Utility Helicopter (LUH)-72 aircraft.

C. Future Years Program (FY 2011–FY 2013)

Detailed information pertaining to funding for FY 2009 and anticipated funding for FY 2010 is provided below. Because PBR 11–15 is ongoing as of the writing of this report, the ARNG is unable to provide funding information beyond FY 2010.

1. New Equipment Procurements

The ARNG continues to receive and field thousands of pieces of equipment each year as the Army endeavors to modernize and equip the ARNG as an operational reserve. In FY 2009, the Army allocated approximately $5.4B in base funding for ARNG equipment. Highlights include $404M for HMMWVs, $246M for Stryker vehicles, $234M for Family of Medium Tactical Vehicles (FMTV), $177M for High Mobility Artillery Systems (HIMARS), and $92M for the LUH-72A program. Highlights of Soldier systems and communication equipment include $170M for Night Vision Goggles, $127M for Thermal Weapon Sights, $104M for Javelin, and $62M for WIN-T. While the FY 2009 base funding represents another considerable investment in the ARNG by the Army and Congress, modernization of the ARNG tactical wheeled vehicle and helicopter fleets will continue to challenge the Army and require a large and long-term investment in funding. Table 2-1 below highlights FY 2010 resources anticipated to address ARNG equipment and modernization shortfalls. Overall, the ARNG is anticipating the FY 2010 base budget, OCO, and Grow the Army funding for new procurement to total some $4.4B.

Budget Category	FY 2010 Base Funding Request ($K)
ARMORED SECURITY VEHICLE	103,501
BLACKHAWK MULTI-YEAR PROCUREMENT (MYP)	182,400
BRADLEY FIGHTING VEHICLE SYSTEM BFVS RECAP	182,518
COTS TACTICAL RADIOS	3,755
DCGS-A	51,284
FAMILY OF MEDIUM TACTICAL VEHICLES (FMTV)	474,950
FIELD FEEDING EQUIPMENT	9,330
FIXED WING AIRCRAFT	8,710
FMTV-CARGO TRAILER	32,917
NIGHT VISION GOGGLES	167,350
THERMAL WEAPON SIGHT (TWS)	103,061
WIN-T	8,860
Total:	**1,328,636**

Table 2-1. Resources Allocated for Equipment Shortfalls by Budget Category in FY 2010

2. Funding for New and Displaced Equipment Training (NET/DET)

The ARNG NET/DET mission is to facilitate new equipment and displaced equipment training in support of the modernization of the ARNG by programming, budgeting, and executing National Guard Pay and Allowances (NGPA) funding on behalf of the 54 states and territories. The funding provides pay and allowances for ARNG Soldiers to attend NET/DET events. During FY 2009, the ARNG received $5.9B worth of new equipment via the Army's procurement process. In order to pay ARNG Soldiers for their time on active duty to conduct the NET, the ARNG received $40.6M in NET funding. The actual NET/DET amount obligated to all 54 states and territories was $40.4M. In FY 2010, the ARNG is projected to receive $70.5M in NET funding to bring ARNG Soldiers on active duty to participate in the associated equipment training events.

3. Anticipated Transfers from AC to Reserve Component RC

The ARNG is expected to receive a significant amount of cascaded equipment due to the huge influx of newly procured equipment into the AC over the next several years. These cascades will be instrumental in filling current shortages and in replacing obsolete equipment. For this reason, the Army is developing projections for expected equipment transfers to the ARNG through FY 2015. However, while the ARNG welcomes cascaded equipment, the Army must develop a strategy to ensure the long-term interoperability and sustainability of the entire force. *Table 5* provides projected data for equipment transfers from the AC to the ARNG.

4. Anticipated Withdrawals from ARNG Inventory

The ARNG anticipates the receipt of new, rebuilt, reset, and cascaded equipment that will allow the withdrawal of the following models of obsolete equipment. Below, Table 2-2 depicts the replacement of older or obsolete items in the left-hand column with the modern items in the right-hand column. The ARNG continues to retire the oldest legacy aircraft (UH-1H/V and OH-58A/C) in accordance with the Army Campaign Plan.

Old System	Replaced By
C-23B Cargo Airplane	None
CH-47D Cargo Helicopter	CH-47F Cargo Helicopter
M35-series 2 1/2-ton Trucks	Light/Medium Tactical Vehicles (LMTV)
M800-series 5-ton Trucks	FMTV
M915A1 Tractor	M915A3/A4 Tractor
M920 Tractor	M916 Tractor
M109A5 and earlier Howitzers	M109A6 and M777 Towed Howitzers
M16A1 Rifle	M16A2/A4 Rifle and M4/M4A1 Carbines
M1 and M1A1 Tanks	M1A1 Abrams Integrated Management (AIM)
M2 Bradley Fighting Vehicle (BFV)	M2A2 Operation Desert Storm (ODS)
M3 BFV	M3A2 ODS
M113 APC Variants	M113A3, M577A3, M1064A3, M548A3 and M1068A3
AH-64A Attack Helicopters	AH-64D Attack or ARH-70A Recon/Attack Helicopters
OH-58A/C Scout Helicopters	UH-72A Light Utility Helicopters (LUH)
UH-1H/V Utility/MedEvac Helicopters	UH/HH-60A or L Utility/MedEvac Helicopters
UH/HH-60A Utility/MedEvac Helicopters	UH/HH-60L or M Utility/MedEvac Helicopters
PVS-5 Night Vision Goggles	PVS-14 Night Vision Goggles
Dragon Anti-tank Systems	Javelin Anti-tank Systems

Table 2-2. Old versus New Systems

5. Equipment Shortages and Modernization Shortfalls

The Army and Congress continue to demonstrate their commitment to equipping the ARNG with modern equipment despite current budgetary challenges. *Table 8* provides further detail on the ARNG top ten prioritized shortage list for major items of equipment required for wartime missions but which are not currently funded in the FYDP.

a. Budget Operating Systems (BOS)

The Army buys and uses many different types of equipment. Therefore, equipment types are grouped into categories known as Budget Operating Systems (BOSs). The following paragraphs provide a brief synopsis for each of the 10 BOSs.

The *Aviation BOS* has a current requirement of 1,463 fixed and rotary wing airframes, based upon FY 2011 authorizations. Of those, the ARNG has 1,457 or 99.6 percent on-hand (this is a mixed fleet of new production aircraft, older cascaded aircraft, and retiring legacy aircraft). For utility helicopters, the ARNG is projected to have all of the 786 currently required UH/HH-60 series "Blackhawk" helicopters by mid-FY 2010. In addition, the Army leadership has approved an increase for Medical Evacuation (MEDEVAC) Companies from 12 to 15 aircraft, which will add another 63 HH-60s to the total ARNG Blackhawk requirement. The ARNG is also projected to field 88 of 210 required LUH-72A "Lakota" helicopters by FY 2011. For cargo helicopters, the ARNG anticipates receipt of 137 of 161 required CH-47D/F "Chinook" helicopters by FY 2011. For attack/recon helicopters, the ARNG is on track to complete AH-64D "Longbow" Apache upgrades for six of its eight attack helicopter battalions. It is working to acquire an

additional 18 AH-64Ds to meet its training requirement at the Western Army/National Guard Aviation Training Site (WAATS). For armed scout helicopters, the ARNG will have 22 of 30 required OH-58D "Kiowa Warrior" helicopters in FY 2011. The Army fields the vast majority of the new aircraft to the AC and cascades the older airframes to the ARNG. The significant lack of modernization funding continues to be an issue with two rotary wing programs in the ARNG, specifically the UH-60 A-A-L upgrade and the AH-64D pure fleet conversion of the last two attack helicopter battalions.

The *Battle Command Systems BOS* contains multiple systems and subsystems. The major elements of the Army Battle Command System (ABCS) are the WIN-T, SINCGARS, Joint Tactical Radio System (JTRS) Enhanced Multi-Band Inter/Intra Team Radio (JEM), Tactical Battle Command (TBC), Force XXI Battle Command Brigade and Below (FBCB2), Global Command and Control System–Army (GCCS-A), Digital Topographic Support System (DTSS), All Source Analysis System/Distributed Ground Station, Army (ASAS/DCGS-A) Tactical Airspace Integrated System (TAIS), Advanced Field Artillery Tactical Data System (AFATDS), and Air and Missile Defense Workstation (AMDWS). Based on FY 2011 authorizations, EOH, and planned deliveries, SINCGARS, JEM, DTSS, and ASAS/DCGS-A are expected to be fully fielded. WIN-T will have 615 systems fielded out of the 616 authorized, with a funding shortfall valued at $57M. TBC will have 1,791 systems out of 1,914 authorized, with a funding shortfall valued at $14M. Blue Force Tracker (BFT) will have 12,850 systems out of 21,207 with a shortfall valued at $258M. GCCS-A will have 11 out of 36 systems on-hand with an equipment shortfall value of $3M. Battle Command Sustainment Support System (BCS3) will have 1,459 systems out of 2,007 systems authorized with an equipment shortfall value of $38M. The ARNG will have 29,386 Simple Key Loaders (SKLs) out of 89,046 systems authorized, leaving a funding shortfall of $200M. The ARNG is projected to have 60,908 Defense Advanced Global Positioning System Receiver (DAGRs) on-hand out of the authorized 74,972 systems with a funding shortfall of $42M. The total post-FY 2011 Battle Command Systems funding shortfall is estimated at $614M.

The *Logistics Field and Automation Systems BOS* contains medical, fuel, water, food, power systems, and their associated accessories. Each of these systems has a number of unique subsystems. The combined post-FY 2011 shortage of this equipment is estimated at $1.7B. The Army and ARNG strategy is to fill equipment shortages while modernizing much of its aging equipment. Projections show that by FY 2011, the ARNG will have 100 percent of its fuel support equipment, 35 percent of its water support equipment, and 79 percent of its field feeding equipment. The Army's pending decision to cancel the Containerized Kitchen and Food Sanitation Centers programs will severely affect the ARNG field feeding readiness. Unless these programs are continued, field-feeding readiness will remain extremely low. These continued shortages will force ARNG units to cross-level equipment or perform missions at a degraded capability in meeting wartime training requirements and supporting domestic operations.

The *Precision Strike (Fire Support) BOS* encompasses all fire support and related systems. The level of equipping and modernization for ARNG Strike systems overall is adequate, and most systems are fully funded under the present plan. The ARNG anticipates no changes to planned distributions and projected unit mobilizations. Based on FY 2011 requirements and current funding, the M119A2 Towed Howitzer, M777A2 Towed Howitzer, 155mm Self Propelled Howitzer (PALADIN) (Retrofit/Reset), AFATDS, M1200 Armored Knight, Improved Position

and Azimuth Determining System (IPADS), and the Profiler are all expected to be at 100 percent fill. HIMARS remains at 75 percent fill, Q-36 Radar at 69 percent, Q-37 Radar at 50 percent, and the LCMR (V)3 Lightweight Counter Mortar Radar is at 20 percent. The EQ-36 Radar is at 0 percent fill because the program is still pre-Milestone C, with the full rate production (FRP) decision scheduled for the 3rd quarter of FY 2013. The PALADIN/Paladin Integrated Management (PIM) program is at 0 percent, with first unit equipped (FUE) scheduled for the 2nd quarter of FY 2012.

The *Intelligence and Electronic Warfare System (IEWS) BOS* is comprised of a variety of Military Intelligence and Electronic Warfare Systems. Some noteworthy systems in the IEWS BOS are TROJAN Special Purpose Intelligence Remote Integrated Terminal (TROJAN SPIRIT), Prophet, Counterintelligence/Human Intelligence Automated Reporting and Collection System (CHARCS), and the DCGS-A. The level of equipping and modernization for ARNG IEWS overall is fully funded under the present plan. Assuming funding in the FYDP is executed as planned, the ARNG will approach the AAO for its IEWS requirement by FY 2011. Fielding of the Prophet Electronic Support Capability Spiral System is a significant issue due to a shortfall of Soldiers with a 35P/N/T MOS code.

The *Maneuver BOS* is comprised of a variety of combat systems. Abrams Tanks, Bradley Fighting Vehicles, Stryker Vehicles, ITAS, Javelin, and Long Range Advanced Scout Surveillance System (LRAS3) are among the highlighted systems in this BOS. The projected status at the end of FY 2011 shows the Abrams Tank at 100 percent fill; the Bradley Fighting Vehicles at 99 percent fill; Javelin, in the Block 0 and Block 1 capability configurations, at 95 percent fill; the Stryker Vehicles and LRAS3 at 88 percent fill; and ITAS, with an enhanced Far Target Location (FTL) capability, at 43 percent fill.

The *Mobility BOS* is comprised of Engineer Systems designed for use in a variety of missions including: mobility, counter-mobility, survivability, sustainment, general engineering, and topographical support. The systems highlighted in this BOS are the 2.5 Cubic Yard Light Loader and the 14-18 Cubic Yard Heavy Scraper. The ARNG is programmed to receive funding that will push the Light Loader to 35 percent fill and the Heavy Scraper to 92 percent fill by FY 2011.

Th*e Force Protection BOS* encompasses Nuclear, Biological, and Chemical Systems, and contains over 60 separate systems for the ARNG. A large number of these systems are considered “legacy,” or obsolete, and are currently being replaced by the more modern battlefield anti-intrusion systems, chemical agent detectors, biological and protective shelters, and decontamination equipment. The on-hand quantities and modernization of these systems have improved significantly in the last several years, but shortfalls in several key areas remain. The shortfall in modern force protection systems represents an equipment shortfall of over $223M in FY 2011. The majority of this shortfall is represented by one system, the Chemical Biological Protective Shelter System (CBPSS), which is currently undergoing a system configuration modification.

The *Soldier BOS* includes Small Arms, Night Vision Goggles (NVGs), and Thermal Weapons Sights, along with associated accessories. Small Arms are fully funded in all systems with the exception of the M320-series Grenade Launchers, M2 Machine Gun, and various machine gun support systems (tripods, pintle mounts, etc.), which have a combined $19M equipment shortfall; acceptable substitutes included. Of note is the current lack of production capacity for these

systems, which limits ARNG's ability to apply greater funding for the majority of these systems. ARNG has approximately 82 percent of required NVGs on-hand today with projected 94 percent fill by FY 2011. Additionally, the ARNG has 62 percent of required thermal weapons sights on-hand today, and will achieve 100 percent fill by FY 2011.

The *Transportation BOS* contains Light Tactical Vehicles (LTVs), FMTVs, Heavy Tactical Vehicles (HTVs), and their associated trailers and accessories. The combined post-FY 2011 shortage of these vehicles is estimated at $5.1B. By the end of FY 2011, the ARNG is projected to have 86 percent of its LTV requirement; however, only 18 percent will be modern armor-capable HMMWVs. The remaining HMMWV fleet will be comprised of older legacy, non-armored vehicles that are non-deployable to current AORs. The ARNG is also investing in M977A3 HMMWV Ambulances to support HD and HS operations, increasing medical equipment readiness over 81 percent by FY 2011. With the FMTV Fleet projected to be 44 percent fill by the end of FY 2011, ARNG units will be forced to cross-level equipment or perform missions at a degraded operational capability.

D. Summary

Since FY 2006, the Army has demonstrated a strong and consistent commitment to equip and modernize the ARNG to AC standards and has dedicated significant resources toward that end. The ARNG has received or is now on track to receive its full complement of key systems to include Heavy Tactical Vehicles, M4 carbines, SINCGARS radios, WIN-T, UH-60 helicopters, M777 howitzers, Abrams tanks, Bradley Fighting Vehicles, and many other critical equipment platforms.

Beginning in FY 2009, the Army began to capture the data necessary to make its equipment procurement and distribution processes transparent at the component level and is now submitting quarterly Equipment Delivery Reports to OSD. Beginning in FY 2010, the ARNG will measure equipment received against what is "due in" based on appropriated funding. The process is now fully auditable; however, the data collection effort is still largely a manual one, and more work is needed to automate it. Improved transparency has already allowed the ARNG to identify situations where funding or equipment was diverted to support other priorities and to work with the Army to establish payback plans, where applicable.

Although the Army's goal is to fully modernize the ARNG to AC standards, the ARNG lags behind in some key areas including tactical wheeled vehicles and helicopters. Continued receipt of NGREA and Congressionally added funding will allow the ARNG to continue to close the AC/RC modernization and interoperability gap and to improve CDU equipping levels across the 54 states and territories.

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 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Aircraft - Rotary Wing							
Helicopter, Attack AH-64A	H28647	$10,680,000	82	82	76	76	44
Helicopter, Attack AH-64D	H48918	$25,128,800	100	122	153	177	168
Helicopter, Cargo CH-47F	C15172	$30,000,000	0	6	9	10	0
Helicopter, Cargo CH-47D	H30517	$5,000,000	129	129	129	129	161
Helicopter, Light Utility, UH-72A	H31329	$3,900,000	48	82	110	131	78
Helicopter, Utility, UH-1H	K31795	$922,704	9	9	9	9	5
Helicopter, Utility, UH-1V	H31872	$948,158	5	5	5	5	0
Helicopter, Utility, UH-60A	K32293	$4,635,000	514	514	514	506	15
Helicopter, Utility, UH-60L	H32361	$4,855,000	154	155	185	219	473
Helicopter, Utility, UH-60M	H32429	$8,000,000	34	34	36	36	60
Helicopter, Medevac, HH-60L	U84291	$7,908,000	12	12	12	12	0
Helicopter, Medevac, HH-60Q	U84541	$7,908,000	4	4	4	4	0
Helicopter, Observation, OH-58A	K31042	$92,290	141	141	141	141	16
Helicopter, Observation, OH-58D	A21633	$4,075,800	31	31	31	31	30
Helicopter, Observation, OH-58C	H31110	$190,817	10	10	10	10	72
Aircraft - Fixed Wing							
Airplane, Cargo Transport, C-12D	A29812	$1,967,301	9	9	9	9	1
Airplane, Cargo Transport, C-12F	A30062	$3,068,422	24	24	24	24	45
Airplane,Cargo Transport, C-12U	BA108Q	$2,150,000	9	9	9	9	0
Airplane, Cargo Transport, C-23B	A29880	$7,424,158	34	34	34	34	59
Airplane, Cargo Transport, C-26	A46758	$800,000	11	11	11	11	11
Aircraft Support Equipment							
Command System, Tactical, AN/TSQ-221	C61597	$3,000,000	19	21	30	31	38
Hoist, High Performance	H39331	$142,338	206	206	206	206	419
Power Unit Auxiliary, Aviation (AGPU)	P44627	$286,060	152	152	152	152	279
Radar Set, AN/TPN-31	R17126	$3,701,502	12	13	14	14	14
Radio Set, HF, AN/VRC-100(V)1	R81691	$33,707	173	173	173	173	235
Shop Equipment Contact Maint (SECM)	S30224	$250,000	88	166	311	466	297
Test Facilities Kit, MK-994/AR	V61444	$20,894	116	116	116	116	123
Test Set Line, Adv Flight Control Sys CH-47D	T81985	$154,441	43	43	43	43	54
Test Set, Instrument Display System Bench	T20861	$69,151	60	60	60	60	76
Test Set, Transponder, AN/APM-305	V99436	$35,182	35	35	35	35	98
Tool Kit Tube Swaging, Set B	T57982	$29,168	140	141	147	147	239
Tool Set, Aviation Foot Locker Spt PM Acft	T65997	$5,000	533	533	638	643	823
UH-60A External Stores Subs	E21985	$676,111	92	92	92	92	762
Artillery & Missiles							

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Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Command Launch Unit, Javelin	C60750	$231,671	1,927	2,470	2,604	2,619	2,775
Fire Unit Vehicle Mtd, Avenger	F57713	$1,090,277	264	264	264	264	12
High Mobility Artillery Rocket Sys (HIMARS)	H53326	$2,500,000	112	129	187	209	192
Howitzer, Light Towed, 105mm, M119	H57505	$1,100,000	216	305	307	307	328
Howitzer, Medium Towed, 155mm, M198	K57821	$1,032,337	116	116	116	116	36
Howitzer, Medium, Sp, 155mm, M109A2-A5	K57667	$923,286	9	9	9	9	11
Howitzer, Medium, Sp, 155mm, M109A6	H57642	$1,435,000	291	291	291	291	242
Launcher, MLRS Improved, M270A1	M82581	$2,168,500	57	57	57	57	32
Launcher, TOW II ATGM M220A1	L45740	$133,000	152	152	152	152	5
Multiple Launch Rocket System (MLRS), M270	L44894	$1,973,897	93	93	93	93	7
Target Acq Sys, TOW Improved ITAS M41	T24690	$1,010,000	246	450	450	458	671
Training Set, Moving Target Simulator (Stinger/Redeye)	X04802	$4,377,780	1	1	1	1	51
Bridging Equipment							
Boat Bridge Erection, MK1/MK2	B25476	$210,000	115	129	129	129	172
Boat Cradle, Improved (IBC), M14	C33925	$22,064	108	108	108	108	178
Bridge Erection Set, Fixed Bridge, 97CLE52	C22811	$964,515	10	10	10	10	2
Bridge Erection Set, Fixed Bridge, 97CLE53	C22126	$488,354	5	5	5	5	1
Bridge Erection Set, Fixed Bridge, 97CLEO40	C22058	$43,944	7	7	7	7	112
Bridge Heavy Dry, Supt (Hdsb) 40m MLC96	B26007	$2,676,000	12	16	20	25	24
Bridge, Fixed Highway, MILB11844	C23017	$303,673	7	7	7	7	112
Interior Bay Bridge, Floating	K97376	$111,968	316	436	460	467	366
Launcher, Hvy Dry Support Bridge	L67660	$937,000	8	8	22	22	24
Launcher, M60 Tank Chassis, AVLB	L43664	$527,126	150	150	150	150	113
Pallet, Bridge Adapter (BAP) M15	P78313	$37,085	445	451	479	479	522
Ramp Bay Bridge Floating	R10527	$134,112	114	114	114	114	152
Reinforcement Set, Medium Girder Bridge	C27309	$498,940	5	5	5	5	1
Communications & Electronics Equipment							
Accessory Kit, Electronics Equip, MK-2975	Z00057		19	19	129	226	230
Air Defense Sys Integrator, AN/MSQ-214(V)1	Z03104		0	0	0	0	23
BN Cmd Post (Switching Group), OM XXX	Z00564		205	321	339	339	541
Central Communications, AN/TSQ-190(V)3	C89935	$1,500,000	0	0	0	0	0
Central Office Telephone, AN/TTC-58	C20549	$2,839,000	0	0	0	0	0
Computer Set, AN/UYK-128	C18378	$15,850	11,204	12,809	13,679	14,130	42,678
Computer Set, OL-582/TYQ	C18446	$5,000	844	970	1,151	1,199	2,085
Computer Set, OL-590/TYQ (SAMS 1 Config)	C28078	$19,571	124	124	173	185	404
Computer Set, OL-591/TYQ	C18718	$8,226	36	36	820	2,309	213
Computer Set, OL-603/TYQ	C78827	$14,899	112	112	114	114	286
Computer Set, OL-604/TYQ	C18684	$14,899	414	414	924	1,418	509
Computer System, AN/PYQ-10(C)	Z00384		25,202	25,202	30,322	30,799	85,082
Computer System, AN/TYQ-105(V)1	C27503	$2,562	5,804	6,321	10,788	10,880	13,338
Computer System, AN/TYQ-109(V)1	C27707	$5,000	5,022	5,022	5,025	5,025	2,282
Computer System, AN/TYQ-109(V)2	C27775	$7,000	947	947	947	947	1,057
Computer System, AN/TYQ-129(V)1	C27367	$13,000	163	163	474	808	118

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Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Computer System, AN/TYQ-129(V)2	C27435	$3,000	3,966	3,966	3,999	3,999	3,134
Computer System, AN/UYQ-90(V)2	C18278	$5,650	6,966	8,705	9,912	10,939	15,835
Computer System, AN/UYQ-90(V)3	C78851	$8,500	933	933	994	1,038	2,454
Control Receiver Transmitter, C-11561(C)/U	C05541	$6,055	148	148	148	148	736
Digital Topographic System, AN/TYQ-67(V)	D10281	$8,000,000	48	59	61	61	78
Interface Unit Communications Equipment, OL-713(V)1/TYQ CSS VSAT	Z00560		966	1,162	1,517	1,584	1,041
Interrogator Set, AN/TYX-1	J99233	$14,000	576	576	734	740	754
JNN Central Office Telephone, AN/TTC-59	Z00562		65	105	107	107	177
Navigation Set, Satellite Signals AN/PSN-13	N96248	$4,535	52,238	52,238	62,415	62,417	75,671
NAVSTAR GPS Aviation Set, AN/ASN-128 Doppler	Z46320		0	0	0	0	292
Processor Group Signal Data, OL-700/TYQ	Z00056		227	227	725	1,175	1,660
Processor Group Signal Data, OL-701/TYQ	Z53098		187	232	311	322	889
Radar Set, AN/TPQ-36(V)8	R14284	$10,091,900	19	20	29	29	29
Radar Set, AN/TPQ-37(V)1	A41666	$14,465,400	8	9	16	16	16
Radar Set, Sentinel AN/MPQ-64	G92997	$3,500,000	38	38	52	58	72
Radio Access Unit, AN/TRC-191	R33351	$1,184,275	12	12	12	12	0
Radio Set, AN/PRC-104A	R55200	$12,000	193	193	193	193	623
Radio Set, AN/PRC-126	R55336	$1,997	4,296	4,296	4,296	4,296	7,031
Radio Set, AN/PSC-11	R57810	$150,000	40	40	40	40	89
Radio Set, AN/PSC-5	R57606	$27,000	381	531	539	540	4,365
Radio Set, HF MANPACK, AN/PRC-150C (COT/NDI)	Z00873		1,412	1,412	1,412	1,412	0
Radio Set, HF, AN/ARC-220 (V)1	R22436	$27,779	878	892	929	929	904
Radio Set, HF, AN/GRC-193A	H35404	$37,000	92	92	92	92	0
Radio Set, SINCGARS AN/PRC-119D	R83073	$14,000	438	438	438	438	0
Radio Set, SINCGARS AN/PRC-119F(C)	R83141	$4,346	7,015	7,015	7,016	7,016	9,323
Radio Set, SINCGARS AN/VRC 91F(C)	R68146	$11,817	6,638	6,638	6,638	6,650	11,481
Radio Set, SINCGARS AN/VRC-119A	R83005	$10,117	1,991	1,991	1,991	1,991	3
Radio Set, SINCGARS AN/VRC-87A	R67160	$12,109	383	383	383	383	0
Radio Set, SINCGARS AN/VRC-87D	R67228	$14,825	157	157	157	157	0
Radio Set, SINCGARS AN/VRC-87F(C)	R67296	$6,532	981	981	981	981	661
Radio Set, SINCGARS AN/VRC-88A	R67194	$12,519	1,562	1,562	1,562	1,562	40
Radio Set, SINCGARS AN/VRC-88D	R67262	$15,145	244	244	244	244	0
Radio Set, SINCGARS AN/VRC-88F(C)	R67330	$7,123	1,644	1,644	1,644	1,644	1,671
Radio Set, SINCGARS AN/VRC-89A	R44863	$22,822	1,643	1,643	1,643	1,643	25
Radio Set, SINCGARS AN/VRC-89D	R44931	$12,000	474	474	474	474	0
Radio Set, SINCGARS AN/VRC-89F(C)	R44999	$11,128	3,003	3,003	3,032	3,032	5,171
Radio Set, SINCGARS AN/VRC-90A	R67908	$13,178	9,677	9,677	9,677	9,677	383
Radio Set, SINCGARS AN/VRC-90D	R67976	$12,000	2,162	2,162	2,162	2,162	21
Radio Set, SINCGARS AN/VRC-90F(C)	R68044	$7,415	25,023	25,023	25,060	25,067	51,072
Radio Set, SINCGARS AN/VRC-91A	R68010	$23,249	3,951	3,951	3,951	3,951	30
Radio Set, SINCGARS AN/VRC-91D	R68078	$14,000	895	895	895	895	0
Radio Set, SINCGARS AN/VRC-92A	R45407	$21,238	1,794	1,794	1,794	1,794	75
Radio Set, SINCGARS AN/VRC-92D	R45475	$16,000	775	775	775	775	0

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Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Radio Set, SINCGARS AN/VRC-92F(C)	R45543	$13,446	11,964	11,964	11,994	11,994	14,817
Radio System, EPLRS	P49587	$50,011	693	693	1,008	1,156	16,094
Radio Terminal, AN/TRC-190(V)1	L69306	$276,750	106	106	106	106	0
Radio Terminal, AN/TRC-190(V)3	L69442	$500,805	78	78	78	78	1
Radio Terminal, Telephone, AN/VRC-97	T55957	$110,000	276	276	276	276	17
Radio Test Set, AN/PRM-34()	R93169	$6,500	2,278	2,284	2,284	2,285	3,308
Receiver Transmitter, RT-1539(P)A(C)/G	R30434	$92,763	181	181	181	181	0
Receiver Transmitter, SINCGARS RT-1523(C)/U	R31609	$9,310	21,636	21,636	21,636	21,636	62
Receiver Transmitter, SINCGARS RT-1523C(C)U	R70839	$9,310	11,250	11,250	11,250	11,250	0
Receiver Transmitter, SINCGARS RT-1523E(C)/U	R30343	$9,310	25,334	25,334	25,334	25,334	0
Satellite Comm Terminal, AN/TSC-154	T81733	$825,000	48	48	51	54	150
Satellite Comm Terminal, AN/TSC-85A	S78466	$1,600,000	13	13	13	13	0
Satellite Comm Terminal, AN/TSC-93A	S34963	$825,000	26	26	26	26	0
Signal Generator, SG-1219/U	S48255	$39,335	70	70	70	70	210
Sm Exten Node Switch, AN/TTC-48C(V)1	S25004	$700,000	29	29	29	29	0
SOFTACS, Triband Tactical Terminal	Z12507		3	3	3	3	8
Spectrum Analyzer, AN/USM-489(V)1	S01416	$37,378	44	44	44	45	79
Target Acq Subsystem, AN/TSQ-179(V)2	T37036	$5,000,000	12	12	12	12	59
Trojan Spirit Lite, AN/TSQ-226(V)2	C43331	$1,275,000	3	3	3	3	2
Trojan Spirit Lite, AN/TSQ-226(V)3	C43399	$1,880,000	43	44	47	47	51
Engineer & Construction Vehicles							
Compactor, High Speed	E61618	$171,438	102	102	102	102	133
Crane, Whl-mtd, 25-ton, ATEC AT422T	C36586	$313,521	161	161	161	161	152
Excavator, Hydraulic (HYEX) Type I	E27792	$236,830	77	77	77	77	154
Excavator, Hydraulic (HYEX) Type II	E41791	$435,755	13	13	13	13	10
Grader Road Motorized, DED Hvy	G74783	$98,045	493	501	501	501	387
Grader Road Motorized, DED Sectionalized	J74886	$223,471	8	8	8	8	45
Loader Scoop Type, DED w/5 Cy Gp Bucket	L76321	$147,930	119	152	160	160	40
Loader Scoop Type, DED w/MultiPurpose Bucket	L76556	$92,895	366	366	366	366	361
Rough Terrain Container Handler, RT240	R16611	$460,077	60	87	97	98	30
Scraper Earth Moving SP, 14-18 Cu Yd	S56246	$149,523	369	369	370	370	494
Scraper Elevating, SP Non-sectionalized	S29971	$162,596	0	0	0	0	42
Scraper Elevating, SP Sectionalized	S30039	$324,218	130	130	130	130	42
Tractor Full-tracked High-speed, DEUCE	T76541	$432,799	42	42	42	42	89
Tractor, FT, Hvy, CAT D8K-8-S	W88699	$197,322	35	35	35	35	0
Tractor, FT, Med, Cat D7 w/Scarif Ripper	W83529	$245,275	317	317	317	317	366
Tractor, FT, Med, Cat D7 w/Scarif Winch	W76816	$205,000	538	562	565	565	437
Tractor, Full-tracked, Armored, M9 (ACE)	W76473	$887,050	85	85	85	85	119
Tractor, Whld Excavator, SEE	T34437	$110,000	614	614	614	614	233
Truck Concrete, Mobile Mixer 8 Cu Yd (CCE)	T42725	$132,518	22	22	22	22	1
Truck, Forklift, ATLAS	T73347	$166,639	446	556	586	586	715
Truck, Forklift, DED 4k lb, Rough Terrain	T49255	$75,000	325	325	325	325	286
Truck, Forklift, DED 50k lb, RT, Cont Hdlr	T48941	$159,138	7	7	7	7	57

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Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Truck, Forklift, DED 6k lb, RT, Ammo Hdlg	T48944	$72,370	470	470	470	470	165
Truck, Dump, 20-ton, M917	X44403	$211,764	650	650	650	650	602
Generator Sets & Power Plants							
Generator Set, 2kW, MEP-501A	G36237	$6,000	2,255	2,255	2,255	2,255	3,926
Generator Set, 2kW, MEP-531A	G36169	$6,000	28	28	71	71	54
Generator Set, 3kW, MEP-831A TQG	G18358	$9,922	5,105	5,105	5,138	5,169	7,447
Generator Set, 5kW, MEP-002A	J35813	$8,332	2,105	2,105	2,105	2,105	209
Generator Set, 5kW, MEP-802A TQG	G11966	$12,798	1,698	1,698	2,506	4,367	2,434
Generator Set, 5kW, PU-797 TQG	G42238	$23,738	605	605	605	605	1,238
Generator Set, 10kW, MEP-003A	J35825	$13,635	830	830	830	830	636
Generator Set, 10kW, MEP-803A TQG	G74711	$14,345	963	963	1,383	1,383	1,741
Generator Set, 10kW, PU-753/M	G40744	$12,102	386	386	386	386	27
Generator Set, 10kW, PU-798 TQG	G42170	$25,757	1,327	1,327	1,463	1,463	1,569
Generator Set, 15kW, PU-801/A TQG	G78374	$32,622	71	84	119	119	122
Generator Set, 15kW, PU-802 TQG	G53778	$31,481	669	732	732	732	1,354
Generator Set, 30kW, PU-803/B/G	G35851	$38,418	323	323	323	332	358
Generator Set, 60kW, MEP-805A/B TQG	G74575	$26,705	88	88	190	198	245
Generator Set, 60kW, PU-805 TQG	G78306	$44,185	138	138	138	138	258
Power Plant, 10kW, AN/MJQ-18	P28015	$36,050	100	100	100	100	10
Power Plant, 10kW, AN/MJQ-37 TQG	P42262	$50,294	175	176	176	176	289
Power Plant, 30kW, AN/MJQ-40 TQG	P42126	$85,594	75	75	96	96	120
Medical Equipment							
Defibrillator Monitor Recorder	D86072	$29,917	281	281	346	371	294
Dental Equip Set, Comprehensive Dent Field	D43802	$56,562	48	51	51	52	67
Medical Equip Set, Air Ambulance	M29213	$99,176	272	272	272	272	231
Medical Equip Set, Chem Agent Patient Treat	M23673	$30,596	809	873	880	881	879
Medical Equip Set, Ground Ambulance	M26413	$35,203	1,950	2,072	2,072	2,072	1,911
Medical Equip Set, Patient Holding Field	M29633	$132,774	119	123	123	123	108
Medical Equip Set, Sick Call Field (2)	M30156	$52,297	935	976	977	977	878
Medical Equip Set, Special Forces, Tactical	M29999	$115,275	204	204	204	204	140
Medical Equip Set, Trauma Field (2)	M30499	$161,385	939	998	999	999	875
Surgical Instrument & Supply Set, Individual	U65480	$4,197	3,507	3,733	3,744	3,755	5,193
Ventilator, Volume, Portable	V99788	$12,912	251	269	311	311	228
NBC Defensive Equipment							
Chem-Bio Protective Shelter (CBPS)	C07506	$622,051	1	1	1	1	595
Chemical Agent Alarm, M22	A33020	$10,000	8,259	8,259	8,259	8,259	17,072
Chemical Agent Alarm, M8A1	A32355	$8,432	8,965	8,965	8,965	8,965	514
Chemical Agent Monitor, Improved (ICAM)	C05701	$7,500	7,776	7,776	7,776	7,776	10,410
Decontaminating Apparatus, M17	D82404	$23,121	82	82	82	82	1,300
Mask, Chemical Biological, M40	M12418	$265	330,336	335,340	335,340	335,340	82,867
Mask, Protective, Combat Vehicle, M42	M18526	$331	29,835	30,151	30,151	30,151	6,526
NBC Reconnaissance System, M93A1 FOX	R41282	$3,000,000	7	7	7	7	0
Radiac Set, AN/PDR-75	R30925	$2,978	1,935	2,062	2,293	2,611	3,517

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Radiac Set, AN/PDR-77	R30993	$4,312	717	717	717	717	1,111
Radiac Set, AN/UDR-13	R31061	$631	23,468	23,468	23,476	23,576	29,427
Radiac Set, AN/VDR-2	R20684	$1,950	18,530	18,530	18,561	18,561	19,755
Simplified Collective Protection Equip, M20	C79000	$17,599	1,004	1,094	1,113	1,115	2,304
Night Vision Equipment							
Aviation Night-vision System (ANVIS), AN/AVS-6	A06352	$10,747	5,265	5,265	5,472	5,672	4,957
Driver Vision Enhancer, AN/VAS-5	D41659	$35,000	1,979	2,520	2,854	2,854	28,208
Infrared Illuminator, AN/PEQ-2	J03261	$2,006	75,777	76,129	76,410	76,466	64,104
Laser Designator Rangefinder, AN/PED-1	R60282	$300,000	244	322	543	659	1,076
Laser IR Observation Set (MELIOS), AN/PVS-6	M74849	$22,015	1,296	1,296	1,367	1,367	10,952
Long Range Adv Scout Surveill System, AN/TAS-8	S02976	$400,000	509	713	944	1,072	1,092
Monocular Night-vision Device, AN/PVS-14	M79678	$3,607	141,221	154,721	155,303	155,303	37,445
Night-vision Goggles, AN/PVS-5	N04456	$4,300	21,008	21,008	21,008	21,008	346
Night-vision Goggles, AN/PVS-7B	N05482	$6,000	50,798	50,798	50,798	50,798	124,759
Night-vision Sight, AN/PVS-4 w/Img	N04732	$8,535	16,424	16,424	16,424	16,424	921
Night-vision Sight, AN/UAS-11(V)1	N05050	$68,000	4	4	4	4	130
Night-vision Sight, AN/UAS-12	N04982	$116,014	256	256	256	256	5
Night-vision Sight, Crew Serv Wpn, AN/TVS-5	N04596	$3,500	2,999	2,999	2,999	2,999	3,496
Night-vision Sight, Sniper, AN/PVS-10	S90433	$9,546	461	855	859	859	275
Reflex Sight, Collimator, M68	S60288	$283	207,491	207,491	207,749	207,873	133,902
Thermal Weapon Sight, AN/PAS-13	S90535	$17,591	12,527	14,977	22,098	24,968	26,123
Thermal Weapon Sight, AN/PAS-13A	S90603	$19,306	12,122	13,872	22,598	25,011	28,772
Thermal Weapon Sight, AN/PAS-13B(V)1	S60356	$17,000	7,890	8,740	11,410	11,647	11,035
Other Support Equipment							
Boat, Landing Craft, Inflatable 7-person	B84293	$10,039	100	100	100	100	185
Camouflage Net System, AN/USQ-159	C89480	$909	77,029	77,029	77,029	77,029	287,672
Camouflage Screen Support System	C89070	$335	58,589	58,589	58,589	58,589	8,067
Camouflage Screen Sys, w/o Support Sys	C89145	$903	509	509	509	509	664
Fire Fighting Equipment Set, Truck-mtd	H56391	$151,000	14	14	14	14	37
Food Sanitation Center	S33399	$33,865	713	713	713	721	964
Kitchen, Company Level, Field Feeding	K28601	$7,511	188	188	188	188	440
Kitchen, Containerized, CK	C27633	$100,532	119	147	147	147	364
Kitchen, Field, Mtd on M103A3 Tlr	L28351	$104,246	1,143	1,143	1,143	1,143	631
Riot Control Agent Disperser, M33	G22348	$724	497	497	497	497	2,670
Riot Control Agent Disperser, Svc Kit, M254	S78839	$1,645	195	195	195	195	2,632
Shelter, Rigid Wall, Command Post	R98145	$162,800	56	56	56	56	793
Shelter, Tactical Expandable Twoside	S01359	$223,219	19	19	28	28	68
Telescope, Straight, M145	T60185	$707	14,937	14,937	14,950	14,960	6,513
Tent, Frame Type Maint Medium Light Metal	V48441	$13,422	181	181	181	181	0
Tent, Ltwt Maintenance Enclosure (LME)	T49947	$16,509	1,551	1,551	1,553	1,553	1,488
Repair and Test Equipment							
Electronic Shop Avionics, AN/ASM-146	H01907	$124,000	291	376	473	502	1,016
Shop Equip, Contact Maint Ord/Eng Trk-mtd	S25681	$75,000	1,094	1,667	2,159	2,210	2,024

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Shop Equipment Auto Maint & Repair	T24660	$120,827	156	156	156	156	460
Test Kit Mask Protective, M41	T62350	$7,000	2,806	2,806	2,806	2,806	2,684
Test Set, Aviator Night Vis Imag Sys, TS-3895	T53471	$10,424	323	323	324	324	825
Test Set, Diagnostic	D12196	$9,672	84	84	84	84	258
Test Set, Elect Sys AN/PSM-95	T92889	$18,233	7,772	8,884	12,946	15,085	13,024
Test Set, Elect Sys Direct Support (DESETS)	T52849	$561,312	80	80	80	80	133
Test Set, Electronic, TS-4348/UV	E03826	$649	7,743	7,743	7,743	7,743	9,205
Test Set, Radar TS-4530()/UPM	T99847	$9,944	529	927	927	927	570
Test Set, Radio, AN/GRM-114	T87468	$11,822	410	410	410	410	400
Test Set, Stabilator Line/SAS	T93517	$41,191	200	200	200	200	107
Test Set, Transponder, AN/APM-421	T49392	$30,370	23	24	24	24	146
Tool Kit Electric Equipment, TK-101/GSQ	W37483	$1,324	4,312	4,312	4,312	4,312	4,213
Tactical & Support Vehicles							
Armored Security Vehicle (Asv), M1117	A93374	$809,500	370	499	671	677	1,310
Automobile Sedan, Class II Compact	B04441	$9,176	318	318	318	318	8,753
Bus, Motor, 28-44 Passenger	C39977	$62,106	42	42	42	42	1,267
Fire Support Vehicle, Knight, M707	S50205	$947,000	62	62	62	62	4
Forward Repair System (FRS)	F64544	$275,000	501	600	860	864	736
HEMTT Cargo Truck, Gmt, M985E1 W/W	T41721	$307,359	4	4	4	4	0
HEMTT Cargo Truck, w/LHS, M1120	T96496	$226,800	933	933	933	888	2,779
HEMTT Cargo Truck, w/LHS, M1120 w/AOA	T82378	$276,800	22	22	22	22	0
HEMTT Cargo Truck, w/Lt Crane, M977	T59278	$251,388	359	359	359	359	299
HEMTT Cargo Truck, w/Lt Crane, M977 W/W	T39518	$260,574	145	145	145	145	236
HEMTT Cargo Truck, w/Med Crane, M985	T39586	$272,033	791	791	791	791	236
HEMTT Cargo Truck, w/Med Crane, M985 W/W	T39654	$282,002	161	161	161	161	449
HEMTT Common Bridge Transporter, M1977	T91308	$226,150	496	608	664	664	736
HEMTT Fuel Tanker, 2500gal, M978	T87243	$268,440	1,287	1,287	1,287	1,287	1,512
HEMTT Fuel Tanker, 2500gal, M978 W/W	T58161	$278,409	516	516	516	516	425
HEMTT Tactical Firefighting Truck, M1142	T82180	$640,131	41	41	41	41	39
HEMTT Wrecker, M984	T63093	$379,000	767	767	767	767	988
HMMWV Ambulance, 2-litter, M996	T38707	$49,357	36	36	36	36	7
HMMWV Ambulance, 4-litter, M997	T38844	$113,998	1,215	1,215	1,215	1,215	1,700
HMMWV Armt Carrier, Armd, M1025	T92242	$74,969	3,003	3,003	3,003	3,003	41
HMMWV Armt Carrier, Armd, M1026 W/W	T92310	$39,518	1,622	1,622	1,622	1,622	34
HMMWV Armt Carrier, ECV, M1151	T34704	$119,000	2,926	2,926	2,926	3,326	5,609
HMMWV Armt Carrier, ECV, M1151 w/AOA	T92514	$95,548	35	35	35	35	0
HMMWV Cargo/Trp Carrier, M998	T61494	$36,076	15,663	15,663	15,663	15,663	5,891
HMMWV Cargo/Trp Carrier, W/W, M1038	T61562	$36,672	1,041	1,041	1,041	1,041	94
HMMWV Cargo/Trp Carrier, W/W, M1038 w/AOA	T11790	$56,251	10	10	10	10	0
HMMWV Shelter Carrier, Heavy, M1097	T07679	$61,665	10,099	10,099	10,099	10,099	1,193
HMMWV Shelter Carrier, M1037	T07543	$36,932	838	838	838	838	822
HMMWV Tow Carrier, M966	T05096	$49,521	550	550	550	550	11
HMMWV Utility, ECV, M1113	T61630	$61,042	524	524	524	524	2,397

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Table 1

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Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
HMMWV Truck, Utility, ECV, Up-armored, M1114	T92446	$146,844	0	0	0	0	436
LMTV 2.5-ton Cargo Truck, M1078	T60081	$176,428	4,109	4,109	4,109	4,109	7,427
LMTV 2.5-ton Cargo Truck, M1078 W/W	T60149	$149,600	530	530	530	530	839
LMTV 2.5-ton Cargo Truck, M1079	T93484	$230,363	196	196	196	196	814
LMTV 2.5-ton Cargo Truck, w/ LAPES/AD, M1081	T41995	$103,220	24	24	31	31	107
M35-series 2.5-ton Truck, Cargo, M35A2	X40009	$56,500	0	0	0	0	470
M35-series 2.5-ton Truck, Cargo, M35A2 W/W	X40146	$56,500	0	0	0	0	153
M809/M939-series 5-ton Cargo Truck, LWB, M813	X40831	$53,248	0	0	0	0	342
M809/M939-series 5-ton Cargo Truck, M813/M923	X40794	$74,450	4,544	4,544	4,544	4,544	1,120
M809/M939-series 5-ton Dump Truck, M817/M929	X43708	$100,887	935	935	935	935	22
M809/M939-series 5-ton Truck Van, M820/M934	X62237	$145,700	198	198	198	198	147
M809/M939-series 5-ton Wrecker, M816/M936	X63299	$168,960	658	658	658	658	123
MTV 5-ton Cargo Truck, M1083	T61908	$184,333	3,067	3,067	3,067	3,067	6,891
MTV 5-ton Cargo Truck, M1083 W/W	T41135	$182,089	415	415	415	415	1,959
MTV 5-ton Cargo Truck, M1084	T41203	$218,378	283	283	283	283	680
MTV 5-ton Cargo Truck, M1085	T61704	$170,073	69	69	69	69	1,080
MTV 5-ton Cargo Truck, M1085 W/W	T61772	$119,567	5	5	5	5	3
MTV 5-ton Cargo Truck, w/ LAPES/AD, M1093	T41036	$118,579	10	10	74	74	54
MTV 5-ton Cargo Truck, w/ LAPES/AD,M1093 W/W	T41104	$119,265	7	7	14	14	29
MTV 5-ton Cargo Truck, W/W, w/MHE, M1086	T61840	$209,309	6	6	6	6	0
MTV 5-ton Dump Truck, M1090	T64911	$209,309	18	18	18	18	222
MTV 5-ton Dump Truck, M1090 W/W	T64979	$139,015	0	0	0	0	23
MTV 5-ton Tractor Truck, M1088	T61239	$167,746	1,625	1,625	1,625	1,625	2,793
MTV 5-ton Tractor Truck, M1088 W/W	T61307	$175,733	104	104	104	104	542
MTV 5-ton Wrecker, M1089	T94709	$331,680	322	322	322	322	788
PLS Container Handling Unit (CHU)	C84862	$34,613	161	161	161	161	1,015
PLS Demountable Cargo Bed	B83002	$16,633	13,916	16,730	16,982	17,067	18,949
PLS Trailer, 16.5-ton, M1076	T93761	$46,731	4,099	4,279	4,284	4,318	4,882
PLS Transporter, M1074	T41067	$288,015	591	591	591	591	160
PLS Transporter, M1075	T40999	$360,139	1,039	1,039	1,039	1,039	1,916
Semitrailer Tanker, 5000-gal Bulk Haul, M967	S10059	$77,550	349	349	349	349	360
Semitrailer Tanker, 5000-gal POL, M969	S73372	$97,413	607	623	623	623	177
Semitrailer Van, 6-ton Repair Parts, M749/M750	S74832	$32,952	84	84	84	84	30
Semitrailer Van, 6-ton, Electr Shop, M146	S75038	$6,532	247	247	247	247	126
Semitrailer, 22.5-ton Flatbed, M871	S70027	$33,156	3,954	3,954	3,954	3,954	3,608
Semitrailer, 34-ton Flatbed, M872	S70159	$43,252	3,220	3,263	3,906	3,909	4,349
Semitrailer, 40-ton Lowbed, M870	S70594	$51,900	1,254	1,351	1,630	1,687	1,635
Semitrailer, 70-ton Lowbed, M1000 HETS	S70859	$229,219	626	626	627	627	686
Tool Set: SATS Module 2	T65562	$9,795	15	15	35	35	132
Trailer, Cargo, 1.5-ton, M105	W95811	$10,245	0	0	0	0	362
Trailer, Cargo, 2.5-ton LMTV, M1082	T96564	$34,569	2,346	2,583	2,904	3,046	4,434
Trailer, Cargo, 3/4-ton, High Mobility, M1101	T95992	$8,954	7,392	8,232	8,689	8,689	9,587
Trailer, Cargo, 3/4-ton, M101	W95537	$4,474	3,866	3,866	3,866	3,866	170

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Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Trailer, Cargo, 5/4-ton, High Mobility, M1102	T95924	$8,954	4,291	4,680	4,740	4,740	4,440
Trailer, Cargo, 5-ton MTV, M1095	T95555	$62,829	782	873	2,013	2,461	5,319
Trailer, HEMAT, 11-ton, M989A1	T45465	$34,714	1,754	1,789	1,789	1,789	1,018
Truck Tractor, 14-ton LET, M916	T91656	$166,223	2,184	2,186	2,186	2,186	346
Truck Tractor, 14-ton Line Haul, M915	T61103	$162,968	2,597	2,597	2,597	2,597	2,331
Truck Tractor, 20-ton MET, M920	T61171	$74,288	155	155	155	155	4
Truck Tractor, 5-ton, M931	X59326	$86,203	1,647	1,647	1,647	1,647	295
Truck Tractor, HETS, M1070	T59048	$256,704	621	621	621	621	746
Truck, Cargo, 1/2 To 1-ton, 4x4	X39893	$27,242	1,472	1,472	1,472	1,472	7,125
Truck, Cargo, 1/2 To 3/4-ton, 4x2	X39598	$18,000	484	484	484	484	5,900
Truck, Carryall, 1/4 To 1 1/4-ton	X42201	$28,000	470	470	470	470	4,881
Tracked and Other Combat Vehicles							
Armored Personnel Carrier, FISTV, M113	C12155	$553,367	115	115	115	115	9
Armored Personnel Carrier, M113A1/A2	D12087	$244,844	133	133	133	133	42
Armored Personnel Carrier, M113A3	C18234	$405,815	1,014	1,014	1,014	1,014	920
Bradley Fighting Veh, Cavalry, M3A0	C76335	$1,056,845	8	8	8	8	6
Bradley Fighting Veh, Cavalry, M3A2	F60530	$1,144,000	142	171	171	171	30
Bradley Fighting Veh, Cavalry, M3A3	F90796	$4,021,449	0	0	108	108	235
Bradley Fighting Veh, Infantry, M2A0	J81750	$1,061,457	5	5	5	5	6
Bradley Fighting Veh, Infantry, M2A2	F40375	$1,349,348	554	621	621	621	24
Bradley Fighting Veh, Infantry, M2A2 w/ODS	M31793	$1,311,639	35	69	69	69	91
Bradley Fighting Veh, Infantry, M2A3	F60564	$4,409,064	8	20	20	20	521
Bradley Fire Support Team Veh, M7	F86571	$903,195	30	30	30	30	92
Carrier 120mm Mortar, SP Armored	C10990	$318,308	180	180	180	180	119
Carrier Armored Command Post	C11158	$374,086	251	251	251	251	436
Carrier, Ammo Tracked, M992A2	C10908	$1,140,667	278	278	278	278	236
Carrier, Cargo, M548	D11049	$323,416	159	159	159	159	4
Carrier, Command Post, M577a1	D11538	$345,787	464	464	464	464	44
Combat Vehicle, Anti-tank, ITV M901A1	E56896	$393,062	72	72	72	72	6
Recovery Vehicle, Medium, M88A1	R50681	$1,210,755	392	392	392	392	128
Stryker Antitank Guided Missile Vehicle, M1134	A83852	$2,320,389	0	0	0	0	9
Stryker Commanders Vehicle, M1130	C41314	$2,320,389	0	0	0	0	31
Stryker Engineer Squad Vehicle, M1132	J97621	$2,320,389	0	0	0	0	12
Stryker Fire Support Vehicle, M1131	F86821	$2,320,389	0	0	0	0	13
Stryker Infantry Carrier Vehicle, M1126	J22626	$2,320,389	0	0	0	0	128
Stryker Medical Evacuation Vehicle, M1133	M30567	$2,320,389	0	0	0	0	16
Stryker Mobile Gun System Vehicle, M1128	M57720	$2,320,389	9	9	9	9	27
Stryker Mortar Carrier Vehicle, M1129	M53369	$2,320,389	0	0	0	0	36
Stryker NBC Reconnaissance Vehicle, M1135	N96543	$2,320,389	3	3	13	13	17
Stryker Reconnaissance Vehicle, M1127	R62673	$2,320,389	0	0	0	0	51
Tank, Combat, 105mm, M1 Abrams	T13374	$1,645,697	13	13	13	13	8
Tank, Combat, 120mm, M1A1 Abrams	T13168	$2,393,439	564	680	680	680	58
Tank, Combat, 1220mm Gun, M1A2	T13305	$4,445,399	1	1	1	1	493

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Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Unmanned Aerial Vehicle Systems							
Ground Control Station, (TUAV Shadow)	Z49008		28	28	28	28	56
Tactical UAV System, Shadow	T09343	$2,000,500	19	23	30	30	39
Vehicle, UAV System, Raven	Z00446		2	2	2	2	0
Water & Petroleum Equipment							
Distributor Water Tank, 6k gal, Tlr-mtd	D28318	$30,289	87	87	88	88	250
Forward Area Refueling System, Aafars	F42611	$321,537	125	125	125	125	118
Forward Area Water Point Supply System	F42612	$19,484	161	251	385	399	49
Fuel System Supply Point, Portable 60k gal	J04717	$30,213	23	23	23	23	10
HEMTT Aviation Refueling System (HTARS)	R66273	$24,460	171	171	171	171	355
ROWPU Water Purification System, 3000 GPH	W47225	$748,000	68	68	68	68	82
Tactical Water Distrib Eq Set, (TWDS RDF)	T09094	$660,000	9	9	9	9	8
Tactical Water Purification System (TWPS)	T14017	$450,000	98	124	124	127	129
Tank & Pump Unit, Liquid Dispensing Trk-mtd	V12141	$9,015	917	918	920	933	810
Tank, Liquid Storage	T32629	$131,839	163	259	375	417	1,270
Trailer, Tank Water (CAMEL), 900 gal	Z36683		0	5	60	63	2,311
Trailer, Tank Water, 400 gal, M1112	W98825	$16,000	3,239	3,297	3,297	3,297	1,049
Water Quality Analysis Set, Purification	W47475	$3,404	80	80	80	80	371
Water Storage/Distribution Set, 40k GPD	W55968	$121,746	3	3	3	3	62
Water Storage/Distribution Set, 800k gal	W37311	$200,508	6	6	6	6	11
Weapons							
Carbine, 5.56mm, M4	R97234	$1,329	134,626	134,626	149,282	149,797	163,969
Launcher, Grenade, 40mm, M203	L44595	$593	12,214	12,214	12,214	12,214	5,678
Launcher, Grenade, 40mm, M203A1	L46007	$593	696	696	696	696	1,489
Launcher, Grenade, 40mm, M203A2	L69012	$1,060	12,528	12,528	12,528	12,528	13,879
Machine Gun Ring Mount, Cal .50, M36/M66	M74364	$4,200	7,000	7,049	9,319	9,413	16,036
Machine Gun Tripod Mount, 7.62mm, M122	M75714	$619	7,103	7,103	7,103	7,103	644
Machine Gun, 5.56mm, M249	M09009	$3,830	29,899	30,536	30,622	30,654	26,999
Machine Gun, 5.56mm, M249, Light	M39263	$2,779	4,673	4,673	4,673	4,673	6,911
Machine Gun, 7.62mm, M240B	M92841	$6,000	11,434	13,433	13,494	13,494	9,900
Machine Gun, 7.62mm, M240C	M92420	$4,890	999	999	999	999	229
Machine Gun, 7.62mm, M240H	M92591	$8,593	3,184	3,184	3,184	3,184	1,541
Machine Gun, 7.62mm, M60	L92386	$5,864	1,099	1,099	1,099	1,099	2,404
Machine Gun, Cal .50, M2	L91975	$12,685	13,747	15,556	17,076	17,114	14,443
Machine Gun, Grenade, 40mm, MK19 MOD III	M92362	$15,320	9,819	10,446	10,564	10,570	8,923
Pistol, 9mm Automatic, M9	P98152	$386	69,761	69,761	70,870	70,991	68,774
Rail Adapter, Weapon Mounted M4	A20044	$69	114,208	114,208	114,415	114,415	118,868
Rifle, 5.56mm, M16A2	R95035	$503	161,919	161,919	161,919	161,919	140,837
Rifle, 5.56mm, M16A4	R97175	$950	24,123	24,123	24,123	24,123	5,832
Rifle, 7.62mm, Sniper M24	R95387	$7,029	668	668	691	691	3,382
Shotgun, 12-gauge Riot Type	T39223	$238	8,867	8,867	8,867	8,867	780

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Table 2

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 2010.

Nomenclature	Equip No.	Average Age	Remarks
Aircraft - Rotary Wing			
Helicopter, Attack AH-64A	H28647	16	
Helicopter, Cargo CH-47D	H30517	13	
Helicopter, Utility, UH-60A	K32293	25	
Helicopter, Utility, UH-60L	H32361	11	
Helicopter, Observation, OH-58D	A21633	13	
Aircraft - Fixed Wing			
Airplane, Cargo Transport, C-12D	A29812	25	
Airplane,Cargo Transport, C-12U	BA108Q	17	
Airplane, Cargo Transport, C-23B	A29880	13	
Airplane, Cargo Transport, C-26	A46758	11	
Artillery & Missiles			
Howitzer, Medium, Sp, 155mm, M109A2-A5	K57667	38	
Bridging Equipment			
Boat Bridge Erection, MK1/MK2	B25476	22	
Boat Cradle, Improved (IBC), M14	C33925	9	
Interior Bay Bridge, Floating	K97376	14	
Launcher, M60 Tank Chassis, AVLB	L43664	33	
Pallet, Bridge Adapter (BAP) M15	P78313	7	
Ramp Bay Bridge Floating	R10527	18	
Communications & Electronics Equipment			
Computer System, AN/TYQ-109(V)1	C27707	6	
Engineer & Construction Vehicles			
Compactor, High Speed	E61618	11	
Crane, Whl-mtd, 25-ton, ATEC AT422T	C36586	9	
Excavator, Hydraulic (HYEX) Type I	E27792	11	
Excavator, Hydraulic (HYEX) Type II	E41791	8	
Grader Road Motorized, DED Hvy	G74783	25	
Grader Road Motorized, DED Sectionalized	J74886	27	
Loader Scoop Type, DED w/5 Cy Gp Bucket	L76321	32	
Loader Scoop Type, DED w/MultiPurpose Bucket	L76556	25	
Scraper Earth Moving SP, 14-18 Cu Yd	S56246	25	
Scraper Elevating, SP Sectionalized	S30039	2	
Tractor Full-tracked High-speed, DEUCE	T76541	8	
Tractor, FT, Hvy, CAT D8K-8-S	W88699	32	
Tractor, FT, Med, Cat D7 w/Scarif Ripper	W83529	25	
Tractor, FT, Med, Cat D7 w/Scarif Winch	W76816	33	
Tractor, Full-tracked, Armored, M9 (ACE)	W76473	17	
Tractor, Whld Excavator, SEE	T34437	21	
Truck Concrete, Mobile Mixer 8 Cu Yd (CCE)	T42725	29	
Truck, Forklift, ATLAS	T73347	6	

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Table 2

Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
Truck, Forklift, DED 4k lb, Rough Terrain	T49255	26	
Truck, Forklift, DED 50k lb, RT, Cont Hdlr	T48941	27	
Truck, Forklift, DED 6k lb, RT, Ammo Hdlg	T48944	17	
Truck, Dump, 20-ton, M917	X44403	21	
Generator Sets & Power Plants			
Generator Set, 2kW, MEP-501A	G36237	10	
Generator Set, 5kW, MEP-802A TQG	G11966	9	
Generator Set, 5kW, PU-797 TQG	G42238	8	
Generator Set, 10kW, MEP-803A TQG	G74711	9	
Generator Set, 10kW, PU-753/M	G40744	20	
Generator Set, 10kW, PU-798 TQG	G42170	9	
Generator Set, 15kW, PU-801/A TQG	G78374	7	
Generator Set, 15kW, PU-802 TQG	G53778	6	
Generator Set, 30kW, PU-803/B/G	G35851	9	
Generator Set, 60kW, PU-805 TQG	G78306	13	
Power Plant, 10kW, AN/MJQ-18	P28015	22	
Power Plant, 10kW, AN/MJQ-37 TQG	P42262	11	
Power Plant, 30kW, AN/MJQ-40 TQG	P42126	10	
Night Vision Equipment			
Aviation Night-vision System (ANVIS), AN/AVS-6	A06352	5	
Other Support Equipment			
Fire Fighting Equipment Set, Truck-mtd	H56391	25	
Kitchen, Containerized, CK	C27633	6	
Tactical & Support Vehicles			
HEMTT Cargo Truck, w/LHS, M1120	T96496	4	
HEMTT Cargo Truck, w/Lt Crane, M977	T59278	22	
HEMTT Cargo Truck, w/Lt Crane, M977 W/W	T39518	23	
HEMTT Cargo Truck, w/Med Crane, M985	T39586	18	
HEMTT Cargo Truck, w/Med Crane, M985 W/W	T39654	19	
HEMTT Common Bridge Transporter, M1977	T91308	11	
HEMTT Fuel Tanker, 2500gal, M978	T87243	14	
HEMTT Fuel Tanker, 2500gal, M978 W/W	T58161	17	
HEMTT Wrecker, M984	T63093	14	
HMMWV Ambulance, 2-litter, M996	T38707	21	
HMMWV Ambulance, 4-litter, M997	T38844	20	
HMMWV Armt Carrier, Armd, M1025	T92242	20	
HMMWV Armt Carrier, Armd, M1026 W/W	T92310	20	
HMMWV Armt Carrier, ECV, M1151	T34704	1	
HMMWV Cargo/Trp Carrier, M998	T61494	19	
HMMWV Cargo/Trp Carrier, W/W, M1038	T61562	20	
HMMWV Shelter Carrier, Heavy, M1097	T07679	11	
HMMWV Shelter Carrier, M1037	T07543	19	
HMMWV Tow Carrier, M966	T05096	23	

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Table 2

Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
HMMWV Truck, Utility, ECV, M1113	T61630	9	
HMMWV Truck, Utility, ECV, Up-armored, M1114	T92446	9	
LMTV 2.5-ton Cargo Truck, M1078	T60081	4	
LMTV 2.5-ton Cargo Truck, M1078 W/W	T60149	5	
LMTV 2.5-ton Cargo Truck, M1079	T93484	5	
MTV 5-ton Cargo Truck, M1083	T61908	4	
MTV 5-ton Cargo Truck, M1083 W/W	T41135	5	
MTV 5-ton Cargo Truck, M1084	T41203	3	
MTV 5-ton Cargo Truck, M1085	T61704	4	
MTV 5-ton Cargo Truck, M1085 W/W	T61772	9	
MTV 5-ton Dump Truck, M1090	T64911	13	
MTV 5-ton Tractor Truck, M1088	T61239	5	
MTV 5-ton Tractor Truck, M1088 W/W	T61307	3	
MTV 5-ton Wrecker, M1089	T94709	4	
PLS Container Handling Unit (CHU)	C84862	4	
PLS Demountable Cargo Bed	B83002	14	
PLS Trailer, 16.5-ton, M1076	T93761	5	
PLS Transporter, M1074	T41067	14	
PLS Transporter, M1075	T40999	7	
Semitrailer Tanker, 5000-gal Bulk Haul, M967	S10059	9	
Semitrailer Tanker, 5000-gal POL, M969	S73372	16	
Semitrailer Van, 6-ton Repair Parts, M749/M750	S74832	36	
Semitrailer Van, 6-ton, Electr Shop, M146	S75038	42	
Semitrailer, 22.5-ton Flatbed, M871	S70027	16	
Semitrailer, 34-ton Flatbed, M872	S70159	22	
Semitrailer, 40-ton Lowbed, M870	S70594	21	
Semitrailer, 70-ton Lowbed, M1000 HETS	S70859	10	
Trailer, Cargo, 1.5-ton, M105	W95811	35	
Trailer, Cargo, 2.5-ton LMTV, M1082	T96564	3	
Trailer, Cargo, 3/4-ton, High Mobility, M1101	T95992	4	
Trailer, Cargo, 3/4-ton, M101	W95537	30	
Trailer, Cargo, 5/4-ton, High Mobility, M1102	T95924	4	
Trailer, Cargo, 5-ton MTV, M1095	T95555	3	
Trailer, HEMAT, 11-ton, M989A1	T45465	11	
Truck Tractor, 14-ton LET, M916	T91656	13	
Truck Tractor, 14-ton Line Haul, M915	T61103	15	
Truck Tractor, 20-ton MET, M920	T61171	29	
Truck Tractor, HETS, M1070	T59048	12	
Tracked and Other Combat Vehicles			
Armored Personnel Carrier, FISTV, M113	C12155	38	
Armored Personnel Carrier, M113A1/A2	D12087	43	
Armored Personnel Carrier, M113A3	C18234	21	
Bradley Fighting Veh, Cavalry, M3A0	C76335	25	

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Table 2

Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
Bradley Fighting Veh, Cavalry, M3A2	F60530	20	
Bradley Fighting Veh, Infantry, M2A0	J81750	25	
Bradley Fighting Veh, Infantry, M2A2	F40375	17	
Carrier, Ammo Tracked, M992A2	C10908	20	
Carrier, Cargo, M548	D11049	40	
Carrier, Command Post, M577a1	D11538	34	
Recovery Vehicle, Medium, M88A1	R50681	34	
Tank, Combat, 105mm, M1 Abrams	T13374	25	
Tank, Combat, 120mm, M1A1 Abrams	T13168	21	
Water & Petroleum Equipment			
Distributor Water Tank, 6k gal, Tlr-mtd	D28318	24	
ROWPU Water Purification System, 3000 GPH	W47225	16	
Tank & Pump Unit, Liquid Dispensing Trk-mtd	V12141	20	
Trailer, Tank Water, 400 gal, M1112	W98825	26	

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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 2011 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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013.

Nomenclature	FY 2011	FY 2012	FY 2013
Aircraft			
Helicopter, Light Utility (LUH)	$199,169,000	$217,539,000	$144,018,000
UH-60 Blackhawk (MYP)	39,600,000	0	927,298,000
CH-47 Helicopter	155,750,000	514,898,000	0
Modification of Inservice Aircraft			
Utility/Cargo Airplane modifications	3,818,000	0	0
Utility Helicopter modifications	45,000,000	57,000,000	0
Global Air Traffic Management (GATM) Rollup	6,418,000	0	0
Aircraft Support Equipment and Facilities			
Common Ground Equipment	13,809,000	14,490,000	20,272,000
Air Traffic Control	7,555,000	0	0
Missiles			
MLRS Reduced Range Practice Rockets (RRPR)	7,802,000	7,973,000	8,149,000
High Mobility Artillery Rocket System (HIMARS)	202,627,000	24,232,000	19,932,000
Improved Target Acquisition System (ITAS)/TOW modifications	13,000,000	0	0
High Mobility Artillery Rocket System (HIMARS) modifications	8,459,000	4,631,000	5,237,000
Missiles - Spares and Repair Parts	6,436,000	2,164,000	2,521,000
Modification of Tracked Combat Vehicles			
Fire Support Team (FIST) Vehicle (MOD)	11,000,000	11,000,000	14,136,000
Bradley Program (MOD)	215,133,000	0	0
Howitzer, Medium SP FT 155mm, M109A6 (MOD)	22,450,000	30,130,000	119,965,000
Improved Recovery Vehicle (M88A2 Hercules)	69,609,000	55,916,000	46,320,000
Armored Breacher Vehicle modifications	24,870,000	29,309,000	0
M88 Family of Vehicles (FOV) modifications	0	10,000,000	15,550,000
Joint Assault Bridge modifications	21,911,000	5,440,000	38,427,000
M1 Abrams Tank modifications	174,000,000	120,000,000	0
Weapons & Other Combat Vehicles			
Howitzer, Light, Towed, 105mm, M119	5,575,000	0	0
Machine Gun, M240 Medium (7.62mm)	10,000,000	0	0
Machine Gun, .50 cal M2 Roll	24,164,000	20,428,000	0
Machine Gun, Lightweight .50 cal	4,875,000	7,500,000	5,050,000
MK-19 Grenade Machine Gun (40mm)	1,031,000	0	0
Mortar Systems	4,690,000	4,799,000	5,000,000
M107, .50 cal, Sniper Rifle	235,000	0	0
XM320 Grenade Launcher Module (GLM)	472,000	20,000	0
M110 Semiautomatic Sniper System (SASS)	4,125,000	0	0
M4 Carbine	6,652,000	413,000	0

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Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2011	FY 2012	FY 2013
Shotgun, Modular Accessory System (MASS)	29,000	32,000	0
MK-19 Grenade Machine Gun modifications	137,000	0	0
M4 Carbine modifications	102,000	13,000	0
M249 SAW Machine Gun modifications	50,000	0	0
M119 modifications	11,916,000	13,972,000	15,969,000
Tactical Vehicles			
Tactical Trailers/Dolly Sets	5,022,000	16,285,000	2,363,000
Semitrailers, Flatbed	21,294,000	5,783,000	0
Family of Medium Tactical Vehicles (FMTV)	686,502,000	180,524,000	288,135,000
Family of Heavy Tactical Vehicles (FHTV)	142,144,000	222,104,000	11,040,000
Palletized Load System (PLS) Extended Service Program (ESP)	48,002,000	66,917,000	0
Armored Security Vehicles (ASV)	95,893,000	0	0
Mine Protection Vehicle Family	3,383,000	0	0
Truck, Tractor, Line Haul, M915/M916	0	4,891,000	8,862,000
Heavy Expanded Mobile Tactical Truck (HEMTT) ESP	45,329,000	20,000,000	21,609,000
High Mobility Multipurpose Vehicle (HMMWV) Recapitalization Program	212,306,000	0	0
Joint Communications			
Warfighter Information Network-Tactical (WIN-T) - Ground Forces Tactical Network	15,755,000	19,674,000	19,674,000
Satellite Communications			
NAVSTAR Global Positioning System (Space)	10,817,000	5,872,000	0
Secure Mobile Anti-Jam Reliable Tactical Terminal (SMART-T) (Space)	2,663,000	2,867,000	20,643,000
Global Broadcast Service (GBS)	823,000	1,200,000	0
Mod of In-service Equipment (Tactical Satellite)	1,456,000	40,000	0
Combat Communications			
Single-channel Ground and Airborne Radio System (SINCGARS) Family	1,763,000	0	0
Army Materiel Command (AMC) Critical Items (OPA2)	1,973,000	0	0
Communications-Electronics Equipment Fielding	1,700,000	0	0
SPIDER Anti-personnel Landmine Alternative (APLA) Remote Control Unit	10,688,000	3,215,000	4,474,000
Intelligent Munitions System (IMS) Remote Control Unit	0	30,400,000	30,400,000
Soldier Enhancement Program Communications/Electronics	151,000	0	0
Combat Survivor Evader Locator (CSEL)	496,000	0	0
Radio, Improved HF (COTS) Family	1,025,000	0	461,000
Medical Communications for Combat Casualty Care (MC4)	9,582,000	3,637,000	3,441,000
Communications Information Security			
Telecommunications Security (TSEC) - Army Key Management System (AKMS)	9,334,000	2,917,000	0
Information Systems Security Program (ISSP)	797,000	67,000	0
Electrical Equipment - Tactical Intelligence			
Prophet Ground	0	4,679,000	0
Distributed Common Ground System - Army (DCGS-A) (MIP)	38,275,000	30,718,000	30,999,000

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2011	FY 2012	FY 2013
Counterintelligence (CI) and Human Intelligence (HUMINT) Automated Reporting and Collection System (CHARCS) (MIP)	3,149,000	0	0
Items Less Than $5M (MIP)	11,681,000	0	0
Electrical Equipment - Electronic Warfare			
Lightweight Counter Mortar Radar	10,000,000	20,000,000	24,000,000
Electrical Equipment - Tactical Surveillance			
Forward Area Air Defense (FAAD) GBS	64,500,000	0	0
Sentinel modifications	10,214,000	13,570,000	16,104,000
Sense Through the Wall (STTW) Sensor	0	0	10,000,000
Night Vision Devices	23,960,000	82,418,000	31,419,000
Long Range Advanced Scout Surveillance System	129,576,000	62,395,000	0
Night Vision, Thermal Weapon Sight	99,929,000	77,976,000	11,972,000
Small Tactical Optical Rifle Mounted (STORM) Micro-Laser Range Finder (mLRF)	2,500,000	3,000,000	0
Artillery Accuracy Equipment	1,800,000	0	0
Profiler	1,772,000	1,540,000	4,440,000
Mod of In-service Equipment (Firefinder Radars)	2,843,000	3,009,000	3,056,000
Force XXI Battle Command Brigade & Below (FBCB2)	10,626,000	19,302,000	0
Joint Battle Command - Platform (JBC-P)	0	23,456,000	31,282,000
Lightweight Laser Designator/Rangefinder (LLDR)	18,386,000	39,732,000	40,171,000
Mortar Fire Control System	14,714,000	13,657,000	13,948,000
Counterfire Radars	0	119,245,000	241,053,000
Electrical Equipment - Tactical Command & Control (C2) Systems			
Tactical Operations Centers	32,578,000	42,218,000	16,560,000
Fire Support Command & Control (C2) Family	23,350,000	20,664,000	20,348,000
Battle Command Sustainment Support System (BCS3)	13,369,000	7,240,000	7,075,000
Forward Area Air Defense (FAAD) C2	20,140,000	13,716,000	17,130,000
Air & Missile Defense Planning and Control System (AMDPCS)	30,086,000	15,896,000	23,404,000
Knight Family	55,590,000	31,300,000	32,300,000
Transportation Coordinators-Automated Information for Movement System II (TC-AIMS II)	1,534,000	1,626,000	1,691,000
Maneuver Control System (MCS)	9,142,000	9,681,000	5,801,000
Single Army Logistics Enterprise (SALE)	10,172,000	12,314,000	12,247,000
Reconnaissance and Surveying Instrument Set	6,601,000	12,355,000	10,735,000
Electrical Equipment - Automation			
Combat Service Support (CSS) Communications	11,580,000	13,245,000	12,945,000
Electrical Equipment - Audio Visual Systems			
Items Less Than $5M (Surveying Equipment)	1,040,000	160,000	0
Chemical Defensive Equipment			
Family of Non-lethal Equipment (FNLE)	4,212,000	4,345,000	4,522,000
CBRN Soldier Protection	80,383,000	22,041,000	6,128,000
Smoke & Obscurant Family (SOF) (Non AAO Item)	644,000	0	0
Bridging Equipment			
Tactical Bridging	0	30,857,000	41,600,000

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2011	FY 2012	FY 2013
Tactical Bridge, Float-Ribbon	58,491,000	14,935,000	8,051,000
Engineer (Non-Construction) Equipment			
Handheld Standoff Mine Detection System (HSTAMIDS)	15,966,000	10,390,000	20,000,000
Ground Standoff Minefield Detection System (GSTAMIDS)	8,421,000	0	0
Explosive Ordnance Disposal (EOD) Equipment	16,699,000	16,581,000	16,215,000
Combat Service Support Equipment			
Heaters and Environmental Control Units (ECUs)	6,178,000	40,000	0
Soldier Enhancement	2,747,000	3,400,000	3,400,000
Field Feeding Equipment	6,314,000	2,184,000	818,000
Cargo Aerial Delivery & Personnel Parachute System	4,578,000	4,029,000	3,689,000
Items Less Than $5M (Engineer Support)	1,018,000	2,675,000	0
Petroleum & Water Equipment			
Distribution Systems, Petroleum & Water	39,493,000	11,377,000	1,398,000
Water Purification Systems	666,000	1,236,000	889,000
Medical Equipment			
Combat Support Medical	1,731,000	1,438,000	903,000
Maintenance Equipment			
Mobile Maintenance Equipment Systems	76,715,000	10,553,000	0
Construction Equipment			
Skid Steer Loader (SSL) Family of Systems (FOS)	8,652,000	0	0
Scrapers, Earthmoving	588,000	0	0
Mission Modules - Engineering	50,595,000	34,600,000	33,336,000
Plant, Asphalt Mixing	4,987,000	0	0
High Mobility Engineer Excavator (HMEE) FOS	2,708,000	410,000	0
Construction Equipment ESP	3,776,000	0	0
Items Less Than $5M (Construction Equipment)	5,156,000	1,235,000	4,400,000
Generators			
Generators and Associated Equipment	42,288,000	58,964,000	3,040,000
Material Handling Equipment			
Rough Terrain Container Handler (RTCH)	8,236,000	0	0
Family of Forklifts	12,852,000	0	0
All Terrain Lifting Army System (ATLAS)	11,120,000	0	0
Test, Measurement, and Diagnostic Equipment (TMDE)			
Calibration Sets Equipment	1,750,000	0	0
Integrated Family of Test Equipment (IFTE)	25,560,000	40,926,000	10,336,000
Test Equipment Modernization (TEMOD)	6,614,000	1,278,000	3,246,000
Modification of Other Support Equipment			
Modification of In-service Equipment (OPA3)	2,790,000	4,525,000	3,225,000
Total	**$3,822,402,000**	**$2,711,423,000**	**$2,582,822,000**

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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013. All values are costs in dollars.

Nomenclature	FY 2008	FY 2009	FY 2010
FY 2008 Title III NGREA Equipment			
Army Battle Command System (ABCS) Equipment	$147,742,559		
HMMWV, Up-armored (M1151A1B1, M1152A1, M1165A1)	72,243,780		
Helicopter Utility: UH-60A to UH-60L Upgrade Kit	71,400,000		
Heavy Expanded Mobility Tactical Truck (HEMTT)	51,159,375		
Semitrailer Flatbed: Breakbulk/Container	22,500,000		
Tactical Quiet Generator (TQG)	20,388,750		
CH-47F Transportable Flight Proficiency Simulator (TFPS)	17,100,000		
XCTC - Flextrain	14,625,000		
Integrated Health Management System (IHMS)	14,342,000		
SINCGARS Radios	14,000,000		
Loader Skid Steer: Type II Track Hvy Ded	11,466,000		
Joint Svc Transportable Decon Sys-small Scale (JSTDS-SS)	10,836,000		
LUH-72A Mission Equipment Package	10,500,000		
Tank, Water Camel 800 gal, 5-ton	10,000,000		
Powered Air Purifying Respirator Suit (PAPRS) w/Hydration Capability	9,901,500		
Firewall, Router, Fiber Switch, Intrusion Protection Sys, Cabinet, Thin Client, Monitor, Installation & Shipping	9,900,000		
Semitrailer Low Bed: 40-ton 6-wheel W/E (HET)	9,700,000		
Tactical Unmanned Aircraft System (TUAS) Simulator	9,252,000		
Laser Marksmanship Trainer (LMTS)	8,370,000		
Drivers Enhancers: AN/VAS-5	7,663,950		
Sight: Thermal AN/PAS-13	7,036,400		
Trailer Cargo: Light Tactical 3/4-ton	6,722,000		
XTS 5000 Radios for CST Upgrades & CERFP Shortages	6,645,000		
Loader Skid Steer: Type III Track Over Wheel Light Abn/Ambl	6,615,000		
Radio Set: AN/PSC-5	5,400,000		
BCT Joint Node Network (JNN), WIN-T Inc 1	5,100,000		
Water Purifier: Lightweight	5,011,860		
Thermal Sight, AN/PAS-13B(V)1	5,004,800		
Continuity of Operations Plan (COOP) - Storage Area Network	5,000,000		
Excavator: Hydraulic (HYEX) Type I	2,400,000		
Ventilator Volume Portable	2,080,000		
TDFM-6148 Radio	1,525,000		
Defibrillator Monitor Recorder: 120/230v 50/60Hz	1,398,400		

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
Illuminator: Infrared AN/PEC-15	1,350,000		
CERFP Radiation Detection Device, AN/PDR-77	944,985		
Mask Upgrade	818,209		
Tabletop Trainers (TGT, TFT, TMT)	800,250		
Laser Shot	800,000		
Guardian Defender (CST Radiation Detection Equip)	650,000		
Combat Arms Training System (CATS) for ARNG	522,000		
X-ray Apparatus: Low Capacity Port	317,680		
X-ray: Apparatus Den	273,428		
Cyberlux Brighteye Light Set	183,330		
Level B Suits for CERFP & CST Upgrades	176,120		
FY 2008 Title IX NGREA Equipment			
Family of Heavy Tactical Vehicles (FHTV)	117,579,000		
Field Feeding System	76,805,486		
Family of Medium Tactical Vehicles	67,600,000		
HMMWV	49,050,000		
Tactical Radios	42,037,000		
Aviation Health Maintenance Systems	33,003,138		
AH-64 A-D Mods (incl. Long-lead Items)	30,750,000		
Horizontal Construction Equipment	27,855,000		
Light Utility Helicopter - Mission Equipment Package	26,400,000		
Tactical Trailers	24,788,000		
JFHQ, C4ISR	24,340,000		
Chemical Decontamination	17,494,000		
Automated Test Equipment	17,068,000		
Liquid Logistics Storage/Distro Systems	16,850,000		
Training Devices	16,774,000		
Military Satellite Communications (MILSATCOM), Phoenix	14,463,000		
Night Vision	14,044,000		
Tactical Command and Control Systems (incl. ABCS)	12,375,000		
Digital Enabler (incl. Vehicle Movement Tracking Systems)	8,400,000		
Small Arms	8,004,000		
Medical Systems	5,797,000		
Generators	2,968,000		
Route & Area Clearance (incl. Boats)	1,818,000		
Avionics	1,505,000		
FY 2009 Title III NGREA Equipment			
Family of Medium Tactical Vehicles		$123,281,000	
Family of Light Tactical Vehicles (HMMWV Variants)		102,787,000	
Tactical Radios		69,291,000	
Blackhawk Modernization Program		32,818,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
Night Vision		25,356,000	
Light Utility Helicopter-Mission Equipment Package		24,000,000	
Chemical Decontamination		17,817,000	
JFHQ and Command & Control Systems		17,070,000	
AH-64 A to D Upgrades		10,000,000	
Horizontal Construction Equipment		8,543,000	
MILSATCOM		7,935,000	
Maintenance Systems		6,383,000	
Digital Enabler		6,363,000	
Small Arms		5,893,000	
Tactical Trailers		5,517,000	
Medical Systems		3,898,000	
Rte & Area Clearance		3,811,000	
Liquid Logistics Storage & Distribution Systems		3,789,000	
Force Protection		2,365,000	
Generators		1,668,000	
FY 2009 Title IX NGREA Equipment			
Family of Medium Tactical Vehicles (FMTV)		123,173,990	
Army Battle Command Systems (ABCS)		30,000,000	
Light Utility Helicopter Mission Enhancement Program (LUH MEP)		29,955,039	
Heavy Tactical Trailers		18,682,650	
Commerical Off-the-shelf Tactical Radios		16,210,000	
CBRN Soldier Protection (ex: Chem & Bio Protected Shelter System)		12,466,491	
Thermal Weapons Sights (TWS)		10,474,926	
Aviation Health Information Management System (AV-HIMS)		10,000,000	
Construction Equipment (ex: Loaders; Scrapers)		7,713,552	
Drivers Vision Enhancers (DVE)		7,573,720	
UH-60 extended Range Fuel Storage Tanks (ERFST)		7,000,000	
Field Feeding Equipment (ex: Containerized Kitchens)		5,040,000	
Family of Heavy Tactical Vehicles (FHTV)		4,992,060	
Maintenance Support Equipment (MSE) (ex: Electrical Test Sets)		4,250,000	
Blackhawk Multi-year Program (MYP)		4,022,220	
Blackhawk Medical Evacuation (MEDEVAC)		2,200,000	
Liquid Logistics Storage and Distribution		2,090,000	
SIPRNET Level I Access Equipment		1,944,530	
CBRNE Enhanced Response Force Package (CERFP)		1,047,500	
Logistics Network Communications		448,000	
Civil Support Team (CST) Equipment		438,000	
Logistics Automation (TC-AIMS)		277,200	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
FY 2010 Title III NGREA Equipment			
Medical Support Equipment (ex: Ambulances)			$165,578,160
Family of Medium Tactical Vehicles (FMTV)			109,295,298
Light Utility Helicopter Mission Enhancement Program (LUH MEP)			59,344,282
Automated Battle Command Tng Simulators (ex: Constructive Simulation Suites, Digital Sys Integrator Sets)			47,157,720
Digital Enablers (ex: Digital Computer System - AN/PYQ-6C, Interface Unit Communications Equipment)			42,106,439
Training Aids, Devices, Simulators, and Simulations Operations Trainer			38,738,895
Civil Support Team (CST) (ex: Thermal Desorption System for Gas Chromatograph Mass Spectrometer)			13,470,000
Wideband Global (Gapfiller) System (WGS)			12,960,000
General Engineering Equipment (ex: Tractor, 15-Man Inflatable Assault Boat)			12,653,832
Soldier Weapons/Systems (ex: Battlefield Anti-intrusion System - AN/PRS-9)			11,842,751
Network Communications Security (ex: Secure VTC to BN/BDE)			11,150,000
Chemical Decontamination Equipment (ex: CERFP Mass Casualty Decontamination Trailer)			10,231,300
Shadow Crew Trainer (Unmanned Aerial Vehicle)			8,656,154
Field Logistics Equipment (ex: Prefabricated Refrigerator, Wheeled Crane)			7,180,443
Liquid Logistics Storage and Distribution (ex: 2000 gal Water Tank [HIPPO])			6,085,899
Integrated Vehicle Health and Usage Moniloring System (IVHUMS)			4,368,000
Field Maintenance Equipmenl (ex: Test Facilities Kit - MK-994/AR)			3,556,828
Blackhawk Maintenance Trainer			3,000,000
Aviation Support Equipment (ex: High Performance Hoist)			2,608,661
Interim Medevac Mission Support System (IMMSS)			2,200,000
Tactical Radios (ex: High Frequency Radio Set - AN/VRC-100(V)1)			2,150,000
Tactical Trailers			664,723
Total	**$1,267,633,000**	**$778,584,878**	**$574,999,385**

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 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Artillery & Missiles					
Command Launch Unit, Javelin	C60750		+108	+15	
Bridging Equipment					
Bridge Heavy Dry, Supt (Hdsb) 40m MLC96	B26007		+4		
Communications & Electronics Equipment					
BN Cmd Post (Switching Group), OM XXX	Z00564		+15		
Computer Set, AN/UYK-128	C18378		+53		
Computer System, AN/PYQ-10(C)	Z00384		+5,537	+368	
Computer System, AN/TYQ-105(V)1	C27503		+3,896	+92	
Computer System, AN/TYQ-129(V)1	C27367		+1		
Computer System, AN/TYQ-129(V)2	C27435		+20		
Computer System, AN/UYQ-90(V)2	C18278		+35		
Digital Topographic System, AN/TYQ-67(V)	D10281		+2		
JNN Central Office Telephone, AN/TTC-59	Z00562		+1		
Trojan Spirit Lite, AN/TSQ-226(V)3	C43399		+3		
Generator Sets & Power Plants					
Generator Set, 2kW, MEP-531A	G36169		+28		
Generator Set, 3kW, MEP-831A TQG	G18358		+380		
Generator Set, 5kW, MEP-002A	J35813		+3		
Generator Set, 5kW, MEP-802A TQG	G11966		+147		
Generator Set, 10kW, MEP-003A	J35825		+14		
Generator Set, 10kW, MEP-803A TQG	G74711		+50		
Generator Set, 10kW, PU-753/M	G40744		+8		
Generator Set, 10kW, PU-798 TQG	G42170		+128		
Generator Set, 15kW, PU-801/A TQG	G78374		+35		
Generator Set, 60kW, MEP-805A/B TQG	G74575			+8	
Power Plant, 30kW, AN/MJQ-40 TQG	P42126		+21		
Medical Equipment					
Dental Equip Set, Comprehensive Dent Field	D43802		+2	+1	
Medical Equip Set, Chem Agent Patient Treat	M23673		+7	+1	
Medical Equip Set, Sick Call Field (2)	M30156		+1		
Medical Equip Set, Trauma Field (2)	M30499		+1		
NBC Defensive Equipment					
Chemical Agent Alarm, M22	A33020		+2,716		
Chemical Agent Alarm, M8A1	A32355		+198		
Chemical Agent Monitor, Improved (ICAM)	C05701		+2,557		

ARNG
Projected Equipment Transfer/Withdrawal Quantities

Nomenclature	Equip No.	FY 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Radiac Set, AN/PDR-75	R30925		+2		
Radiac Set, AN/UDR-13	R31061		+8	+83	
Radiac Set, AN/VDR-2	R20684		+31		
Simplified Collective Protection Equip, M20	C79000		+19	+2	
Night Vision Equipment					
Aviation Night-vision System (ANVIS), AN/AVS-6	A06352		+7		
Driver Vision Enhancer, AN/VAS-5	D41659		+317		
Infrared Illuminator, AN/PEQ-2	J03261		+181	+20	
Laser Designator Rangefinder, AN/PED-1	R60282		+159	+22	
Laser IR Observation Set (MELIOS), AN/PVS-6	M74849		+352		
Monocular Night-vision Device, AN/PVS-14	M79678		+79		
Night-vision Goggles, AN/PVS-7B	N05482		+503		
Night-vision Sight, AN/PVS-4 w/Img	N04732		+92		
Night-vision Sight, Crew Serv Wpn, AN/TVS-5	N04596		+610		
Reflex Sight, Collimator, M68	S60288		+258	+124	
Other Support Equipment					
Food Sanitation Center	S33399			+3	
Shelter, Rigid Wall, Command Post	R98145		+28		
Shelter, Tactical Expandable Twoside	S01359		+8		
Telescope, Straight, M145	T60185		+13	+10	
Repair And Test Equipment					
Electronic Shop Avionics, AN/ASM-146	H01907		+93	+29	
Shop Equip, Contact Maint Ord/Eng Trk-mtd	S25681		+4		
Test Set, Aviator Night Vis Imag Sys, TS-3895	T53471		+1		
Test Set, Elect Sys AN/PSM-95	T92889		+3,351		
Tactical & Support Vehicles					
Armored Security Vehicle (Asv), M1117	A93374		+75	+6	
Forward Repair System (FRS)	F64544		+57		
LMTV 2.5-ton Cargo Truck, M1078	T60081		+112		
LMTV 2.5-ton Cargo Truck, w/ LAPES/AD, M1081	T41995		+5		
M35-series 2.5-ton Truck, Cargo, M35A2	X40009		+11		
M809/M939-series 5-ton Cargo Truck, LWB, M813	X40831		+4		
M809/M939-series 5-ton Wrecker, M816/M936	X63299			+3	
MTV 5-ton Cargo Truck, M1083 W/W	T41135		+61		
MTV 5-ton Cargo Truck, M1084	T41203		+26	+2	
MTV 5-ton Tractor Truck, M1088	T61239		+75	+4	
MTV 5-ton Tractor Truck, M1088 W/W	T61307		+28	+3	
MTV 5-ton Wrecker, M1089	T94709		+6		
PLS Transporter, M1075	T40999			+1	
Semitrailer Van, 6-ton Repair Parts, M749/M750	S74832		+2		
Semitrailer Van, 6-ton, Electr Shop, M146	S75038		+11		

ARNG
Projected Equipment Transfer/Withdrawal Quantities

Nomenclature	Equip No.	FY 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Semitrailer, 34-ton Flatbed, M872	S70159		+643	+3	
Semitrailer, 40-ton Lowbed, M870	S70594		+8		
Semitrailer, 70-ton Lowbed, M1000 HETS	S70859		+1		
Tool Set: SATS Module 2	T65562		+19		
Trailer, Cargo, 1.5-ton, M105	W95811		+20	+2	
Trailer, Cargo, 2.5-ton LMTV, M1082	T96564		+301	+140	
Trailer, Cargo, 3/4-ton, High Mobility, M1101	T95992		+59		
Trailer, Cargo, 5/4-ton, High Mobility, M1102	T95924		+17		
Trailer, Cargo, 5-ton MTV, M1095	T95555		+24		
Tracked and Other Combat Vehicles					
Bradley Fighting Veh, Cavalry, M3A3	F90796		+108		
Stryker NBC Reconnaissance Vehicle, M1135	N96543		+10		
Unmanned Aerial Vehicle Systems					
Tactical UAV System, Shadow	T09343		+12		
Water & Petroleum Equipment					
Distributor Water Tank, 6k gal, Tlr-mtd	D28318		+1		
Forward Area Water Point Supply System	F42612		+2	+1	
Fuel System Supply Point, Portable 60k gal	J04717		+1		
Tank & Pump Unit, Liquid Dispensing Trk-mtd	V12141		+1	+13	
Tank, Liquid Storage	T32629		+130	+30	
Weapons					
Carbine, 5.56mm, M4	R97234		+1,165	+153	
Machine Gun Ring Mount, Cal .50, M36/M66	M74364		+39	+94	
Machine Gun, 5.56mm, M249	M09009		+70	+28	
Machine Gun, 5.56mm, M249, Light	M39263		+16	+4	
Machine Gun, 7.62mm, M240B	M92841		+36		
Machine Gun, 7.62mm, M60	L92386		+13		
Machine Gun, Cal .50, M2	L91975		+12		
Machine Gun, Grenade, 40mm, MK19 MOD III	M92362		+74	+6	
Pistol, 9mm Automatic, M9	P98152		+1,066	+121	
Rail Adapter, Weapon Mounted M4	A20044		+207		
Rifle, 5.56mm, M16A2	R95035		+421	+101	
Rifle, 5.56mm, M16A4	R97175			+31	
Rifle, 7.62mm, Sniper M24	R95387		+21		

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2007 with actual procurements and transfers. FY 2007 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 2009. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2007 Planned Transfers & Withdrawals							
Rotary Wing Aircraft							
Helicopter, Utility, UH-60A	K32293	+16	+43				
Helicopter, Utility, UH-60L	H32361	+0	+17				
Helicopter, Observation, OH-58D	A21633	+0	+21				
Communications Equipment							
Radio Set AN/PRC-112	R82903	+70	+0				
Radio Set, SINCGARS AN/VRC-90A	R67908	+0	+13				
Chemical Defensive Equipment							
Chemical Agent Alarm, M22	A33020	+248	+0				
Other Procurement							
Monocular Night-vision Device, AN/PVS-14	M79678	+897	+26				
Night-vision Sight, AN/PVS-4 w/Img	N04732	+6	+1				
Night-vision Goggles, AN/PVS-5	N04456	+2	+50				
Night-vision Goggles, AN/PVS-7B	N05482	+5,983	+100				
Night-vision Sight, AN/UAS-11(V)1	N05050	+2	+0				
Navigation System, PSN-11	N95862	+163	+21				
Tactical Vehicles							
Recovery Vehicle, Medium, M88A1	R50681	+0	+1				
Semitrailer, 22.5-ton Flatbed, M871	S70027	+0	+4				
HMMWV, ECV, Up-armored, M1114	T92446	+4	+0				
HMMWV Cargo/Trp Carrier, M998	T61494	+11	+1				
HEMTT Fuel Tanker, M978 W/W	T58161	+1	+0				
LMTV 2.5-ton Cargo Truck, M1078	T60081	+118	+0				
LMTV 2.5-ton Cargo Truck, M1079	T93484	+8	+0				
MTV 5-ton Cargo Truck, M1084	T41203	+13	+0				
MTV 5-ton Cargo Truck, M1083 W/W	T41135	+5	+0				
MTV 5-ton Tractor Truck, M1088	T61239	+16	+0				
Truck, Cargo, 5-ton, Drop Side	X40931	+52	+2				
Semitrailer, 34-ton Flatbed, M872	S70159	+97	+10				
Semitrailer, 70-ton Lowbed, M1000	S70859	+1	+0				
Truck Tractor, 14-ton Line Haul, M915	T61103	+46	+1				
Truck Tractor, 14-ton LET, M916	T91656	+2	+0				
Truck, Forklift, ATLAS	T73347	+7	+0				
Truck, Dump, 20-ton, M917	X44403	+2	+1				
HEMTT Cargo Truck, w/Med Crane, M985	T39586	+0	+8				

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
HEMTT Fuel Tanker, 2500gal, M978	T87243	+0	+5				
HMMWV Tow Carrier, M966	T05096	+0	+4				
HMMWV Shelter Carrier, Heavy, M1097	T07679	+0	+2				
HMMWV Armt Carrier, Armd, M1025	T92242	+0	+5				
HMMWV Cargo/Trp Carrier, W/W, M1038	T61562	+0	+1				
Trailer, HEMAT, 11-ton, M989A1	T45465	+0	+2				
Weapons and Other Combat Vehicles							
Rifle, 5.56mm, M16A2	R95035	+39	+50				
Howitzer, Medium, SP, 155mm, M109A6	H57642	+0	+1				
Machine Gun, 7.62mm, M240B	M92841	+0	+5				
Fire Unit Vehicle Mtd, Avenger	F57713	+0	+3				
Armored Personnel Carrier, M113A3	C18234	+0	+8				
Tank, Combat, 120mm, M1A1 Abrams	T13168	+0	+1				
Bradley Fighting Veh, Cavalry, M3A2	F60530	+0	+23				
Construction Equipment							
Launcher, M60 Tank Chassis, AVLB	L43664	+0	+2				
Tractor, Whld Excavator, SEE	T34437	+0	+1				
Tractor, FT, Med, Cat D7 w/Scarif Winch	W76816	+0	+1				
Tractor, FT, Med, Cat D7 w/Scarif Ripper	W83529	+0	+1				
FY 2007 P-1R Equipment							
Modification of Aircraft							
CH-47 Cargo Helicopter Mods				$108,032,000	$198,032,000		
Utility/Cargo Airplane Mods				7,123,000	7,123,000		
Airborne Avionics				8,726,000	8,726,000		
Global Air Traffic Management (GATM) Rollup				3,586,000	3,586,000		
Support Equipment and Facilities							
Air Traffic Control				12,659,000	12,659,000		
Missiles							
Javelin (AAWS-M) System Summary				41,714,000	41,714,000		
High Mobility Artillery Rocket System (HIMARS)				90,374,000	90,374,000		
ITAS/TOW Mods				83,129,000	83,129,000		
HIMARS Modifications				3,667,000	3,667,000		
Spares and Repair Parts				5,902,000	5,902,000		
Tracked Combat Vehicles							
Bradley Base Sustainment				128,344,000	128,344,000		
Stryker Vehicle				218,712,000	218,712,000		
Carrier, Modification				6,220,000	45,514,000		
M1 Abrams Tank, Modification				0	100,000,000		

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Weapons and Other Combat Vehicles							
Howitzer, Light, Towed, 105mm, M119				20,369,000	20,287,000		
M240 Medium Machine Gun (7.62mm)				10,000,000	10,000,000		
M249 Saw Machine Gun (5.56mm)				15,000,000	14,967,000		
MK-19 Grenade Machine Gun (40mm)				0	5,240,000		
Howitzer Lt Wt 155mm, Towed				25,200,000	25,200,000		
MK-19 Grenade Machine Gun Modifications				46,000	46,000		
M249 Saw Machine Gun Mods				77,000	77,000		
Tactical and Support Vehicles							
Tactical Trailers/Dolly Sets				954,000	39,620,000		
Semitrailers, Flatbed:				697,000	29,626,000		
Semitrailers, Tankers				5,563,000	13,516,000		
High Mobility Multipurpose Wheeled Vehicle (HMMWV)				79,612,000	532,097,000		
Family of Medium Tactical Vehicles (FMTV)				144,442,000	592,703,000		
Firetrucks & Associated Firefighting Equip				24,527,000	24,527,000		
Family of Heavy Tactical Vehicles (FHTV)				123,946,000	681,538,000		
Truck, Tractor, Line Haul, M915/M916				10,138,000	61,978,000		
Heavy Expanded Mobile Tactical Truck (HEMTT) ESP				25,040,000	25,040,000		
Towing Device - Fifth Wheel				0	174,000		
Communications and Electronics Equipment							
NAVSTAR Global Positioning System (Space)				10,021,000	10,021,000		
Army Global Cmd & Control Sys (AGCCS)				3,064,000	3,064,000		
SINCGARS Family				86,900,000	86,900,000		
Bridge To Future Networks				65,760,000	65,760,000		
Communications - Electronics Equipment Fielding				1,042,000	5,802,000		
Combat Survivor Evader Locator (CSEL)				0	8,270,000		
Radio, Improved HF Family				90,200,000	96,075,000		
Medical Communications for Combat Casualty Care (MC4)				524,000	524,000		
Telecomm Security (TSEC) - Army Key Mgt System (AKMS)				9,392,000	9,392,000		
Information Systems Security Program (ISSP)				8,435,000	8,517,000		
Prophet Ground (MIP)				16,046,000	16,046,000		
Tactical Unmanned Aerial System (TUAS) MIP				0	34,036,000		
Digital Topographic Spt Sys (DTSS) (MIP)				10,944,000	10,944,000		
DCGS-A (MIP)				6,015,000	6,015,000		
Night Vision Devices				89,649,000	169,136,000		
Long Range Advanced Scout Surveillance System				81,751,000	81,751,000		
Night Vision, Thermal Weapon Sight				50,000,000	50,000,000		
Radiation Monitoring Systems				3,693,000	0		
Force XXI Battle Command Brigade & Below (FBCB2)				11,014,000	11,014,000		
Lightweight Laser Designator/Rangefinder				23,340,000	23,340,000		
Mortar Fire Control System				12,392,000	12,392,000		
Tactical Operations Centers				1,402,000	1,402,000		

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Fire Support Command & Control Family				0	2,762,000		
Light Weight Technical Fire Direction System				959,000	0		
Battle Command Sustainment Support System				1,434,000	1,434,000		
FAAD C2				7,558,000	7,558,000		
Forward Entry Device / Lightweight Fed				1,803,000	0		
Knight Family				10,000,000	10,000,000		
TC AIMS II				0	4,000		
Joint Network Management System (JNMS)				877,000	877,000		
Maneuver Control System (MCS)				4,380,000	4,380,000		
Items Under $5M - Electronics Equipment - Support				7,940,000	7,940,000		
Other Support Equipment							
CBRN Soldier Protection				24,868,000	33,601,000		
Tactical Bridge, Float-Ribbon				56,002,000	111,580,000		
Handheld Standoff Mine Detection System (HSTAMIDS)				14,936,000	14,936,000		
Ground Standoff Minefield Detection System (GSTAMIDS)				37,906,000	37,315,000		
Heaters and Environmental Control Units (ECUs)				79,000	79,000		
Soldier Enhancement				3,758,000	3,758,000		
Field Feeding Equipment				20,321,000	21,350,000		
Items Less Than $5M (Engineer Support)				7,000	7,000		
Quality Surveillance Equipment				637,000	637,000		
Distribution Systems, Petroleum & Water				3,032,000	3,784,000		
Water Purification Systems				0	353,000		
Combat Support Medical				715,000	2,028,000		
Mobile Maintenance Systems				0	48,792,000		
Grader, Road Mtzd, Hvy, 6X4 (CCE)				0	1,600,000		
Shop Equipment Contact Maintenance Truck-mounted (MYP)				29,561,000	0		
Welding Shop, Trailer Mtd				1,675,000	0		
Mission Modules - Engineering				7,700,000	7,700,000		
Loaders				6,106,000	6,106,000		
High Mobility Engineer Excavator (HMEE)				9,159,000	9,159,000		
Construction Equipment ESP				4,136,000	4,136,000		
Items Less Than $5M (Const Equip)				4,333,000	833,000		
Generators and Associated Equipment				45,913,000	0		
Rough Terrain Container Handler (RTCH)				0	50,000,000		
All Terrain Lifting Army System (ATLAS)				2,810,000	26,330,000		
Integrated Family of Test Equipment (IFTE)				21,591,000	22,581,000		
FY 2007 Title III NGREA Equipment							
Deployable Force-on-Force Instrumented Range System (DFIRST) - FLEXTRAIN						$18,000,000	$18,000,000
Force XXI Battle Command, Brigade and Below (FBCB2)						10,500,000	10,500,000
UH-60 & UH-1 High Performance Hoist (LIN H39331)						9,990,000	9,990,000
COOP Hardware Upgrade						6,000,000	6,000,000

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Army Battle Command System Training System						5,225,800	5,225,800
M916A3 Line Haul Truck						4,380,000	4,087,172
Virtual Warrior Interactive (VWI)						4,000,000	4,000,000
Movement Tracking System (MTS)						2,976,600	2,973,135
Modification Kit: Utility Hoist UH-60 (LIN M59733)						2,601,154	2,601,154
AN/PRC-117F Satcom Radios (LIN Z00876)						2,420,000	2,420,000
AN/PRC-150C HF Radios (LIN Z00873)						2,250,000	2,250,000
ARNG Data Warehouse Hardware Upgrade						2,100,000	2,100,000
Intrusion Detection Prevention System						1,792,000	1,792,000
Virtual Door Gunnery Trainer (VDGT)						850,000	850,000
Tool Set Aviation Unit Maintenance: Set No 2 Airmobile (LIN W60206)						833,358	833,358
Tool Kit Tube Swaging (LIN T57982)						466,688	466,688
Test Set: Aviation Vibration Analyzer (LIN T53635)						112,896	112,896
Scale Aircraft Weighing (LIN S41732)						103,055	103,055
Test Set Aircraft Fuel Quantity Gage: Portable (LIN V77715)						84,112	84,112
Maintenance Platform: Hydraulic Adjustable B4A (LIN M02504)						14,336	14,336
Total				**$2,115,579,000**	**$4,176,139,000**	**$74,699,999**	**$74,403,706**

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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 2011 Qty	Deployable?	
					Yes	No
Rotary Wing Aircraft						
Helicopter, Observation, OH-58C	H31110	Helicopter, Observation, OH-58A	K31042	106	X	
Helicopter, Utility, UH-60L	H32361	Helicopter, Utility, UH-60A	K32293	307	X	
Communications/Electronics Equipment						
Computer System, AN/TYQ-109(V)2	C27775	Computer System, AN/TYQ-109(V)1	C27707	1,282	X	
Central Communications, AN/TSQ-190(V)3	C89935	Trojan Spirit Lite, AN/TSQ-226(V)3	C43399	8	X	
Radio, AN/PRC-119F(C)	R83141	Radio, AN/PRC-119D	R83073	249	X	
Radio, AN/PRC-119F(C)	R83141	Radio, AN/VRC-119A	R83005	1,272	X	
Radio, AN/VRC-87F(C)	R67296	Radio, AN/VRC-87A	R67160	120	X	
Radio, AN/VRC-87F(C)	R67296	Radio, AN/VRC-87C	R00845	2	X	
Radio, AN/VRC-87F(C)	R67296	Radio, AN/VRC-87D	R67228	64	X	
Radio, AN/VRC-88F(C)	R67330	Radio, AN/VRC-88D	R67262	133	X	
Radio, AN/VRC-88F(C)	R67330	Radio, AN/VRC-88A	R67194	908	X	
Radio, AN/VRC-89F(C)	R44999	Radio, AN/VRC-89A	R44863	1,157	X	
Radio, AN/VRC-89F(C)	R44999	Radio, AN/VRC-89D	R44931	291	X	
Radio, AN/VRC-90F(C)	R68044	Radio, AN/VRC-90D	R67976	1,852	X	
Radio, AN/VRC-90F(C)	R68044	Radio, AN/VRC-90A	R67908	7,836	X	
Radio, AN/VRC 91F(C)	R68146	Radio, AN/VRC-91A	R68010	3,407	X	
Radio, AN/VRC 91F(C)	R68146	Radio, AN/VRC-91D	R68078	675	X	
Radio, AN/VRC-92F(C)	R45543	Radio, AN/VRC-92A	R45407	1,386	X	
Radio, AN/VRC-92F(C)	R45543	Radio, AN/VRC-92D	R45475	559	X	
Test Set, AN/PSM-95	T92889	Test Set, AN/PSM-80(V)2	T77499	10	X	
Test Set, AN/APM-305	V99436	Test Set, AN/APM-123	V99347	2	X	
Test Set, AN/APM-305	V99436	Test Set, AN/APM-239A	V99416	5	X	
Chemical Defensive Equipment						
Chemical Agent Alarm, M22	A33020	Chemical Agent Alarm, M8A1	A32355	7,144	X	
Decontaminating Apparatus, M17	D82404	Decon Apparatus, M12A1	F81880	49	X	
Radiac Set, AN/UDR-13	R31061	Radiacmeter: IM-93/UD	Q20935	3,722	X	
Construction Equipment						
Forklift, ATLAS	T73347	Forklift, Rough Terrain	T49119	32	X	
Forklift, ATLAS	T73347	Forklift, Rough Terrain	X48914	10	X	
Forklift, ATLAS	T73347	Forklift, RT, Ammo Hdlg	T48944	137	X	
Forklift, ATLAS	T73347	Forklift, Rough Terrain	X49051	2	X	
Tractor, Full-tracked, Armored, M9 (ACE)	W76473	Tractor, FT, Med, Cat D7 w/Scarif Winch	W76816	10	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 2011 Qty	Deployable?	
					Yes	No
Tractor, FT, Med, Cat D7 w/Scarif Ripper	W83529	Tractor, FT, Hvy, CAT D8K-8-S	W88699	7	X	
Tractor, FT, Med, Cat D7 w/Scarif Ripper	W83529	Tractor, FT, Med, Cat D7 w/Scarif Winch	W76816	45	X	
Semitrailer Van, 6-ton, Electr Shop, M146	S75038	Semitrailer Van, 12-ton, Supply, M129	S75175	66	X	
Tractor, Whld Excavator, SEE	T34437	M939/M809 Series 5-ton, M934A1P1/A2P1	W91074	6	X	
Electrical Generation						
Gen Set, 10kW, PU-798 TQG	G42170	Gen Set, 10kW, PU-753/M	G40744	192	X	
Gen Set, 5kW, PU-797 TQG	G42238	Gen Set, 5kW, PU-751/M	G37273	123	X	
Gen Set, 10kW, MEP-803A TQG	G74711	Gen Set, 10kW, MEP-003A	J35825	427	X	
Gen Set, 3kW, MEP-831A TQG	G18358	Gen Set, 5kW, MEP-002A	J35813	695	X	
Gen Set, 5kW, MEP-802A TQG	G11966	Gen Set, 5kW, MEP-002A	J35813	587	X	
Gen Set, 15kW, PU-802 TQG	G53778	Gen Set, 15kW, PU-405	J35492	305	X	
Gen Set, 15kW, PU-802 TQG	G53778	Gen Set, 30kW, PU-406	J36383	117	X	
Gen Set, 30kW, PU-803/B/G	G35851	Gen Set, 30kW, PU-406	J36383	162	X	
Gen Set, 60kW, PU-805 TQG	G78306	Gen Set, 60kW, PU-650	J35629	42	X	
Power Plant, 10kW, AN/MJQ-37 TQG	P42262	Power Plant, 10kW, AN/MJQ-18	P28015	23	X	
Power Plant, 30kW, AN/MJQ-40 TQG	P42126	Power Plant, 30kW, AN/MJQ-10	P27819	12	X	
Other Procurement						
Kitchen, Containerized, CK	C27633	Kitchen Field, Trlr-mtd	L28351	143	X	
Night-vision Goggles, AN/PVS-7B	N05482	Night-vision Goggles, AN/PVS-5	N04456	12,409	X	
Night-vision Goggles, AN/PVS-7B	N05482	Monocular Night-vision Device, AN/PVS-14	M79678	68,628	X	
Nav Set, AN/PSN-13	N96248	Nav Set, AN/PSN-11(V)1	N95862	8,802	X	
Laser Designator Rangefinder, AN/PED-1	R60282	Target Designator Set: Electro Optical (GLLD)	T26457	146	X	
Thermal Sight, AN/PAS-13B(V)1	S60356	Night-Vision Sight, AN/PVS-4	N04732	1,327	X	
Tactical Water Purification System (TWPS), 1500 GPH	T14017	Water Purif Equip Set: Reverse Osmosis 600 GPH	W35417	9	X	
Tactical Vehicles						
HMMWV, M998	T61494	HMMWV, M1097-Series	T07679	4,981	X	
HMMWV, M998	T61494	HMMWV, M1038 W/W	T61562	498	X	
HMMWV, M1113	T61630	HMMWV, M1097-Series	T07679	557	X	
HEMTT, M985 W/W	T39654	HEMTT, M985-Series WO/W	T39586	237	X	
HEMTT, M977 W/W	T39518	HEMTT, M985-Series WO/W	T39586	96	X	
HEMTT, M977 W/W	T39518	HEMTT, M977 WO/W	T59278	50	X	
HEMTT Fuel Tanker, M978	T87243	Tank & Pump Unit, Trk-mtd	V12141	67	X	
LMTV 2.5-ton Cargo Truck, M1078	T60081	M809/M939-series 5-ton Cargo Truck, M813/M923	X40794	1,585	X	
LMTV 2.5-ton Cargo Truck, M1078	T60081	M809/M939-series 5-ton Cargo Truck, M813/M925 W/W	X40931	266	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 2011 Qty	Deployable?	
					Yes	No
LMTV 2.5-ton Cargo Truck, M1078 W/W	T60149	M809/M939-series 5-ton Cargo Truck, M813/M925 W/W	X40931	79	X	
MTV 5-ton Cargo Truck, M1083	T61908	M809/M939-series 5-ton Cargo Truck, M813/M925 W/W	X40931	276	X	
MTV 5-ton Cargo Truck, M1083	T61908	M809/M939-series 5-ton Cargo Truck, M813/M923	X40794	1,636	X	
MTV 5-ton Cargo Truck, M1083 W/W	T41135	M809/M939-series 5-ton Cargo Truck, M813/M925 W/W	X40931	273	X	
MTV 5-ton Cargo Truck, M1083 W/W	T41135	M809/M939-series 5-ton Cargo Truck, M813/M923	X40794	125	X	
MTV 5-ton Cargo Truck, M1085	T61704	M809/M939-series 5-ton Cargo Truck, M814/M928 W/W	X41242	10	X	
MTV 5-ton Cargo Truck, M1085	T61704	M809/M939-series 5-ton Cargo Truck, M814/M927	X41105	29	X	
MTV 5-ton Tractor Truck, M1088	T61239	Truck Tractor, M939/M809 Series 5-ton, M931/M818	X59326	1,065	X	
MTV 5-ton Tractor Truck, M1088	T61239	Truck Tractor, M939/M809 Series 5-ton, M932/M818 WW	X59463	78	X	
MTV 5-ton Tractor Truck, M1088 W/W	T61307	Truck Tractor, M939/M809 Series 5-ton, M932/M818 WW	X59463	57	X	
MTV 5-ton Cargo Truck, w/ LAPES/AD, M1093	T41036	M809/M939-series 5-ton Cargo Truck, M813/M923	X40794	17	X	
MTV 5-ton Cargo Truck, w/ LAPES/AD,M1093 W/W	T41104	M809/M939-series 5-ton Cargo Truck, M813/M925 W/W	X40931	5	X	
PLS Transporter, M1075	T40999	PLS Transporter, M1074	T41067	141	X	
Trailer, 3/4-ton, M1101	T95992	Trailer, 3/4-ton, M101	W95537	2,373	X	
Tracked & Wheeled Combat Systems						
Carrier Armd Command Post	C11158	Carrier, Command Post, M577A1	D11538	191	X	
Bradley, M7	F86571	APC, FISTV, M113	C12155	33	X	
Bradley, Cavalry, M3A3	F90796	Bradley, Cavalry, M3A2	F60530	6	X	
Bradley, Infantry, M2A3	F60564	Bradley, Infantry, M2A2	F40375	59	X	
Howitzer, 105mm, M119	H57505	Howitzer, 105mm, M102	K57392	48	X	
Tank, Combat, 120mm Gun, M1A2	T13305	Tank, Combat, 120mm, M1A1	T13168	58	X	
Weapons						
Carbine, 5.56mm, M4	R97234	Rifle, 5.56mm, M16A2	R95035	5,716	X	
Carbine, 5.56mm, M4	R97234	Rifle, 5.56mm M16A4	R97175	2,673	X	
Machine Gun, 5.56mm, M249 LT	M39263	Machine Gun, 5.56mm, M249	M09009	1,977	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	Command Posts - Tactical Operations Center (TOC) & Standardized Integrated Command Post System (SICPS)	39,199	24,996	$89,781	$2,244,154,340	Integrated command posts with Force XXI Battle Command, Brigade & Below (FBCB2) continue to represent a critical shortfall for the ARNG.
2	Family of Medium Tactical Vehicles	29,718	3,162	$415,590	$1,314,096,851	The FMTV Trucks are replacement vehicles for existing non-deployable M35 series and 800/900 series 2.5 and 5 ton trucks still resident within the ARNG fleet.
3	Light Utility Helicopter (LUH) Mission Equipment Package (MEP)	100	100	$1,660,000	$166,000,000	LUH-72A MEP encompasses HLD/DSCA/HLS mission support objectives of Modernization & Force Structure Transformation aligning with AC.
4	Armored Security Vehicle (ASV)	1,196	616	$1,009,728	$621,992,448	ASV can be employed in both the homeland defense and expeditionary roles for crisis management.
5	Warfighter Information Network - Tactical (WIN-T)	651	279	$1,909,346	$532,707,399	The WIN-T network provides C4ISR support capabilities that are mobile, secure, survivable, seamless, and capable of supporting multimedia tactical information systems within the warfighters' battlespace.
6	Tactical Radios	65,644	49,313	$8,889	$438,345,905	Required to fill critical shortages in the ARNG tactical communications requirements. New versions required to interoperate with civilian first-responders.
7	Shadow Tactical Unmanned Aerial System (TUAS)	30	10	$32,940,000	$329,400,000	TUAS systems and their associated crew trainers are required for employment of these systems both in homeland defense and expeditionary missions.
8	General Engineering Equipment	4,056	702	$305,410	$214,398,118	Horizontal/Vertical construction, diving, and firefighting equipment critically underfilled. Required for homeland defense response missions.

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Table 8

Significant Major Item Shortages

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
9	Chemical/Biological Protective Shelter	285	278	$733,323	$203,863,794	CBRNE collective protective systems required for CCMRF missions.
10	Tactical Trailers	47,182	1,232	$92,506	$113,967,776	Light, Medium and Heavy Tactical Trailers are required to transport miscellaneous cargo in support of all mission assignments (HLS/HLD, OCO, etc.)

III. United States Army Reserve Overview

A. Current Status of the Army Reserve

1. General Overview

Top Army Reserve Equipping Challenges

- Systematic process to provide traceability of procurement funded equipment
- The continued procurement of modernized equipment through Army budget allocated resources, NGREA funds, and equipment redistribution (cascaded) for pre-mobilization, post-deployment and to meet current and future operational requirements
- The sustainment of non-procurable systems, e.g., HMMWV and M88 through recapitalization programs

As the Army Reserve enters its eighth consecutive year of deployments in support of the Army's commitment to OCO, we have shifted from a strategic reserve to an operational force becoming a full partner with our AC counterparts. This shift in responsibilities has come with a cost in both equipment and training requirements. HQDA has programmed and provided a dramatic increase in resources to the Army Reserve, which has increased our EOH percentages to approximately 80 percent of our required MTOE documents as of 3rd quarter FY 2009. However, continued funding is essential to complete the CNGR Report's goal of fully modernizing the RC. On today's battlefields, the Army Reserve provides impeccable support to combating terrorism. To continue this level of support, Army Reserve formations must be equipped with the most modern equipment systems so our Soldiers are trained and combat ready to deploy and serve in Full Spectrum Operations. The challenges are many; however, the keys to fully operationalizing the Army Reserve are:

- modernization of Army Reserve equipment and maintenance infrastructure to support ARFORGEN,
- increases in procurement funding, and
- sustainment of equipment to support deploying units and ARFORGEN.

The Army Reserve is the nation's first Title 10 responder in support of civil authorities in domestic emergencies with Army Reserve facilities embedded in communities across this great nation and is prepared to respond at a moment's notice. Our Citizen-Soldiers possess critical skills and equipment that enable them to react to medical emergencies, CBRNE disasters, and natural or man-made incidents to support civil government authorities. As a result, some Army Reserve units have been assigned specific CCMRF missions in 2010 and 2011 that require the Army Reserve to intensively manage the CDU equipment that affect mission success.

Current OCO and the training preparation required to enable our great Soldiers to deploy have placed a high demand on the limited EOH in the Army Reserve. Despite this demand, the Army Reserve has never failed in either training its formations or deploying its units with 100 percent of their required equipment. These tasks are accomplished through a combination of cross-leveling of items on-hand, the availability of TPE, and by pre-positioning unit equipment sets at Army Reserve Training Sites at Fort Hunter-Liggett, Fort McCoy, and Fort Dix. These unit sets are borrowed from within our formations, increasing our ability to conduct pre-mobilization training

within modular formations without sacrificing overall readiness. In addition, using the Army's ARFORGEN process, the Army Reserve is able to train significantly more Soldiers without increased equipment transportation cost or reduced training time. In training our Soldiers for current and future operations, it is imperative that the Army Reserve receive critical modernized equipment. This includes FMTV (2.5 and 5 ton), HTV, battle command and control systems, logistics automation, and other technology enablers for the modular support force. Modernized equipment ensures mission capability, interoperability, and reduced risk to our Soldiers. The National Guard and Reserve Equipment Appropriation is vital in the effort to facilitate the Army Reserve's modernization and its ability to meet its mission.

The transformation and sustainment of the Army Reserve from a strategic to an operational reserve requires continual procurement of modernized equipment; new, expanded, and modernized facilities; and more FTS personnel, tools, and consumable supplies. The ARFORGEN process is central to the Army Reserve's ability to meet the Army's demand for forces in an era dominated by persistent conflict. The Army Reserve responds to this demand by managing the availability of its forces using a five-year Reset, Train/Ready, Available Deployment cycle. This system produces a trained and ready force capable of deploying to any full-spectrum contingency while, at the same time, retaining the Army Reserve's ability to mobilize fully for general war.

The ARFORGEN process increases predictability for Citizen-Soldiers, their families, and employers. This five-year cycle starts in Year 1 (Reset), when units and Soldiers reset themselves, their careers, and their families. Units and Soldiers then progress through increasingly more difficult individual and collective training objectives in Years 2 and 3 (Train/Ready 1 and 2), validate their readiness to mobilize in Year 4 (Train/Ready 3), and mobilize and deploy in Year 5 (Available). Upon completion of Year 5, units and Soldiers will return to Year 1 and begin the process again.

The Army Reserve has established force pools so that 20 percent of the force is aligned in each phase of ARFORGEN. The force pool in Year Four (Train/Ready 3) is available for a "surge" capability and the force pool in Year Five (Available) is part of the Army's "operational reserve." The forces in Years 1, 2, and 3 represent a portion of the Army's "strategic reserve" and require more equipment and training before they could be committed to combatant commanders. Equipping the Army Reserve to its fully modernized MTOE authorization levels will ensure that units are trained and available earlier rather than later in a conflict.

As an operational reserve, the Army Reserve is now expected to mobilize its units with 100 percent of their MTOE equipment for deployment and to be ready to deploy within days of mobilization. This paradigm shift requires that Army Reserve units receive the resources needed to attain the readiness objectives of the ARFORGEN model through intensive, realistic pre-mobilization training and the ability to "surge" to meet unanticipated demands without damaging the ability of the follow-on units in the ARFORGEN process to continue to meet their readiness objectives.

2. Status of Equipment

a. Equipment On-hand (EOH)

The Army Reserve has about 80 percent of its required EOH; however, some critical items remain at less than 50 percent fill. Shortfalls are detailed within the tables attached to this report.

Under the Army's new Equipping Strategy, the Army Reserve should be equipped to the same standards as its AC counterparts to fully implement the strategy and sustain the ARFORGEN model. The current equipment situation poses risk for both the ability to surge in Year 4 as an operational reserve and the ability to prepare during Year 1 through Year 3 to serve as a strategic reserve.

A lack of modernized equipment continues to pose a training risk and delayed employment in theater for our forces. While authorized substitutes enhance the overall equipment posture of the Army Reserve, some of these items have limitations on their employment and training usefulness. For example, the M998 HMMWV is on the do-not-deploy list in support of on-going contingencies in favor of the more durable up-armored M1114 and M1025. Although the capabilities are the same, the characteristics of the M998-series vehicles do not adequately replicate driving conditions for vehicles operating in theater. Older equipment such as M998 HMMWVs, M900-series Cargo Truck Cargo, 4,000 lbs. and 10,000 lbs. Rough Terrain Fork Lifts, and 50,000 lbs. Rough Terrain Container Handlers make up a significant part of our fleet. Such items may be satisfactory for administrative and training support or HD support missions. However, this equipment is more expensive to maintain, and, in some cases, is less capable than its modern replacement. Because of the shortage of equipment, the current inventory is used more intensively to meet pre-mobilization training objectives at our Reserve Training Sites at Fort Hunter-Liggett, Fort McCoy, and Fort Dix. Although this equipment is not deploying, utilization rates and service life expenditures are higher than expected at the time of its design and procurement. Higher utilization rates result in our fleet aging more quickly than programmed, thus requiring overhaul and recapitalization earlier than projected to sustain its useful service life.

The Army Reserve is currently at 80 percent fill for EOH and expects to maintain that level through the end of FY 2015 due to structure and requirement changes within our formations. This projection is based on programmed procurement levels for FYs 2011–2015. This projection assumes there is no diversion of funds or equipment to higher priorities. Of the 82 percent EOH within the Army Reserve, approximately 16 percent is currently on the do-not-deploy list for use in current OCO, effectively rendering our EOH to 66 percent deployable equipment.

b. Average Age of Major Items of Equipment

The age of primary major items of equipment continues to plague the Army Reserve as many items are nearing or past their expected economic useful life. Examples of these items include the M998 HMMWV, M915 Tractor Truck, and material handling equipment. An aging fleet increases operational and sustainment costs and creates a decrease in equipment serviceability rates.

c. Compatibility of Current Equipment with Active Component

The Department of the Army has been supportive of our deploying unit requirements; however, units in Years 2, 3, and 4 of the ARFORGEN model lag behind. Some systems are being cascaded that will be used as authorized substitutes versus the modernized MTOE required types and quantities, e.g., M915 Truck Tractor for the LMTV M1078 Cargo Truck. The issue with cascaded equipment is not with its capability, but that it is not the modernized equipment in the Army inventory. To meet the intent of DoDD 1200.17, all components should be filled with the same equipment so there are no capability or training gaps. Fielding to the same standard will ensure a consistent and predictable operational reserve that is trained and ready to deploy when called upon to do so.

d. Maintenance Issues

i. Field Level Maintenance

a) Maintenance Full-time Support

The Army Reserve continues to meet or exceed the Army readiness standard of 90 percent FMC status for its reportable equipment. However, one area of concern is the shortage of authorizations to fill our FTS mechanics in the TDA Area Maintenance Support Activities (AMSA) to 100 percent of our requirements. While the Army Reserve is able to maintain the FMC rate, we cannot meet the Army maintenance goal of Technical Manual (TM)10/20 standards without additional authorizations. The current maintenance workload requires the Army Reserve to have on-hand 5,932 full-time mechanics to complete all maintenance requirements to TM 10/20 standards; however, current authorizations allow the Army Reserve to fill only 57 percent of those requirements. Without the full authorizations, the Army Reserve will be unable to maintain all of its equipment to TM 10/20 standards.

b) Maintenance Facilities

Of parallel concern is the shortage of maintenance facilities within the Army Reserve, specifically maintenance bays for mechanics to work. This limited space hinders our ability to utilize contract maintenance personnel to fill critical shortfalls. In addition, current facilities within the Army Reserve are unable to support the larger, heavier vehicles of the Army's modernized fleet. As the Army Reserve receives a higher level of fill for modernized equipment, our ability to maintain this equipment adequately will be diminished unless upgraded maintenance facilities keep pace with the Army's modernization efforts.

ii. National Level Maintenance

National level maintenance and sustainment programs are a critical part of our readiness. Because our formations are filled with significant quantities of older generation equipment, a means of extending the service life, reducing the operating costs, and improving the safe operation of this equipment is required. One essential program is the HMMWV M998 to M1097R1 recapitalization, where older M998s are rebuilt into M1097R1 models, which are able to carry both their payload and "add-on" armor without a reduction in performance and reliability. We project that M1097R1 models will make up 60 percent of our HMMWV fleet by FY 2016. 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 (OEM) 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.

iii. Sustainment Initiatives

The following initiatives are examples of how the Army Reserve is collaborating with industry to design and implement total rebuild and refurbishment programs.

- **4,000 lbs. Rough Terrain Forklifts**—There are three models of forklifts, the oldest of which was manufactured between 1981 and 1983 and already exceeds its expected 15-year economic useful life. The other models were manufactured between 1995 and 1996. The total Army Reserve MTOE requirement for these forklifts is 526. Between FY 2002–2007, we rebuilt a total of 326 of the older models and expect to complete this program by FY 2012.

- **M10A, 10,000 lbs. Rough Terrain Forklifts**—These forklifts were manufactured and fielded between 1979 and 1985 and are well past their expected 15-year life span. Of the 125 authorized, 100 have been rebuilt.

- **M915 Truck Tractor Line Haul**—The Army Reserve has 1,856 of these trucks on-hand. The base and A1 model trucks are over 30 years old, and the A2 model is over 19 years old. Rebuilt base M915 tractors are fitted with "glider" kits by Freightliner and by Army Reserve maintenance units at our Fort McCoy facility. The Glider tractors receive technical insertions that upgrade their capabilities, while their service life is extended, life cycle costs reduced, and safe operation ensured. The upgraded tractor is designated the M915A4. The Army Reserve completed its rebuild program of its 697 base model trucks at the end of FY 2009 and upgraded them to the M915A4. The M915A1 fleet is currently being rebuilt at Red River Army Depot and improved with anti-lock brakes and air conditioning. This program is scheduled to be completed by FY 2013. The M915A2 model is scheduled to start its rebuild program in FY 2013.

e. Modernization Programs and Shortfalls

While the Army has made significant improvements in modernizing the Army Reserve, there are still shortages of modernized equipment that are necessary for training to prepare for deployment. Listed below are some of the Army Reserve's top modernization shortages. The AR has an equipment shortfall of $3.9B, accounting for substitute items.

- The Army Reserve has an HMMWV requirement of 22,004 with 19,162 currently on-hand of which only 13 percent are armored capable and 41 percent exceed their estimated useful life of 15 years and are between the ages of 21–25 years.

- Urban JTRS JEM radio has projected requirement of 2,113 with 546 currently on-hand and a projected on-hand in FY 2015 of 1,885. The JEM radio provides the warfighter with a software reprogrammable, networkable, multi-mode system of systems capable of

simultaneous voice, data, and video communications between 2 megahertz and 2.5 gigahertz. The JEM radio is currently number two on the AR's unfunded equipment priority list.

- The Load Handling System Compatible Water Tank Rack (Hippo) represents the latest technology in bulk water distribution systems. It replaces the 3K and 5K Semitrailer-mounted Fabric Tanks (SMFTs). The Army Reserve has projected requirements of 495 with 27 currently on-hand and a projected on-hand in FY 2015 of 125. The Hippo consists of a 2,000 gallon potable water tank in an International Organization for Standardization (ISO) frame with an integrated pump, engine, alternator, filling stand, and 70-foot hose reel with bulk suction and discharge hoses. The Hippo is number three on the unfunded equipment priority.

- The Army Reserve has a FBCB2 system requirement of 9,547 with 319 currently on-hand and a projected on-hand in FY 2015 of 4,006. FBCB2 is a communication platform designed for commanders to track friendly and hostile forces on the battlefield. It increases a vehicle commander's situational awareness of the battlefield by gathering information graphically instead of collecting reports verbally. The FBCB2 is the sixth highest equipment procurement priority.

- The FMTV is a key logistics enabler and reduces the Army Reserve's logistical footprint by providing commonality of parts and components, reducing maintenance downtime, and lowering operating and support costs compared to our older fleet of trucks. It replaces older maintenance-intensive trucks currently in the medium tactical vehicle fleet, such as the M900 series family of 5-ton vehicles. Typical missions include line haul, local haul, unit mobility, unit re-supply, and other missions in the combat, combat support (CS), and combat service support (CSS) roles. The Army Reserve has an FMTV requirement of 12,043 with 9,049 currently on-hand and a projected on-hand in FY 2015 of 11,298. The FMTV is number eight on the Army Reserve's equipment priorities.

- Heavy/Medium Cargo Trailers have an unfunded requirement of 11,469 systems with 9,716 currently on-hand and a projected on-hand in FY 2015 of 12,363. Heavy/Medium Cargo Trailers are number nine on our unfunded requirements list. Trailers are regularly fitted to vehicles to increase cargo capacity or to haul specialized equipment or weapons. Trailers typically need the same wheel and tire size, load height, and track as the specified towing vehicle to maximize performance under all conditions and to simplify logistics; therefore, the older generation trailers have compatibility and capability concerns when used with newer generation vehicles.

All equipment mentioned above not only supports our OCO deployments, but they are also critical systems for our HD support missions as well. As a first federal responder in HD, the Army Reserve has equipment requirements for HD similar to the ARNG. Our current CDU equipment posture stands at 80 percent EOH.

f. Overall Equipment Readiness

The Army Reserve is currently meeting the demands of mobilizing forces for OCO rotations while at the same time meeting or exceeding the Army's equipment readiness standard of

90 percent FMC status. However, we are unable to meet the Army's goal of 90 percent of the equipment at TM 10/20 standards due to a lack of FTS maintenance staff and the associated increase in workload of preparing units. The extensive use of TPE and priority of work to deploying units continues to enable the Army Reserve to meet deployment demands despite required maintenance technicians.

Although the Army Reserve has been successful in meeting the readiness requirements of our deploying forces, success has come at a cost to the accelerating expenditure of programmed service life, and the repositioning of equipment to meet training and mobilization priorities. The Army Reserve will continue to meet its obligations as long as the operational tempo remains the same. The Army Reserve's ability to "surge" or deploy to support a second major contingency, foreign or domestic, is at risk. The Army Reserve would meet such a contingency by stripping equipment from its non-mobilized units and deploying units with non-modernized equipment. The remaining non-deployed units would be unable to execute even the basic levels of individual and collective training and would require significant time to equip and train should they be called upon to deploy. Even at 85 percent fill in FY 2016, we remain challenged to meet two simultaneous or near-simultaneous major contingencies while sustaining the rotational readiness of the ARFORGEN model.

B. Other Equipment Issues

1. Equipment Readiness—Reset

The Reset of Army Reserve equipment at demobilization installations upon redeployment from theater is progressing well. The Army Reserve has coordinated with HQDA and AMC for funding and execution of maintenance and services on redeployed equipment. Sufficient funding has been provided and equipment is being reset to TM 10/20 standards by the Installation Directorates of Materiel (DOM) within the timelines set by Reset policy and the ARFORGEN model.

2. Funding Transparency and Equipment Traceability

As a result of Congressional concerns that DoD is currently unable to adequately track appropriations, HQDA established a Enterprise Task Force to develop a process that allows traceability of equipment appropriations linked to component requirements (Active, ARNG, and Army Reserve) and actual deliveries. HQDA used Lean Six Sigma methodologies to map the end-to-end enterprise process and identify problem areas. This process identified over 57 capability gaps where information is lost because processes used in financial management or supply distribution were not designed to provide transparency or traceability. The Army Reserve is a full partner with HQDA to create a system that is transparent, collaborative, and accurate. Through the work of the HQDA G-8 Enterprise Management Office, the Army Reserve has been given immediate component-focused visibility using existing data, rules, and tools. In addition, we are working to improve the systematic, auditable, and readily accessible visibility of equipment from procurement to delivery. The Army Reserve is also improving collaboration between item managers, Synchronization Staff Officers (SSO), and the Army Reserve G-4 to identify and fix gaps in audit trails and build tracking, planning, and reporting capability into enterprise systems. To date, over 30 systems have been examined consisting of over 350 LINs for appropriations from FY 2009. Of the 350 LINs examined, none are due to be delivered to the

Army Reserve until the 2010–2011 time frame. This enterprise effort marks a significant milestone and the AR continues to monitor success in equipment distribution.

3. DoDD 1225.6: Equipping the Reserve Forces

It is DoD policy that the RC shall be equipped to accomplish all assigned missions and shall have an equipment procurement and distribution plan that is responsive to the combatant commander. Once the Army Reserve is mobilized, the approval to withdraw or divert equipment must come from the CJCS through the Assistant Secretary of the Army for Reserve Affairs. Equipment identified as subject to the "payback" provisions of DoDD 1225.6 includes:

- HQDA G-3 directed transfers or diversions from the AR to any deploying or deployed unit,
- theater directed transfers of equipment with the approval of HQDA G-3, and
- transfers or diversions that last for over 90 days.

Of the over 20,000 pieces of equipment that were transferred from the Army Reserve in support of OCO, HQDA has paid back or reconciled over 8,000 pieces. The Army Reserve is working closely with HQDA to resource the remaining 12,000 pieces and gain transparency and traceability of replacement deliveries.

C. Changes since Last NGRER

1. Modernization of the Army Reserve's Equipment

Modernization ensures compatibility and interoperability with Army and other Service components. During the recent August 2009 AEERC 11.0, the Army Reserve was projected to receive approximately $3.6B of new production or existing equipment. This represents an increase from the previous AEERC 10.0 in which $2.6B of equipment was scheduled for distribution to the Army Reserve. Since 1981, the Congressional-directed program, NGREA, has provided critical funds to the Army Reserve to improve readiness through procurement of new and modernized equipment. The Army Reserve's NGREA funding levels were $89.8M in FY 2007, $182.9M in FY 2008, and $127.3M in FY 2009. For the Army Reserve to sustain and continue its vital transformation from a strategic reserve into an operational reserve, it is paramount we continue to receive adequate funding for the procurement and distribution of new and modernized equipment.

2. NGREA—Anticipated Modernization Procurement

The NGREA has been vital in the effort to improve Army Reserve modernization and readiness as it has addressed some of our critical shortfalls. Through NGREA, the Army Reserve has received an average of $72M annually to procure additional end items the Army has been unable to furnish through the normal budget process. Table 4 provides a list of the equipment purchased with NGREA funds during FY 2008 through FY 2010 for delivery in future fiscal years:

Major systems projected for receipt by the Army Reserve in FY 2010 and beyond as a result of Army P-1R, NGREA, or modification/rebuild programs are listed in *Table 3* and *Table 4*.

D. Future Years Program (FY 2011–FY 2013)

1. FY 2013 Equipment Requirements

Previously identified modernization shortfalls continue through FY 2013.

2. Anticipated New Equipment Procurements

Table 3 reflects the Service-planned procurements from FY 2011 P-1R data.

3. Anticipated Transfers from AC to RC

Table 5 reflects data regarding equipment transfers from AC to the RC.

4. Anticipated Withdrawals from RC Inventory

Table 5 reflects Army Reserve projected equipment transfer and withdrawal quantities.

5. Equipment Shortages and Modernization Shortfalls at the End of FY 2013

The Army Reserve continues to have a modernization shortfall for the following equipment: HMMWV, FMTV, FBCB2, Field Feeding Systems, and CBRN Detection Equipment.

E. Summary

The Army Reserve has met every deployment requirement and has made significant contributions to OCO. However, unaddressed equipment shortages may hamper our ability to prepare for future missions, to include HD. To meet the requirements of ARFORGEN, we have internally transferred large quantities of equipment into deploying units from units in Years 1, 2, and 3 of the ARFORGEN cycle. This approach has resulted in a growing list of shortages in our non-deployed forces. The Army Reserve currently has about 50 percent of the modern equipment needed for OCO deployments and CDU equipment needed for HD missions and contingencies. These shortages could adversely affect our ability to provide rapid support to civil authorities in the event of natural disasters. As an operational reserve, we are mobilizing and deploying Soldiers to provide needed forces for operations in Iraq, Afghanistan, the Horn of Africa, and elsewhere. We must be equipped to leverage the full potential of all our Soldiers, not just those likely to deploy in Year 5 of the ARFORGEN cycle. OCO have proven that the Army Reserve is a valuable part of the “Total Force” and requires equipment to be available to deploy quickly without depleting capabilities critical to pre-mobilization training. The Army Reserve understands that the Army faces several challenges in equipping its units. There are shortfalls in equipment across the Army, insufficient modernization equipment, and a declining funding stream. As a result, the Army Reserve is pursuing new strategies to mobilize and train our formations. The benefits of these strategies to the Army Reserve and the Army are significant; the Army Reserve is able to provide fully trained and equipped units and Soldiers while reducing the need to cross-level equipment upon receipt of mobilization orders. These equipping strategies also position the Army Reserve for a successful transformation to the Modular Force. NGREA and Congressional additions are key to our modernization efforts and have made significant contributions to reducing our equipment shortages. While NGREA and Congressional additions have been helpful, opportunities remain to improve procurement levels for equipping the entire Army so that Army Reserve requirements can be met.

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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 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Aircraft - Rotary Wing							
Helicopter, Attack AH-64D	H48918	$25,128,800	55	58	58	58	48
Helicopter, Cargo/Transport, CH-47D	H30517	$5,000,000	49	49	49	49	24
Helicopter, Utility, UH-60L	H32361	$4,855,000	16	16	24	28	8
Aircraft - Fixed Wing							
Aircraft Cargo/Transport, C-12F	A30062	$3,068,422	4	4	4	4	12
Aircraft, Utility Cargo, UC-35A	Z95382		9	9	9	9	12
Aircraft Support Equipment							
Detection Set Radar Signal: AN/APR-39A(V)1	D03159	$49,272	133	133	133	133	112
Bridging Equipment							
Bridge Erection Set Fixed Bridge: UK Medium Girder Bridge	C22126	$488,354	5	5	5	5	2
Bridge Fixed: Highway Alum UK Medium Girder Bridge 100ft	C22811	$964,515	11	11	11	11	2
Interior Bay Bridge Floating	K97376	$111,968	218	308	313	318	270
Ramp Bay Bridge Floating	R10527	$134,112	111	111	111	111	108
Transporter Bridge Floating	X23277	$102,218	3	3	3	3	0
Transporter Common Bridge	T91308	$226,150	401	513	581	581	544
Bridge Fixed: Highway Pony Truss Ptbl Panel Bailey Type	C23017	$303,673	0	0	0	0	2
Communications & Electronics Equipment							
Data Transfer Device: AN/CYZ-10	D78555	$1,899	8,130	8,130	8,519	8,922	1,830
Electronic Transfer Keying Device: KYK-13/TSEC	E98103	$235	1,863	1,863	1,863	1,863	96
Net Control Device: KYX-15/TSEC	N02758	$2,300	378	378	378	378	21
Speech Security Equipment 28V RED: TSEC/KY58	S01441	$3,063	289	289	289	289	56
Speech Security Equipment: TSEC/KY-57	S01373	$1,930	399	399	399	399	198
Radio Terminal Set: AN/TRC-170 (V)2	R92967	$2,000,000	11	11	11	11	0
Radio Terminal Set: AN/TRC-170 (V)3	R93035	$1,000,000	22	22	22	22	20
Radio Set: AN/PRC-119A	R83005	$10,117	839	839	839	839	2
Radio Set: AN/VRC-87A	R67160	$12,109	117	117	117	117	0
Radio Set: AN/VRC-88A	R67194	$12,519	1,316	1,316	1,316	1,316	38
Radio Set: AN/VRC-89A	R44863	$22,822	810	810	810	810	22
Radio Set: AN/VRC-90A	R67908	$13,178	2,739	2,739	2,739	2,739	100
Radio Set: AN/VRC-91A	R68010	$23,249	443	443	443	443	0
Radio Set: AN/VRC-92A	R45407	$21,238	418	418	418	418	15
Central Office Communications: AN/TTC-39A(V)1	C41311	$2,801,000	2	2	2	2	0
HF Radio Set: AN/GRC-193A	H35404	$37,000	52	52	52	52	0
Radio Set: AN/GRC-106	Q32756	$18,602	182	182	182	182	81
Radio Set: AN/PRC-104A	R55200	$12,000	12	12	12	12	513

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Navigation Set Satellite Systems:	N95862	$2,055	4,019	4,019	4,019	4,019	314
Engineer & Construction Vehicles							
Loader Scoop Type: DSL w/multipurpose Bucket	L76556	$92,895	140	140	140	140	22
Tractor Wheeled: Dsl w/Excavator & Front Loader	T34437	$110,000	298	298	298	298	79
Compactor High Speed: Tamping Self-propelled (CCE)	E61618	$171,438	48	48	48	48	57
Crane Wheel Mtd: Hydraulic Light 7-1/2 ton w/Cab	C36151	$58,481	46	46	46	46	20
Crane-shovel Crwlr-mtd: w/Boom 50ft w/Blk Tkle 40 ton	F40474	$270,000	1	1	1	1	0
Crush Screen and Wash Plant: Dsl/Elec Drvn Whl-mtd 150-225 TPH	F49673	$1,543,579	3	3	3	3	0
Grader Road Motorized: DED 10K lb 12ft Blade	J74920	$62,181	3	3	3	3	0
Grader Road Motorized: DED Hvy (CCE)	G74783	$98,045	199	205	307	307	15
Loader Scoop Type: DED w/5 CY GP Bucket (CCE)	L76321	$147,930	74	101	106	106	13
Mixing Plant Asphalt: DSL/Elec Pwr 100 TO 150 ton	M57048	$1,254,600	7	9	9	9	7
Spreader Lifting Front Container: Top Lift Semiauto	U12203	$4,490	92	92	92	92	0
Tactical Water Distribution Equip Set: (TWDS-RDF)	T09094	$660,000	8	8	8	8	6
Detecting Set Mine: Ptbl Metallic (AN/PSS-11)	G02341	$2,450	1,490	1,490	1,490	1,490	595
Crane Truck-mtd: Hyd 25 ton CAT (CCE)	F43429	$160,953	12	12	12	12	6
Crane: Wheel-mtd Hydraulic 25 ton All Terrain AT422T	C36586	$313,521	120	120	120	120	78
Tractor FT Low Spd: Dsl Med DBP w/Buldoz w/Scarif Ripper	W83529	$245,275	277	277	277	277	165
Tractor Full Trckd Low Spd: DSL Med DBP W/Buldoz w/Scarif Winch	W76816	$205,000	289	330	339	340	235
Scraper Earth Moving Self-propelled: 14-18 cu yd (CCE)	S56246	$149,523	229	229	229	229	220
Generator Sets & Power Plants							
Gen Set DED TM: 10kW 60Hz mtd on M116A2 PU-798	G42170	$25,757	271	389	546	904	504
Gen Set: DED Skid-mtd 10kW 60Hz	G74711	$14,345	436	622	919	1,336	923
Gen Set: DED Skid-mtd 15kW 50/60Hz	G12170	$20,000	112	416	573	931	259
Gen Set: DED Skid-mtd 30kW 50/60Hz	G74575	$26,705	116	190	274	463	164
Gen Set: DED Skid-mtd 5kW 60Hz	G11966	$12,798	1,317	1,487	1,699	1,989	2,081
Gen Set: DED Skid-mtd 60kW 50/60Hz	G12034	$25,073	66	86	131	231	106
Gen Set Dsl Eng TM: 30kW 60Hz mtd on M-200A1 PU-406	J36383	$20,810	119	119	119	119	3
Gen Set Dsl Eng: 10kW 60Hz 1-3PH Tactical Utility	J35825	$13,635	388	388	388	388	343
Gen Set Dsl Eng: 200kW 60Hz 3PH Skd Tactical Utility	J40158	$49,440	5	5	5	5	0
Gen Set Dsl Eng: 200kW 60Hz 3PHSkid Tactical Precise	J40150	$30,203	0	0	0	0	2
Gen Set Dsl Eng: 5kW 60Hz 1-3PH Tactical Utility	J35813	$8,332	1,043	1,043	1,043	1,043	444
Gen Set Gas Eng: 3kW 60Hz 1-3PH Skd Tac Utility	J45699	$4,491	212	212	212	212	370
Gen Set Diesel Engine TM: PU-802	G53778	$31,481	200	200	202	202	337
Gen Set Diesel Engine TM: PU-803	G35851	$38,418	62	86	87	91	63
Gen Set: DED TM 60kW 50/60Hz PU-805 Chassis	G78306	$44,185	32	43	43	43	25
Power Plant Elec DED TM: 5kW 60Hz AN/MJQ-35	P28083	$46,322	17	22	254	588	21
Power Plant Elec DED TM: 5kW 60HzAN/MJQ-36	P28151	$46,257	11	12	12	12	2
Power Plant Elec TM: 30kW 60Hz 2EA PU-406 w/Dist Box AN/MJQ-10	P27819	$45,447	15	15	15	15	9
Power Plant: Diesel Trl-mtd 10kW60Hz AN/NJQ-37	P42262	$50,294	46	62	62	63	29
Power Plant: Electric TM 30kW 50/60Hz AN/MJQ-40	P42126	$85,594	25	43	44	44	78

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Power Plant: Electric TM 60kW 50/60Hz AN/MJQ-41	P42194	$96,819	11	30	30	30	10
Power Supply: PP-6224/U	P40750	$1,669	1,289	1,343	1,354	1,354	4,788
Medical Equipment							
Operating and Treatment Unit Dental Field	P19377	$17,121	9	9	9	9	5
Defibrillator Monitor Recorder: 120/230V 50/60Hz AC/DC	D86072	$29,917	61	71	297	663	321
Medical Equipment Set Sick Call Field (2)	M30156	$52,297	103	103	121	139	145
Medical Equipment Set Trauma Field (2)	M30499	$161,385	105	105	110	128	134
Medical Materiel Set Central Materiel Service: DEPMEDS	M08417	$1,406,258	36	36	43	43	52
Medical Materiel Set Intermediate Care Ward: DEPMEDS	M08599	$266,429	36	36	43	43	174
Medical Materiel Set Operating Room: DEPMEDS	M72936	$680,391	32	32	38	38	52
Medical Materiel Set Post-op/ICU Ward: DEPMEDS	M09576	$581,581	36	36	46	46	68
Medical Materiel Set X-ray: DEPMEDS	M72300	$307,992	1	1	2	2	18
MMS X-ray Radiographic: DEPMEDS	M86675	$203,223	2	2	4	4	16
Tent: Extendable Modular Medical Forest Green Type II	T47745	$57,836	96	96	96	96	348
Tent: Extendable Modular Surgical Forest Green Type VII	T47813	$25,911	74	74	74	74	118
NBC Defensive Equipment							
Decontaminating Apparatus Power Driven Skid-mtd	F81880	$30,968	75	75	75	75	90
Decontaminating Apparatus: Pwr Drvn Lt Wt	D82404	$23,121	551	551	551	551	499
Alarm Chemical Agent Automatic: Portable Manpack M8A1	A32355	$8,432	4,293	4,293	4,293	4,293	217
Monitor Chemical Agent	C05701	$7,500	4,929	4,929	4,929	4,929	5,694
Radiac Set: AN/PDR-75	R30925	$2,978	988	1,052	1,110	1,129	2,429
Radiac Set: AN/UDR-13	R31061	$631	8,030	8,030	8,124	8,143	10,822
Radiacmeter: IM-93/UD	Q20935	$73	3,220	3,220	3,220	3,220	240
Mask CBR: Protective Field	M11895	$93	69	69	69	69	772
Mask Chemical Biological: Combat Vehicle M42	M18526	$331	3,101	3,112	3,151	3,151	2,214
Mask Chemical Biological: M40	M12418	$265	168,566	169,549	170,035	170,374	71,002
Generator Smoke Mechanical: Mech Smoke Obscurant System	G87229	$410,000	2	2	2	2	0
Generator Smoke Mechanical: Motorized for Dual Purpose Unit M56	G58151	$145,000	27	27	27	27	0
Collective Protection Equipment: NBC Simplified M20	C79000	$17,599	557	637	678	682	1,205
Night Vision Equipment							
Night Sight Equipment: (TOW 2)	N04982	$116,014	20	20	20	20	0
Night Vision Goggle: AN/PVS-7B	N05482	$6,000	21,182	21,182	21,182	21,182	52,705
Night Vision Goggles: AN/PVS-5	N04456	$4,300	6,937	6,937	6,937	6,937	520
Night Vision Sight Individual Served Weapon: AN/PVS-4	N04732	$8,535	3,923	3,923	3,923	3,923	467
Other Support Equipment							
Container Assembly Refrigerated: w/9K BTU Ref Unit	C84541	$58,326	188	188	188	188	204
Refrigeration Unit Mechanical Panel Type: Gas Eng 10K BTU	R61428	$10,086	84	84	84	84	100
Sanitation Center: Food	S33399	$33,865	261	261	284	297	634
Distributor Water Tank: 6K gal Semitrailer mtd (CCE)	D28318	$30,289	66	66	66	66	101
Fire Fighting Equipment Set: Truck Mtd Multipurpose	H56391	$151,000	13	13	13	13	0
Cleaner Steam Pressure Jet Trailer Mounted:	C32887	$18,528	513	513	513	513	0

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Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Forward Area Refueling Equipment: (FARE)	H94824	$9,093	80	86	86	86	66
Forward Area Water Point Supply System: (FAW SS)	F42612	$19,484	57	97	134	134	0
Fuel System Supply Point: Ptbl 60K gal	J04717	$30,213	218	218	218	218	51
Hypochlorination Unit Water Purif Frame mtd: Water Drvn 100 GPM	K60988	$14,342	29	29	29	29	40
Laboratory Petroleum Semitrailer Mounted:	L33800	$650,000	12	12	12	12	0
Pumping Assy Flambl Liq Eng Drvn Whl: 4IN 350GPM 275ft HD w/Reg	P97119	$25,870	142	142	142	142	40
Pumping Assy Tactical Water Distribution: Trailer-mtd DSL 600GPM	P97369	$27,426	41	41	41	41	120
Tank Assembly Fabric Collapsible: 10K gal Petroleum	V12552	$6,775	126	126	126	126	12
Tank Assembly Fabric Collapsible: 20K gal Petroleum	T12620	$6,065	106	106	106	106	0
Tank Assembly Fabric Collapsible: 3K gal Water	T19033	$2,377	136	136	136	136	438
Tank Fabric Collapsible: Water 3K gal	V15018	$1,762	2	2	2	2	16
Tank Unit Liquid Dispensing Trailer Mounting:	V19950	$2,000	291	291	291	291	704
Terminal Tactical Petroleum: Marine	T56041	$1,400,873	0	0	0	0	12
Testing Kit Petroleum: Aviation Fuel Contamination	T05741	$9,760	207	207	207	207	239
Water Purification: Reverse Osmosis 3000 GPH TM	W47225	$748,000	30	30	30	30	60
Water Storage/Distribution Set: 800K gal	W37311	$200,508	3	3	3	3	0
Shelter: Tactical Expandable Twoside	S01359	$223,219	81	81	87	87	148
Bath Unit Portable: GED 8-9 SH	B43663	$8,186	15	15	15	15	0
Floodlight Set Trailer Mounted: 3 Floodlights 1000 Watt	F79334	$4,489	232	232	232	232	1,321
Laundry Unit Trailer Mounted: Single Trailer 60 LB CAP	L48315	$54,944	43	43	43	43	16
Trailer Bolster: General Purpose 4 Ton 4 Wheel	W94536	$10,234	471	471	471	471	196
Crane Wheel Mounted: Hyd Rough Terrain (RTCC)	C39398	$450,194	67	67	67	67	32
Crane Wheel Mtd: 20 ton w/Boom Crane 30ft w/Blk Tkle	F39378	$162,393	0	0	0	0	18
Ramp Loading Vehicle: Whl-mtd 16K lb Capacity	R11154	$7,229	162	162	162	162	36
Fork Lift: DED 50000 lb Cont Hdlr Rough Terrain 48 IN LC	T48941	$159,138	85	85	85	85	62
Fork Lift: DED 6000 lb Variable Reach Rt Ammo Hdlg	T48944	$72,370	268	268	268	268	198
Fork Lift: DED 10000 lb Cap 48in Ld Ctr Rough Terrain	T49119	$75,923	314	314	314	314	29
Fork Lift: DED 4000 lb CAP Rough Terrain	T49255	$75,000	522	522	522	522	655
Fork Lift: Fork Variable Reach Rough Terrain	T73347	$166,639	614	705	771	796	886
Truck Tractor: Yard 46000 GVW 4X2	T60353	$96,051	100	100	100	100	290
Lightweight Digital Facsimile: AN/UXC-7	L67964	$21,972	621	621	621	621	47
Watercraft							
Landing Craft Mechanized: 69 ft	L36739	$162,612	14	14	14	14	9
Landing Craft Utility: Roll On Roll Off Type	L36989	$5,000,000	7	7	7	7	20
Tug: Large Coastal and Inland Waterway Diesel	T68330	$12,500,000	2	2	2	2	3
Vessel Logistic Support: 245 To 300 ft long	V00426	$26,748,800	3	3	3	3	3
Repair and Test Equipment							
Anes App Gas: W/O2 Monitor N2O O2 & Volatile Liq 4 CY CAP Port	A62773	$35,051	59	59	59	59	75
Electronic Shop Semitrailer Mounted: AN/ASM-189	H01855	$169,817	59	59	59	59	19
Electronic Shop Shelter Mounted Avionics: AN/ASM-146	H01907	$124,000	74	104	107	113	181
Electronic Shop Shelter Mounted Avionics: AN/ASM-147	H01912	$82,000	32	32	32	32	38

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Filter-separator Liquid Fuel: 350GPM 150PSI	H52087	$4,041	573	573	573	573	142
Shop Equipment Auto Maint and Repair: FM Suppl No 1	T25619	$58,235	26	26	26	26	0
Shop Equipment Auto Maint and Repair: FM Suppl No 2	T25756	$46,988	7	7	7	7	0
Shop Equipment Automotive Maint and Repair: FM Basic	T24660	$120,827	24	24	24	24	0
Test Set Electronic Systems: Direct Support (DESETS)	T52849	$561,312	12	12	12	12	0
Tool Outfit Hydraulic System: Test & Repair 3/4 ton TM	T30377	$91,947	44	44	44	44	172
Welding Shop Trailer Mounted	Y48323	$9,603	2	2	2	2	103
Welding Shop Trailer Mounted: Oxy-Acet/Elec Arc	W48391	$43,250	257	259	264	266	90
Digital Data Generator: SG-1139/G	D37041	$5,100	72	72	72	72	50
Mini Eyesafe Laser Infrared Observation Set (MELIOS): AN/PVS-6	M74849	$22,015	9	9	9	9	1,747
Mounting Kit Smoke Generator: M284	M17931	$3,001	0	0	0	0	25
Oscilloscope DC-100MHz: AN/USM-488	P30693	$2,084	263	263	263	263	190
Spectrum Analyzer: AN/USM-489(V)1	S01416	$37,378	5	5	6	11	3
Telephone Digital Non-secure Voice: TA-1035/U	T45408	$2,459	705	705	705	705	0
Terminal Radio-Telephone Mobile Subscriber: AN/VRC-97	T55957	$110,000	153	153	153	153	24
Test Set Radio: AN/GRM-114	T87468	$11,822	80	80	80	80	38
Viewer Infrared: AN/PAS-7	Y03104	$16,779	29	29	29	29	0
Tactical & Support Vehicles							
Semitrailer Flatbed: Breakbulk/Cont Transporter 22-1/2 ton	S70027	$33,156	906	906	906	907	688
Semitrailer Flatbed: Breakbulk/Container Transporter Cmrcial 34T	S70159	$43,252	1,714	1,722	1,722	1,722	1,837
Trailer Flatbed: 11 ton 4-wheel (HEMAT)	T45465	$34,714	188	188	188	188	52
Truck Cargo: w/Lt Crane (HEMTT)	T59278	$251,388	47	47	47	47	48
Truck Cargo: w/Med Crane (HEMTT)	T39586	$272,033	72	72	72	72	120
Truck Cargo: W/W W/Lt Crane (HEMTT)	T39518	$260,574	5	5	5	5	0
Truck Tank: Fuel Servicing 2500 gal (HEMTT)	T87243	$268,440	141	141	141	141	219
Truck Tank: Fuel Servicing 2500 gal W/W (HEMTT)	T58161	$278,409	90	90	90	90	50
Truck Wrecker: W/W (HEMTT)	T63093	$379,000	267	267	267	267	445
Recovery Vehicle Full Tracked: Medium	R50681	$1,210,755	24	24	24	24	23
Trailer Cargo: 3/4 ton 2-wheel	W95537	$4,474	2,083	2,083	2,083	2,083	203
Trailer: Palletized Loading 8X20	T93761	$46,731	2,123	2,333	2,345	2,529	3,011
Truck Cargo: Heavy PLS Transporter	T40999	$360,139	1,057	1,057	1,057	1,057	1,699
Truck Cargo: Heavy PLS Transporter w/MHE	T41067	$288,015	83	83	83	83	0
Truck Tractor: Heavy Equipment Transporter (HET)	T59048	$256,704	455	455	455	455	482
Truck Tractor: LET 6X6 66000 GVW W/W C/S	T91656	$166,223	1,007	1,007	1,007	1,007	98
Truck Tractor: Line Haul C/S 50000 GVWR 6X4 M915	T61103	$162,968	2,026	2,026	2,026	2,026	2,417
Truck Tractor: MET 8X6 75000 GVW W/W C/S	T61171	$74,288	225	225	225	225	55
Truck Ambulance: 2 Litter Armd (HMMWV)	T38707	$49,357	6	6	6	6	3
Truck Ambulance: 4 Litter Armd (HMMWV)	T38844	$113,998	240	240	240	240	368
Truck Utility: Armt Carrier Armd (HMMWV)	T92242	$74,969	1,479	1,479	1,479	1,479	2,296
Truck Utility: Cargo/Troop Carrier (HMMWV)	T61494	$36,076	6,013	6,013	6,013	6,013	4,487
Truck Utility: Cargo/Troop Carrier W/W (HMMWV)	T61562	$36,672	242	242	242	242	87
Truck Utility: Heavy-variant 10000 GVW (HMMWV)	T07679	$61,665	7,765	7,765	7,765	7,765	742

Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Truck Utility: S250 Shelter Carrier (HMMWV)	T07543	$36,932	114	114	114	114	259
Truck Cargo: 2.5 ton 4X4 LMTV LAPES/AD	T41995	$103,220	9	9	140	141	23
Truck Cargo: 4X4 LMTV	T60081	$176,428	1,754	1,754	1,754	1,754	3,145
Truck Cargo: 4X4 LMTV W/W	T60149	$149,600	360	360	360	360	571
Truck Cargo: MTV LWB	T61704	$170,073	4	4	4	4	184
Truck Cargo: MTV	T61908	$184,333	736	736	736	736	3,365
Truck Dump: MTV	T64911	$209,309	30	30	30	30	61
Truck Tractor: MTV	T61239	$167,746	328	328	328	328	1,250
Truck Van: LMTV	T93484	$230,363	66	66	66	66	237
Truck Wrecker: MTV W/W	T94709	$331,680	91	91	91	91	224
Water & Petroleum Equipment							
Semitrailer Tank Fuel	YF301G		1	1	1	1	0
Semitrailer Tank: 5K gal Bulk Haul Self-load/Unload	S10059	$77,550	1,112	1,113	1,113	1,113	1,080
Semitrailer Tank: 5K gal Fuel Dispensing Automotive	S73372	$97,413	438	454	471	484	294
Semitrailer Tank: Fuel 5K gal 12 ton 4-wheel	S72846	$14,277	2	2	2	2	0
Semitrailer Tank: Petroleum 7500 gal Bulk Haul	S73119	$27,774	337	337	337	337	480
Semitrailer Van: Electronic 3-6 ton 2-wheel 30ft Body	S74353	$24,125	12	12	12	12	0
Semitrailer Van: Repair Parts Storage 6 ton 4-wheel	S74832	$32,952	32	32	32	32	4
Semitrailer Van: Supply 12 ton 4-wheel	S75175	$84,466	259	259	259	259	51
Weapons							
Machine Gun Grenade 40mm: MK19 MOD III	M92362	$15,320	2,345	2,808	2,905	2,910	2,198
Command Launch Unit: (JAVELIN) 13305405-119	C60750	$231,671	16	40	57	57	102
Machine Gun: 7.62mm M240B	M92841	$6,000	1,765	3,806	7,392	7,392	7,447
Machine Gun 5.56mm: M249	M09009	$3,830	12,957	13,062	13,331	13,469	12,688
Rifle 5.56mm: M4	R97234	$1,329	19,858	19,858	39,200	40,859	26,351
Rifle 5.56mm: M16A2	R95035	$503	114,352	114,352	114,352	114,352	102,172
Rifle: 5.56mm M16A4	R97175	$950	3,803	3,803	3,803	3,803	3,924

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Table 2

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 2010.

Nomenclature	Equip No.	Average Age	Remarks
Rotary Wing Aircraft			
Helicopter, Attack AH-64D	H48918	21	
Helicopter, Cargo CH-47D	H30517	19	
Helicopter, Utility UH-60L/Q	H32361	13	
Fixed Wing Aircraft			
Airplane, Cargo, Transport, C-12R	A30062	13	
Airplane, Cargo, Transport, UC-35	Z95382	10	
Bridge & Vessel Equipment			
Ramp Loading Vehicle	R11154	19	
Construction Equipment			
Asphalt Mixing Plant	M57048	14	
Crane, Wheel-mtd, 25-ton, ATEC AT422T	C36586	10	
Crane, Wheel-mtd, Hydraulic, Rough Terrain (RTCC)	C39398	20	
Crane, Truck-mtd, Hydraulic, 25-ton, CCE	F43429	32	
Loader Scoop Type, DED w/5 Cy Gp Bucket	L76321	34	
Loader Scoop Type, DED w/MultiPurpose Bucket	L76556	32	
Scraper, Earth Moving, Self-propelled, CCE	S56246	24	
Electrical Generation			
Generator Set, Trailer Mounted, PU-406	J36383	34	
Generator Set, 15kW, PU-802 TQG	G53778	13	
Medical Equipment			
HMMWV Ambulance, 2-litter, M996	T38707	24	
HMMWV Ambulance, 4-litter, M997	T38844	21	
Other Procurement			
Laundry Unit, Trailer Mounted	L48315	29	
Repair Equipment			
Electronic Shop, AN/ASM-189	H01855	29	
Tactical Vehicles			
HMMWV Cargo/Trp Carrier, M998	T61494	17	
HMMWV Armt Carrier, Armd, M1025	T92242	20	
HMMWV Shelter Carrier, M1037	T07543	19	
HMMWV Cargo/Trp Carrier, W/W, M1038	T61562	20	
HMMWV Shelter Carrier, Heavy, M1097	T07679	10	
LMTV 2.5-ton Cargo Truck, M1078	T60081	11	
LMTV 2.5-ton Cargo Truck, M1078 W/W	T60149	11	
LMTV 2.5-ton Cargo Truck, w/ LAPES/AD, M1081	T41995	8	
LMTV 2.5-ton Cargo Truck, M1079	T93484	8	
MTV 5-ton Cargo Truck, M1083	T61908	5	
MTV 5-ton Cargo Truck, M1085	T61704	7	
MTV 5-ton Dump Truck, M1090	T64911	10	
MTV 5-ton Tractor Truck, M1088	T61239	10	

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Table 2

Average Age of Equipment

Nomenclature	Equip No.	Average Age	Remarks
MTV 5-ton Wrecker, M1089	T94709	9	
HEMTT Cargo Truck, w/Med Crane, M985	T39586	21	
HEMTT Cargo Truck, w/Lt Crane, M977	T59278	21	
HEMTT Cargo Truck, w/Lt Crane, M977 W/W	T39518	21	
HEMTT Wrecker, M984	T63093	9	
HEMTT Fuel Tanker, 2500gal, M978	T87243	20	
HEMTT Fuel Tanker, 2500gal, M978 W/W	T58161	19	
HEMTT Common Bridge Transporter, M1977	T91308	13	
Truck, Tractor, M878	T60353	22	
Truck Tractor, 14-ton Line Haul, M915	T61103	27	
Truck Tractor, 14-ton LET, M916	T91656	16	
Truck Tractor, 20-ton MET, M920	T61171	29	
Truck Tractor, HETS, M1070	T59048	15	
PLS Transporter, M1074	T41067	15	
PLS Transporter, M1075	T40999	13	
PLS Trailer, 16.5-ton, M1076	T93761	14	
Truck, Forklift, Rough Terrain, M-10A	T49119	26	
Truck, Forklift, DED 50k lb, RT, Cont Hdlr	T48941	26	
Truck, Forklift, ATLAS	T73347	8	
Truck, Forklift, DED 6k lb, RT, Ammo Hdlg	T48944	18	
Truck, Forklift, DED 4k lb, Rough Terrain	T49255	25	
Fire Fighting Equipment Set, Truck-mtd	H56391	19	
Semitrailer Van, 6-ton Repair Parts, M749/M750	S74832	36	
Semitrailer, 34-ton Flatbed, M872	S70159	26	
Semitrailer, 22.5-ton Flatbed, M871	S70027	16	
Semitrailer Tanker, 5000-gal Bulk Haul, M967	S10059	26	
Semitrailer, Fuel Tank, M1062	S73119	18	
Semitrailer Tanker, 5000-gal POL, M969	S73372	24	
Semitrailer Van, Electronic, M373A2	S74353	23	
Semitrailer Van, Supply, M129A1C	S75175	28	
Trailer, Bolster, General Purpose, 4-ton, M796	W94536	32	
Trailer, Cargo, 3/4-ton, M101	W95537	36	
Trailer, HEMAT, 11-ton, M989A1	T45465	16	
Tracked & Wheeled Combat Systems			
Recovery Vehicle, Medium, M88A1	R50681	36	
Water Equipment			
Distributor Water Tank, 6k gal, Tlr-mtd	D28318	25	

USAR
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 2011 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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013.

Nomenclature	FY 2011	FY 2012	FY 2013
Modification of Aircraft			
Utility/Cargo Airplane modifications	$5,078,000	$0	$0
Utility Helicopter modifications	12,000,000	0	57,000,000
Global Air Traffic Management (GATM) Rollup	2,220,000	0	0
Modification of Tracked Combat Vehicles			
M88 Family of Vehicles (FOV) modifications	0	0	5,984,000
Joint Assault Bridge modifications	6,434,000	53,339,000	0
Weapons & Other Combat Vehicles			
Machine Gun, M240 Medium (7.62mm)	10,488,000	0	0
Machine Gun, .50 cal M2 Roll	8,123,000	6,173,000	0
MK-19 Grenade Machine Gun (40mm)	2,022,000	0	0
XM320 Grenade Launcher Module (GLM)	343,000	231,000	0
M4 Carbine	3,207,000	2,545,000	0
Shotgun, Modular Accessory System (MASS)	96,000	0	0
M4 Carbine modifications	111,000	75,000	0
M16 Rifle modifications	294,000	101,000	0
Tactical Vehicles			
Tactical Trailers/Dolly Sets	4,908,000	21,695,000	0
Semitrailers, Flatbed	10,854,000	26,735,000	0
Family of Medium Tactical Vehicles (FMTV)	208,426,000	161,407,000	57,140,000
Family of Heavy Tactical Vehicles (FHTV)	208,277,000	317,999,000	18,111,000
Palletized Load System (PLS) Extended Service Program (ESP)	10,127,000	36,597,000	0
Armored Security Vehicles (ASV)	18,585,000	0	0
Mine Protection Vehicle Family	57,751,000	0	0
Truck, Tractor, Line Haul, M915/M916	24,210,000	7,137,000	3,820,000
Heavy Expanded Mobile Tactical Truck (HEMTT) ESP	23,458,000	0	0
High Mobility Multipurpose Vehicle (HMMWV) Recapitalization Program	465,646,000	0	0
Joint Communications			
Warfighter Information Network-Tactical (WIN-T) - Ground Forces Tactical Network	24,000,000	0	0
Satellite Communications			
NAVSTAR Global Positioning System (Space)	16,550,000	658,000	0
Secure Mobile Anti-Jam Reliable Tactical Terminal (SMART-T) (Space)	92,000	99,000	95,000
Global Broadcast Service (GBS)	803,000	0	0
Mod of In-service Equipment (Tactical Satellite)	50,000	0	0

USAR
Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2011	FY 2012	FY 2013
Combat Communications			
Army Materiel Command (AMC) Critical Items (OPA2)	1,973,000	0	0
Communications-Electronics Equipment Fielding	1,452,000	0	0
SPIDER Anti-personnel Landmine Alternative (APLA) Remote Control Unit	561,000	169,000	235,000
Intelligent Munitions System (IMS) Remote Control Unit	0	3,800,000	3,800,000
Medical Communications for Combat Casualty Care (MC4)	11,686,000	12,897,000	8,980,000
Communications Information Security			
Telecommunications Security (TSEC) - Army Key Management System (AKMS)	2,390,000	938,000	0
Information Systems Security Program (ISSP)	1,408,000	32,000	0
Electrical Equipment - Tactical Intelligence			
Distributed Common Ground System - Army (DCGS-A) (MIP)	537,000	35,000	0
Counterintelligence (CI) and Human Intelligence (HUMINT) Automated Reporting and Collection System (CHARCS) (MIP)	1,174,000	0	0
Electrical Equipment - Tactical Surveillance			
Night Vision Devices	10,020,000	6,713,000	0
Night Vision, Thermal Weapon Sight	706,000	1,591,000	0
Force XXI Battle Command Brigade & Below (FBCB2)	2,550,000	3,030,000	0
Joint Battle Command - Platform (JBC-P)	0	10,053,000	13,407,000
Electrical Equipment - Tactical Command & Control (C2) Systems			
Tactical Operations Centers	3,728,000	5,857,000	8,073,000
Fire Support Command & Control (C2) Family	0	337,000	0
Battle Command Sustainment Support System (BCS3)	5,823,000	1,084,000	1,342,000
Air & Missile Defense Planning and Control System (AMDPCS)	2,314,000	0	0
Transportation Coordinators-Automated Information for Movement System II (TC-AIMS II)	2,155,000	1,728,000	1,573,000
Maneuver Control System (MCS)	410,000	2,710,000	1,923,000
Single Army Logistics Enterprise (SALE)	6,159,000	4,882,000	4,766,000
Reconnaissance and Surveying Instrument Set	4,291,000	8,031,000	6,978,000
Electrical Equipment - Automation			
Combat Service Support (CSS) Communications	6,371,000	4,639,000	4,497,000
Electrical Equipment - Audio Visual Systems			
Items Less Than $5M (Surveying Equipment)	954,000	299,000	0
Chemical Defensive Equipment			
Family of Non-lethal Equipment (FNLE)	1,873,000	1,931,000	2,011,000
CBRN Soldier Protection	92,734,000	1,731,000	21,903,000
Bridging Equipment			
Tactical Bridging	29,317,000	0	0
Tactical Bridge, Float-Ribbon	40,308,000	18,210,000	3,080,000
Engineer (Non-Construction) Equipment			
Handheld Standoff Mine Detection System (HSTAMIDS)	17,532,000	10,435,000	20,000,000

USAR
Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2011	FY 2012	FY 2013
Ground Standoff Minefield Detection System (GSTAMIDS)	8,421,000	12,660,000	0
Combat Service Support Equipment			
Heaters and Environmental Control Units (ECUs)	3,219,000	253,000	0
Field Feeding Equipment	9,164,000	0	0
Cargo Aerial Delivery & Personnel Parachute System	4,277,000	3,033,000	2,983,000
Mobile Integrated Remains Collection System	19,087,000	0	0
Items Less Than $5M (Engineer Support)	3,156,000	1,676,000	0
Petroleum & Water Equipment			
Distribution Systems, Petroleum & Water	47,429,000	3,108,000	388,000
Water Purification Systems	1,283,000	1,858,000	0
Medical Equipment			
Combat Support Medical	13,085,000	6,932,000	5,965,000
Maintenance Equipment			
Mobile Maintenance Equipment Systems	34,274,000	7,176,000	14,912,000
Construction Equipment			
Skid Steer Loader (SSL) Family of Systems (FOS)	6,676,000	0	0
Mission Modules - Engineering	10,830,000	0	0
Hydraulic Excavator	5,919,000	280,000	0
Tractor, Full Tracked	4,224,000	352,000	0
High Mobility Engineer Excavator (HMEE) FOS	1,112,000	820,000	0
Construction Equipment ESP	4,761,000	0	0
Items Less Than $5M (Construction Equipment)	2,369,000	0	0
Rail Float Containerization Equipment			
Harbormaster Command and Control Center (HCCC)	9,112,000	0	0
Generators			
Generators and Associated Equipment	37,379,000	48,312,000	4,164,000
Material Handling Equipment			
Rough Terrain Container Handler (RTCH)	21,208,000	0	0
All Terrain Lifting Army System (ATLAS)	16,685,000	8,325,000	0
Test, Measurement, and Diagnostic Equipment (TMDE)			
Integrated Family of Test Equipment (IFTE)	7,160,000	3,992,000	0
Test Equipment Modernization (TEMOD)	724,000	69,000	756,000
Modification of Other Support Equipment			
Modification of In-service Equipment (OPA3)	27,622,000	4,525,000	17,333,000
Total	**$1,671,755,000**	**$839,294,000**	**$291,219,000**

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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013. All values are costs in dollars.

Nomenclature	FY 2008	FY 2009	FY 2010
FY 2008 Title III NGREA Equipment			
Family of Medium Tactical Vehicles (FMTV)	$15,840,000		
Maintenance Spt Device/Internal Combustion Engine	4,933,642		
Common Bridge Transporter	4,140,000		
Joint Small Transportable Decont System (JSTDS-SS)	3,912,700		
Power Distribution Illumination Sys Electric (PDISE)	2,400,000		
FMTV Cargo Trailer (M1095)	1,560,000		
Alarm, Chemical Agent, Automatic, M22	800,000		
Tactical Electrical Power (3kw) Tactical Quiet Generator (TQG)	659,099		
Shelter, Tactical Expandable	615,873		
Tactical Electrical Power (5kw-60kw) TQG	490,002		
Toolkit, Small Arms Repairman	308,175		
Navigation Set Satellite Systems, AN/PSN-13A	294,132		
FY 2008 Title IX NGREA Equipment			
C-12 (TF ODIN Replacement Aircraft)	27,000,000		
Joint Network Node (JNN)	20,000,000		
High Mobility Multipurpose Wheeled Vehicle (HMMWV)	13,125,000		
HH-60A-L Recap Program	12,000,000		
UH-60M/HH-60M Differential Upgrade to the ORF	10,200,000		
Truck, Tank Fuel, M978 (HEMTT)	9,326,275		
Heavy Expanded Mobility Tactical Truck (HEMTT)	9,021,437		
Heavy Expanded Mobility Tactical Truck (HEMTT) LHS	8,358,260		
Rough Terrain Container Handler, 53K	6,252,610		
Joint Small Transportable Decont System (JSTDS-SS)	5,339,300		
Force XXI Battle Command Bde & Below (FBCB2) (Blue Force Tracker)	4,979,520		
Truck, Dump 18.5-ton, M917A2	4,441,435		
Family of Medium Tactical Vehicles (FMTV)	4,368,000		
Simple Key Loader (SKL) AN/PYQ-10(V)	2,952,250		
Family of Loudspeakers Manpack & Vehicular	2,100,000		
Air Traffic Control Simulator	1,499,187		
Tactical Electrical Power (5kw-60kw) TQG	1,382,071		
Medical Communcations for Combat Casualty Care (MC4)	1,200,000		
Shelter Tactical Expandable	977,605		
High Frequency Radio	762,585		
Common Bridge Transporter	504,833		

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
Joint Chemical Agent Automatic	415,121		
FMTV Cargo Trailer (M1095)	390,000		
Enhanced Container Handling Unit, Total Package Fielding	186,643		
Line Haul Truck, Total Package Fielding	173,124		
Unfunded	15,120		
FY 2009 Title III NGREA Equipment			
Heavy Expanded Mobility Tactical Truck (HEMTT)		$22,500,000	
Radio, AN/PSC-5D		6,565,000	
Joint Small Transportable Decont System (JSTDS-SS)		8,599,000	
Light Tactical Trailer, 3/4-ton		3,645,000	
Trailer, Palletized Load System (PLS)		2,080,000	
Truck Ambulance: 4 Litter Armd 4x4 (HMMWV)		980,000	
Truck, Tractor Line Haul, M916A3		7,976,000	
FY 2009 Title IX NGREA Equipment			
High Mobility Multipurpose Wheeled Vehicle (HMMWV)		39,404,250	
Intelligence/Electronic Warfare Equipment		28,035,000	
Psychological Operations Equipment		5,502,500	
Line Haul Truck		1,624,000	
Line Haul Light Equipment Transporter		429,510	
FY 2010 Title III NGREA Equipment			
Heavy Expanded Mobility Tactical Truck (HEMTT)			$42,371,658
Route Clearance			7,500,000
Soldier Support (Laundry Advanced System)			6,134,664
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
Field Feeding			3,010,989
Tactical Radios			2,771,650
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
TOTAL	**$182,924,000**	**$127,340,260**	**$84,999,876**

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 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Collective Protection Equipment: NBC Simplified M20	C79000		+27	+4	
Command Launch Unit: (JAVELIN) 13305405-119	C60750		+17		
Data Transfer Device: AN/CYZ-10	D78555		+47	+15	
Defibrillator Monitor Recorder: 120/230V 50/60Hz AC/DC	D86072		+198		
Electronic Transfer Keying Device: KYK-13/TSEC	E98103		+3		
Electronic Shop Shelter Mounted Avionics: AN/ASM-146	H01907		+3	+6	
Fuel System Supply Point: Ptbl 60K gal	J04717			+3	
Gen Set: DED Skid-mtd 5kW 60Hz	G11966		+33		
Gen Set Dsl Eng TM: 30kW 60Hz mtd on M-200A1 PU-406	J36383		+1		
Gen Set Dsl Eng: 5kW 60Hz 1-3PH Tactical Utility	J35813		+62		
Gen Set Gas Eng: 3kW 60Hz 1-3PH Skd Tac Utility	J45699		+1		
Gen Set Diesel Engine TM: PU-802	G53778		+2		
Machine Gun 5.56mm: M249	M09009		+152	+105	
Machine Gun Grenade 40mm: MK19 MOD III	M92362		+11	+5	
Machine Gun: 7.62mm M240B	M92841		+1,304		
Mask CBR: Protective Field	M11895		+3		
Mask Chemical Biological: Combat Vehicle M42	M18526		+39		
Mask Chemical Biological: M40	M12418		+483	+339	
Medical Equipment Set Sick Call Field (2)	M30156		+18	+18	
Medical Equipment Set Trauma Field (2)	M30499		+5	+18	
Medical Materiel Set Central Materiel Service: DEPMEDS	M08417		+7		
Medical Materiel Set Intermediate Care Ward: DEPMEDS	M08599		+7		
Medical Materiel Set Operating Room: DEPMEDS	M72936		+6		
Medical Materiel Set Post-op/ICU Ward: DEPMEDS	M09576		+10		
Medical Materiel Set X-ray: DEPMEDS	M72300		+1		
Mini Eyesafe Laser Infrared Observation Set (MELIOS): AN/PVS-6	M74849		+137		
MMS X-ray Radiographic: DEPMEDS	M86675		+2		
Night Vision Goggles: AN/PVS-7B	N05482		+2,722	+213	
Night Vision Goggles: AN/PVS-5	N04456		+18		
Night Vision Sight Individual Served Weapon: AN/PVS-4	N04732		+120		
Power Plant Elec TM: 30kW 60Hz 2EA PU-406 w/Dist Box AN/MJQ-10	P27819		+1		
Power Plant: Diesel Trl-mtd 10kW60Hz AN/NJQ-37	P42262			+1	
Power Supply: PP-6224/U	P40750		+11		
Radiac Set: AN/PDR-75	R30925		+2		

USAR
Projected Equipment Transfer/Withdrawal Quantities

Nomenclature	Equip No.	FY 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Radiac Set: AN/UDR-13	R31061		+94	+10	
Radiacmeter: IM-93/UD	Q20935			+9	
Rifle 5.56mm: M4	R97234		+1,662		
Rifle 5.56mm: M16A2	R95035		+3,093	+175	
Rifle: 5.56mm M16A4	R97175		+130		
Sanitation Center: Food	S33399		+1	+13	
Semitrailer Flatbed: Breakbulk/Cont Transporter 22-1/2 ton	S70027			+1	
Semitrailer Tank: 5K gal Fuel Dispensing Automotive	S73372			+11	
Semitrailer Tank: Petroleum 7500 gal Bulk Haul	S73119		+17	+2	
Shelter: Tactical Expandable Twoside	S01359		+9		
Tractor Wheeled: Dsl w/Excavator & Front Loader	T34437		+2		
Trailer Cargo: 3/4 ton 2-wheel	W95537		+1	+3	
Truck Cargo: 2.5 ton 4X4 LMTV LAPES/AD	T41995		+2		
Truck Cargo: 4X4 LMTV	T60081		+284	+20	
Truck Cargo: 4X4 LMTV W/W	T60149		+2		
Fork Lift: DED 50000 lb Cont Hdlr Rough Terrain 48 IN LC	T48941		+14		
Truck Utility: Armt Carrier Armd (HMMWV)	T92242		+277	+9	
Truck Wrecker: W/W (HEMTT)	T63093		+21	+3	
Welding Shop Trailer Mounted: Oxy-Acet/Elec Arc	W48391			+1	

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FY 2007 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2007 with actual procurements and transfers. FY 2007 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 2009. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2007 Planned Transfers & Withdrawals							
Rotary Wing Aircraft							
Helicopter, Attack AH-64A	H48918	+21	+12				
Chemical Defensive Equipment							
Mask, Chemical-Biological, M40	M12418	+11	+6,936				
Radiac Set, AN/UDR-13	R31061	+172	+6,007				
Smoke Generator, M56	G58151	+29	+0				
Communications Equipment							
Data Transfer Device, AN/CYZ-10	D78555	+276	+1,251				
Radio Set, AN/GRC-193A	H35404	+7	+60				
Radio Set, AN/VRC-90A (SINCGARS)	R67908	+6	+0				
Terminal, Radio-telephone Mobile Subscriber, AN/VRC-97	T55957	+8	+0				
Facsimile, Lightweight Digital, AN/UXC-7	L67964	+52	+0				
Electronic Transfer Keying Device, KYK-13/TSEC	E98103	+108	+0				
Net Control Device, KYX-15/TSEC	N02758	+147	+0				
Spectrum Analyzer, AN/USM-489(V)1	S01416	+16	-2				
Electrical Generation							
Generator Set, MEP-002A	J35813	+19	+18				
Generator Set, MEP-802A	G11966	+17	+149				
Generator Set, MEP-803A	G74711	+1	+48				
Generator Set, MEP-804A	G12170	+17	+4				
Medical Equipment							
Operating and Treatment Unit, Field Dental	P19377	+3	-21				
Other Procurement							
Night Vision Device, AN/PVS-4 WMG	N04732	+458	+0				
Night Vision Goggles, AN/PVS-7B	N05482	+8	+8				
Night Vision Goggles, AN/PVS-5	N04456	+745	+0				
Navigation System, PSN-11	N95862	+21	+282				
Food Sanitation Center	S33399	+77	+3				
Mine Detecting Set Mine, AN/PSS-11	G02341	+6	+0				
Petroleum Equipment							
Pump, Centrifuge, 125 GPM	P92030	+6	-54				
Tactical Vehicles							
Truck, Utility, M998 (HMMWV)	T61494	+283	+0				
Truck, Cargo, LMTV, M1078	T60081	+1	+365				

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Truck, Cargo, LMTV, M1078, w/winch	T60149	+12	+124				
Truck, Van, LMTV, M1079	T93484	+4	+43				
Truck, Tanker, Fuel, 2500gal (HEMTT)	T87243	+5	+18				
Truck, Tractor, M878	T60353	+3	+3				
Trailer, Cargo, 3/4 ton, M101	W95537	+3	+3				
Weapons							
Machine Gun, 5.56mm, M249	M09009	+4	+931				
Rifle, 5.56mm, M16A2	R95035	+21	+5,002				
Carbine, 5.56mm, M4	R97234	+52	+8,911				
FY 2007 P-1R Equipment							
Modification of Aircraft							
UH-60 Blackhawk (MYP)				$0	$95,100,000		
CH-47 Cargo Helicopter Mods				61,695,000	61,695,000		
Airborne Avionics				2,238,000	2,238,000		
Global Air Traffic Management (GATM) Rollup				900,000	900,000		
Weapons and Other Combat Vehicles							
M240 Medium Machine Gun (7.62mm)				5,630,000	5,630,000		
M249 Saw Machine Gun (5.56mm)				10,534,000	10,534,000		
MK-19 Grenade Machine Gun (40mm)				0	4,810,000		
Carbine, 5.56mm, M4				121,000	121,000		
Tactical and Support Vehicles							
Tactical Trailers/Dolly Sets				0	4,596,000		
Semitrailers, Flatbed				0	58,071,000		
Semitrailers, Tankers				179,000	45,826,000		
High Mobility Multipurpose Vehicle (HMMWV)				11,540,000	193,739,000		
Family of Medium Tactical Vehicles (FMTV)				33,682,000	247,939,000		
Firetrucks & Associated Firefighting Equipment				382,000	382,000		
Family of Heavy Tactical Vehicles (FHTV)				27,875,000	102,412,000		
Truck, Tractor, Line Haul, M915/M916				9,052,000	92,927,000		
Heavy Expanded Mobile Tactical Truck (HEMTT) ESP				3,378,000	134,578,000		
Communications and Electronics Equipment							
NAVSTAR Global Positioning System (Space)				3,612,000	13,112,000		
SINCGARS Family				0	66,247,000		
Bridge to Future Networks				39,537,000	39,537,000		
Communications - Electronics Equipment Fielding				1,066,000	1,066,000		
Medical Communications for Combat Casualty Care (MC4)				1,120,000	1,120,000		
Telecomm Security (TSEC) - Army Key Mgt System (AKMS)				1,282,000	1,282,000		
Information Systems Security Program (ISSP)				3,050,000	4,068,000		
Prophet Ground (MIP)				1,286,000	0		
Digital Topographic Spt Sys (DTSS) (MIP)				410,000	410,000		
Counterintelligence (CI) and HUMINT Info Mgt Sys (CHIMS) MIP				249,000	249,000		
Night Vision Devices				13,056,000	13,056,000		

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Force XXI Battle Command Brigade & Below (FBCB2)				0	92,000		
Air & Missile Defense Planning and Control System (AMDPCS)				4,223,000	4,223,000		
Automatic Identification Technology				0	97,122,000		
TC AIMS II				0	29,919,000		
Joint Network Management System (JNMS)				696,000	696,000		
Single Army Logistics Enterprise (SALE)				0	81,876,000		
CSS Communications				0	15,810,000		
Items Under $5M - Electronics Equipment - Support				233,000	233,000		
Other Support Equipment							
CBRN Soldier Protection				0	20,824,000		
Tactical Bridging				53,376,000	53,161,000		
Tactical Bridge, Float-Ribbon				16,424,000	31,648,000		
Handheld Standoff Mine Detection System (HSTAMIDS)				10,756,000	10,756,000		
Ground Standoff Minefield Detection System (GSTAMIDS)				40,324,000	40,324,000		
Heaters and Environmental Control Units (ECUs)				5,096,000	5,096,000		
Field Feeding Equipment				1,092,000	1,307,000		
Items Less Than $5M (Engineer Support)				0	800,000		
Distribution Systems, Petroleum & Water				319,000	2,210,000		
Water Purification Systems				$140,000	$140,000		
Combat Support Medical				307,000	864,000		
Mobile Maintenance Equipment Systems				0	11,072,000		
Grader, Road Mtzd, Hvy, 6x4 (CCE)				0	8,400,000		
Shop Equipment Contact Maintenance Truck-mounted (MYP)				784,000	0		
Welding Shop, Trailer-mounted				44,000	0		
Scrapers, Earthmoving				15,000	15,000		
Mission Modules - Engineering				173,000	173,000		
Loaders				6,186,000	11,186,000		
Hydraulic Excavator				2,475,000	0		
High Mobility Engineer Excavator (HMEE)				567,000	567,000		
Construction Equipment ESP				4,776,000	22,276,000		
Items Less Than $5M (Construction Equipment)				2,818,000	6,318,000		
Generators and Associated Equipment				6,125,000	0		
Rough Terrain Container Handler (RTCH)				0	11,500,000		
All Terrain Lifting Army System (ATLAS)				3,026,000	12,706,000		
Integrated Family of Test Equipment (IFTE)					3,262,000		
FY 2007 Title III NGREA Equipment & Omnibus ($55M)							
Communication, Command, Control, Computers & Intelligence (C4I)						$6,300,000	$1,800,000
Maintenance Support Device/Internal Combustion Engine						4,941,300	5,948,566
Computer System, Digital, AN/UYQ-90(V)2 MTS						4,779,576	1,854,475
Family of Medium Tactical Vehicles (FMTV)						4,550,000	2,479,677
Truck, Tractor Line Haul, M916A3						3,059,252	8,861,066
Shop Equipment, Contact Maintenance Truck						2,595,000	0

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Truck, Tractor Line Haul, M915A3						2,095,872	5,830,846
Machine Gun, 40mm, MK19 & Equipment						1,980,000	$1,951,739
Machine Gun, .50 cal, M2 HB FL Ground/Vehicle						1,350,000	1,349,965
Night Vision Goggles						1,178,000	1,176,196
Thermal Weapon Sight (AN/PAS-13 (V)2 and V(3))						810,000	4,801,428
M4 Carbine, 5.56mm						621,000	620,301
Simple Key Loader (SKL) AN/PYQ-10(V)						600,000	0
Multi-band Super High Frequency Terminal						0	25,564,553
Truck Utility: ECV, Armament Carrier w/IAP						0	16,822,485
Heavy Expanded Mobility Tractical Truck (HEMTT) LHS						0	9,884,384
Container Handling Unit (CHU)						0	694,365
HMMWVs (M1165) & Light Tactical Trailers (M1102)						0	160,774
Bridge Adapter Pallet (BAP)						0	59,180
Total				**$391,849,000**	**$1,686,221,000**	**$34,860,000**	**$89,860,000**

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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 2011 Qty	Deployable?	
					Yes	No
Chemical Defensive Equipment						
Mask CBR, M17A2	M11895	Mask Chemical Biological, M40	M12418	28	X	
Radiac Set: AN/UDR-13	R31061	Radiacmeter: IM-93/UD	Q20935	1,311	X	
Construction Equipment						
Loader Scoop Type: DED w/5 CY GP Bucket (CCE)	L76321	Loader Scoop Type: DED w/Rock Bucket (CCE)	L76315	9	X	
Tractor FT, Med w/Buldoz w/Scarif Winch	W76816	Tractor, FT, Med, w/Scarif Winch	W83529	4	X	
Truck Tractor: Yard M878	T60353	Truck Tractor, Line Haul, M915	T61103	19	X	
Forklift, 4K lb, Rough Terrain	T49255	Forklift, RT, Ammo Hdlg	T48944	18	X	
Forklift, 4K lb, Rough Terrain	T49255	Forklift, 10K lb Rough Terrain	T49119	23	X	
Truck, Forklift, ATLAS	T73347	Forklift, RT, Ammo Hdlg	T48944	13	X	
Truck, Forklift, ATLAS	T73347	Forklift, RT, Ammo Hdlg	T49119	43	X	
Electrical Generation						
Gen Set, 10kW, PU-798 TQG	G42170	Gen Set, 10kW, PU-753/M	G40744	30	X	
Gen Set, 5kW, MEP-802A TQG	G11966	Gen Set, 5kW, MEP-002A	J35813	470	X	
Gen Set, 10kW, MEP-803A TQG	G74711	Gen Set, 10kW, MEP-003A	J35825	199	X	
Gen Set: 15kW, MEP-804A/B TQG	G12170	Gen Set, 15kW, MEP-004A	J35835	36	X	
Gen Set: 30kW, MEP-805A/B TQG	G74575	Gen Set, 30kW, MEP-005A	J36109	15	X	
Gen Set, 60kW, MEP-806A/B TQG	G12034	Gen Set, 10kW, MEP-006A	J38301	7	X	
Gen Set, 15kW, PU-802 TQG	G53778	Gen Set, 15kW, PU-405	J35492	56	X	
Gen Set, 15kW, PU-802 TQG	G53778	Gen Set, 30kW, PU-406	J36383	45	X	
Gen Set, 30kW, PU-803/B/G	G35851	Gen Set, 30kW, PU-406	J36383	33	X	
Gen Set, 30kW, PU-803/B/G	G35851	Gen Set, 30kW, MEP-805A/B TQG	G74575	8	X	
Gen Set, 60kW, PU-805 TQG	G78306	Gen Set, 60kW, PU-650	J35629	15	X	
Power Supply: PP-6224/U	P40750	Power Supply: PP-2953/U	P38588	184	X	
Other Procurement						
Navigation Set, AN/PSN-11	N95862	Navigation Set, AN/PSN-13	N96248	200	X	
Night-vision Goggles, AN/PVS-7B	N05482	Night-vision Goggles, AN/PVS-5	N04456	5,267		X
Night-vision Goggles, AN/PVS-7B	N05482	Mono Night-vis Dev, AN/PVS-14	M79678	15,429	X	
Operating & Treatment Unit Dental Field	P19377	Dental Operating & Treatment Unit Field	F95601	223	X	
Tactical Vehicles						
Semitrailer Flatbed: Breakbulk/Cont Transporter 22-1/2 ton M871	S70027	Semitrailer Flatbed: Breakbulk/Cont Transporter Commercial 34T M872	S70159	11	X	
Semitrailer Tank: 5K gal Bulk Haul Self-load/Unload M967	S10059	Semitrailer Tank: 5K gal Fuel Dispensing M969	S73372	55	X	
Semitrailer Van: Repair Parts Storage 6 ton 4-wheel	S74832	Semitrailer Van: Supply 12-ton 4-wheel	S75175	14	X	

USAR
Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2011 Qty	Deployable?	
					Yes	No
Trailer, Cargo, 3/4-ton, M101	W95537	Trailer, Cargo, 3/4-ton, High Mobility, M1101	T95992	24	X	
HMMWV Cargo/Trp Carrier, M998	T61494	HMMWV Shelter Carrier, M1097	T07679	4,710	X	
HMMWV Cargo/Trp Carrier, M998	T61494	HMMWV Cargo/Trp Carrier, M1038	T61562	129	X	
HMMWV Armt Carrier Armd M1025	T92242	HMMWV Armt Carrier Armd M1026 W/W	T92310	7	X	
HMMWV Cargo/Trp Carrier, M1038	T61562	HMMWV Shelter Carrier, Heavy, M1097	T07679	17	X	
HMMWV Shelter Carrier, Heavy, M1097	T07679	HMMWV, S250 Shelter Carrier, M1037	T07543	4	X	
LMTV 2.5-ton Cargo Truck, M1078	T60081	M809/M939-series 5-ton Cargo Truck, M813/M923	X40794	447	X	
LMTV 2.5-ton Cargo Truck, M1078	T60081	M809/M939-series 5-ton Cargo Truck, M813/M925 W/W	X40931	81	X	
LMTV 2.5-ton Cargo Truck, M1078 W/W	T60149	M809/M939-series 5-ton Cargo Truck, M813/M925 W/W	X40931	39	X	
MTV 5-ton Cargo Truck, M1083	T61908	M809/M939-series 5-ton Cargo Truck, M813/M923	X40794	1,356	X	
MTV 5-ton Cargo Truck, M1083	T61908	M809/M939-series 5-ton Cargo Truck, M813/M925 W/W	X40931	86	X	
MTV 5-ton Tractor Truck, M1088	T61239	Truck Tractor, M939/M809 Series 5-ton, M931/M818	X59326	775	X	
MTV 5-ton Tractor Truck, M1088	T61239	Truck Tractor, M939/M809 Series 5-ton, M932/M818 WW	X59463	90	X	
MTV 5-ton Wrecker, M1089 W/W	T94709	M809/M939-series 5-ton Wrecker, M816/M936 W/W	X63299	119	X	
MTV 5-ton Wrecker, M1089 W/W	T94709	HEMTT Wrecker M984 W/W	T63093	18	X	
MTV 5-ton Dump Truck, M1090	T64911	M809/M939-series 5-ton Dump Truck, M817/M930 W/W	X43845	34	X	
HEMTT Cargo Truck, w/Lt Crane, M977 W/W	T39518	HEMTT Cargo Truck, w/Med Crane M985	T39586	5	X	
HEMTT Cargo Truck, w/Lt Crane, M977 W/W	T39518	HEMTT Cargo Truck, w/Lt Crane, M977	T59278	8	X	
HEMTT Fuel Tanker, 2500gal, M978	T87243	HEMTT Fuel Tanker, 2500gal, M978 W/W	T58161	35	X	
HEMTT Fuel Tanker, 2500gal, M978	T87243	Tank & Pump Unit, Liquid Dispensing Trk-mtd	V12141	10	X	
Truck Tractor: MET M920 W/W	T61171	Truck Tractor: LET M916 W/W	T91656	20	X	
PLS Transporter, M1075	T40999	PLS Transporter, M1074	T41067	48	X	
Welding Shop Trailer Mtd	Y48323	Welding Shop Trailer Mtd, Oxy-Acet/Elec Arc	W48391	81	X	
Tracked & Wheeled Combat Systems						
Recovery Vehicle, FT Med M88A1	R50681	Recovery Vehicle, FT Hvy M88A2	R50885	3	X	
Weapons						
Machine Gun 5.56mm: M249	M09009	Machine Gun, 5.56mm, M249, Lt	M39263	152	X	
Machine Gun 5.56mm: M249	M09009	Machine Gun, 7.62mm, M240B	M92841	7	X	

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Table 8

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	Item Cost	Total Shortage Cost	Rationale/Justification
1	Family of Medium Tactical Vehicles (FMTV)	5,702	4,285	$309,541	$1,326,383,185	Army Reserve is critically short modernized trucks. Equips Army Reserve core competency organizations. Dual use equipment.
2	Radio Set: AN/PRC-148(V)4 Urban JEM	3,004	2,800	$7,700	$21,560,000	Readiness improvement in Engineer and PSYOP Companies, and Civil Affairs Battalions. Dual use equipment.
3	Heavy Expanded Mobility Tactical Truck (HEMTT)	1,161	431	$472,173	$203,506,563	Equips Engineer and Quartermaster Companies across the Army Reserve. Dual use equipment
4	Family of Light Medium Tactical Vehicles (LMTV)	3,861	1,638	$266,486	$436,504,068	Army Reserve is critically short modernized trucks. Dual use equipment.
5	Tank Water (HIPPO): 2K gal Demountable ISO Configured	22	20	$151,549	$3,030,980	Improves readiness in Quartermaster Field Service Companies. Dual Use equipment.
6	Force XXI Battle Command, Brigade & Below (FBCB2) / Tactical Operations Centers (TOCs)	4,873	4,467	$311,377	$1,390,921,059	Integrated command posts with FBCB2 continue to represent a critical shortfall for the Army Reserve.
7	Rigid Wall Shelter: Command Post	536	536	$1,011,652	$542,245,472	FBCB2 continues to represent a critical shortfall for the Army Reserve.
8	Product Distribution System - Lite (PDS-L)	400	298	$56,077	$16,711,006	Critical shortage of equipment, improves readiness in PSYOP Companies.
9	Mobile Electric Power (MEP) / Generators	9,884	5,648	$21,769	$122,951,312	Required for power modernization and to fill existing shortages. Dual Use equipment.
10	Rough Terrain Container Handler (RTCH)	131	45	$893,023	$40,186,035	Army Reserve Modernization. Equips Quartermaster Companies. Dual use equipment.
11	Laundry Advanced System (LADS)	102	49	$1,022,444	$50,099,756	Improves readiness in Quartermaster Field Service Companies. Dual Use equipment.

Chapter 3
United States Marine Corps Reserve

I. Marine Corps Overview

The United States Marine Corps today, as throughout its history, prepares for, fights, and wins our Nation's battles. As the country's premier expeditionary force, we take America's sons and daughters and train and equip them to be most ready when our Nation is least ready. "We believe the individual Marine is the most formidable weapon on today's battlefield and will remain so tomorrow."[1] As we prepare for the future, the Marine Corps "must be a two fisted fighter—able to destroy enemy formations with our scalable air-ground-logistics teams in major contingencies, but equally able to employ our hard earned irregular warfare skills honed over decades of conflict."[2] As a fully integrated Total Force Marine Corps the Active component (AC) and Reserve component (RC) Marines prepare side by side for employment across the full spectrum of conflict.

A. Marine Corps Planning Guidance

Marine Corps planning guidance follows from the goals of national planning and is captured in these enduring national interests:[3]

- Defend the homeland from attack
- Prevent the emergence of a hostile regional power
- Ensure the stability of the global system
- Ensure key allies' survival and active cooperation
- Prevent or respond to major disasters and disturbances.

As the Marine Corps prepares for the future, "we must continue to adapt to the ever-changing character and conduct of warfare, while remaining cognizant of its fundamentally unchanging nature. What Congress described [in the National Security Act of 1947, and as amended in 1952 by Title 10, U.S. Code] as 'fleet marine forces of combined arms, together with supporting air components'—known today as MAGTFs [Marine air-ground task forces]—provides the primary means through which we engage with partners, assist victims, or strike with determination against our foes. Our future remains true to the idea that a Corps of Marines—who are well-trained, equipped, and educated in the art and science of war—can leverage the great advantages of seapower through rapid and decisive action in and around the littorals."[4]

In concert with these enduring national interests, the Marine Corps, Navy, and Coast Guard continue to follow the six Maritime Strategic Imperatives that are captured in *A Cooperative*

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[1] General James T. Conway, Foreword for *Marine Corps Vision & Strategy 2025*.
[2] Ibid.
[3] Ibid, p. 11.
[4] Ibid, p. 11.

Strategy for 21st Century Seapower. This cooperative strategy delineates the future contributions of our maritime Services[5]

- Limiting regional conflict with forward deployed, decisive maritime power
- Deterring major power war
- Winning our Nation's wars
- Contributing to homeland defense in depth
- Fostering and sustaining cooperative relationships with more international partners
- Preventing or containing local disruptions before they impact the global system.

These strategic precepts form the foundation on which the Marine Corps must meet the threats and challenges in an evolving global security environment.

B. Marine Corps Equipping Policy

The Marine Corps develops an Approved Acquisition Objective (AAO) for each new item of equipment by using an integrated system of dynamic processes that capitalizes on recent operational experiences to meet the emerging needs of Marine forces and the combatant commanders. These AAOs include equipment modernization plans and address all initial issue quantities and planned sustainment requirements for both the AC and RC. The Marine Corps uses three types of funding to procure equipment:

- Procurement Marine Corps (PMC)
- Aircraft Procurement Navy (APN)
- National Guard and Reserve Equipment Appropriation (NGREA).

The PMC appropriation is the Marine Corps' primary source of Total Force ground equipment funding, and APN is the primary source of Total Force aviation equipment funding. NGREA funding, which is not part of the Marine Corps formal budgeting process, has been used historically to fund emerging ground and aviation reserve equipment requirements as well as the most critical reserve equipment deficiencies.

The current Marine Corps equipping policy is a direct result of lessons learned since September 2001. To ensure adequate equipment support to current operations in Iraq and Afghanistan, while maintaining a viable cost-effective strategy for force rotations, the Commandant directed that equipment required for operations in both Iraq and Afghanistan remain in theater as long as it is required and can be maintained. This policy has permitted 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

[5] Ibid, p. 11.

has also permitted the Marine Corps to focus on obtaining the equipment required to generate future rotations, especially training deficiencies.

In addition, the Marine Corps practices horizontal fielding of new equipment across the Total Force. This means that in most instances, new equipment is fielded to AC and RC units simultaneously. This enables RC training to maintain pace with that of the AC.

C. Plan to Fill Mobilization Shortages in the RC

The warfighting equipment requirement for Marine Corps units is set forth in the Table of Organization and Equipment (TO&E). When not activated, reserve units maintain a portion of the full TO&E; this is called the unit's Training Allowance (T/A). The T/As represent the equipment levels needed for reserve units to achieve a fully trained status in a pre-activation environment. Unit commanders determine their T/A based on pre-activation training requirements and the time available for training, as well as other considerations, such as Reserve Training Center (RTC) capacity and the number of maintainers at each unit location. Maintaining only a T/A requires enterprise-level support to ensure that the TO&E–T/A Delta is sourced in the event of unit activation. In-theater assets and pre-positioned equipment can be used to satisfy the TO&E–T/A Delta for activated units. This is fundamentally the same practice used to source Marine Corps AC unit equipment shortfalls. *Table 1* reflects this total wartime requirement and the assets available through this global sourcing policy.

D. Initiatives Affecting RC Equipment

As we continue to battle a determined enemy in the Middle East and remain vigilant in shaping our Corps for future wars, the Marine Corps has developed many initiatives that affect the equipping of the force. Currently, these initiatives rest solely within the aviation community, as the Marine Corps restructures its aviation force. Although there are challenges in obtaining the ground equipment required for reserve unit force generation, there are currently no ground force structure actions that are scheduled to take effect between FY 2011 and FY 2013 other than Base Realignment and Closure (BRAC) relocations.

The 4th Marine Aircraft Wing (MAW) continues to participate in the Total Force Marine Aviation Plan (AvPlan). This consolidated action plan provides a graphic overview of Marine Aviation Total Force organization, aviation readiness, and planned organizational, aircraft, and equipment transitions over the next 10 years. The AvPlan is revised annually to update Marine Aviation policy and program changes. During FY 2009, the Marine Air Group (MAG)-46 Headquarters and HMLA 775 (UH/AH 1) helicopter squadron were deactivated. During FY 2011, VMU-4 (an RC unmanned aerial vehicle [UAV]) squadron is scheduled to be established at a location yet to be determined.

In an effort to maximize the ability of our Reserve Marines to prepare for combat while in a non-activated status, unit commanders have sought out many alternative training methods. Working with the Marine Corps Program Manager for Training Systems (PM TRASYS), the RC has been able to improve the effectiveness of our warfighting training through the procurement of the following training systems:

- Indoor Simulated Marksmanship Trainer–Enhanced (ISMT-E/XP)

- Medium Tactical Vehicle Replacement–Operator Driving Simulator (MTVR-ODS)
- Virtual Combat Convoy Trainer–Marine (VCCT-M)
- Reconfigurable Vehicle Simulator–Marine (RVS)
- Combat Vehicle Training System (CVTS)
- CVTS-Advanced Gunnery Training System–Light Armored Vehicle (LAV)/M1A1/AAV
- Tactical Decision Simulation and Combat Decision Ranges
- Assault Amphibious Vehicle (AAV) Turret Trainer
- Learning Resource Center (LRC)/Deployable Learning Resource Center (DLRC)
- Deployable Virtual Training Environment–Reserves (DVTE-R).

NGREA and supplemental appropriations have, historically, been an integral part of the funding for these time and resource-saving initiatives and have had direct positive effect on unit readiness.

E. Plan to Achieve Full Compatibility between AC and RC

As stated earlier, the Marine Corps equipping policy is to horizontally field or integrate new weapon systems and equipment to ensure compatibility and the highest degree of interoperability between the AC and RC. This policy was further reinforced in the Commandant's *Marine Corps Vision and Strategy 2025*, which identifies that a "ready and sustainable Reserve" is required to produce sufficient numbers of common/interchangeable Total Force modules to increase the number of MAGTFs that the Marine Corps can generate that are fully-capable across the range of military operations to meet combatant commander requirements. This horizontal fielding policy results in common/interchangeable force modules, whether they come from the AC or RC.

Accomplishing this requires continued Total Force emphasis on modernization and equipment upgrades to ensure the MCR retains its warfighting capabilities as part of the Marine Corps Total Force and provides the Commandant of the Marine Corps and National Command Authority with increased flexibility in meeting current and emerging requirements.

II. Marine Corps Reserve Overview

A. Current Status of the Marine Corps Reserve

1. General Overview

The Selected Marine Corps Reserve (SMCR) is authorized to be a force of 39,600 individuals in entry-level programs, in the Active Reserve Program, in individual mobilization augmentee (IMA) billets, and in units spread across 183 sites in 48 states, the District of Columbia, and Puerto Rico. The MARFORRES is comprised of SMCR units that are built to be common/ interchangeable modules with AC units belonging to the elements of the MAGTF, which are the command element, ground combat element, aviation combat element, and logistics combat element. During FY 2011, approximately 6,000 SMCR unit Marines and Sailors are scheduled to be activated and deployed as a part of Marine Corps force generation requirements, and approximately an additional 1,500 Individual Ready Reserve Marines will serve as individual augments on Marine Corps and other joint staffs.

As of the end of FY 2009, over 60,000 reserve Marines have been mobilized in support of OEF, OIF, and various theater security cooperation missions. These Marines have come from all ranks and military specialties and have provided invaluable services to these operations.

The Marine Corps has used rotational models (e.g., unit deployment program [UDP]) for several decades. Like the Navy, the size of the Marine Corps AC has long been determined by "rotational base" requirements, and not by "warfighting" requirements. However, the size of the RC has been determined by the "surge" contribution required in support of "warfighting." In recent years, however, the RC has been included in the Marine Corps' rotational base. To meet deployment-to-dwell ratio goals and force generation requirements, the Marine Corps developed the Marine Forces Reserve Force Generation Model. This model is a planning tool for the Marine Corps to source RC forces and for SMCR unit commanders to: plan and meet personnel, materiel, and training readiness milestones; coordinate pre-activation training and other activities; and to allow individual Marines and Sailors and their families and employers to better manage their expectations with regard to preparing for activation and deployment.

2. Status of Equipment

Current operations continue to show the value in the Marine Corps use of horizontal fielding, which allows our Reserve Marines to train on the equipment they are using in theater and improves the seamless integration of the RC in support of the AC. Both the RC and the AC face two primary equipping challenges:

- Outfitting units with the latest generation of combat equipment provided to U.S. forces in each theater

- Providing units with the "right amount" of equipment to effectively train their Marines in a pre-activation environment.

Although the latter of these challenges is much more relevant to the RC due to the limited maintenance and storage capacity at the RTCs, the Marine Corps has alleviated many of these issues with continued reliance on training simulators.

During FY 2009, Marine Forces Reserve received two sets of NGREA funding. The first came from the initial appropriations bill and it totaled $37.4M. The second came to the MCR through the 2009 supplemental appropriation. That bill provided the MCR with an additional $25 M. NGREA has been a force multiplier not only for the RC, but also for the Marine Corps Total Force as well. By giving the RC the flexibility to purchase or accelerate the fielding of mission essential items directly impacting its ability to train for current conflicts, the MCR has been able to ensure its forces that are augmenting and reinforcing the AC are as proficient as their AC counterparts. It also relieves some of the pressure on our total force procurement pipelines as they continue to program resources to meet the horizontal fielding objectives.

NGREA funding from 2009 is being used to purchase much needed Light Armored Vehicles, ruggedized laptops for command and control, and upgrades to various aircraft, such as the Bright Star Forward-looking Infrared (FLIR) and aircraft survivability upgrades. The MCR was able to nearly buyout its T/A for the Logistics Vehicle System Replacement-Cargo variant and is also making purchases of various digital mapping equipment, tactical remote sensors, and various human intelligence gathering equipment needed to ensure the MCR remains proficient in the current operating environment.

We intend to use any future NGREA we receive to continue to address those combat item shortfalls that are having an impact on our combat training and deployability.

a. Equipment On-hand

As a part of its continued commitment to ensuring proper resource allocation and distribution, MARFORRES is currently executing an extensive equipment accountability campaign designed to give it the highest level of accuracy and accountability for all of its assets. The second phase of this campaign will include a complete review of all individual unit T/As. As previously stated, the T/A is the portion of a reserve unit's wartime requirement that remains on-hand at the RTC to accommodate training. As operations, tactics, and techniques continue to evolve during the current conflicts, so should our level of on-hand equipment to accommodate these changes. The T/A review will also encompass the changes required to support recent BRAC realignments and other unit relocations.

b. Average Age of Major Items of Equipment

Table 2 provides the average age of selected major equipment items.

c. Current Active-Reserve Equipment Compatibility

Although current overall AC and RC equipment compatibility is satisfactory, complete compatibility is difficult to achieve for several reasons:

- Continuing high equipment demand for force generation training support
- Attrition of equipment through wear, damage, and destruction
- Procurement over the past several years of small quantities of new non-Program-of-Record equipment through the Urgent Universal Need Statement process to meet specific OIF and OEF mission needs

- Application of funds against ever-evolving higher priority requirements.

The positive impact of NGREA on improving AC and RC compatibility cannot be overstated, as outlined later in this report.

d. Maintenance Issues

Equipment maintenance remains one of the top priorities for Marine Forces Reserve. Sufficient funding must be programmed to sustain the materiel readiness and capability of legacy systems and new acquisitions. These systems are currently maintained at a requisite level of readiness due to the hard work of skilled Marines and the assistance of Congress in providing resources for maintenance and spare parts. Programs and initiatives that help maintain and improve the materiel readiness of the systems in the RC are:

- The Marine Corps Depot Maintenance Program, which enhances equipment readiness for both the AC and RC. Marine Forces Reserve continues to be proactive in articulating its depot maintenance requirements through the annual Marine Corps Depot Maintenance Process.

- Maintenance Initiatives: Marine Forces Reserve continues to exercise better business practices through competitive outsourcing of maintenance requirements. Marine Forces Reserve has implemented a mobile preventive maintenance capability designed to prolong the service life of our equipment. This program, which is supported by Marine Corps Logistics Command (MCLC), targets engineer and motor transport equipment. Additionally, Marine Forces Reserve has contracted for mobile Corrosion Prevention and Control teams to repair equipment and apply anti-corrosion treatments.

During its FY 2011 Program Review (PR-11), the Marine Corps made an increased commitment to RC equipment readiness by redistributing additional maintenance dollars to the MCR. These additional dollars establish the baseline necessary to support the increased maintenance actions that have resulted from the current operational tempo.

e. Modernization Programs

The Marine Corps continues to establish modernization programs that keep pace with the ever changing character of the current operations. The MCR has utilized various funding sources to help in execution of the programs and to continue filling equipment shortfalls.

- Individual and Organizational Equipment: During August 2008, MCLC awarded a contract for a Consolidated Storage Program (CSP) of individual and organizational equipment. This program manages the issue, recovery, and sustainment of individual combat clothing and equipment; chemical, biological, radiological, nuclear, and high-yield explosive (CBRN) equipment; special training allowance equipment; and soft-wall shelters and their camouflage netting. The centralized management of this program by MCLC will eliminate the requirement for Marine Forces Reserve units to maintain individual and organizational equipment, allowing for greater storage space for training equipment and reducing the maintenance and accounting overhead for personnel.

- Training and Simulators: The Marine Corps Reserve continues to strive 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 is procuring the MTVR-ODS, VCCT-M, and DVTE-R training systems.

- Combat Equipment Modernization: The Marine Corps also has various combat equipment modernization programs that are providing the MCR with the latest generation of warfighting capability. These programs include the Logistics Vehicle System–Replacement (LVSR), the Expanded Capacity/Enhanced High Mobility Multipurpose Wheeled Vehicle (HMMWV) program, and the A2 upgrade to the LAV–25mm cannon variant (LAV-25A2).

f. Overall Equipment Readiness

The overall equipment readiness of SMCR units remains above required levels.

The SMCR unit wartime equipment requirement (TO&E) consists of the pre-activation T/A and the T/E–T/A Delta to be provided from a variety of sources, including MCLC.

B. Changes Since Last NGRER

NGREA continues to provide extremely beneficial procurement funding. In FY 2007, the MCR received $35M in NGREA funding, $45M in FY 2008, $62M in FY 2009, and $45M in FY 2010. With this funding, we have been able to significantly close the gap on many emerging requirements and new equipment program procurements enabling the RC to continue to maintain full compatibility with the AC. Specifically, we have been able to address various aircraft modernization, ground combat equipment shortfalls, simulation requirements, and command and control system shortfalls.

Future equipment procurement will continue to address additional emerging requirements that are continuing to evolve as current operations dictate, as well as those core MAGTF warfighting functions through continued modernization of our combat equipment.

C. Future Years Program (FY 2011–FY 2013)

1. Equipment Requirements

The MCR has numerous unfunded equipment priorities that affect MAGTF capabilities. Aviation modernization and fielding of new or upgraded ground equipment remain top priorities. The Commander, Marine Forces Reserve equipment modernization requirements continue to be (in order of precedence): command and control (C2) systems and training systems, including innovations leading to cost avoidance to fund additional training, and other essential warfighting equipment. Additional funding for modernization and equipment shortages is envisioned to be critical in the future to maintain mission-capable status and to ensure the RC is a force multiplier upon activation.

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 (V/STOL) developed to replace the current fleet of CH 46E and CH 53D helicopters. This aircraft has the capability of participating in amphibious and land assault operations, providing medium cargo lift, and performing 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 between FY 2014 and FY 2018. Ensuring the RC transition to the MV-22 remains on schedule is a goal for MARFORRES.

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 has completed the transition to the KC-130J leaving 28 KC-130T aircraft in the MCR. Budget challenges have resulted in a delay of 4 years in the fielding of the KC-130J to the MCR. Compatibility differences will create challenges in training, manning, and logistical support of the KC-130T. Accelerating the RC transition to the KC-130J is a priority for MARFORRES.

c. Expeditionary Fighting Vehicle (EFV)

The EFV is an armored, tracked, armed, amphibious vehicle that can transport personnel. The EFV will join the MV-22 and landing craft, air cushion (LCAC) as an integral component of the amphibious triad required to execute expeditionary maneuver warfare. The EFV will allow naval expeditionary forces to maneuver ashore in a single, seamless stroke giving both sea and land forces sufficient space for maneuver, surprise, and protection. The EFV's unique combination of speed; mobility; firepower; armor; and nuclear, biological, and chemical protection, will allow U.S. forces to avoid enemy strengths while exploiting its weaknesses. The EFV remains the Marine Corps' number one priority in the ground acquisition program.

d. Lightweight 155mm Howitzer (M777)

The M777 is the world's first 155mm towed howitzer with a "fly weight" of less than 9,800 pounds. It has digital fire control and offers greater mobility and improved reaction times compared to the M198 Howitzer it is replacing. The M777 will meet increased operational thresholds in range, lethality, survivability, mobility, and sustainability required to support maneuver warfare. The Marine Corps is currently in the process of transitioning both the AC and RC to the lightweight howitzer.

3. Anticipated Transfers from AC to RC

No major equipment transfers from AC to RC are anticipated for FY 2011–FY 2013.

4. Anticipated Withdrawals from RC Inventory

Table 5 lists major items of equipment to be withdrawn from the RC inventory during FY 2011–2013.

5. Equipment Shortages and Modernization Shortfalls at the End of FY 2013

Table 1 addresses the MCR wartime requirement and outlines the major item shortfalls that are anticipated to exist at the end of FY 2013. The RC's 10 highest priority unfunded equipment and modernization shortfalls affecting reserve unit training allowances are listed in *Table 8*.

D. Summary

Over the last three years, the Marine Corps and its Reserve have improved Total Force integration and expeditionary capability. Through effective use of procurement funds, the Marine Corps Reserve has continued to be an operationally effective force, capable of augmenting and supporting the AC whenever and wherever it's called. While there are challenges still remaining, such as modernizing the RC aircraft wing with KC-130Js and MV-22s, finding the next generation amphibious fighting vehicle, or developing technologies that allow better communication and logistics support, the Marine Corps stands ready to protect and defend our Nation. Our highest priority remains taking care of our greatest asset—the outstanding men and women who serve in a Marine Corps uniform. The improvements we make in our equipment modernization are key to ensuring that we perform all our missions to the best of our ability.

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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 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Aircraft							
Helicopter, Utility, UH-1N	UH-1N	$7,061,681	9	9	9	9	9
Helicopter, Cargo, CH-46E	CH-46E	$14,983,188	26	26	26	26	26
Helicopter, Cargo, CH-53E	CH-53E	$37,658,528	6	6	6	6	6
Helicopter, Attack, AH-1W	AH-1W	$18,935,714	18	18	18	18	18
Aircraft, Fighter/Attack, F/A-18A	F/A-18A	$52,436,016	1	1	1	1	1
Aircraft, Fighter/Attack, F/A-18A++	F/A-18A++	$54,436,016	14	14	14	14	12
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
Aircraft, Refueling/Cargo, KC-130T	KC-130T	$45,480,270	28	28	28	28	0
Aircraft, Refueling/Cargo, KC-130J	KC-130J	$80,720,000	0	0	0	0	24
Aircraft, Utility/Cargo, UC-12B	UC-12B	$4,856,577	2	2	2	2	2
Aircraft, Utility/Cargo, UC-35C/D	UC-35	$8,179,661	5	5	5	5	5
Communications & Electronics							
Theater Battle Mgmt Core System, AN/TYY-2	A0013	$1,475,935	1	1	1	1	1
Communications Data Link System, AN/TYQ-101A	A0021	$324,501	1	1	1	1	1
Air Defense Communications Platform (ADCP)	A0025	$907,000	3	3	3	3	3
Radio Set, AN/MRC-148	A0067	$53,234	192	192	192	192	192
Radio Set, AN/GRC-256	A0068	$20,000	1	1	1	1	1
Radio Set, AN/VRC-104	A0075	$53,284	50	90	101	101	101
Radio Set, AN/VRC-110	A0097	$14,600	250	429	429	429	429
Improved Position and Azimuth Determining System (IPADS)	A0116	$158,797	10	10	10	10	10
Radio Set, AN/PRC-153 (IISR)	A0118	$3,535	10,598	10,598	10,598	10,598	10,598
Satellite Comm Terminal, Phoenix AN/TSC-156	A0122	$2,400,000	3	3	3	3	3
Remote Subscriber Access Module (RSAM)	A0124	$68,033	89	89	89	89	89
Deployable End Office Suite (DEOS)	A0125	$491,000	26	26	26	26	26
Radio System, AN/VRC-103(V)2	A0126	$39,000	300	558	558	558	558
Radio Set, AN/PRC-152	A0129	$7,115	1,422	1,422	1,422	1,422	1,422
Deployable Integrated Transport Suite (DITS)	A0132	$321,000	14	14	14	14	14
Radio Set, AN/MRC-142C	A0153	$335,000	20	40	61	61	61
DDS-R/M Power Module (PM) PP8563	A0172	$5,600	47	47	47	47	47
DDS-R/M Comm Security Module (CSM)	A0173	$46,000	106	106	106	106	106
DDS-R/M LAN Service Module (LSM)	A0174	$93,000	106	106	106	106	106
DDS-R/M Configuration Module (CM) Laptop IBM	A0175	$4,300	128	128	128	128	128
DDS-R/M LAN Extension Module ON-704/TYC	A0176	$29,000	314	314	314	314	314
DDS-R/M App Server Module (ASM), AN/TYQ-147	A0177	$16,000	106	106	106	106	106
DDS-R/M Data Storage Module (DSM)	A1097	$75,000	0	30	68	68	68
Support Wide Area Network (SWAN) D (V1)	A0234	$866,250	7	26	26	26	26
SWAN D (V2)	A0241	$866,250	7	9	9	9	9
Satellite Communication Subsystem	A0242	$101,000	4	10	10	10	10

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
SWAN D Network Package	A0243	$97,679	18	45	45	45	45
Network Management System	A0244	$97,884	6	7	7	7	7
Combat Operations Center, Set III, AN/TSQ-239(V)3	A0254	$1,881,814	9	9	9	9	9
Combat Operations Center, Set IV, AN/TSQ-239(V)4	A0255	$1,297,644	28	28	28	28	28
Radio Set, AN/VRC-104(V)5	A0266	$25,000	101	101	101	101	101
Radio Set, AN/VRC-110	A0273	$14,400	650	994	994	994	994
Digital Technical Control (DTC) Facility, AN/TSQ-227	A0499	$1,213,000	6	6	6	6	6
Lightweight Multiband Satellite Terminal (LMST) Hub AN/USC-65(V)1	A0806	$1,500,000	1	1	1	1	1
Server, Intel Ops (IOS-OPS)	A0873	$44,042	6	6	6	6	6
Interrogator Set, AN/UPX-37	A0880	$124,087	6	6	6	6	6
Joint Tactical Digital Link-16, AN/YRC-107	A0882	$683,000	4	4	4	4	4
Intelligence Operations Workstation (IOW)	A0932	$1,569	130	130	130	130	130
EPLRS Network Manager, AN/TSQ-158A	A1225	$5,889	22	22	22	22	22
Defense Advanced GPS Receiver (DAGR)	A1260	$1,867	1,264	1,264	1,264	1,264	1,264
Antenna, LHGXA, AS-4429	A1380	$1,500,000	2	2	2	2	2
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	$13,217,555	2	2	2	2	2
Radio Terminal Set, AN/MRC-142B	A1954	$289,603	1	1	1	1	1
Radio Terminal Set, AN/MRC-142A	A1955	$218,192	36	36	36	36	61
Radio Set, AN/MRC-145A	A1957	$43,986	238	238	238	238	315
Radio Set, AN/PRC-150	A2042	$19,247	782	782	782	782	782
Radio Set, AN/PRC-148	A2043	$2,250	1,272	1,272	1,272	1,272	1,272
Radio Set, AN/PRC-148 (Maritime)	A2044	$7,431	800	800	800	800	800
Radio Set, FALCON II, AN/PRC-117F	A2068	$27,450	1,778	1,778	1,778	1,778	1,778
Radio Set, AN/VRC-89D	A2075	$12,000	69	69	69	69	82
Radio Set, AN/VRC-90D	A2076	$12,000	30	30	30	30	14
Radio Set, AN/VRC-91D	A2077	$14,000	14	14	14	14	36
Radio Set, AN/VRC-92D	A2078	$16,000	30	30	30	30	41
Radio Set, AN/PRC-119F	A2079	$4,346	829	829	829	829	672
Radio Set, EPLRS, AN/VSQ-2C	A2152	$41,336	611	611	611	611	611
Radio Terminal Set, AN/TRC-170	A2179	$1,000,000	24	24	24	24	24
Tactical Air Ops Module, AN/TYQ-23	A2525	$1,500,000	6	6	6	6	6
Data Distribution System (DDS), AN/TSQ-228(V)3	A2533	$132,000	34	34	34	34	34
DDS, AN/TSQ-228(V)2	A2534	$355,000	15	8	0	0	0
Tactical Data Network (TDN), AN/TSQ-222	A2535	$650,000	7	7	7	7	7
DDS, Tactical Server, TSQ-228(V)1	A2538	$82,000	193	193	193	193	193
Tactical Command System, AN/USC-55A	A2551	$230,000	2	2	0	0	0
Advanced Field Artillery Target Designation System (AFATDS)	A2555	$30,168	150	150	150	150	150
Target Locator, Designator & Hand-off System (TLDHS), AN/PSQ-19A	A2560	$27,000	206	206	206	206	206
Satellite Com Terminal, SMART-T, AN/TSC-154	A3232	$825,000	6	6	6	6	6
UAV System, Dragon Eye	A3252	$100,000	71	71	71	71	71
Communications Interface System, AN/MRQ-12(V)3	A3270	$100,000	13	13	13	13	13
Computer Set, Digital (Blue Force Tracker)	A9001	$25,000	0	0	1,083	2,166	2,166
Engineer							
Air Conditioner, 60Hz, 9K Btu	B0001	$4,694	3	3	3	3	0

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Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Air Conditioner, 5-ton, 60K Btu	B0008	$18,400	27	27	27	27	105
Air Conditioner, 60Hz, 36K Btu	B0014	$9,950	501	501	501	501	501
Hydroseeder, Trailer-mounted	B0025	$29,312	6	6	6	6	6
Hydroseeder, Skid-mounted	B0026	$25,650	6	6	6	6	6
All Terrain Crane (ATC) MAC-50	B0038	$578,000	29	29	29	29	29
Airfield Damage Repair (ADR) Kit, GBE Runway Repair	B0039	$450,000	4	4	4	4	4
Tractor, Wheeled, Multipurpose (TRAM) 624K	B0063	$123,508	105	105	105	105	105
Boat, Bridge Erection, USCSBMK3	B0114	$154,530	42	42	42	42	42
Bridge, Medium Girder (MGB), Dry Gap	B0152	$964,515	6	6	6	6	6
Bridge, Floating Ribbon, 70-ton	B0155	$3,568,000	6	6	6	6	6
Container Handler, Rough Terrain, KALMAR	B0392	$525,000	11	11	11	11	11
Mine Detecting Set, AN/PSS-14	B0476	$19,300	120	120	120	120	120
Excavator, Armored Combat, M9 ACE	B0589	$887,050	7	7	21	21	20
Fuel Dispensing System, Airfield, M1966	B0675	$331,061	3	3	3	3	3
Fuel System, Amphibious Assault, M69HC	B0685	$1,238,679	3	3	3	3	3
Generator, 3kW, 60Hz, MEP-016B/831A	B0730	$9,922	128	128	128	329	329
Generator, 10kW, 60Hz, MEP-003A/803A	B0891	$14,345	138	138	138	312	312
Generator, 30kW, 60Hz, MEP-005A/805A/B	B0953	$26,705	96	96	96	234	234
Generator Set, 60kW, 60Hz, MEP-006A/806B	B1021	$25,073	81	81	81	155	155
Grader, Road, Motorized-130G	B1082	$67,724	18	18	18	18	18
Refueling System Expedient, HELO -81A5013A0000	B1135	$200,242	3	3	3	3	3
Fuel Pump Module (SIXCON)	B1580	$60,405	45	45	45	45	111
Roller, Compactor, Vibratory, Self-Propelled, CS563D	B1785	$63,000	10	10	10	10	10
Storage, Tank, Module, Fuel (SIXCON)	B2085	$47,000	111	111	111	111	290
Storage, Tank, Module, Water (SIXCON) MWT166	B2086	$46,200	275	275	275	275	275
Sweeper, Rotary, Vehicle-mounted	B2127	$130,000	6	6	6	6	6
Tractor, Full-tracked, Medium, CAT D7G	B2462	$314,000	58	58	58	58	58
Loader, Backhoe (BHL)	B2483	$122,622	18	18	18	18	18
Forklift, Extendable Boom	B2561	$98,442	72	72	72	72	72
Rough Terrain Forklift, Light Capacity	B2566	$43,000	87	87	87	87	87
Tractor, Wheeled, MP (TRAM)-644E	B2567	$179,081	106	106	106	106	106
Tactical Water Purification System (TWPS)	B2605	$350,000	33	33	33	33	33
General Supply							
Auto Opening Device, Military Free Fall, 1 Pin 1500-ft	C0001	$3,068	248	248	248	248	248
Oxygen Mask	C2278	$1,948	248	248	248	248	248
Re-breather Unit, Oxygen, Portable -PHAOS, OXCON	C2288	$24,294	52	52	52	52	52
Breathing Apparatus, Underwater, MK25 MOD2	C4185	$10,000	131	131	131	131	131
Device Propulsion, Diver	C4549	$90,000	40	40	40	40	40
Parachute, Personnel, MC-5	C5649	$15,043	248	248	248	248	248
Raiding Craft, Cmbt, Rubber, Inflatable (CRRC) F470 Full Up	C5901	$14,900	74	74	74	74	74
Motor Transport							
Truck, Cargo, MTVR 7-ton Armored, AMK23	D0003	$424,360	9	9	9	9	312
Truck, Cargo, MTVR 7-ton Armored w/winch, AMK25	D0004	$424,360	0	0	0	0	78
Truck, Cargo, MTVR 7-ton Armored XLWB, AMK27	D0005	$424,360	0	0	0	0	58
Truck, Cargo, MTVR 7-ton Armored XLWB w/winch, AMK28	D0006	$424,360	0	0	0	0	10

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Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Truck, Dump, MTVR 7-ton Armored, AMK29	D0007	$424,360	0	0	0	0	32
Truck, Dump, MTVR 7-ton Armored w/winch, AMK30	D0008	$424,360	0	0	0	0	7
Tractor, MTVR 7-ton, MK31	D0009	$424,360	2	2	2	2	0
Tractor, MTVR 7-ton Armored, w/o winch, AMK31	D0013	$424,360	14	14	14	14	63
Truck, Wrecker, MTVR 7-ton Armored w/winch, AMK36	D0015	$600,469	0	0	0	0	47
HMMWV, ECV, Enhanced, M1152 (2-Door)	D0022	$93,222	150	75	37	37	37
HMMWV, ECV, Armament Carrier, M1151	D0030	$167,982	150	250	350	429	429
HMMWV, ECV, C2/General Purpose, M1165	D0031	$97,328	31	31	0	0	0
HMMWV, ECV TOW-variant, M1167	D0032	$190,402	40	80	98	98	98
HMMWV, ECV, M1152 v1	D0033 v1	$112,292	122	122	122	122	122
HMMWV, ECV, M1152 v2	D0033 v2	$142,308	185	185	185	185	185
HMMWV, ECV, Cmd & Cntrl Gp, M1165 v1	D0034 v1	$119,418	125	250	400	605	605
HMMWV, ECV, Cmd & Cntrl Gp, M1165 v2	D0034 v2	$160,775	290	580	830	988	988
Truck, Cargo, MTVR 7-ton w/o winch, MK23/MK25	D0198	$258,862	705	705	705	705	705
Front Power Unit, Logistics Vehicle System, MK48	D0209	$189,000	128	128	128	128	160
Semitrailer, Refueler, 5000 gal., MK970A	D0215	$242,000	63	63	63	63	63
Semitrailer, 40-ton Low-bed, M870	D0235	$61,710	48	48	48	63	65
Trailer, Resupply for HIMARS, MK38	D0861	$54,000	36	36	36	36	36
Trailer, Powered, Container Hauler, MK14	D0876	$65,000	60	60	60	60	60
Trailer, Powered, Wrecker/Recovery, MK15A1	D0877	$192,000	9	9	9	9	11
Trailer, Tank, Water, 400 gal., M149A2	D0880	$12,955	162	162	162	162	195
Trailer, Ribbon Bridge, MK18A1	D0881	$123,759	14	14	14	14	26
HMMWV, Ambulance, 4 Litter, Armored, M997	D1001	$113,998	89	89	89	89	93
HMMWV, Ambulance, 2 Litter, Soft Top, M1035	D1002	$68,212	42	42	42	42	50
Truck, Cargo, MTVR 7-ton XL, MK27/MK28	D1062	$269,833	98	98	98	98	98
Truck, Cargo, MTVR 7-ton, MK37 (MK27 with Crane)	D1063	$550,000	36	36	36	36	36
Truck, Aircraft Crash/Structure Firefighting, A/S32P-19A	D1064	$162,561	9	9	9	9	24
Truck, Dump, Ready to Accept Armor (RTAA), MTVR 7-ton w/winch, MK29/MK30	D1073	$412,000	67	67	67	67	67
HMMWV, Cargo/Troop Carrier, M1123	D1158	$60,409	500	350	200	100	0
Interim Fast Attack Vehicle (IFAV), 04751E	D1160	$245,000	0	0	0	0	65
Truck, Wrecker, MTVR, MK-36	D1213	$531,720	47	47	47	47	51
Ordnance & Weapons							
Illuminator, Infrared (IZLID 1000P)	E0006	$7,210	128	128	128	128	128
Scout Sniper Medium Range Night Sight	E0020	$8,795	400	508	508	508	508
TOW Improved Target Acq Sys, M41A	E0055	$1,010,000	16	124	124	124	124
Launcher, Tubular F/GM(TOW), M41A1 SABER	E0055	$640,000	24	72	100	100	100
Bridge, Scissor for AVLB	E0149	$304,952	4	4	4	4	4
Bridge Launcher, M60A1	E0150	$527,126	2	2	2	2	4
Aiming Circle	E0180	$3,725	16	16	16	16	16
Command Launch Unit, Javelin M98A1	E0207	$126,824	72	72	72	72	72
Sight, Thermal, AN/UAS-12C Hybrid	E0330	$197,000	24	72	100	100	100
Howitzer, 155mm, Towed, Medium, M198	E0665	$1,032,337	66	66	66	66	48
Howitzer, 155mm, Towed, Lightweight, M777	E0671	$1,600,000	48	48	48	48	48
Assault Amphibious Vehicle (AAV), Command/Communications, AAVC7A1	E0796	$1,600,000	5	5	5	5	5
AAV, Personnel, AAVP7A1	E0846	$2,000,000	42	42	42	42	42

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Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
AAV, Recovery, AAVR7A1	E0856	$2,000,000	6	6	6	6	6
Rocket Launcher, 83mm, MK153	E0915	$25,000	270	270	270	270	270
TOW Launcher, M220E4	E0935	$133,000	130	24	24	24	24
Light Armored Vehicle (LAV), Anti-tank, LAV-AT	E0942	$2,041,350	22	24	24	24	24
LAV, Command/Control, LAV-C2	E0946	$2,865,070	7	9	12	12	10
LAV, 25mm, LAV-25	E0947	$2,740,680	69	76	88	88	88
LAV, Logistics, LAV-L	E0948	$1,692,730	19	22	22	22	22
LAV, Mortar, LAV-M	E0949	$2,314,200	10	11	12	12	12
LAV, Maint/Recovery, LAV-R	E0950	$1,701,600	6	7	8	8	8
Machine Gun, .50 cal., Browning M2	E0980	$12,005	585	585	585	585	585
Machine Gun, .50 cal.	E0984	$14,168	585	585	585	585	585
Machine Gun, 7.62mm, M240B	E0989	$7,096	1,253	1,253	1,253	1,253	1,253
Machine Gun, 40mm, MK-19	E0994	$17,741	549	549	549	549	549
GLTD II Target Designator	E1030	$107,000	35	35	35	35	35
Vector 21	E1048	$24,915	469	469	469	469	469
Mortar, 60mm, M224	E1065	$55,879	81	81	81	81	81
Mortar, 81mm, M252	E1095	$36,080	84	84	84	84	84
Velocity, Muzzle (MVS)	E1145	$28,000	16	16	16	16	16
Recovery Vehicle, Heavy, M88A2	E1378	$2,000,000	6	6	6	6	6
Rifle, Sniper, 7.62mm	E1460	$6,034	149	149	149	149	149
Rifle, Scoped, Special Application, .50 cal.	E1475	$9,830	82	82	82	82	82
High Mobility Artillery Rocket System (HIMARS)	E1500	$3,540,000	18	18	18	18	18
Tank, Combat, 120mm Gun, M1A1	E1888	$2,800,000	48	48	48	48	48
Direct Support Electrical System Test Set (DSETS), AN/USM-615	E1906	$561,312	3	3	3	3	3
Sight, Weapon, Thermal, Medium (MTWS)	E1975	$9,254	1,247	1,247	1,247	1,247	1,247
Sight, Weapon, Thermal, Heavy (HTWS)	E1976	$9,986	194	600	1,116	1,116	1,116

USMCR
Average Age of Equipment

Table 2

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 2010.

Nomenclature	Equip No.	Average Age	Remarks
AIRCRAFT			
Helicopter, Attack, AH-1W	AH-1W	14	
Helicopter, Utility, UH-1N	UH-1N	26	
Helicopter, Cargo, CH-46E	CH-46E	40	
Helicopter, Cargo, CH-53E	CH-53E	12	
Aircraft, Refueling/Cargo, KC-130T	KC-130T	18	
Aircraft, Fighter/Attack, F/A-18A	F/A-18A	24	
Aircraft, Fighter/Attack, F/A-18A++	F/A-18A++	23	
Aircraft, Fighter, F-5F	F-5F	31	
Aircraft, Fighter, F-5N	F-5N	30	
Aircraft, Utility/Cargo, UC-12B	UC-12B	27	
Aircraft, Utility/Cargo, UC-35C	UC-35C	10	
Aircraft, Utility/Cargo, UC-35D	UC-35D	7	
COMMUNICATIONS/ELECTRONICS			
Radio Terminal Set, AN/TRC-170	A2179	15	Fielded in mid 1990s.
MOTOR TRANSPORT			
Front Power Unit, Logistics Vehicle System, MK48	D0209	25	Majority of MK48s LVSs (1,682) were procured in 1984. There was a rebuy of limited quantities which took place in 1995 of 84 vehicles. There is no hot production line for MK48s; Reserves need 160 but will only have 123 on-hand after FY 2013.
Semitrailer, 40-ton Low-bed, M870	D0235	7	PM MT has FY 2010 supplemental funding to procure 15 trailers for the Reserves, which would complete the AAO.
Truck, Aircraft Crash/Structure Firefighting, A/S32P-19A	D1064	25	There is no hot production line for P-19s No additional P-19s can be provided.
WEAPONS			
Howitzer, 155mm, Towed, Medium, M198	E0665	23	
AAV, Personnel, AAVP7A1	E0846	38	
LAV, 25mm, LAV-25	E0947	15	Average age of E0947s in the USMCR was reduced from 23 to 15 yrs as a result of the delivery of 30 vehicles produced during 2008-2009. Current average age of the entire MC fleet of E0947 is 21 yrs as a result of the new buys.
Tank, Combat, 120mm Gun, M1A1	E1888	13	

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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 2011 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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013.

Nomenclature	FY 2011	FY 2012	FY 2013
Weapons and Combat Vehicles			
Assault Amphibious Vehicle (AAV7A1) Product Improvement Program (PIP)	$78,000	$99,000	$101,000
Light Armored Vehicle (LAV) PIP	7,428,000	2,959,000	1,079,000
High Mobility Artillery Rocket System (HIMARS)	1,701,000		
Guided Missiles and Equipment			
Follow-on to Shoulder-Launched Multipurpose Assault Weapon (SMAW)		3,429,000	
Communications and Electronics Equipment			
Fire Support System	343,000	378,000	368,000
Engineer and Other Equipment			
Environmental Control Equipment	4,344,000	764,000	774,000
Bulk Liquid Equipment	1,294,000		
Tactical Fuel Systems	4,847,000		
Container Family	134,000	935,000	809,000
Bridge Boats	4,312,000		
Total	**$24,481,000**	**$8,564,000**	**$3,131,000**

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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013. All values are costs in dollars.

Nomenclature	FY 2008	FY 2009	FY 2010
FY 2008 Title III NGREA Equipment			
F/A 18+ Litening II Targeting Pod	$14,700,000		
UC-12 Aircraft	9,100,000		
Deployable Virtual Training Environment (DVTE)	4,995,000		
Medium Tactical Vehicle Replacement - Operator Driving Simulator (MTVR-ODS)	4,339,500		
BRITE STAR Forward-looking Infrared (FLIR)	3,600,000		
Tactical Remote Sensor Suite (TRSS)	2,911,000		
Virtual Combat Convoy Trainer - Reconfigurable Vehicle Simulator (VCCT-RVS)	2,878,000		
KC-130T AN/ARC-210 1556 To 1794 Upgrade	1,437,000		
HMMWV Egress Assistance Trainer (HEAT)	500,000		
Multi-band Man Pack (Rover III)	235,500		
FY 2009 Title III NGREA Equipment			
Light Armored Vehicle 25 A2 Variant (LAV-25A2)		$16,463,000	
BRITE STAR Forward-looking Infrared (FLIR)		7,200,000	
Tactical Remote Sensor Suite (TRSS)		5,764,000	
Tactical Laptop Computer Package		4,713,000	
Supporting Arms Upgrade to Digital Training Environment		2,882,000	
Embarkation Materials		200,000	
Alternative/Renewable Energy Production Equipment		200,000	
FY 2009 Title IX NGREA Equipment			
Logistical Vehicle Replacement System-Cargo		17,467,718	
UC-35D Aircraft Survivability Upgrades		3,000,000	
Tactical Remote Sensor System Upgrades		2,723,400	
Commercial Satellite Communication Set		514,500	
Data Processing Module		328,000	
Digital Terrain Analysis Mapping System - Lite		315,000	
Marine Corps Tactical Welding Shop		210,000	
Advanced Imagery Module		137,000	
Tactical Handheld Communication Set		132,000	
Handheld Satellite Communication Set		96,600	
Media Exploitation Set-Lite		75,000	
FY 2010 Title III NGREA Equipment			
Light Armored Vehicle 25mm A2 Variant (LAV-25A2)			$28,572,840
Light Armored Vehicle Command & Control (C2) A2 Variant (LAV-C2A2)			16,044,800
Air Traffic Control Simulation Package			308,000
Total	**$44,696,000**	**$62,421,218**	**$44,925,640**

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 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Data Distribution System (DDS), AN/TSQ-228(V)2	A2534	-7	-8		
Tactical Command System, AN/USC-55A	A2551		-2		
HMMWV, Cargo/Troop Carrier, M1123	D1158	-150	-150	-100	
TOW Launcher, M220E4	E0935	-106			

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2007 with actual procurements and transfers. FY 2007 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 2009. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2007 Planned Transfers & Withdrawals							
USMCR indicated no planned transfers or withdrawals in the FY 2007 NGRER.							
FY 2007 P-1R Equipment							
Weapons and Combat Vehicles							
AAV7A1 PIP				$1,615,000	$212,000		
LAV PIP				0	13,062,000		
155mm Lightweight Towed Howitzer				2,775,000	2,775,000		
High Mobility Artillery Rocket System				57,524,000	91,094,000		
Modification Kits				2,857,000	0		
Weapons Enhancement Program				125,000	0		
Communications and Electronics Equipment							
Repair and Test Equipment				1,784,000	0		
Modification Kits				264,000	0		
Items Under $5M (Comm & Elec)				701,000	0		
Air Operations C2 Systems				583,000	0		
Intelligence Support Equipment				208,000	0		
Command Post Systems				1,907,000	0		
Comm Switching & Control Systems				7,419,000	7,419,000		
Support Vehicles							
5/4T Truck HMMWV (MYP)				27,161,000	10,800,000		
Other Support - Items Less Than $5M				183,000	0		
Engineer and Other Equipment							
Environmental Control Equip Assort				718,000	0		
Bulk Liquid Equipment				6,281,000	9,100,000		
Tactical Fuel Systems				786,000	0		
Power Equipment Assorted				1,348,000	0		
Amphibious Support Equipment				1,354,000	1,120,000		
Material Handling Equipment				2,331,000	2,600,000		
Field Medical Equipment				0	806,000		
Training Devices				413,000	1,212,000		
Container Family				632,000	0		
Family of Construction Equipment				1,329,000	0		
Other Support - Items Less Than $5M				113,000	0		

USMCR

Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2007 NGREA Equipment							
UC-12 Aircraft						$8,000,000	$8,000,000
LITENING II Targeting Pod						7,200,000	7,200,000
Virtual Combat Convoy Trainer						4,900,000	4,900,000
Medium Tactival Vehicle Replacement - Training System						3,950,000	3,950,000
Logistics Support Wide Area Network (LSWAN) Package						3,465,000	3,465,000
Indirect Fire - Forward Air Control Trainer (I-FACT)						1,875,000	1,875,000
KC-130T AN/ARC-210 SATCOM Radio						1,715,000	1,715,000
Communications Package						1,436,050	1,436,050
Deployable Virtual Training Environment (DVTE)						1,170,000	1,170,000
Sensor Mobile Monitoring Systems (2nd Generation)						900,000	900,000
Defense Advanced GPS Receiver (DAGR)						280,950	280,950
F/A-18 LITENING II Targeting Pod Modification Kits						108,000	108,000
Pro Rata Share of Reduction Under P.L. 109-298, Sec 8106						(141,000)	(141,000)
TOTAL				**$120,411,000**	**$140,200,000**	**$34,859,000**	**$34,859,000**

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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 2011 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 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	Support Wide Area Network (SWAN) D	25	19	$80,000	$1,520,000	OIF/OEF training
2	Light Armored Vehicle (LAV), 25mm (LAV-25A2)	88	13	$3,200,000	$41,600,000	OIF/OEF training
3	LAV, Maint/Recovery (LAV-R)	8	3	$3,200,000	$9,600,000	OIF/OEF training
4	LAV, Command/Control (LAV-C2)	10	4	$5,000,000	$20,000,000	OIF/OEF training
5	Logistics Vehicle System Replacement (LVSR) - Tractor	35	35	$450,000	$15,750,000	Modernization and AC/RC compatibility
6	LVSR - Wrecker	11	11	$500,000	$5,500,000	Modernization and AC/RC compatibility
7	LVSR - Cargo	76	3	$400,000	$1,200,000	Modernization and AC/RC compatibility
8	Target Locator, Designator & Hand-off System (TLDHS) AN/PSQ-19A	146	137	$99,000	$13,563,000	Modernization and AC/RC compatibility
9	KC-130J Aircraft	28	28	$73,236,000	$2,050,608,000	Modernization and AC/RC compatibility
10	KC-130J Simulator	1	1	$25,000,000	$25,000,000	Modernization and AC/RC compatibility

Chapter 4
United States Navy Reserve

I. Navy Overview

A. Navy Planning Guidance

In the Chief of Naval Operations (CNO) Guidance for 2010, *Executing the Maritime Strategy*, dated September 2009, the CNO's vision for implementing the Maritime Strategy states:

> Our Navy today is globally deployed, persistently forward, and actively engaged. More than 50,000 Sailors are on station around the world, including 13,000 Sailors on the ground in Central Command, carrying out the six core capabilities of the Maritime Strategy: forward presence, deterrence, sea control, power projection, maritime security, and humanitarian assistance and disaster response.

In the *Focus for 2010* section from his guidance, the CNO states the Navy will:

> **Continue to be the most dominant, ready and influential naval force, globally and across all naval missions.**
>
> Our Navy continued its operations worldwide, providing reconnaissance and close air support to troops on the ground in Afghanistan, protecting key waterways and critical oil infrastructure in Iraq, disrupting Al Qaeda communications and bomb attacks via electronic warfare, constructing infrastructure in the Horn of Africa, combating piracy off the coast of Somalia, and deterring potential adversaries and assuring allies through cooperative efforts in ballistic missile defense, maritime security, and anti-submarine warfare. We are a highly capable force today, but we require additional capacity to meet Combatant Commander demands for Navy forces globally. Our FY10 budget better aligned our program with the path of Maritime Strategy has set; however, we are progressing at an adjusted pace. The balance between mandatory and discretionary spending at the national level, and high national debt over the next decade, will further increase the fiscal pressure on defense accounts. Growing demand for Navy forces and rising manpower, operating, and ownership costs challenge our ability to increase Fleet capacity while meeting operational demands and our commitment to our people.

In the summary, the CNO states:

> Our Navy is the finest in the world and our Sailors are making a difference every day. My guidance should focus our efforts on ensuring the dominance of our Navy tomorrow, the readiness of our Fleet today, and the well being of our people always.

The Navy Reserve is integrated and contributing to the joint force in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF); executing special operations with Navy SEALs; disabling improvised explosive devices (IEDs) with Explosive Ordnance Disposal (EOD) teams; hosting nation construction, security, and supporting facilities with the Seabees; treating wounded warriors; providing airborne electronic attack during regular deployments in theater; providing time critical, high priority cargo and passenger airlift with the C-40A aircraft; securing

waterways with our Maritime Expeditionary Security Forces (MESF); building critical infrastructure with Civil Construction Battalions; and augmenting ground forces with Reserve component (RC) Sailors. The demand for the Navy Reserve is the highest it has been in years, requiring more agility and flexibility than ever before.

When the CNO was asked how the Navy Reserve complements the active duty forces by the Senate Appropriations Committee, Subcommittee on Defense on 2 June 2009, he stated:

> We are one force today. The integration of our active component and our Reserve component is as close as it has ever been. And in fact, most of the individual augmentees that have gone into Central Command area of operation over the past eight years are Reserve Sailors and officers.
>
> We cannot be the Navy we are today without our Reserve component. The way that they move into our active force after having served in an active capacity is absolutely seamless. The importance that we place on our Reserve programs is extremely high.

The mission of the Navy Reserve is "to provide strategic depth and deliver operational capabilities to our Navy and Marine Corps team, and Joint forces, from peace to war." Our skills and capabilities are in high demand, and our country is counting on us to do more than ever before.

The Navy Reserve vision is "to be a provider of choice for essential naval warfighting capabilities and expertise, strategically aligned with mission requirements and valued for our readiness, innovation, and agility to response to any situation." The Navy Reserve has also incorporated "Ready Now. Anytime, Anywhere" as a pledge as well as the common motivation and intention of the Navy Reserve.

B. Navy Equipping Policy

The 2010 Quadrennial Defense Review (QDR) is a legislatively-mandated (Section 118(a), Title 10, United States Code) review of DoD strategy and priorities. This comprehensive examination includes a review of the national defense strategy, force structure, force modernization plans, infrastructure, budget plans, and other elements of the defense program and policies of the United States. The QDR lays the foundation for the Navy equipping policy.

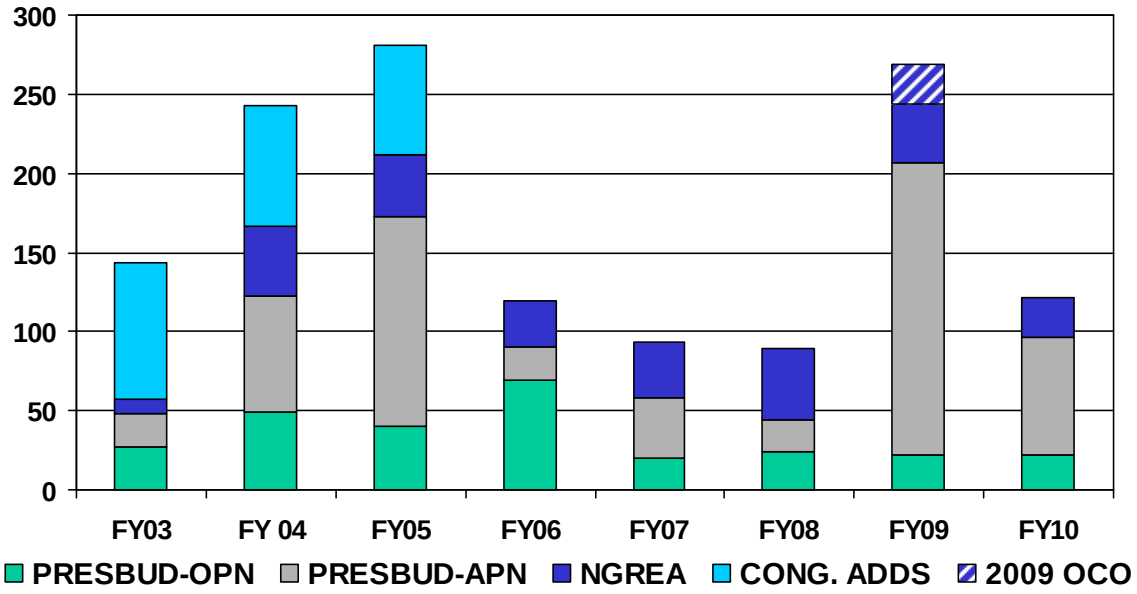
The Office of the CNO (OPNAV) Instruction 4423.3, titled *Equipping Reserve Forces*, is the Navy's policy for procurement and distribution of equipment for the Navy Reserve. RC units will be equipped to accomplish all assigned missions and will have an equipment and distribution program that is balanced, responsive to mission requirements, and sustainable. The priority for distribution of new and combat-serviceable equipment, with associated support test equipment, is to units scheduled to deploy first. The same methodology for prioritizing equipment distribution for AC units determines equipment priorities for RC units with the same mobilization mission or deployment requirements.

The Navy has established a seamless and fully integrated Total Force. The 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, Naval Network Warfare Command, 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 (RFF) to be sourced by the Navy. Navy Reserve expeditionary forces have been heavily mobilized to the extent that authorized equipment needs modernization and replacement. Similarly, our aviation squadrons have transferred a significant number of aircraft to the AC as replacement aircraft for those whose accelerated fatigue has created a substantial shortfall in AC inventory. RC aircraft and equipment are now in need of recapitalization, all within a challenging budgetary environment.

The Department of the Navy (DoN) funds RC equipment through the President's Budget (PRESBUD) request (consisting of the Aircraft Procurement, Navy [APN] and Other Procurement, Navy [OPN] accounts), Congressionally-added funding (CONG ADD), and National Guard and Reserve Equipment Appropriation (NGREA) funding. Figure 4-1 provides an overview of funding provided to the Navy RC from all three sources from FY 2003 through FY 2010. Figure 4-1 has been modified from last year's NGRER due to changes in assumptions for the Congressional Adds from 2006–2008 in that a validation of procurement for Navy Reserve could not be verified.

Figure 4-1. Navy RC Procurement Funding Sources (in million dollars)



C. Plan to Fill Mobilization Shortages in the RC

Major operation plans (OPLANs) and contingency plans require RC units to deploy as integrated parts of the Navy warfighting plan. Naval 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. 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 several 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 aging DC-9 and C-9B transport aircraft with C-40A aircraft. To date, 9 C-40A aircraft have been procured, 2 have been funded in the FY 2009 PRESBUD, and a requirement for 6 more has been identified in the *Naval Aviation Plan 2030*. Procurement has been accomplished through a combination of NGREA, Congressional Adds, and Navy baseline 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	PRESBUD
2001	1	CONG ADD
2003	1	CONG ADD
2004	1	PRESBUD
2005	1	PRESBUD
2009	2	PRESBUD
2010	1	PRESBUD

- Replacement of the EA-6B Prowler aircraft with the EA-18G Growler is required to continue RC Fleet Electronic Attack (EA) capability. RC EA-6B's were previously scheduled to retire by 2012 coincident with expiration of the expeditionary EA requirements; however, recent direction proposing an extension of the mission past 2014 includes the RC capability. This extension provides increased viability to the reserve EA-18G recapitalization plan.

- The Maritime Patrol and Reconnaissance P-3 aircraft continue to be impacted by advancing structural fatigue limitations. During the last 5 years, 35 RC P-3C aircraft have been transferred to the AC inventory as replacements from disestablished RC squadrons; we now have 2 squadrons of RC aircraft remaining that must be recapitalized with the P-8A aircraft to meet minimum wartime-readiness capability provided by anti-submarine-warfare (ASW) expertise.

- Procurement of additional C-130 aircraft to meet the *Naval Aviation Plan 2030* "redline" 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 with tanking capability.

- Equipping adversary support aircraft with radar and advanced EA is critical for our deploying forces. Evolving threats and DoN counterair tactics require radar-equipped F-5s to provide the required threat representations to adequately train deploying forces. EA is an inexpensive, highly portable technology capable of disrupting possible combatant command (COCOM)-directed counterair effects in potential future conflicts.

- Forty-four F-5 aircraft were purchased from Switzerland during FY 2003–2007 by Navy and Marine Corps RC squadrons for use as adversary aircraft. These aircraft are performing a vital combat-training mission using veteran combat-skilled aviators to train our replacement aircrews and our deploying carrier air wings. Their upkeep and modernization are of critical importance.

- Modernization and recapitalization of Naval Construction Force (NCF) unit equipment Table of Allowances (TOAs). Navy Expeditionary Combat Command (NECC) completed a thorough review of the NCF plan to modernize and recapitalize the NCF TOAs. The types of equipment reviewed include tactical vehicles, construction and maintenance equipment, and expeditionary camp material. The CNO has supported the recapitalization and modernization of NCF equipment through inflation-adjusted program funding across the Future Years Defense Plan (FYDP), as well as through Overseas Contingency Operations (OCO) funding. NGREA funds have reinforced the NCF equipment program by filling critical equipment gaps and accelerating outfitting of RC units. RC equipment is used to train Seabees at Readiness Support Sites and protect Seabees in operational environments.

- Modernization and replacement of the Navy Expeditionary Logistics Support Group (NAVELSG) equipment TOA is necessary to improve current readiness and to ensure successful and safe cargo-handling operations. NAVELSG equipment (civil engineering support equipment [CESE], material-handling equipment [MHE], and communications gear) held by units and in WRMS is serviceable, but requires modernization. Since FY 2004, more than $16 million in NGREA funding has been provided to NAVELSG to upgrade RC TOAs.

- Our Tactical Support Wing (TSW) now has two squadrons of F/A18A+/C with a total of 24 aircraft that 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 recapitalization with the F/A-18E/F and Joint Strike Fighter to sustain world-class adversary presentation and to be able to deploy in a joint environment.

- Completion of a mission revision of the command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) equipment; boats; and CESE requirements of the MESF and EOD RC unit TOAs in 2008 by NECC. This revision will ensure a better equipment mix for these fully-integrated support units.

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, upgrade programs, and equipment redistribution from the AC to the RC have virtually eliminated capability and compatibility gaps between RC, AC, and Joint forces.

Now, we are at a pivotal moment, having leaned our RC force structure to the appropriate capability and capacity required to sustain the operational reserve. We measure the value and the return on investment that our people and equipment deliver to the Total Force on a daily basis. Critical recapitalization is needed now and budgetary dynamics make us ever reliant on a combination of the Service priority and the direct appropriation for recapitalizing these aging and depreciated assets.

II. Navy Reserve Overview

A. Current Status of the Navy Reserve

1. General Overview

In the Chief of Navy Reserve's (CNR) statement before the Subcommittee on Personnel, Senate Armed Services Committee, March 25, 2009, the CNR stated "for Navy Reservists to continue providing superior operational support to the Navy through the competencies they have acquired both in the Fleet and in their civilian careers, the Navy must also have interoperability between all elements of the Total Force. The acquisition of AC and RC equipment, enhancements and upgrades to programs, and equipment redistribution (AC to RC, as well as RC to AC) have virtually eliminated capability and compatibility gaps between AC, RC and Joint forces. Current and future RC equipment requirements that are vital to our combat forces include aircraft and NECC equipment."

The Navy Reserve consists of operational hardware units providing personnel and equipment, and strategic augmentation units, which provide personnel only. Equipment availability affects unit training, readiness, and the ability to perform assigned missions. Systems Commands (i.e., Naval Supply Systems Command, Naval Facilities Engineering Command, Naval Air Systems Command, and Naval Sea Systems Command) act as program managers to establish equipment allowances for designated RC hardware units to support operational requirements.

Current aviation procurement trends will challenge RC aviation capabilities as the Navy Reserve continues to recapitalize across the enterprise. Priorities include completing the C-40A (airlift) procurement and recapitalizing the electronic attack capability that is fully integrated into the Airborne Electronic Attack (AEA) deployment plan that has provided 12 years of combat deployments in support of COCOM requirements. The C-40A provides twice the range, twice the cargo load, and twice the Ready for Tasking (RFT) days of the C-9B it replaces. The overall burdened hourly operating cost of the C-9B is $8,147 per flight hour versus the C-40A cost of $6,141 per flight hour. As a result, a $42M per year cost avoidance will be realized by completing C-40A procurement and retiring the 15 remaining C-9Bs.

Top Navy Reserve Equipping Challenges

- Aircraft procurement (C-40A, E/A-18G, P-8, KC-130J, F/A-18E, JSF)
- Civil engineering, material handling, and communications equipment for OCO-related units

The National Guard and Reserve Equipment Appropriation (NGREA) has been utilized to meet the equipment needs of the Navy. The Navy Reserve's NGREA service allocation has decreased from 11.3 percent in 2004 to 5.0 percent in 2009, The NGREA has resourced the Irregular Warfare capability of the Naval Expeditionary Combat Command and the recapitalization of critical RC equipment in both the Naval Aviation and Surface Warfare Enterprises. In FY 2009, the Navy Reserve executed NGREA funding to equip the Maritime Expeditionary Support Force, Explosive Ordnance Disposal Force, Naval Construction Force, Naval Expeditionary Logistics Support Group, Naval Aviation and Surface Warfare Enterprises with: tactical and armored vehicles, civil engineering support equipment, communications equipment, Table of Allowance (TOA) equipment, aviation modernization upgrades, and Rigid Hull Inflatable Boats.

The major Navy Reserve hardware units consist of 12 Mobile Construction Battalions; 11 Cargo Handling Battalions; 2 Maritime Expeditionary Security Groups with 10 Security Squadrons; 2 EOD Operational Support Units (OSUs); 2 EOD Mobile Units; 9 Oliver Hazard Perry class frigates (FFGs); and 169 aircraft. All RC ships, MESF, NCF, NAVELSG, and EOD units are under the operational control of U.S. Fleet Forces Command or Pacific Fleet. RC aircraft squadrons are under the operational control of Commander, Naval Air Forces. The RC possesses 100 percent of the Navy's organic medium airlift, 75 percent of the adversary training capability, 20 percent of the maritime patrol squadron capability, 13 percent of the airborne early warning capability, 12 percent of the rotary-wing capability, and 9 percent of the carrier air wing capability.

a. Fleet Air Logistics

The RC provides 100 percent of the Navy's organic intra-theater, medium-airlift capability for 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-40, C-9, C-20, C-37, and C-130 aircraft. The C-9 aircraft average more than 35 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-9 study calculated an operational equivalency of 1.8 C-9s to 1.0 C-40A; which equates to nearly twice the lift capacity, range, and ready for tasking rate with a C-40 over a C-9. Significant airlift recapitalization was initiated in FY 1997 when $120M of NGREA funding was provided for procurement of the first 2 C-40A aircraft to begin the replacement of the aging C-9 fleet. Seven more C-40As were procured between FY 1998 and FY 2005 utilizing funding through NGREA, Congressional Adds, and the PRESBUD. To date, 9 C-40As have been accepted and are being operated by VR-59 (Naval Air Station [NAS] Joint Reserve Base, Fort Worth, TX); VR-58 (NAS Jacksonville, FL); and VR-57 (NAS North Island, CA).

The C-130Ts are operating at a 5-plane shortfall per CNO's *Navy Aviation Plan 2030* redline requirement. The current fleet is Communications Navigation Surveillance/Air Traffic Management (CNS/ATM) compliant through FY 2014. The C-130T modernization effort, known as Avionics Modernization Program (AMP), was cancelled due to excessive cost and upgrade timeline. Instead, the Navy has funded a prioritized list of requirements to upgrade these aircraft for CNS/ATM capability in order to extend the C-130T fleet past 2014. Conversely, KC-130Js have twice the ready-for-tasking days as the C-130Ts and are the best investment option.

b. Tactical Aviation

The Tactical Support Wing (TSW) provides a strategic reserve for the Navy's 10 Carrier Air Wings (CVW). Additionally, TSW squadrons provide adversary training, counter-narcotics, and homeland defense (HLD) 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, completed a 75-day deployment to Bagram, Afghanistan in May 2009, flying more than 750 combat hours. The E/A-6B is currently planned to be removed from the Navy's inventory in FY 2012. The Navy is attempting to recapitalize the RC E/A-6B Prowlers with 5 E/A-18G aircraft in FY 2012. The transition is needed to mitigate the AEA capacity and capability gap in FY 2012. VAQ-209 is scheduled to fly the E/A-6B until FY 2012 with no replacement aircraft slated. The Navy and Air Force have stated in Congressional testimony that an unfunded AEA joint requirement capability and capacity gap will occur in FY 2012 and continue in the future. Without the RC E/A-18G transition, the Navy will lose critical operational and strategic reserve AEA capability and capacity. These aircraft will ensure COCOM requirements are supported with the ability to maintain the composition of an air wing with the transformational capability for Suppression of Enemy Air Defenses (SEAD), integrated air/ground attack, and OCO missions.

The TSW F/A-18 and F-5 aircraft provide 75 percent of the Navy's adversary mission capability. The Navy is seeking to recapitalize the RC legacy Hornet squadrons with an F/A-18E squadron and a 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. These baseline strike fighter squadrons will support SEASTRIKE interoperability, the Navy's power projection pillar of operations discussed in *Sea Power 21*, to achieve the COCOM objective to reduce the overall baseline strike fighter shortfall. As the Navy tactical aircraft fleet shrinks and ages, we place 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 F/A-18E and JSF will provide sustainable platforms enabling the full spectrum of capabilities, including adversary, in the near and long term.

The E-2C Hawkeye squadron, VAW-77, completed 4 counter narco-terrorism deployments within the Southern Command (SOUTHCOM) area of responsibility (AOR) during FY 2009. Serving as the primary counter illicit trafficking (CIT) command and control asset, the squadron provided more than 1,900 flight hours in support of Joint Interagency Task Force South (JIATF-S) Operations Carib Shield and Caper Focus. Proficient E-2 tactical control among 19 foreign governments, 7 federal agencies, and all branches of the U.S. military led to the disruption of over $17.2B in illegal drugs, capture of 15 narco-terrorists, and rescue of 9 lives during search and rescue (SAR) operations. The JCS directed VAW-77 to provide 100 percent of the required 180 days deployed CIT operations. FY 2009 also saw VAW-77 provide the first E-2 operational control of an unmanned aerial vehicle (UAV) in support of a COCOM-level standing joint task force. Operating six 17 year-old E-2C aircraft, the RC is pursuing a recapitalization plan to transition the squadron to the E-2D Advanced Hawkeye by 2025. The E-2D brings a unique advanced radar package which is highly suited to the Northern Command (NORTHCOM) missile defense mission and would allow VAW-77 to appropriately surge as an active duty E-2 squadron if a carrier strike group mobilization was directed. Finally, the command also serves as the "on call" National Command Authority airborne early warning (AEW) platform for homeland security contingencies/disasters.

c. Maritime Patrol and Reconnaissance Aircraft (MPRA)

The RC currently provides 10 percent of the Navy's maritime patrol aircraft providing ASW, counter narcotics operations, and fleet exercise support. The RC has two P-3C squadrons, composed of six Aircraft Improvement Program (AIP) and six Block Modification Upgrade (BMUP) aircraft. 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 (FRP)* by continuously providing 6 combat-ready aircrews for worldwide surge. Due to the accelerating fatigue of the P-3C aircraft, 35 RC P-3C aircraft have been transferred to the AC inventory as replacements from disestablished RC squadrons. RC assets provide the AC with a robust capacity for surge operations while maintaining the capability to accomplish current fleet-support requirements. Due to increased COCOM demand, grounding notifications issued through Air Stripe, an airframe bulletin directing grounding for inspection, and increased readiness requirements, the remaining RC P-3Cs will force an aircraft replacement sooner than previously anticipated. In FY 2009, AC aircrews flew 85 percent of the total hours accumulated on the 12 RC P-3C aircraft. Twelve AC squadrons are programmed to transition to the P-8A aircraft. 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. The recapitalization of RC legacy P-3Cs with P-8As is necessary to provide the required number of aircrews and aircraft to fill the most-stressing combat requirements.

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. Following the completion of the Base Realignment and Closure (BRAC) move in FY 2010, both squadrons will be collocated in NAS Norfolk, VA. RC rotary-wing assets currently provide the Navy's only dedicated Naval Special Warfare support squadron, 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 counter-narcotics operations. The RC helicopter inventory consists of the HH-60H, SH-60B, MH-60S, and MH-53E aircraft. The RC helicopter footprint in Iraq has been continuous since 2003. Personnel from HSC-84 (NAS Norfolk, VA) and HSC-85 (NAS North Island, CA) have been partially mobilized and deployed in support of OIF, supporting special operations ground force missions in urban and rural areas, psychological operations, and medical and casualty evacuations. In addition to OIF, HSC-85 provides continuous support to the Southern California Offshore Range (SCORE) and also provides the Navy's only firefighting capability to the California Department of Forestry. HSL-60 (Naval Station

Mayport, FL) is tasked with counter-narcotics operations, deploying for six-months per year with joint interagency task force organizations in the SOUTHCOM AOR. In July 2009, the CNO directed that HSC-84 and HSC-85 be expanded to provide full rotary wing support to Special Operations Forces. HSC-85 will transition to the HH-60H and both squadrons will increase their aircraft inventory to 12 aircraft. Transformation to the new primary mission area is slated to begin in FY 2011.

e. Maritime Expeditionary Security Force (MESF)

The MESF is organized into two Echelon IV group commands (AC commander with RC augmentation), 10 Echelon V squadron commands (1 AC, 4 RC, and 5 blended commands), and subordinate Echelon VI division commands. The division commands are specialized in 1 of 3 functional areas: Boat Divisions specialize in waterborne security of vessels and maritime infrastructure; Security Divisions specialize in ground, perimeter, aircraft, and ship-embarked security; Command and Control Divisions specialize in establishment of communications and data networks to exercise real-time command and control of security forces and for the tactical surveillance of the littoral battlespace with radar, visual, electro-optical/infrared (EO/IR), and acoustic/other sensors.

The mission of MESF is to provide highly trained, scalable, and around-the-clock sustainable security teams capable of defending mission critical assets in the littoral and near coast environment. Maritime expeditionary security units may provide maritime and inshore surveillance, security/anti-terrorism force protection, ground defense, afloat defense, airfield/aircraft security, a wide range of secondary tasks, and are deployable world-wide.

All MESF units require individual combat equipment for all assigned personnel, and sufficient CESE for the overland tactical movement of their assigned TOA and personnel. The RC MESF has equipment shortfalls in its deployment TOA sets. Equipment shortfalls include C4ISR, tactical vehicles, boats, and protective gear items (PGI), which are serviceable, but in need of replacement and modernization as a result of constant use in the present contingency environment. NGREA has enhanced RC readiness, especially in light of the high operating tempo being experienced within the Central Command (CENTCOM) AOR in support of OIF and OEF.

f. Explosive Ordnance Disposal (EOD)

The Navy Reserve EOD Force consists of 2 RC Commands (EODRCCs) located in the fleet concentration areas of San Diego (EODESU ONE RC) and Norfolk (EODOSU TEN). EODRCCs report both operationally and administratively to their respective EOD Group Commanders and are fully integrated with their AC counterparts. EODRCCs 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 EODRCC has a manning structure of approximately 25 active, Full Time Support (FTS),and reserve officers, and 130 reserve and active enlisted billets.

The EOD RC Force has equipment shortfalls in its TOA. Shortfalls include CESE, boats, and communications gear shortfalls. The current funding request provides funding for CESE, boats; command, control, communications, computers, and intelligence (C4I) equipment; and the TOA required to outfit 2 RC EOD mobile platoons each year from FY 2010–2012, and 1 in FY 2013 to increase capacity/capability of Active-Reserve Integration (ARI); and 5 percent recapitalization, sustainment, and modernization of existing TOA.

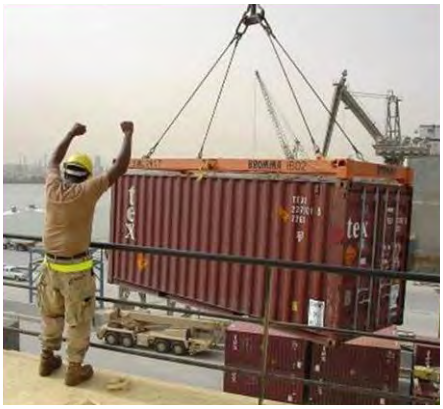
g. Naval Construction Force

The Navy Reserve provides approximately 54 percent of the Navy's combat and contingency construction capability in the Naval Construction Force (NCF), in support of unified commands and naval component command (NCC) requirements. This percentage is actually slightly down when compared to the roughly 66 percent of NCF capability as recently as FY 2007. The reduced relative contribution is by no means a reflection of a diminished RC requirement; rather it is due to the addition of an AC Naval Construction Regiment (NCR) and Naval Mobile Construction Battalion (NMCB) in FY 2008. As with virtually all of NECC, the AC and RC aspects of the NCF combine to provide a fully integrated force, with all units having the same operational chain of command, mission, readiness standards, and equipment.

With an operational reserve, the AC and RC work together to provide ready equipment sets in theater in support of OPLAN requirements. Under the operational control of First Naval Construction Division (1NCD), the RC NCF consists of: 4 NCRs, 12 NMCBs, 1 NCF Support Unit (NCFSU), and augmentation forces. The complete integration of RC and AC within the NCF has improved the balance between early and late deploying units. Examples of recent organizational changes within the NCF that have improved the operational effectiveness and efficiency of the Seabees include the conversion of two RC Construction Battalion Maintenance Units (CBMUs) to AC in 2006 and the elimination of 17 AC Construction Battalion Units (CBU). These changes allow 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 has equipment shortfalls in its deployment TOA sets. Equipment shortfalls include tactical vehicles, CESE, and communications gear. Funds provided from FY 2004 through 2009 NGREA to procure expeditionary tent camp materials, mobile firearms training simulators, High Mobility Multipurpose Wheeled Vehicles (HMMWVs), and Medium Tactical Vehicle Replacements (MTVRs) have increased RC readiness. These investments have enhanced 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. NGREA funding has enhanced RC readiness, especially in light of the high operating tempo within the CENTCOM AOR in support of OIF and OEF.

h. Navy Expeditionary Logistics Support Group (NAVELSG)



NAVELSG is predominantly a reserve operational force comprised of 94 percent RC personnel representing the Navy's primary expeditionary cargo handling capabilities. NAVELSG is an integrated force of AC and RC Echelon V Navy Expeditionary Logistics Regiments (NELRs) and Echelon VI Navy Cargo Handling Battalions (NCHBs). Each unit is capable of rapid worldwide deployment as mission-tasked detachments or as independent units. There is one AC NELR (1st NELR) and 4 RC NELRs (2nd, 3rd, 4th, and 5th NELR). NAVELSG provides pier and terminal operations, surface and air cargo handling, specialized supply support, and ordnance handling management. These capabilities are critical for sustaining forces in support of major combat operations; foreign humanitarian assistance; civil support; and stability, security, transition, and reconstruction operations.

NAVELSG deploys its 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 their approved TOA. NAVELSG, NECC, and Naval Facilities Engineering Logistics Center (NFELC) developed a new consolidated TOA, which updated equipment to current technology and developed specific modular capabilities within the NCHBs. The new TOA ensures NCHBs have necessary equipment to execute their Required Operational Capabilities (ROC).

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

The MCAST Command with its Maritime Civil Affairs and Expeditionary Training Teams was established as part of the CNO's OCO initiative to assess, plan, and execute civil affairs (CA) operations in the maritime environment (including littorals and rivers), using an effects-based planning methodology and delivering military to military (mil-to-mil) maritime expeditionary core capability training and instruction in the areas of naval construction, maritime civil affairs, maritime expeditionary security, riverine, expeditionary logistics, EOD, mobile diving and salvage, and skill sets external to NECC. These operations support the NCC in engaging the civil and military component to enhance the effectiveness of planned or ongoing operations. These operations will also assist in integrating the NCC or joint force maritime component command (JFMCC) actions into the COCOM's overarching CA and mil-to-mil training programs.

j. NECC Detachment Combat Camera Norfolk (COMBATCAM)

The RC members of the COMBATCAM organization contribute combat documentation teams and imagery management teams that deploy in support of Navy, joint task force (JTF), COCOM, Chairman of the Joint Chiefs of Staff, and OSD objectives with specialized imaging capabilities for the attainment of national objectives. RC COMBATCAM forces provide specialized imaging acquisition and transmission capabilities to document force deployments and activities before, during, and after military engagements. They also provide a directed imagery capability in support of operational and planning requirements during wartime operations, worldwide crises, contingencies, and exercises.

The current RC funding shortfalls include replacement of night vision equipment, digital cameras, lenses, memory media, camcorders, laptop computers, software, and photo equipment cases.

k. Navy Expeditionary Intelligence Command (NEIC)

The NEIC provides expeditionary warfighters with timely, relevant intelligence to deny the enemy sanctuary, freedom of movement, and use of waterborne lines of communication while supported forces find, fix, and destroy the enemy and enemy assets within the operational environment.

NEIC is organized, manned, trained, and equipped to provide tailored all-source intelligence information to commanders, mission planners, and deployed units assigned to meet the threat posed by a potential adversary. NEIC personnel understand the operational requirements and are fully integrated into their assigned operational units.

The NEIC equipment shortfalls include replacement of critical PGI for personnel, Biometric Collection Kits, and Tactical Intelligence Collection Kits.

l. Surface Warfare

The Surface Warfare Enterprise (SWE) is supported by more than 2,000 Surface Navy reservist billets across 86 RC units and detachments. These SWE RC units support 7 major mission areas within Surface and Amphibious Warfare including: Naval Beach Group, Assault Craft Units, BEACHMASTERs, Amphibious Construction Battalions, Tactical Group/Squadron Amphibious

Readiness Group Air Control, Commander Navy Surface Force Pacific and Atlantic Type Commander Afloat Culture Workshop Detachments, and 8 Class Squadrons (CLASSRONs).

The SWE established CLASSRONs in 2007 to provide warship readiness support to Commander Naval Surface Force. Leveraging its Total Force in 2008, SWE reprogrammed RC manning from the legacy Navy Reserve Force (NRF) FFG program to support newly established CLASSRONs. In 2009, eight CLASSRON Ship Support Units (SSUs) were formally established, aligning 300 surface reservists across each CLASSRON to provide RC waterfront warfare readiness assessments, assists, and support to every ship class including the Littoral Combat Ship (LCS). Still in start-up phase, NRF continues to assist this new initiative with officer and enlisted assignments to the SSUs.

As a new program for 2009, four of the eight CLASSRONs successfully leveraged RC assets to support warship readiness in FFG deployment, ship decommissioning, extended maintenance availabilities, Patrol Craft maintenance support teams, and Inspection and Survey Team preparations. Additionally, RC Surface Sailors provided critical operational support to Surface Navy deployments to CENTCOM, U.S. African Command, SOUTHCOM, and U.S. 7th Fleet.

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). Additionally, significant amounts of the MESF, NCF, NAVELSG, EOD TOA equipment, CESE, and MHE are at the end of service life and fully depreciated.

c. Compatibility of Current Equipment with the AC

Navy procurement and upgrade programs, as well as Congressional funding additions, have improved RC equipment capability and compatibility.

For the NCF, MESF, NAVELSG, and EOD 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. The new Maritime Civil Affairs Group (MCAG) also faces the challenge of ensuring AC and RC sustainability and interoperability since its current TOA allows for the outfitting of only four RC teams.

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 incurred by OIF and OEF require increasing amounts of Operation and Maintenance (O&M) 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. Each year, 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

Demand for maritime power will not diminish; however, the demand has increased to include humanitarian operations and global maritime partnerships for the Navy to continue its role of ensuring freedom of the seas and national security. The Navy stood up a new Deputy Chief of Naval Operations for Information Dominance and Fleet Cyber Command/Tenth Fleet. These new positions are essential for success in the important area of networks and information dominance.

C. Future Years Program (FY 2011–FY 2013)

1. FY 2013 Equipment Requirements

Table 1 provides projected FY 2011–FY 2013 major equipment inventories and requirements.

2. Anticipated New Equipment Procurements

Major equipment anticipated to be procured for the RC are 3 C-40A aircraft in FY 2009 and FY 2010. Significant funding is being provided to MESF, NCF, and NAVELSG to procure ground equipment. *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 2013

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

D. Summary

In summary, the Navy Reserve equipment priorities are aviation 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.

Additional priorities are resourcing the Irregular Warfare capability of the Naval Expeditionary Combat Command, the recapitalization of critical RC equipment and TOA shortfalls, and Rigid Hull Inflatable Boats.

The United States Navy is the finest in the world and our Sailors are making a difference every day. The Navy must remain flexible, engaged, and ready to deploy as a Total Force to ensure dominance of our Navy tomorrow, the readiness of our Fleet today and the well being of our people always. The Navy Reserve must provide the Navy with strategic depth by maintaining unsurpassed individual, unit, and force readiness to surge forward at a moment's notice. The Navy Reserve is a force multiplier offering flexibility, responsiveness, and the ability to serve across a wide spectrum of operations clearly enhancing Navy's Total Force. We must deliver timely, cost effective operational support through our people and equipment while providing on-demand expertise to national security. The Navy Reserve can answer the periodic and predictable call to provide operational support to the Fleet and combatant commanders in support of our global maritime mission. "Ready Now. Anytime, Anywhere."

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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 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Aircraft							
Aircraft, Transport, C-9B (Skytrain)	C-9B	$10,924,425	15	15	11	11	11
Aircraft, Transport, C-40A (Boeing 737-700)	C-40A	$81,700,000	9	11	12	12	12
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	4	4	4	4	4
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, Transport, UC-12B (King Air)	UC-12B	$2,530,575	5	5	5	5	5
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	6	6	6	6
Aircraft, Electronic Attack, EA-6B (Prowler)	EA-6B	$87,419,205	4	4	4	4	4
Aircraft, Electronic Attack, EA-18G (Growler)	E/A-18G	$85,000,000	0	0	0	0	0
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, MH-60S (Seahawk)	MH-60S	$20,621,340	5	0	0	0	0
Helicopter, Combat SAR, HH-60H (Seahawk)	HH-60H	$15,564,330	17	18	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	9	8	6	3	3
Naval Beach Group							
Maritime Prepositioning Force Utility Boat	MPF-UB	$1,000,000	7	10	10	10	10
Landing Craft, Mechanized, Mark 8	LCM-8	$1,100,000	4	0	0	0	0
Maritime Expeditionary Security Force (MESF)							
MESF C2 Division TOA Equipment		$20,013,930	6	6	6	6	6
Boat Division TOA Equipment		$71,772	6	6	6	6	6
Boat Detachment TOA Equipment		$6,601,513	22	22	22	22	22
Security Division TOA Equipment		$6,230,846	10	10	10	10	10

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Reserve Naval Construction Forces							
Naval Construction Regiment TOA	NCR	$3,851,051	4	4	4	4	4
Naval Construction Force Support Unit TOA	NCFSU	$131,029,376	1	1	1	1	1
Naval Mobile Construction Battalion TOA	NMCB	$65,023,012	7	7	7	7	7
Naval Explosive Ordnance Disposal Forces							
Naval Reserve Force EOD Operational Support Unit TOA	EODOSU	$61,971,526	2	2	2	2	2
Navy Expeditionary Logistics Support Group							
NELSF TOA Equipment (F01 TOA)	NAVELSG	$31,295,601	1	1	1	4	7
Combat Camera							
Combat Camera TOA Equipment	COCAM	$2,800,000	1	1	1	1	1
Navy Expeditionary Intelligence Command (NEIC)							
NEIC TOA Equipment	NEIC	$2,749,000	1	1	1	1	1

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Table 2

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 2010.

Nomenclature	Equip No.	Average Age	Remarks
Aircraft			
Aircraft, Transport, C-9B (Skytrain)	C-9B	35	
Aircraft, Transport, C-40A (Boeing 737-700)	C-40A	8	
Aircraft, Transport, C-130T (Hercules)	C-130T	17	
Aircraft, Transport, C-20A (Gulfstream)	C-20A	28	At current usage rate aircraft may expire in 2012.
Aircraft, Transport, C-20D (Gulfstream)	C-20D	25	
Aircraft, Transport, C-20G (Gulfstream)	C-20G	16	
Aircraft, Transport, C-37A (Gulfstream)	C-37A	10	
Aircraft, Transport, C-37B (Gulfstream)	C-37B	5	
Aircraft, Transport, UC-12B (King Air)	UC-12B	30	
Aircraft, Patrol, P-3C (Orion)	P-3C	27	Average age of 12 remaining aircraft within TYCOM. 35 aircraft have transferred to AC inventory as a result of RC squadron disestablishment and to provide fatigue life mitigation.
Aircraft, Early Warning, E-2C (Hawkeye)	E-2C	18	
Aircraft, Electronic Attack, EA-6B (Prowler)	EA-6B	23	Aircraft will be phased out of CNAFR inventory in FY 2012.
Aircraft, Fighter/Attack, F/A-18A+ (Hornet)	F/A-18A+	23	28 aircraft have transferred to AC inventory as a result of RC squadron disestablishment and as mitigation to AC fatigue life inventory shortfall.
Aircraft, Fighter/Attack, F/A-18C (Hornet)	F/A-18C	17	
Aircraft, Fighter, F-5 (Freedom Fighter)	F-5E/F/N	32	
Helicopter, Combat, MH-60S (Seahawk)	MH-60S	7	
Helicopter, Combat SAR, HH-60H (Seahawk)	HH-60H	17	
Helicopter, Minewar, MH-53E (Sea Dragon)	MH-53E	19	
Helicopter, ASW, Frigate, SH-60B (Seahawk)	SH-60B	24	
Ships			
Frigate, Guided Missile (Perry Class) Flight III	FFG	27	
Maritime Prepositioning Force Utility Boat	MPF-UB	1	
Landing Craft, Mechanized, Mark 8	LCM-8	22	

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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 2011 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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013.

Nomenclature	FY 2011	FY 2012	FY 2013
Other Aircraft			
KC-130J			$34,189,000
Modification of Aircraft			
H-53 Series	$7,407,000	$7,513,000	7,649,000
C-130 Series		17,749,000	21,664,000
Cargo/Transport A/C Series	16,092,000	16,706,000	16,616,000
Other Procurement			
Standard Boats	30,777,000	1,095,000	1,117,000
Passenger Carrying Vehicles	558,000	491,000	335,000
Construction & Maintenance Equipment	436,000	646,000	349,000
Tactical Vehicles	11,479,000	11,647,000	11,860,000
Items Under $5 Million - Civil Engineering Support Equip	1,439,000	1,251,000	2,359,000
Materials Handling Equipment	1,159,000	1,176,000	1,198,000
C4ISR Equipment	2,358,000	1,756,000	1,956,000
Physical Security Equipment	2,111,000	2,073,000	2,612,000
Total	**$73,816,000**	**$62,103,000**	**$101,904,000**

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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013. All values are costs in dollars.

Nomenclature	FY 2008	FY 2009	FY 2010
FY 2008 Title III NGREA Equipment			
Construction Equipment for Reserve Support Sites (RSS)	$10,000,000		
C-40A Winglet (Sets)	7,500,000		
Tactical Vehicles for Seabee Units and RSS	6,000,000		
Weight Handling Equipment (Cranes)	4,000,000		
Twin General Luffing (TGL) Series Hagglund Cranes for Cargo Handling Battalions	3,800,000		
Items Under $5M - Kits	3,675,000		
Maritime Prepositioning Force Utility Boats (MPFUB)	3,484,000		
Information Systems Security Program (Identity Access Device - Remote Access)	1,498,500		
Tactical Vehicles for EOD Operational Support Units (EODSUS)	1,062,000		
Trucks - Trailers	1,012,000		
C-40 Oxygen Walk Around Bottles	1,000,000		
Construction Equipment for EOD Units	440,000		
Rough Terrain Forklifts for EODSU SEVEN and MESF Units	426,000		
Light Service Support Vehicles (LSSVs) for MESF Units	300,000		
Standard Boat for EODSU SEVEN	140,000		
Items Under $5M - Trucks for EOD Units	128,000		
Floodlight Sets for MESF Units	110,000		
15-Passenger Vans for MESF Units	76,000		
4x2 Vans	44,000		
FY 2009 Title III NGREA Equipment			
Maritime Expeditionary Security Force (MESF) Equipment			
MESF Personnel Gear Issue		$4,613,000	
MESF C4I Gear		2,551,000	
MESF Non-lethal Weapons		502,000	
Explosive Ordnance Disposal (EOD) Equipment			
EOD Items Under $5M - Kits		6,609,000	
Naval Construction Force (NCF) Equipment			
Civil Engineering Support Equipment (CESE) Construction Equipment		3,055,000	
Tactical Vehicles		1,403,000	
Material Handling Equipment		878,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
Items Under $5M - NCW Equipment		321,000	
Navy Expeditionary Logistics Support Group (NAVELSG) Equipment			
Items Under $5M - NAVELSG Equipment		1,821,000	
120K Fuel System Supply Point		1,634,000	
NAVELSG C4I (Kit)		1,446,000	
Material Handling Equipment		1,026,000	
Tactical Vehicles		340,000	
CESE Construction Equipment		215,000	
Other Equipment			
F-5 Operational Flight Trainer (OFT)		6,000,000	
MPF Utility Boats		3,000,000	
Rigid Hull Inflatable Boat (RHIB)		1,500,000	
FFG Shaft Spares		300,000	
Fall Safe Hangar Fall Restraint System		175,000	
FY 2009 Title IX NGREA Equipment			
NCF TOA Equipment		8,127,000	
C-130T Electronic Propeller Control System (EPCS)		7,560,000	
NCF Tactical Vehicles and Support Equipment		3,485,000	
F5 Wing and F5 Component Upgrade		2,500,000	
NCF Collateral for Facilities		1,640,000	
NAVELSG TOA Equipment		978,000	
RHIB for EOD Unit		440,000	
C-9B Full Face Oxygen Masks		270,000	
FY 2010 Title III NGREA Equipment			
NCF CESE (Tactical Equipment, Loader, Concrete Mixer)			$14,900,000
F-5 Structural Sustainment			11,792,000
EOD CESE (Cargo Truck, Forklifts, HMMWVs)			11,146,000
C-130T Electronic Propeller Control System (EPCS)			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
Remote Access Devices			1,000,000
C-9B Enhanced Ground Proximity Warning System (EGWPS)			255,000
Total	**$44,695,500**	**$62,389,000**	**$55,000,000**

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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 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Aircraft, Transport, C-9B	C-9B		-4		
Helicopter, Combat, MH-60S	MH-60S	-5			
Helicopter, Combat SAR, HH-60H	HH-60H	+1	+6		HH-60H cascading to RC as the AC procures MH-60S.
Frigate, Guided Missile (Perry Class) Flight III	FFG	-1	-2	-3	Fleet begins decommissioning FFGs.
Landing Craft, Mechanized, Mark 8	LCM-8	-4			Being replaced by MPF-UB.
NELSF TOA Equipment (F01 TOA)	NAVELSG			+3	

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2007 with actual procurements and transfers. FY 2007 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 2009. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2007 Planned Transfers & Withdrawals							
Aircraft, Fighter/Attack, F/A-18A	F/A-18A	-25	-24				
Aircraft, Fighter/Attack, F/A-18C	F/A-18C	+15	+11				
Aircraft, Fighter, F-5N	F-5E	+5	+5				
Helicopter, Combat SAR, UH-3H	UH-3H	-4	-4				
Helicopter,Combat SAR, HH-60H	HH-60H	-12	-6				
Ship, Mine Countermeasures (Avenger Class)	MCM 1 Class	-1	-1				
Ship, Mine Hunter, Coastal (Osprey Class)	MHC 51 Class	-2	-2				
Aircraft Transport C-37A	C-37A	-1	0				
Aircraft Patrol P-3C	P-3C	-6	-6				
FY 2007 P-1R Equipment							
Modification of Aircraft							
Adversary				$2,638,000	$3,748,000		
H-53 Series				7,128,000	7,099,000		
C-130 Series				0	3,390,000		
Cargo/Transport A/C Series				30,332,000	30,210,000		
Small Boats							
Standard Boats				1,591,000	20,334,000		
Civil Engineering Support Equipment							
Construction & Maintenance Equip				359,000	1,299,000		
Fire Fighting Equipment				636,000	633,000		
Tactical Vehicles				9,023,000	67,757,000		
Civil Engineering Support Equipment - Items Under $5M				2,078,000	2,069,000		
Supply Support Equipment							
Materials Handling Equipment				1,365,000	7,298,000		
Command Support Equipment							
C4ISR Equipment				4,864,000	4,842,000		
Spares and Repair Parts				0	871,000		
FY 2007 NGREA Equipment							
C-130/C-9 Upgrades						$11,118,000	$11,118,000
Naval Construction Force TOA Equipment						12,258,000	12,258,000
Naval Coastal Warfare TOA Equipment						5,945,000	5,945,000
Naval Expeditionary Logistics Support Force (NAVELSF) TOA Equipment						3,223,000	3,223,000
Naval Explosive Ordnance Disposal (EOD) Force Vehicles, C4ISR Radio/Comm Gear, & Eq Kits						2,315,000	2,315,000
Total				**$60,014,000**	**$149,550,000**	**$34,859,000**	**$34,859,000**

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 2011 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 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	Item Cost	Total Shortage Cost	Rationale/Justification
1	C-40A	17	5	$81,700,000	$408,500,000	Legacy C-9 aircraft do not meet operational requirement for range/payload. Recap 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. Program has suffered repeated offsets over the last few years. #8 on CNO's FY 2008 UPL.
2	Naval Construction Force (NCF) Tactical Vehicles and Support Equipment	Various	Various	Various	$90,122,000	Requested funds would improve NCF readiness by providing tactical communications equipment to fill shorts in TOAs which are aligned to train RC for deployment at Reserve Support Sites.
3	Navy Expeditionary Logistics Support Group (NAVELSG) TOA Equipment	Various	Various	Various	$93,888,000	Funds 3 FO1 Navy Cargo Handling Battalion (NCHB) sub-components over a 3 year period starting in FY 2011.
4	Explosive Ordnance Disposal (EOD) TOA Equipment	Various	Various	Various	$26,801,000	Provides funding to outfit 2 RC EOD Mobile Platoons each year FY 2010-2012 and 1 in FY 2013 to increase total force capacity/capability; 5% recapitalization, sustainment and modernization of existing TOA; (does not include CESE, BOATS, WPN, C4I)
5	Maritime Expeditionary Security Force (MESF) Table of Allowance (TOA) Equipment	Various	Various	Various	$76,834,000	Replacement of over-aged tactical vehicles, Civil Engineer Support Equipment (CESE), Boats, and communications equipment are needed to improve operational support of OEF and OIF.
6	P-8A	12	5	$224,600,000	$1,123,000,000	Procures five P-8As to fill patrol, reconnaissance and intelligence gathering capability gap. P-3C red stripe grounding projected to accelerate throughout the service life of the remaining 12 RC P-3Cs (35 RC aircraft transferred to AC that mitigate the 39 AC aircraft struck in DEC 2007). Increased demand on P-3Cs forcing transition sooner than anticipated. In FY 2009, 85% of RC P-3C flight hours were allocated to AC flight crews.

USNR

Table 8

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 shortfall 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. #20 on CNO's FY 2009 UPL.
8	F/A-18E	24	24	$55,089,000	$1,322,136,000	Accelerates transition currently slated to commence in 2016 and reduces Fleet strikefighter shortfall. With 28 RC aircraft transferred to AC as shortfall mitigation strategy, the current 24 F/A-18A+ aircraft are not network centric warfare capable, non-deployable,and red only assets. Avoids upgrade (ECP-560R4) to twilight F/A-18A+.
9	F-5 Radar	44	44	$1,956,818	$86,100,000	Addresses 63% DoN shortfall for radar-equipped adversary support. Evolving threats and DoN counterair tactics require radar equipped F-5s to provide required level of support to train deploying forces. Without this upgrade, the assumption fleet aviators can generate the COCOM-directed effects their hardware is theoretically capable of performing cannot be supported.
10	Navy Expeditionary Intelligence Command TOA equipment	Various	Various	Various	$2,749,000	Funds TOA shortfalls to improve Operational Support of OIF, as well as provide material to support Reserve training.
11	Combat Camera (COMCAM) TOA equipment	Various	Various	Various	$2,200,000	Funds TOA shortfalls to improve Operational Support of OIF, as well as provide material to support Reserve training.
12	BEACHGRU TOA Equipment Surface Warfare Enterprise (SWE)	Various	Various	Various	$100,000	TOA Shortfall; CESE; Beachmaster/Assault Craft Unit reserve personnel require 782 & CBR Field Gear, Gore-Tex Heavy Weax clothing, additional CUU issue for OCO/HADR support.

Chapter 5
United States Air Reserve Components

I. United States Air Force Overview

A. Air Force Planning Guidance

The United States Air Force (USAF) is committed to continue partnering with the Joint and Coalition team to win today's fight. The United States Air Force must be a trusted and reliable joint partner. Its mission has not changed; the Air Force (AF) remains committed, first and foremost, to supporting the joint warfighter by providing global vigilance, reach, and power. The service is prepared to act in both "supporting" and "supported" roles as called for by operational commanders and will continue to refine and improve its contributions to current overseas contingency operations.

Ongoing Air Force priorities continue to be those put forth in the Air Force Strategic Plan of October 30, 2008. Goals and priorities that will shape Air Force-wide actions over the next three to five years are: reinvigorating the nuclear enterprise; partnering with the Joint and Coalition team to win today's fight; developing and caring for our airmen and their families; modernizing our air and space inventories, organizations, and training; and recapturing acquisition excellence. For years, the Air Force has recognized the benefits of operating its three components—the Regular Air Force (Reg AF), Air Force Reserve (AFR), and Air National Guard (ANG)—as a "Total Force." As the nature of warfighting, technology, and the demands on our country and allies change, the Air Force must embrace new concepts of operation and modernize traditional and less relevant organizational constructs to maintain unparalleled capabilities.

Total Force Integration is a fundamental element of Air Force transformation based on the concept that the functional integration of the Reg AF, AFR, and ANG on critical AF missions and equipment yields increased resource efficiencies and enhanced combat capability. It is a key objective of the AF Strategic Plan.

B. Air Force Equipping Policy

The Air Force's Total Force Integration program seeks to increase resource efficiencies and combat capability through associations. Associations are innovative organizational constructs that functionally integrate Reg AF, AFR, and ANG units—the units share weapons systems and equipment to meet training, operational, and maintenance requirements. Each component (unit) maintains separate administrative chains of command, but operational direction—to facilitate functional integration—is established by a memorandum of agreement between commanders.

The Air Force is committed to providing our Airmen, the Joint Force, the United States, and our international partners with the right equipment at the right time. Though issues of force structure, resources, and funding have long been the subject of debate among DoD senior leaders and lawmakers, today, these issues are framed by an unprecedented push to improve the way the military utilizes and equips its RC. In November 2008, the Secretary of Defense endorsed a sweeping set of initiatives, as recommended by the Commission on the National Guard and Reserves (CNGR), to remove "all vestiges of cultural prejudices" that impede unity of effort within the Services. Supporting this effort, DoD Directive 1200.17, *Managing the Reserve Components as*

an Operational Force, establishes an overarching set of principles to promote and support the management of the RC as an operational force.

The Air Force recognizes the need to transform its mission and equipment through new combinations of concepts, capabilities, people, and organizations that exploit our nation's advantages and protect against our asymmetric vulnerabilities to sustain our strategic advantage. Three reasons drive this transformation. First, the security environment and threat is rapidly changing. Second, new technologies—especially in advanced command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR), information operations, and precision weapons—are enabling revolutionary new capabilities. Third, fiscal realities are forcing the AF to become far more efficient with far less. AF Secretary Donley recently stated "…the current economic climate and tough budget decisions mean that it is more critical than ever to drive effectiveness and efficiency into our Total Force, Joint, and interagency partnerships. This means that we need to expand our integration initiatives to maximize capabilities across the spectrum of conflict." This requires leveraging the depth of experience in the AFR and ANG, and ensuring they have equipment on par with the Reg AF.

Providing that equipment to the Air RC (ARC), including both new/emerging missions and associated units, can be accomplished in several ways:

- The AF plans, programs, and budgets for the procurement, transfer, and modernization of ARC weapons systems through the AF Corporate Structure.
- Congress authorizes and appropriates funding for the AF to fulfill specific ARC requirements.
- Congress authorizes additional single year procurement funding through the National Guard and Reserve Equipment Appropriation (NGREA).
- Congress adds additional funding to the AF procurement account specifically for ARC equipment.

The Air Force will excel as a steward of all assigned resources in service to the American people as it modernizes its air and space organizations, training, and equipment. The recent stand-up of a nuclear-focused Global Strike Command, as well as the creation of a numbered Air Force dedicated to Cyberspace, will help ensure the force is able to meet today's most challenging issues while looking ahead to the uncertainties of tomorrow. As the Air Force continues its 18th year of persistent conflict, it faces a decline in the fleet's readiness, reliability, and availability; and the costs to maintain the fleet are rising. As it drives into the future, the Air Force remains committed to equipping the Total Force with war-winning capabilities, on time and within budget, to provide full spectrum capabilities in support of the joint warfighter, and will continue to seek Total Force solutions to today's modernization issues.

C. Plan to Fill Modernization Shortages in the RC

Maximizing to the fullest extent the capabilities of its Total Force, the Air Force will continue to actively engage the AFR and ANG in all prioritized mission areas and examine areas for

potential Total Force Integration opportunities. The Air Force is committed to ensuring that the RC are fully organized, trained, and equipped.

On November 23, 2008, Secretary of Defense Gates endorsed 95 recommendations set forth by the CNGR, to develop a Total Force policy that recognizes the "cultural divide" between Active and Reserve components. The Air Force supports the effort to relieve the modernization shortages in its RC, and has championed several of the priorities endorsed by the Secretary, including:

- Providing RC with a lead role in homeland and civil support operations
- Adequately budgeting for the operational portion of the RC
- Improving DoD and Service-wide education about the capabilities, unique processes, and cultures of the RC, as well as the importance of Total Force Integration
- Providing the RC with equal training opportunities, both in the classroom and in respective career fields
- Ensuring the equipment used by the RC phases out the "hand-me-downs" of the Cold War Era in exchange for today's most relevant systems.

D. Initiatives Affecting RC Equipment

The Air Force has committed to modernizing the ARC to ensure that the ARC remains a relevant and capable part of the Total Force. There are a number of modifications and modernization efforts underway to resolve reliability, maintainability, and capability issues for the ARC. The following are some of the AF modernization initiatives that affect them.

1. C-5 Galaxy

a. Avionics Modernization Program (AMP)

The AMP is Phase I of a two-part modification effort to update the C-5 aircraft. The AMP replaces unreliable and unsupportable engine/flight instruments and flight system components. It also installs communication, navigation, and surveillance (CNS)/air traffic management (ATM), and SECDEF-directed navigation and safety modifications for the Terrain Awareness and Warning System (TAWS) and Traffic Alert and Collision Avoidance System (TCAS).

b. Reliability Enhancement Re-engineering Program (RERP)

The RERP is Phase II of the 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 TF-39 power plant with the General Electric F138-GE-100. The proposed 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.

2. F-16 Fighting Falcon

a. Falcon STAR and CCIP

The purpose of the Falcon Structural Augmentation Roadmap (STAR) program is to replace or rework known life-limited structural parts to preclude the onset of widespread fatigue damage, maintain safety of flight, enhance aircraft availability, and extend the life of affected components up to 8,000 hours. The Common Configuration Implementation Program (CCIP) for the ANG Block 42 and 52 aircraft enables the Joint Helmet-mounted Cueing System (JHMCS) and Link-16 data link, and it provides for improved computing power.

b. ARC-210 Radio

The addition of limited numbers of ARC-210 radios to the ANG F-16 fleet directly addresses the in-theater requirement for improved secure line-of-sight communications and emerging requirements for image transfer and beyond line-of-sight (BLOS) connectivity.

c. Commercial Fire Control Computer (CFCC)

The CFCC is critical to all future upgrades in the Block 30 series F-16. This computer update allows for the employment of the Small Diameter Bomb, the JHMCS, and Mode V advanced combat identification features.

3. A-10 Thunderbolt II

a. Precision Engagement

The Precision Engagement (PE) program is the number one priority for the A-10 community and will transform the A-10 cockpit and capability. The A/OA-10 remains a legacy weapon system, yet is expected to execute critical wartime taskings, such as airborne forward air controller, close air support, combat search and rescue, and air interdiction. The aircraft computer, cockpit displays, and weapons delivery capabilities are outdated and contribute to high pilot workload. The PE program delivers a new avionics suite, a data link, and precision weapons capability that will keep the aircraft viable and increase its lethality and survivability.

b. Replacement Wings

Of the AF's 356 A-10 aircraft, 242 have wings that are thin-skinned and require extensive wing refurbishment or replacement to prevent aircraft grounding beginning in FY 2011. The A-10 Replacement Wing program is fully funded and on track. This program will replace all 242 wings on Active, Guard, and Reserve A-10s.

c. A-10 Missile Approach Warning System

The A-10 flies many of its missions at altitudes where it is particularly vulnerable to shoulder-launched infrared (IR) surface-to-air missiles (SAMs). The aircraft needs a missile warning system (MWS) that notifies the pilot when a SAM is launched and automatically dispenses countermeasures. The AN/AAR-47 is a passive missile-approach warning system that, when installed on the A-10, consists of four IR sensor assemblies, a central processing unit, and a control indicator. The AAR-47 is capable of detecting missile launches from 360 degrees around the aircraft.

4. F-15 Eagle

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

The APG-63(V)3 AESA radar will replace the current APG-63(V)0 mechanically scanned radar with a stationary panel covered with an array of transmitter-receiver modules. AESA provides significant increases in precision to detect, track, and eliminate multiple threats faster and with greater efficiency. Additionally, AESA eliminates the hydraulic and electrical systems associated with mechanically operated radars, resulting in dramatically improved reliability and maintainability. In FY 2006, Congress appropriated $52.2M to procure six AESA systems for the ANG. In FY 2007, Congress appropriated $72M for procurement of eight AESA radars for the ANG F-15C fleet. The current APG-63(V)0 radar is logistically unsupportable due to parts obsolescence and needs a reliability and maintainability upgrade. The ANG requires a minimum of 48 AESA systems to maintain a constant homeland defense (HD) presence throughout the United States.

b. F-15 Very High Speed Integrated Circuit Central Computer (VHSIC CC) Plus: VCC+

Current F-15 A-D VHSIC CC has reached its maximum processing throughput**.** Increased processing and memory growth are needed to support future Combat Air Forces (CAF) Operational Flight Program (OFP) requirements. VCC+ is required by CAF F-15 A-D OFP Suite 6. If not funded, ANG F-15A-Ds will not be able to field Suite 6. As a result, Mode S Interrogation, combat identification improvements, future hardware improvements, and weapon system modernization will not be attainable.

5. KC-135 Stratotanker

a. CNS/ATM Modifications

This program will provide an upgraded avionics suite that meets the requirements for aircraft interoperability within the future aerospace environment. The avionics suite will be improved in four major functional areas: communications, navigation, safety and surveillance, and flight deck control. The program includes controller-pilot data link communication, direct voice communication with air traffic control, required navigation performance, and automatic dependent surveillance.

6. C-130 Hercules

a. Phase I—AMP

This program will produce a baseline avionics configuration across the current C-130 fleet. Air Mobility Command (AMC), in coordination with Air Combat Command (ACC), the ARC, and AF Special Operations Command (SOCOM), is undertaking the C-130 AMP to consolidate H1, H2, and H3 aircraft into one configuration. The goal is to consolidate existing and projected aircraft modification programs to upgrade and standardize the aging C-130 fleet.

7. RC-26B Aircraft

a. SOCOM Modification Block 25

The RC-26B was tasked in December 2006 to support Operation Iraqi Freedom (OIF), and OCO-funded modifications were made to five of the eleven ANG RC-26Bs to be deployed. The aging WESCAM 14QS electro-optical sensor was replaced with the next generation MX 15 forward-looking infrared (FLIR) and video system. The new system has full motion video and line of sight

(LOS) downlink. The modification also added voice satellite communication, signal intelligence capability, aircraft defensive systems, and low-cost cockpit modifications to make the aircraft Night Vision Imaging System (NVIS)-compatible. The current OIF deployment is slated for one year, but AF SOCOM may extend the support requirement indefinitely. The ANG is also initiating an effort to acquire ACC sponsorship for the program.

b. Katrina Modification Block 20

The other 6 RC-26Bs are being upgraded with NGREA Katrina funds. The WESCAM 14QS on these 6 aircraft will be replaced by the Surface-to-Air Fire (SAFIRE) High Definition FLIR system. Several significant software upgrades will allow quicker high quality processing of video imagery. The modification also includes the Dragoon LOS downlink system which has nearly twice the range capability as other currently fielded LOS systems. The aircraft camera pod will be removed, increasing endurance. Both the wet and digital film capability will be lost due to lack of vendors and excessive repair costs.

8. HC-130 Aircraft

a. Rescue System Upgrades

A low-cost NVIS-compatible lighting system modification for the AF combat rescue fleet is in the contract phase. A personnel locator system will be installed on aircraft from the 210th Rescue Squadron, Kulis, AK; the 129th Rescue Wing, Moffet, CA; and the 106th Rescue Wing, Gabreski Field, NY. This system will give rescuers bearing, range, and authentication information on downed aircrew equipped with the PRC-112 survival radio.

9. MQ-1 Predator and MQ-9 Reaper

a. MQ-1/MQ-9 Integrated Predator/Reaper Operation Center (POC/ROC)

The Operation Center incorporates communication intensive operations equipment in an open architecture design to smoothly integrate current and emerging needs for controlling warfighting and homeland defense missions.

b. MQ-1 Fielding

CA, AZ, ND, and TX ANG units each provide two non-mobilized combat air patrols with the MQ-1. In addition, March Air Force Base (AFB), CA stood up the ANG's first MQ-1 Formal Training Unit (FTU) and will produce approximately 40 unmanned aerial system (UAS) crews a year.

c. MQ-9 Fielding

The New York ANG stood up the first guard MQ-9 operational squadron in the Fall of 2009. The other four ANG MQ-1 operational squadrons (CA, AZ, ND, and TX) will participate in the Air Force's migration to an all MQ-9 fleet. In addition, the NY ANG unit has established a MQ-9 Field Training Detachment.

d. MQ-1/9 Cockpit Improvements

The cockpit improvements will 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.

e. Sense and Avoid Capability Kit

Airborne Sense and Avoid (ABSAA) is in development and is currently an unfunded requirement in the MQ-1 Predator program of record. ABSAA capability for high altitude systems and scalable to medium altitude systems is critical to UAS integration into National and International Airspace Structures. This will permit unmanned aerial vehicles (UAVs) within continental United States (CONUS) airspace to support local authorities for disaster response, homeland security operations, and continuation training; it will also reduce the potential of mid-air collisions.

f. Desktop Training System

The Desktop Training System provides a personal computer (PC)-based, low-cost training device to allow formal and informal procedural training capability and review for aircrews to maintain proficiency.

10. F-22 Raptor

a. Lot 7–9 Multi-Year Procurement (MYP)

The F-22 Lot 7–9 MYP contract was signed July 31, 2007 and funds the procurement of 60 F-22s. The 20 F-22s in Lot 9 will be delivered to the Hawaii ANG in FY 2011 and the first quarter of FY 2012.

b. F-22 Common Configuration

This program includes numerous hardware modifications to reduce F-22 fleet configurations from six to three. This will increase efficiencies in Research, Development, Test, and Evaluation (RDT&E) and sustainment, and it will increase combat capability of the fleet.

c. F-22 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, Automatic Ground Collision Avoidance System (GCAS), and advanced data link.

d. Reliability and Maintainability Maturation Program

This program modifies hardware on existing F-22s to increase the fleet's reliability and maintainability. It is the only program that helps the F-22 attain its Operational Requirements Document (ORD) requirement of 3.0 hours Mean Time Between Maintenance by 100,000 fleet hours. This program includes 67 active projects.

e. F-119 Engine Modifications

This program modifies F-22 Pratt & Whitney F-119 engines to improve safety, reliability, maintainability, sustainability, and mission performance.

f. Weapon System Evaluation Program

This program modifies F-22s to allow the aircraft to relay signals between telemetry ground stations and missiles carried in the internal weapons bays.

11. JSTARS Aircraft

a. Re-engining

This modification upgrades the Joint Surveillance Target Attack Radar System (JSTARS) fleet of 17 operational aircraft, one test aircraft, and one in-flight trainer aircraft with a new Propulsion Pod System to meet current ORD requirements. The re-engining program includes the purchase and installation of new engines, thrust reversers, nacelles, pylons, fan, exhaust duct, and all associated components and initial spares along with the upgrade of training devices. The program will dramatically improve the capabilities of the aircraft with respect to thrust; thereby improving time to climb, time on station, service ceiling while on station, and fuel efficiency.

12. Distributed Common Ground System (DCGS)—AN/GSQ-272 "SENTINEL"

a. ARC Units—Distributed Ground Stations (DGS)

There are ARC units in eight states (AL, AR, CA, IN, KS, MA, NV, and VA) conducting SENTINEL operations. There are ARC units in four other states (GA, HI, OH, and UT) providing support to SENTINEL operations. In FY 2008, the ARC established two new standalone ANG sites in Indiana and Massachusetts, ANG and AFR classic associate units at Beale AFB, CA, and an ANG classic associate at Langley AFB, VA.

b. Weapon System Modernization

AF DCGS provides all AC and ARC core sites comprising the weapon system with an annual Enhanced Bulk Release ensuring the latest hardware and software releases are standardized throughout the enterprise. This sustainment approach incrementally modernizes the ARC's AF DCGS weapon systems at the same time as the AC core sites.

13. Air and Space Operations Center Weapon System (AOC-WS)

a. AOC-WS Integration Development

The AOC-WS provides the Joint/Combined Force Air Component Commander (J/CFACC) the capability to exercise operational-level command and control (C2) of air and space operations worldwide. The AOC-WS Integration Development is an ongoing project to develop AOC infrastructure and integrate C2 and intelligence, surveillance, and reconnaissance (ISR) capabilities through software and hardware improvements to the AOC-WS baseline. This project will help ensure the AOC-WS remains a viable weapon system to meet the warfighter needs. Planned improvements will continue to enhance the AOC C2 of ISR in terms of interoperability and net-centricity, thus improving the C2 of air and space assets while reducing find, fix, track, target, engage, and assess (F2T2EA) ("kill chain"). As the AOC-WS modernizes, the RC AOC augmentation forces will require improved training capabilities and reachback/distributed operations connectivity to ensure they can maintain currency in AOC systems and processes as well as support the AOC units they augment.

14. B-52 Stratofortress

a. B-52 Combat Network Communications Technology (CONECT)

The CONECT program is intended to significantly upgrade the B-52 communications capabilities and crew information management. CONECT provides new infrastructure to the aircraft to incorporate integrated communications capability, in-flight conventional weapons retargeting, aircraft and weapon mission retasking, improved operator interface design, and an enhanced situational awareness environment to support conventional weapon delivery functions in a more efficient, versatile, and timely manner. When CONECT is complete, the B-52 will have the capability of communicating via multiple, simultaneous BLOS data links.

E. Service Plan to Achieve Full Compatibility between AC and RC

The Air Force will continue to set a positive example of increased integration among Active and Reserve components. As our momentum drives us towards increased capabilities and operational effectiveness, we will ensure that our activities and functions align with the guidance of the Secretary of Defense and the Chairman of the Joint Chiefs of Staff and meet the needs of the combatant commanders.

As a Total Force team, the Regular Air Force, Air National Guard, and Air Force Reserve provide precise and reliable global vigilance, reach, and power for the nation. Our core values of integrity first, service before self, and excellence in all we do are the standards by which every Airman—Regular, Guard, or Reserve—will be held accountable, at all times.

II. Air National Guard Overview

A. Current Status of ANG

1. General Overview

Top ANG Equipping Challenges

- Modernizing aging aircraft and other weapons systems for both dual-mission and combat deployments
- Equipment to satisfy Essential 10 domestic response requirements

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 America and her citizens. The ANG has responded to numerous natural disasters throughout the country and also has provided an operational force to the AC for operations around the globe, including Iraq and Afghanistan. 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 Air National Guard has total responsibility for air defense of the entire United States. When not mobilized to support the AF, the ANG, under state law, 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 to civil defense 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, and diverse security operations for events such as the Super Bowl and President Obama's inauguration. The operations tempo for the ANG has been high and prolonged, driving a need to recapitalize our aircraft fleets—a need shared by the active duty Air Force. Thanks to the Air Force Total Force concept, we have been extremely successful at modernizing our legacy aircraft and providing upgraded "tools of the trade" for our Airmen through a capabilities-based requirements and acquisition program. This program has kept us ready, relevant, and reliable in homeland defense as well as combat operations.

2. Status of Equipment

The 2008 National Defense Authorization Act, 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. Refer to Appendix B for greater detail.

Though issues of force structure, resources, and funding have long been the subject of debate among DoD senior leaders and lawmakers, today these issues are framed by an unprecedented push to improve the way the Air Force utilizes and equips the RC. This is evident in the equipping strategy the Air Force has taken with the ANG. Currently, the Air National Guard has an unprecedented support equipment readiness rating of 94 percent, as compared to rates of 84 and 88 percent just a few years ago. This rate is comparable to the overall Air Force availability rate and is achieved through the Air National Guard and Air Force's teaming to equip the ANG as an operational reserve force. Tables of Allowances (TA) are the authorization documents that prescribe equipment necessary for a unit to perform its federal mission. The Air National Guard leverages these TAs for both vehicles and aircraft support equipment for its responsibilities to

meet both federal and state 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 equipment readiness level is an aggregate 94 percent of authorized equipment, pockets of shortages do exist. 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 Air National Guard possesses are considered "dual-use" (federal and state missions). Recent reviews to support recommendations from the CNGR have helped us refine our dual-use ratio from a previous 98 percent to today's 88 percent. While early in the process, this change in ratio demonstrates the amount of success National Guard Bureau (NGB) staff members are making to clearly match our current equipment inventories to our state mission requirements. These assets are reviewed annually to revise the list to account for modernized equipment and updated authorization documents. In addition, the ANG aligned all dual-use equipment and vehicles into the "Essential 10" categories.

a. Equipment On-hand

i. Current Status

The majority of ANG equipment is classified as "dual use." Recent data indicate the ANG is approximately 6 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 94 percent of all equipment on-hand and available for state and federal operations. Refer to *Table 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 MIE within the ANG is 24 years. See *Table 2* for the average age of selected major items of equipment.

b) Compatibility of Current Equipment with AC

USAF continues to develop corporate AF 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 can be gathered from the "Modernization Programs and Shortfalls" section of this report.

c) Maintenance Issues

The NGB Aircraft Maintenance staff 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.

iii. C-5 Sustainment and Modification Requirements

a) C-5 Aft Crown Skins

Indicators show signs of cracks beyond current inspection criteria. Estimated cost of replacement is $10.2M per aircraft. Repairs will occur at Warner Robins Air Logistics Center beginning in 2010. Without additional funding, aircraft grounding will affect aircraft availability.

b) C-5 Contour Box Beam Fitting

Inspections revealed cracks in this critical structural component. Aircraft with cracks beyond limits are grounded. Aircraft with cracks within limits are operationally constrained to CONUS missions. Lockheed has developed a replacement technique for the fitting and has started replacement at the Marietta plant. Cost to replace is $3.1M per aircraft. Aircraft are severely flight restricted when cracks are found. Without additional funding, aircraft grounding will affect aircraft availability.

iv. Flight Line Generator (72kW)

Generators used on the flight line are 30 years old and not repairable. A total of 555 generators are unfunded and, based on a unit cost of $65K, the total requirement for upgrade approaches $36M.

v. LITENING Pod Common Configuration

We have 13 LITENING advanced targeting pods (ATP) with cast rear sections versus machined rear sections. LITENING pods with cast rear sections have a 5,000 hour life cycle limitation. All 13 pods are between 3,200 and 4,200 hours and must be upgraded to machined rear sections with VDL capability or will exceed their life limits within two years. The machined rear section extends their life to 9,375 hours and allows for the VDL upgrade. Cost will be $1.37M.

vi. F-15/F-16 Crew Chief Training Requirements

The ANG has 108 F-15/F16 crew chiefs that require formal training. Training forecasts for FY 2011/2012 are insufficient to meet requirements. Potential unit impacts include increases in enlistment waivers, in personnel changing career fields to expedite training opportunities, and in personnel opting to get out when ANG cannot meet school and training obligations. This has an obvious readiness impact due to already low manning levels of these two critical career fields.

b. Modernization Programs and Shortfalls

1. The ANG's modernization efforts are founded on capability requirements validated by the Air Force and combatant commanders. Critical capabilities are developed and vetted in an open and rigorous forum of weapons systems experts and then approved by the Director, ANG. The capability requirements are translated into specific programs that are commercial or government off-the-shelf, and require only non-developmental integration into a weapons system. The process includes C2, ISR systems as well as weapons delivery, airlift, and tanker platforms. These capabilities and associated programs are bound in a completely documented and updated annual *Weapons Systems Requirements Modernization Book*. This process has documented an $8.368 billion shortfall for modernization and recapitalization of the ANG aircraft fleet.

2. In the area of support equipment, an Expeditionary Combat Support (ECS) Integrated Process Team (IPT) was established to facilitate defining requirements and assessing the areas of greatest need within the framework of the Essential 10 capabilities. Essential 10 capabilities were defined by Northern Command's (NORTHCOM's) capabilities-based assessment and the CNGR Recommendation 44—to assess the ANG's equipment requirements to conduct Homeland Defense/Homeland Security (HD/HS), domestic emergency response, and military support to civil authorities. This IPT has evolved into the Domestic Operations Essential-10 Requirements (DOER) team, which takes the various requirements and creates an equipping solution. In addition, the DOER team assesses the extent to which the states' units possess equipment required to perform Defense Support of Civil Authorities (DSCA). Items identified and previously unfunded became part of the ANG's NGREA Essential-10 capability requirements funding list. The eventual goal is to empower the DOER team to validate support equipment requirements just as the WEPTAC validates aviation requirements.

i. A-10

A/OA-10 Attack

The AAR-47 is a passive missile-approach warning system that detects missile launches from 360 degrees around the aircraft and automatically dispenses counter-measures. This program was funded with $6.3M of FY 2007 NGREA due to delays in FY 2009 OCO funding. A second ARC-210 radio, which provides an additional secure line-of-sight (SLOS) capability, was funded using $5.34M of FY 2008 and FY 2009 NGREA funds to fill a Central Command (CENTCOM) Urgent Operational Need for a deployment to Iraq. NGREA funds were used to offset delays in the FY 2009 OCO finding.

Due to funding constraints, the ANG A-10 fleet will have the following modernization shortfalls in FY 2010. 1) The helmet-mounted integrated targeting (HMIT) system is in the proposal phase and will require $8M to start to outfit the A-10 fleet. A combined F-16/A-10 HMIT program has $10M in funding and is scheduled to start in the second quarter of FY 2010. 2) The digital radar warning receiver (RWR) will significantly improve all RWR functions, reducing response times to threats and will require $18M to start the program. 3) The electronic attack (EA) pod upgrade that will enhance self-protection against current and emerging threats will require $18M. 4) The second ARC-210 radio will require $6.0M to complete installation on the entire ANG fleet. 5) The A-10 engine upgrade or replacement has been identified as a critical need for years but no program exists to redress the deficiency with $75.25M needed to start this unfunded effort. 6) The fourth generation video downlink (VDL) kits to enhance current targeting pod employment and VDL capability will require $34M.

Modernization shortfalls expected in FY 2013, assuming no NGREA or Congressional marks, include: $34M for HMIT; $26M for digital RWR; $54M for EA pods; $6M for ARC-210 radios; $8M for the Lightweight Airborne Radio System (LARS V-12)—an upgrade that increases combat search and rescue situational awareness; $540M for engine upgrade or replacement; and $38M for fourth generation VDL kits for current targeting pods.

ii. C-5

C-5A Strategic Airlift Aircraft

Active duty C-5B aircraft are modified with aircraft defensive systems (ADS), which permit operations in hostile environments. With the lack of ADS, ANG 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 man portable air defense system (MANPADS) launches. Due to funding constraints, the ANG C-5A fleet will have the following modernization shortfalls: 1) Stress corrosion cracking on the aft crown skin limits the cargo load factor to 80 percent and will be adjusted according to severity of the cracking. Total C-5A fleet cost to replace the aft skin is estimated at $279M. 2) ADS: approximately 10 of the 33 ANG C-5As are funded through NGREA to receive the ADS modification. The modification contract is under negotiation and is estimated to start in the Spring of 2010. 3) Advanced infrared countermeasure (IRCM) self-protective suite: aircraft must be modified with ADS before any modification for IRCM can go forward.

iii. C-17

C-17 Strategic Airlift Aircraft

Installation of the large aircraft infrared countermeasures (LAIRCM) is still top priority. Due to funding constraints, the ANG C-17 fleet will incur the following modernization shortfalls: only four of the eight C-17 aircraft are funded by the FY 2009 supplemental emergency bridge appropriation to receive LAIRCM upgrades. Currently, funded airframes are scheduled for modification in early FY 2011.

iv. C-130E/H

Active duty and ANG C-130s operate worldwide in a low to medium threat environment where advanced defensive systems and situational awareness capabilities are required. ANG continues to work with Congress and AMC to fund the remaining 8 C-130 units with LAIRCM. Real time information in cockpit (RTIC) capability will provide timely information to aircrews so they can participate in the present day network-centric battlespace and greatly increase survivability in combat operations. The RTIC program is currently developing an acquisition strategy to fund all aircraft. Virtual Electronics Combat Training System (VECTS) and infrared defensive system testers are a priority for the entire C-130 fleet, and they have been funded. They are expected to be delivered in late FY 2010. Active noise cancellation systems reduce cockpit noise, decrease crew fatigue, improve inter-crew communications on the flight deck, and increase operational readiness; they have been funded through NGREA and Congressional adds for 14 aircraft. Additional funds are required to modify the entire fleet. Additional C-130 modernization capabilities vetted on the requirements matrices but currently only partially funded through NGREA include loadmaster seats and SAFIRE Lookout capability.

v. C-130J

C-130J

The C-130J brings major system improvements including: advanced two-pilot flight station with fully integrated digital avionics, color multi-function displays and heads-up displays (HUDs), state-of-the-art navigation systems with dual inertial navigation and global positioning

systems, digital moving map display, and new turboprop engines with six-bladed, composite propellers. Modernization requirements currently unfunded for the ANG C-130J fleet and only partially funded for the entire Mobility Air Forces (MAF) fleet include: LAIRCM integration, AAR-47 MWS improvement, and loadmaster crashworthy seats. Additionally, SAFIRE Lookout capability is unfunded for the MAF fleet.

vi. EC-130J

There is a current effort to integrate LAIRCM through the C-130J program. FY 2009 supplemental emergency bridge funds are sufficient to complete LAIRCM on the three Commando Solo equipped and one Super J aircraft. The remaining three Super Js will be configured for LAIRCM, but additional funding will be required to complete the LAIRCM modification. Current unfunded requirements include: SATCOM installation for compatibility and interoperability with other special operations forces (SOF) assets and theater C2, wideband satellite connectivity for timely and effective psychological operations broadcast capability, and direction finding equipment to improve transmission targeting.

vii. LC-130

LC-130 Polar Airlift

The ANG is working with the Navy to develop a new jet assisted take-off (JATO) motor but, due to high costs, is exploring alternatives to help reduce the requirement. An alternative program includes the eight-bladed propeller, for which Congress provided partial funding. Data from initial testing indicates the new propellers should significantly reduce our reliance on the JATO for deep field missions. Additional funding is required to equip and support all ten of the LC-130s. Another program the ANG is supporting is a radar system to identify hidden crevasses prior to landing the aircraft in snow-covered areas. Congress provided funding in FY 2008, and the production program will be completed next year. Although the current funding supports the production program, additional funding is required to field this capability.

viii. HC/MC-130

HC/MC-130 Combat Rescue Aircraft

Currently, there are no equipment compatibility issues between the AC and the ANG HC/MC130s. The ANG began a NGREA-funded program for its nine HC-130s and four MC-130s, which upgrades its existing personnel locater system to the AN/ARS-6 LARS v12 capability. Expected modernization shortfalls for the upcoming FY and through FY 2013 include, for all ANG aircraft, crashworthy loadmaster seats and, for a portion of the ANG aircraft, dual rail cargo handling capability and an upgraded communications data link. Current ANG funded requirements awaiting system program office (SPO) action to establish a program include electro-optical (EO)/IR sensor upgrades and VDL capabilities. These efforts are expected to be started in FY 2010.

ix. E-8C, JSTARS

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

There are several modernization efforts underway to include phase II of an upgrade to computer and networking upgrade.

Re-engining is the top priority, but money for FY 2011 and beyond has been withdrawn from the Future Years Defense Program (FYDP) by the USAF. Modernization programs within JSTARS are primarily funded by the Air Force.

x. F-15

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

The F-15's number one modernization priority is the APG-63(v)3 active electronically scanned array (AESA) radar. The AC force is also modernizing its F-15s with the same (v)3 radar, so no compatibility issues exist. The FY 2008 and FY 2009 bridge emergency supplemental added $34M to this ANG effort and placed four AESA radar systems on contract for the ANG. For FY 2010, the ANG is requesting $69M to keep the (v)3 production line open and field an additional eight AESA radar systems—six at Barnes, MA to operate with the Northeastern U.S. Air Defense Sector and an additional two at Great Falls, MT. To date, 18 AESA systems are funded for the ANG out of our total requirement of 48. The ANG F-15C community is pursuing procurement of SATCOM radios to fulfill AFNORTH/CC's Joint Urgent Operational Need request for BLOS capability. ARC-210 SATCOM radio fulfills this requirement, and is already fielded and sustained in other ANG and AC fighters. Approximately $36.4M (one-time cost) will field this capability in ANG F-15s. No funding exists for this effort.

xi. F-16

F-16 C/D Fiahter Aircraft

Modernization efforts are underway to improve the war fighting capabilities of ANG F-16s by fielding SLOS and BLOS communications suites, higher data rate processors, center console display unit (CDU), helmet-mounted integrated targeting (HMIT), enhanced self-protection suites, and improved radar performance and reliability. NGREA funding has started the HMIT and CDU programs. Without changes to the current USAF program, both HMIT and CDU procurement will have major shortfalls in FY 2013. The block 42 fleet remains 13 engines short of completing the upgrade to -229 engines. The HMIT and -229 engine upgrades are critical programs to achieve targeting and performance capability in parity with the active duty fleet. The F-16 critical combat priorities are: 1) HMIT system; 2) center display unit; 3) radar enhancements with robust air-to-ground and air-to-air detection and identification, 4) improved RF/IR detection and self-protection, targeting pod upgrades, and enhancements; and 5) implementation of secure line of sight and beyond line of sight communication systems.

xii. HH-60G

HH-60G Combat Rescue Helicopter

The ANG HH-60G fleet is currently involved in an NGREA-funded program for an avionics upgrade and addition of a data link, which includes dual smart multi-function color displays and situation awareness data link (SADL). Another NGREA-funded program includes a portion of the ANG HH-60G fleet modified with a new cabin heater

for Arctic operations. AF funded programs include the AN/ARS-6 LARS v12 radio upgrade and improved aircraft hover hold system. The ANG currently has funding for a defensive weapon upgrade and cabin upgrade and is awaiting action by the SPO.

Expected modernization shortfalls in FY 2013 include a helmet-mounted cueing system and display to improve lethality and rescue mission success, and a multi-spectrum radio upgrade capable of interoperability during inter-agency operations to allow ANG helicopters to better integrate with civil authorities during domestic operations such as fire fighting and disaster response.

xiii. KC-135

KC-135 Air Refueling Tanker Aircraft

Changes in employment concepts are placing the KC-135 in high threat areas, and they drive a requirement to add IR countermeasures (IRCM). The ARC and AMC are working to determine a viable solution that meets the required performance parameters. Currently, there is no funding for IRCM on the KC-135. Numerous CNS/ATM compliance items are not yet funded, but they will be required by FY 2013. Other items listed as requirements but not yet funded are tactical data link systems and night vision goggle (NVG)-compatible aircraft lighting.

xiv. Unmanned Aircraft System (UAS)

ANG units use ground control stations (GCSs) provided by ACC, connected to a Squadron Operations Center (SOC) via the Integrated Predator Operation Center (IPOC), developed and funded by ANG to be a part of the total ANG unmanned aircraft system (UAS). In FY 2009, NGB used $3.7M of FY 2008 NGREA to continue support of the IPOC, including the equipment and installation at the SOC in Syracuse, NY for the planned first quarter FY 2010 initial operating capability. In FY 2010, without ACC action to incorporate a universal data link and improved radio communications on the aircraft, there will be a shortfall in technology and equipment. Since ANG units "fly" any of the operational MQ-1s and MQ-9s, an aircraft modification needs to be a USAF modernization program. Shortfalls that could be addressed by ANG include the additional SATCOM capability in the SOC, allowing direct communications with their OCONUS customer (troops on the ground), and a system within the SOC to display SADL information from other assets. In addition to the shortfalls mentioned above for FY 2010, the human-machine interface issues with the current "cockpit" (GCS) will continue to be a shortfall in the ANG. USAF has been working toward an advanced cockpit but is limited by the contractor's proprietary code used to control the MQ-1 aircraft.

xv. C-38

C-38A Special Airlift Aircraft

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 operational shortfalls and significantly improve mission capability. 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-40C Special Airlift Aircraft

LAIRCM systems have been funded and are being installed on these aircraft. Other items currently being installed are Integrated Approach Navigation/Vertical Situation Display (IAN/VSD) and the Enhanced Vision System (EVS). The installation of IAN/VSD will bring the ANG C-40s to a common configuration with the AFR C-40Cs. Current requirements call for four C-40C aircraft. Four aircraft would ensure consistent mission support and minimize the impact of unplanned maintenance.

xvii. C-21

C-21 Special Airlift Aircraft

All 21 aircraft were modified to comply with reduced vertical separation minimum (RVSM) airspace requirements using NGREA funds. A replacement GPS system is being tested and will be available in FY 2010. Enhanced Mode S (EHS) is currently required to operate in Europe; however, the C-21A has a waiver to operate without this equipment. If this waiver is revoked, it will impact the operation of the C-21A in European airspace and would most likely impact mission accomplishment.

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

Air and Space Operations Center (AOC)

This community is in the beginning stages of modernization but continues to experience incompatibilities and to lag behind their AC counterparts in critical mission areas. The continual technological advances in vehicles resistant to improvised explosive devices (IED) have made the selection of a standardized tactical vehicle extremely difficult and the lack of a decision has led to a non-standard fleet. Shortfalls with the primary communications system (MRC-144) leave many units unable to fill all mission requirements in support of Army mission areas. Lastly, industry-wide shortages of approved body armor have all organizations scrambling to equip their TACPs with the best available protective equipment capabilities just before deploying.

Modernization efforts were augmented with FY 2007 NGREA funding, to help meet minimum requirements for basic TACP equipment shortfalls ($3M). ACC funding and fielding streams do not address 100 percent of the known designed operational capability (DOC) equipment requirements across the FYDP for ACC or the ANG. Current authorized High Mobility Multi-Purpose Wheeled Vehicles (M1165A1B3s) are not adequate for theater use, and many lack appropriate or critical communications assets. The current partially-funded vehicle communications system (VCS) is not a form, fit, or function replacement for the AN/MRC-144 communications system, nor is it the system of record for the newer Mine Resistant Ambush Protected (MRAP) vehicle. Shortfalls of the releasable body armor vest (RBAV) ($1.4M–$2.25M, FY 2010–2013) have made it extremely difficult to both train under realistic conditions and have the armor available when called to duty.

xix. Combat Reporting Center/Air Control Squadron (CRC/ACS)

Lack of funding constrains efforts to streamline the battle management command and control capability to become an extremely agile and rapidly deployable weapon system. Lack of standardized tactical vehicles ($46.M) and mobility readiness spares packages ($0.75M) have created a critical shortfall, and left the ANG without the required assets. Current CAF Program Element (PE 27412) funding and out-year projected funding streams do not address ANG shortfalls. Non-standard fielding of a major data link capability, Joint Range Extension (JRE) Transparent Multi-Platform Gateway Equipment Package (JTEP) ultimately enhanced the ANG's ability to meet requirements for data link in older airframes. However, the decision by the Electronic Systems Center not to fully support up to 80 percent of the 700 plus fielded JRE systems will have a crippling effect on the ANG's ability to meet theater and domestic mission requirements. Ongoing sustainment and modernization efforts for the legacy AN/TPS-75 radar ($36M service life extension program (SLEP)-$1B+ modernization) and AN/TYQ-23 (V5) operations module ($78M SLEP-$500M+modernization) are critical to the overall C2 capability to meet operational requirements today.

The ANG is developing an ANG-specific, commercial off-the-shelf (COTS), fully self-contained, deployable, short range sensor/radar and control capability to support homeland defense, homeland security, DSCA, and drug interdiction missions. The prototype will be a rapidly deployable asset that includes two remote short range radars, a mobile command post with four operator work stations to coordinate air assets; a communications suite; on-board heating, ventilation, and air conditioning; and electrical power. Cost for the systems is $3.5M.

xx. Component Numbered AF (cNAF)/Air Operations Center (AOC)

The cNAF/AOC, Air Operations Group, and Air Operations Squadron provide some of the newer weapon system capabilities within the ANG. The communities are critically short of operational and simulation training suites. Identifying requirements, funding, and fielding of capabilities to the ANG are inadequate at best. This community continues to grow. Qualification and positional training to meet mission requirements is not being met, and there is no validated standardized plan in place to address this critical shortfall. Without emphasis from AF program managers, fully funded standardized training suites, standardized simulation capabilities, and communications suites, this mission growth area is headed for failure.

xxi. C2 Simulation and Distributed Mission Operations (DMO)

The ANG does not have direct access or connectivity to the AC Distributive Mission Operations Network (DMON) system. However, ANG is connected to the DMON via a gateway at the Distributive Training Operations Center (DTOC). ACC fielded the combat reporting center (CRC) simulation package to the CRC/ACS community for training mission crews. Similarly, the ASOS/TACP community was equipped with the Indirect Fire Forward Air Controller Trainer (I-FACT) in limited numbers by ACC. Using NGREA funding ($1M), ANG equipped the rest of our units with this capability; however, the C2 communities require training for large force exercises to be on the same proficiency level as our AC counterparts.

Reductions in force structure dictate that the ANG use simulation and DMO for qualification training. Additional funding of approximately $25M is needed to redress the shortfall.

xxii. Simulation and Distributed Mission Operations

The ANG has embarked on an ambitious training system modernization program to meet significant equipment shortages. As part of the Guard's "design before you buy" policy, both flight and mission crew simulator prototypes are constructed in partnership with USAF trainer technology development centers and industry. The focus of all of the programs is to deploy squadron-level trainers to meet current and near term shortages across the entire spectrum of fidelity. The ANG funded the development of prototypes with NGREA and execution year O&M for the KC-135 Boom Operator Simulation System (BOSS); HH-60G Pave Hawk technology demonstrator; RC-26 Combined Mission Crew Trainer (CMCT), and the KC-135/C-130/RC-26/C-27J Crew Resource Management Trainer (CRMT). The F-16C (Block 30) Full Combat Mission Trainer (FCMT) was developed with a Congressional appropriation. Funding to deploy production versions of these trainers in large numbers is not available. Near term through FY 2013 equipment shortfalls include: 15 KC-135 BOSS, 13 KC-135 CRMT, 18 C-130H/J CRMT, 21 F-16C FCMT, and 5 C-27J CRMT. Additional funding is required to expand the DTOC facility, equipment suite, and manpower.

xxiii. Information Operations (IO)

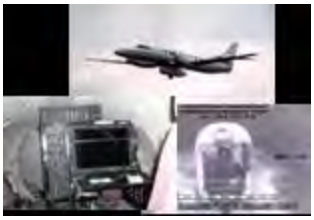
Network Warfare Operations

The Air Force has not programmed for, or broadly developed, the specialized equipment and connectivity to allow ANG personnel to train for and conduct specialized support for network warfare. Cyberspace and IO requirements are unique in that DOD does not define the pace of technology and almost all systems related to network warfare rely on COTS solutions. There is no program office for network warfare systems (other than for fixed and deployable communications requirements). In FY 2007, the ANG received $1.1M, through NGREA, to field a digital training and integration range for ANG units in Delaware, Maryland, and Washington ($594K); and a learning management system (LMS) for the Vermont ANG ($407K). In FY 2008, the ANG received a Congressional mark for $2.9M for the Washington ANG to develop capability to address critical network defense of control systems, build expertise, and conduct trial assessments. All of these capabilities and systems are Guard-specific capabilities, so no compatibility issues exist between the ANG equipment and AC weapons systems. The ANG anticipates FY 2010 shortfalls for development and connectivity of four IO and network warfare operations units to the Joint IO Range, and to robust the ANG learning management system due to anticipated increases in training requirements for cyber operations within the ANG. Once the units install their initial equipment, annual sustainment will represent additional requirements outside current program objective memorandum (POM) funding.

xxiv. RC-26B

The RC-26B faces a number of immediate modernization challenges including replacement of the Integrated Situational Awareness Display System (ISADS), upgrade of the onboard communications suite (including incorporation of civil/law enforcement radios, antenna mounts, and tactical data links), and an aircraft weight reduction to meet operational requirements.

Additionally, the aircraft will soon need an advanced EO/IR turret, upgraded power source, and an external, podded sensor capability.



RC-26B Counter Drug Aircraft

These challenges are exacerbated by the fact that RC-26 is not a "normalized" program. The aircraft lacks a validated requirement and a lead major command (MAJCOM), and it operates with no POM budgetary support. While the RC-26 has benefitted from Congressional marks in the past and limited budgetary support from customers outside the ANG, the ANG must support the majority of RC-26 needs out of execution year funds, severely constraining modernization efforts.

To redress support issues, the ANG is developing potential solutions for normalizing RC-26 operations by bringing them under an Air Logistics Center. The long term solution would be a fleet of light, manned, Incident Awareness and Assessment/ISR fixed-wing aircraft that could be readily reconfigured to carry a range of mission payloads. These aircraft would fulfill a wide range of domestic incident response missions, numerous missions defined in the Air Force information warfare concept of operations, and manned ISR taskings.

xxv. SENIOR SCOUT

Upgrade and modernization efforts funded in the AF POM encompass the Baseline 4C upgrade of the three SENIOR SCOUT (SS) shelters. In addition to the POM, two efforts funded with Congressional marks were initiated in FY 2009: Digital Rio Raton upgrade to electronic intelligence capabilities valued at $800K and the Ku-band BLOS, fixed Earth station capability valued at $7.0M. Additionally, NGREA funded capability to provide certification of Protection Level 2 for SENIOR SCOUT shelters valued at $3.1M. SENIOR SCOUT upgrades and modernization covered in the FY 2009 OCO funding, released in August 2009, are in negotiation and contract award phase with anticipation of an award by November 2009.

There are unfunded requirements in the area of remote operations ($1.0M), SS mission trainer ($1.7M), background spectral search capability (1.1M), pulse processor ($2.4M), and interference cancellation ($2.0M). Procurement funding in the AF POM generally leaves an annual shortfall of nearly $14M across the FYDP measured against approved requirements.

C-130 SENIOR SCOUT

xxvi. Pararescue/Special Tactics

The ANG is using NGREA funds to integrate and procure a man-portable data link compatible with fielded or soon to be fielded airborne data links in the ANG. NGREA has also been used to fund a suite of various combat rescue and domestic operations medical capabilities as well as special operations capabilities including vehicles, radios, and laser range finders. Shortfalls for the upcoming year and through FY 2013 for both Pararescue and Special Tactics will be data links, vehicles, and communications equipment.

xxvii. Distributed Common Ground Station (DCGS)

There are no compatibility issues between ANG and AC DCGS's; however, there are compatibility issues between DCGS, Predator Squadron Operations Centers (SOCs), and theater

units. Crew voice communications between the two weapon systems is required to maintain situational awareness during mission operations. Delivery of the version 10.2 equipment suite at the large ANG DGS sites will permit crew voice communications between the DGS sites only, but not to the SOC.

Air Force Distributed Common Ground System (AF DCGS)

Another modernization effort underway within ANG DCGS is the collateral enclave. This is a separate suite of equipment that can process, store, and disseminate information at the secret collateral level only. The top secret/sensitive compartmented information nature of the current DCGS configuration prevents sharing of information with collateral-only customers. NGREA funds totaling $4.4M were committed for DCGS collateral enclave equipment purchases.

Adjunct to the classified information-handling capabilities of DCGS is the need for a releasable enclave. This is especially critical for ANG DCGS because of dual-use (federal and state) mission requirements. Having a releasable enclave will allow ANG DGS units to respond to and support homeland security, homeland defense, and natural disaster recovery and rescue operations. A critical combat capability that remains unfunded is the DCGS wideband link, an alternate SATCOM downlink that backs up existing downlink sites on the East and West coasts.

xxviii. Security Forces

There are significant modernization and compatibility issues with Security Force equipment. Some weapon modernization (M4 carbines) has been implemented through NGREA funds, but more is required. Congressional marks have assisted with modernization of combat simulator equipment. Compatibility is an issue with alarm systems and radio equipment between the ANG and AC. ANG has not been able to keep all units modernized, and it requires the resources to procure the equipment to meet new standards for these items.

Security Forces—Training for Deployment

xxix. Medical

The Air Force is upgrading to the new Block 12 Expeditionary Medical System (EMEDS) in FY 2010 and beyond. NGREA FY 2009 funds ($3.2M) are being used to upgrade the Block 10 EMEDS to the Block 12. There is a $1M shortfall in upgrading all of the EMEDS medical platforms. There is also an additional shortfall of $3M to purchase initial oxygen and water distribution systems, which are critical for sustained medical operations during homeland operations.

The ANG anticipates shortfalls of between $10–20M with this estimate based on anticipation of a new Block 14 allowance standard for the EMEDS +25 and the EMEDS +10. We would also anticipate another allowance standard upgrade to the 17 ANG Small Portable Expeditionary Aerospace Rapid Response (SPEARR) equipment sets. The current SPEARR allowance standard is dated 2006 and an upgrade occurs every three or four years. We also anticipate growth in the CBRNE enhanced response force packages (CERFP) to cover increased mission requirements, which would also drive purchases of additional SPEARR equipment.

c. 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 are underway since the last report. To support a Total Force approach in modernizing the CAF, the ANG, in concert with the AC, has an ongoing effort to build associations to maximize effectiveness for the ANG and AC. As a result, fewer facilities, airframes, support personnel, etc. are required to ensure the relevancy, reliability, and responsiveness of the blended units. We anticipate more associate unit relationships with other Air Force components.

The ANG continues to expand its role in space and information operations warfare as evidenced by the ANG work with the Air Force to integrate and stand up Predator units within the FYDP, with the potential for more outside the FYDP.

To better support domestic and federal operations, the ANG held the first ever Domestic Operations Essential 10 Requirements (DOERs) Conference. This was the first of many future conferences, where regional leaders selected from the ANG strategic planning system came together to assess and determine their Essential Ten capability requirements for their respective regions and the nation for FY 2012–2017 POM and the NGREA spend plan.

C. Future Years Program (FY 2011–FY 2013)

1. FY 2013 Equipment Requirements

The ANG fleet expects continued modernization in FY 2010 and beyond. Refer to details in each previous individual section for modernization. Enhancements include digital video recorders, a HMIT system, ALR-69A/AT3 (advanced tactical targeting technology), and advanced distributed mission training (DMT) systems, engines, data links, APN-241 radar, LAIRCM, and structural modifications. All will remain vital as we continue to fly aircraft well beyond their designed life.

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. The 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 2013

For shortfalls in modernization at the end of FY 2013, see the discussion of individual weapons systems modernization in the "Modernization Programs and Shortfalls" section and Appendix B.

D. Summary

While support equipment levels remain comparable to Air Force 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 funding from 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.

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, if 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 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Air Refueling							
Air Refueling, KC-135R	KC-135R	$57,700,000	151	152	152	152	152
Air Refueling, KC-135T	KC-135T	$54,000,000	24	24	24	24	24
Airlift							
Airlift, C-130H	C-130H	$29,200,000	121	122	122	122	122
Airlift, C-130J	C-130J	$64,000,000	23	19	19	19	19
Airlift, C-17A	C-17A	$219,200,000	8	8	8	8	8
Airlift, C-5A	C-5A	$119,300,000	30	30	30	30	30
Airlift, LC-130H [1]	LC-130H	$71,000,000	10	10	10	10	10
Airlift, WC-130H	WC-130H		6	7	7	7	7
Electronic Warfare (EW)							
EW, E-8C	E-8C/AOT	$251,500,000	14	14	14	14	14
EW, EC-130J	EC-130J	$90,000,000	3	3	3	3	3
EW, RC-26B	RC-26B	$1,500,000	11	11	11	11	11
Fighter							
Fighter, A-10C	A-10C	$10,700,000	96	96	90	90	90
Fighter, F-15C	F-15C	$31,000,000	92	89	95	95	95
Fighter, F-15D	F-15D	$31,000,000	16	16	16	16	16
Fighter, F-16C	F-16C	$19,500,000	295	268	258	257	257
Fighter, F-16D	F-16D	$19,500,000	23	24	24	24	24
Fighter, F-22A	F-22A	$185,000,000	2	18	18	18	18
Operational Support							
Op Support, C-21A	C-21A	$3,100,000	18	18	18	18	18
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/P	HC-130N/P	$19,100,000	7	7	7	7	7
Rescue, HH-60G	HH-60G	$17,600,000	15	15	15	15	15
Rescue, MC-130P	MC-130P	$75,000,000	4	4	4	4	4
Miscellaneous Equipment							
MD-1A/B	MD-1A/B	$2,500,000	19	20	21	21	21
MQ-1B	MQ-1B	$4,500,000	36	36	36	36	36

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
MQ-9A	MQ-9A	$16,500,000	7	11	14	14	14
Firefight/Crash Vehicle	P-19	$833,573	161	161	161	161	170
High Mobility Multipurpose Wheeled Vehicle (HMMWV), Armored	M1145	$192,400	4	4	4	4	204
Expeditionary Medical Support (EMEDS)	EMEDS	$3,500,000	9	9	9	9	9
25K Loaders	25K LDR	$560,986	40	40	40	40	40
(1) Four LC-130s are National Science Foundation (NSF)-owned.							

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Table 2

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 2010.

Nomenclature	Equip No.	Average Age	Remarks
Air Refueling			
Air Refueling, KC-135R	KC-135R	48	
Air Refueling, KC-135T	KC-135T	50	
Airlift			
Airlift, C-130H	C-130E	46	
Airlift, C-130J	C-130H	20	
Airlift, C-17A	C-130J	6	
Airlift, C-5A	C-17A	6	
Airlift, LC-130H	C-5A	38	
Airlift, WC-130H	LC-130H	17	
Electronic Warfare (EW)			
EW, E-8C	E-8C	9	
EW, EC-130J	EC-130J	9	
EW, RC-26B	RC-26B	15	
Fighter			
Fighter, A-10C	A/OA-10A	29	
Fighter, F-15C	F-15C	29	
Fighter, F-15D	F-15D	28	
Fighter, F-16C	F-16C	21	
Fighter, F-16D	F-16D	21	
Operational Support			
Op Support, C-21A	C-21A	24	
Op Support, C-32B	C-32B	6	
Op Support, C-38A	C-38A	11	
Op Support, C-40C	C-40C	6	
Rescue			
Rescue, HC-130N	HC-130N	16	
Rescue, HC-130P	HC-130P	43	
Rescue, HH-60G	HH-60G	19	
Rescue, MC-130P	MC-130P	43	

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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 2011 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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013.

Nomenclature	FY 2011	FY 2012	FY 2013
Modification of Inservice Aircraft			
A-10	$46,021,000	$41,216,000	$41,550,000
F-15	0	27,000	0
F-16	37,292,000	16,208,000	2,078,000
C-5	15,036,000	0	0
C-17A	458,000	17,323,000	30,662,000
C-130	166,587,000	70,532,000	85,531,000
C130J Mods	5,364,000	3,308,000	275,000
C-135	4,032,000	9,167,000	17,722,000
E-8	129,924,000	53,003,000	44,136,000
H-60	3,278,000	1,162,000	256,000
Aircraft Replacement Support Equipment	3,292,000	2,446,000	2,494,000
Vehicular Equipment			
Medium Tactical Vehicle	17,134,000	23,428,000	22,415,000
Items Less Than $5M - Cargo & Utility Vehicles	3,413,000	3,949,000	4,250,000
Items Less Than $5M - Special Purpose Vehicles	10,589,000	11,130,000	11,185,000
Fire Fighting/Crash Rescue Vehicles	5,427,000	5,388,000	5,262,000
Items Less Than $5M - Materials Handling Equipment	1,233,000	1,386,000	1,538,000
Runway Snow Removal and Cleaning Equpment	15,634,000	12,304,000	11,798,000
Items Less Than $5M - Base Maintenance Support Vehicles	9,265,000	3,545,000	3,430,000
Electronics and Telecommunications Equipment			
Air Traffic Control & Landing System	9,424,000	14,264,000	44,668,000
National Airspace System	6,544,000	2,236,000	0
Theater Air Control System Improvement	6,337,000	6,243,000	6,893,000
General Information Technology	992,000	657,000	618,000
Theater Battle Management C2 System	642,000	400,000	425,000
Air & Space Operations Center Weapon System	2,438,000	2,000,000	1,800,000
Navstar GPS Space	1,002,000	198,000	1,483,000
MILSATCOM Space	30,789,000	0	0
Tactical Communications-Electronic Equipment	37,000,000	43,216,000	38,863,000
Combat Survivor Evader Locator (CSEL)	0	25,872,000	0
Base Communications Infrastructure	42,640,000	34,672,000	35,249,000
Communications & Electronics Mods	389,000	0	0

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Table 3

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2011	FY 2012	FY 2013
Other Base Maintenance and Support Equipment			
Night Vision Goggles	563,000	312,000	318,000
Mechanized Material Handling Equipment	1,200,000	470,000	400,000
Base Procured Equipment	0	1,453,000	1,440,000
Items Less Than $5M - Base Support Equipment	1,400,000	1,400,000	700,000
Total	**$615,339,000**	**$408,915,000**	**$417,439,000**

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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013. All values are costs in dollars.

Nomenclature	FY 2008	FY 2009	FY 2010
FY 2008 Title III NGREA Equipment			
Medical			
Expeditionary Medical Support (EMEDS)	$7,600,000		
Expeditionary Deployment O2 Conc Sys (EDOCS)	1,800,000		
Materials Handling and Storage Equipment	600,000		
Communications			
Deployable Wireless Capability	4,000,000		
C2/TACP SADL Kits	444,000		
Logistics			
Combat Readiness Training Center Equipment	2,000,000		
HLS/HLD Mission Essential Equipment	1,000,000		
Transportation			
HMMWV XM1145	9,156,000		
Engineer			
P-19, P-22, P-23 Firefighting Vehicles	5,800,000		
Hazardous Material Equipment	1,500,000		
Fire Fighters Self Contained Breathing Apparatus	2,000,000		
Explosive Ordnance Disposal (EOD) IED Equipment	2,000,000		
Civil Support Teams (Force Protection)			
PJ/STS Medical Treatment Equipment	2,500,000		
Maintenance			
Radio Frequency Identification	400,000		
Security			
Security Forces Night Vision AN/PVS-14	5,000,000		
Security Forces Body Armor Ensemble	2,400,000		
Security Forces Weapons & Training Upgrades	2,600,000		
Aviation			
F-15 Very High Speed Integrated Circuitry Central Computer	3,000,000		
F-16 Advanced Interrogator Friend/Foe	4,800,000		
HC-130 Tactical Data Link	1,200,000		
PJ Situational Awareness Suite	1,600,000		
HC/MC-130 Enhanced Airborne Mission Commander	1,200,000		
C-130 Cockpit Display Units	3,300,000		
C-21 Reduced Vertical Separation Minimum	3,200,000		
C-130 APN-241 Radar	1,000,000		
C-130 Propulsion Improvements	1,500,000		
C-130 Radars	1,000,000		
Modular Airborne Fire Fighting Systems VHF/FM Radio	2,000,000		
Precision Strike			
F-15/F-16/A-10 Helmet Mounted Cueing System	7,000,000		
F-16 Avionics Upgrades & Advanced Mission Extenders	6,200,000		
F-16/A-10 Advanced Targeting Pod/Thunder Pod	10,500,000		
F-16/A-10 Targeting Pod Video Downlink	2,000,000		

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
F-16/A-10 Targeting Pod Modifications	3,000,000		
Data Link/Combat Identification			
F-16/A-10 Beyond Line-of-site Radios	3,900,000		
C-130/KC-135 Tactical Data Link	5,500,000		
KC-135 Cockpit Display Unit	1,500,000		
24 Hour Operations			
JSTARS 8.33 Radios	2,200,000		
F-15/F-16 Digital Video Recorder	1,000,000		
C2/TACP Up-armored HMMWV	414,000		
Enhanced Survivability			
C-5A Defensive Systems	3,900,000		
PJ/ST Special Tactics Suite	1,700,000		
C-130/C-5/C-17 Enhanced Lookout Capability	2,600,000		
HH-60,HC/MC-130,A-10 Lightweight Airborne Radio System (LARS)	2,750,000		
HH-60 Defensive Armament Upgrade	1,000,000		
KC-135/C-5/C-130 Countermeasures	500,000		
C-130 Crashworthy Loadmaster Seats	3,000,000		
Propulsion Modernization			
F-16 Propulsion System Upgrades	5,100,000		
Simulation Systems			
F-16 Full Combat Mission Trainer	250,000		
A-10 Full Mission Trainer	400,000		
KC-135 Boom Operator Simulator	800,000		
Intelligence, Surveillance, Reconnaissance (ISR)			
Predator Operations Equipment Modernization & Integration	3,000,000		
DCGS Collateral Enclave & Comm Support Modernization	3,072,000		
Senior Scout Situational Awareness	3,100,000		
FY 2009 Title III NGREA Equipment			
Medical			
Expeditionary Medical Support (EMEDS+25)		$1,700,000	
Expeditionary Medical Support Pediatric Packages		1,116,000	
Advanced Electronic Support Equipment		670,000	
Communications			
Wireless LAN Enhancements		1,080,000	
Joint Incident Site Communications		1,125,000	
ASA Command Post Consoles		1,150,000	
Logistics			
Reconnaissance, Surveillance, and Targeting for Expeditionary Medical Support		415,000	
Reconnaissance, Surveillance, and Targeting for Fatality Search & Recovery Team		36,000	
SPEK Kitchen Component Parts, Phase IV		1,700,000	
Vehicles		231,000	
Transportation			
P-22 Pumpers Firefighting Vehicles		1,284,000	
P-26 Water Tenders Firefighting Vehicles		1,276,000	
P-19 & P-23 Firefighting Vehicles		751,000	
Engineer			
Night Vision Goggles for Firefighters		1,004,000	
Reverse Osmosis Water Purification Unit		940,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
Communications Sets (4F9ER)		548,000	
Explosive Ordnance Disposal IED Equipment		773,000	
Civil Support Teams (Force Protection)			
Powered Air Purifying Respirators (PAPR)		660,000	
Hazardous Material Equipment for Firefighters		592,000	
Mobile Emergency Operations Center Trailers w/C2 (IOC)		1,168,000	
Fatality Search & Recovery Team Equipment		660,000	
Maintenance			
TC MAX Tool Control System		1,700,000	
Sensitor Extirma Fuel Leak Detector		468,000	
Hydromite Strut Servicing Equipment		708,000	
C-130/F-16 Infrared Receiver Tester		225,000	
Munitions Storage Area Documentation		50,000	
Security			
Security Forces Equipment & Training Upgrades		1,248,000	
Body Armor		1,440,000	
Night Vision Goggles		1,000,000	
Weapons Upgrades		2,850,000	
Aviation			
F-16 Advanced Interrogator, Friend/Foe (AIFF)		320,000	
HH-60/PJ/ST Data Link		1,000,000	
C-130/KC-135/F-15/HH-60 Data Link		4,000,000	
HC/MC-130 Enhanced Air Mobility Command		1,250,000	
Precision Strike			
F-15/F-16/A-10/HH-60 HMCS		9,000,000	
F-15/F-16 Avionics Enhancements		3,500,000	
F-16/A-10 Advanced Targeting Pod		1,000,000	
F-16/A-10 Advanced Targeting Pod Modifications		10,000,000	
Data Link/Combat Identification			
F-16/A-10/HC-130 Beyond Line of Sight Radios		3,000,000	
C-130/KC-135 Beyond Line of Sight Radios		2,100,000	
RC-26 Avionics Modification		500,000	
A-10/HH-60/HC-130 Low Altitude Radar System		1,000,000	
24-hour Operations			
JSTARS 8.33 Radios		2,200,000	
F-15/F-16 Digital Video Recorder		500,000	
C-130 Joint Precision Airdrop System		600,000	
C-21 Avionics Upgrades		1,000,000	
C-40 Avionics Enhancements		900,000	
Enhanced Survivability			
C-130/C-17/C-5A Defensive Systems		5,600,000	
PJ/ST Special Tactics Suite		1,500,000	
C-17/C-130/C-5 Enhanced Lookout Capability		500,000	
HH-60 Defensive Armament Upgrade		2,252,000	
KC-135/C-5/C-130 Counter Measures		1,000,000	
C-130 Chaff/Flare Dispensers		1,500,000	
A-10/F-16 Defensive Systems Upgrades		3,500,000	
Propulsion Modernization			

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
C-130 Propulsion System Upgrade		3,500,000	
F-16/A-10 Propulsion System Upgrade		5,100,000	
Simulation Systems			
KC-135 Boom Operator Simulator		1,500,000	
HH-60 Pave Hawk Aircrew Rehearsal and Operations Simulator (PHAROS)		2,000,000	
Unmanned Aircraft System (UAS) Desktop Simulator		300,000	
Intelligence, Surveillance, Reconnaissance (ISR)			
Senior Scout PL-2 Security Accreditation		150,000	
Distributed Common Ground		5,850,000	
P.L. 110-329, Section 8101 Reduction		(310,000)	
FY 2009 TITLE IX OVERSEAS EQUIPMENT			
F-16/A-10/HH-60 Helmet Mounted Cueing System		10,000,000	
F-16/A-10 Targeting Pod Modifications		10,000,000	
HC/MC-130 Enhanced Situational Awareness Suite		9,000,000	
Senior Scout Enhancements		6,000,000	
HH-60 Defensive Armament/Cabin and SA Upgrade		5,000,000	
Large Aircraft Defensive Systems		4,000,000	
A-10 Secure Line-of-site/Beyond Line-of-site Radios		3,000,000	
A-10 Defensive Systems Upgrade		3,000,000	
FY 2010 Title III NGREA Equipment			
Mobile Aeromedical Staging Facility (MASF)			$1,245,000
Aeromedical Evacuation Patient Movement Items			88,000
Weather Data Communication Equipment			200,000
Interoperable Medical Communications Suite			270,000
Mobile Full Motion Video Geospatial Intelligence Info Exploitation Packages			200,000
Air Defense Sector (ADS) Tactical Satellite Communications			1,800,000
Mobile Full Motion Video Geospatial Intelligence Info Exploitation Packages Rover Vehicles			400,000
Mass Field Feeding - Ultimate Mobile Airtronic Kitchen			3,750,000
Disaster Relief Bed-down Sets			6,600,000
Mobile Control Tower Vehicles			2,240,000
Mobile Command Post Trailers			3,215,000
Fatality Search and Recover Team (FSRT) Trailers			300,000
Fatality Search and Recover Team (FSRT) Gators 4X4			561,000
Tactical Medical Vehicles			500,000
Ambulance Bus			400,000
Less than Lethal Crowd Control / Civil Disturbance Kits			2,480,000
Weapons of Mass Destruction/Installation Protection Units			2,006,000
Distributed Ground Station (DGS) Ground Receiver Equipment for RC-26 Incident Awareness and Assessment (IAA) Operations			2,750,000
Aeromedical Evacuation Inflight Kits			995,000
A-10/F-15/F-16/HH-60 Helmet-mounted Cueing System			17,400,000
F-15/F-16 Color Displays			8,030,000
A-10/F-15/F-16 Communication Suite Upgrade			9,180,000
A-10/F-15/F-16 Digital Radar Warning Receiver (RWR)			3,120,000
A-10/F-15/F-16 Digital Radio Frequency Memory (DRFM) Jammers			500,000
A-10/1F-16 Advanced Targeting Pods			2,000,000
JSTARS Low Cross Section Radar Detection Upgrades			500,000
F-16 Advanced Interrogation Friend or Foe (AIFF)			800,000

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
F-15/F-16 Infrared Search and Track			1,000,000
A-10/F-15/F-16 Defensive Systems Upgades			4,600,000
Ballistic Missile Range Safety Technology			700,000
Cyber and Critical Infrastructure Range			1,700,000
Remotely Piloted Aircraft (RPA) Integrated Data Link			2,800,000
RC-26 Avionics Modernization			3,045,000
RC-26 Adaptable Communications Suite			1,900,000
Senior Scout Radio Frequency Cancellation			3,900,000
Remotely Piloted Aircraft (RPA) Improved Communication Suite			390,000
HH-60G Communications and Avionics Upgrade			1,500,000
HC-130/MC-130 Sensor and Data Link Upgrades			2,000,000
Pararescue / Special Tactics Training Suite			1,800,000
Special Tactics Survivability Suite			1,500,000
Pararescue Vehicles and Combat Survivability Suite			1,800,000
Security Forces Personnel Protective Equipment and Weapons			1,000,000
C-130/KC-135 Real Time Information in the Cockpit (RTIC)			9,600,000
C-130 Loadmaster Seats			8,300,000
C-130/KC-135 Lighting			800,000
LC-130 Propulsion Upgrade			2,700,000
LC-130 Crevasse Detection Radar			1,800,000
C-40 High Speed Data			500,000
C-40 Electronic Flight Bag			600,000
C-21 Avionics Upgrade			4,000,000
C-5/C-17/C-130 Lookout Capability			3,000,000
C-5/C-17/C-130/KC-135 Defensive Systems			1,000,000
KC-135 Boom Operator Simulator System			1,350,000
MQ·9 Reaper Mission Training Devices			185,000
Total	**$148,986,000**	**$154,380,000**	**$135,000,000**

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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 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Air Refueling, KC-135R	KC-135R	+1			
Airlift, C-130H	C-130H	+1			
Airlift, C-130J	C-130J	-4			
Airlift, WC-130H	WC-130H	+1			
Fighter, A-10C	A-10C		-6		
Fighter, F-15C	F-15C	-3	+6		
Fighter, F-16C	F-16C	-27	-10	-1	
Fighter, F-16D	F-16D	+1			

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2007 with actual procurements and transfers. FY 2007 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 2009. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2007 Planned Transfers & Withdrawals							
Air Refueling							
Air Refueling, KC-135E	KC-135E	-29	-32				
Air Refueling, KC-135R/T	KC-135R/T	+6	+27				
Airlift							
Airlift, C-130E	C-130E	-6	-10				
Airlift, C-130H	C-130H	-5	-9				
Airlift, C-17A	C-17A	+12	+3				
Fighter							
Fighter, A-10A	A-10A	-1	-48				
Fighter, A-10C	A-10C	+0	+54				
Fighter, F-15A	F-15A	-45	-20				
Fighter, F-15B	F-15B	-5	-8				
Fighter, F-15C	F-15C	+22	+29				
Fighter, F-15D	F-15D	+3	+8				
Fighter, F-16C	F-16C	-23	-36				
Fighter, F-16D	F-16D	+4	-8				
FY 2007 P-1R Equipment							
Modification of Inservice Aircraft							
A-10				$21,056,000	$83,050,000		
F-15				39,670,000	71,050,000		
F-16				101,040,000	119,337,000		
C-5				23,070,000	49,549,000		
C-17A				12,319,000	17,631,000		
C-130				87,507,000	141,881,000		
C130J Modifications				19,189,000	4,398,000		
C-135				39,181,000	34,504,000		
E-8				138,162,000	100,520,000		
H-60				3,297,000	3,126,000		
Aircraft Support Equipment and Facilities							
Common Support Equipment				25,424,000	0		
Other Production Charges				14,244,000	577,404,000		
Vehicular Equipment							
High Mobility Vehicle (MYP)				929,000	0		

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Passenger Carrying Vehicles				0	2,701,000		
Medium Tactical Vehicle				0	17,309,000		
HMMWV, Armored				169,000	0		
Runway Snow Removal and Cleaning Equipment				10,591,000	9,345,000		
Items Less Than $5M (Vehicles)				3,099,000	3,577,000		
Electronics and Telecommunications Equipment							
National Airspace System				2,581,000	995,000		
Theater Air Control Sys Improvement				18,370,000	28,449,000		
Weather Observation Forecast				3,896,000	0		
AF Global Command & Control System				527,000	1,297,000		
Combat Training Ranges				1,698,000	817,000		
Theater Battle Mgt C2 System				613,000	1,292,000		
Air & Space Operations Center - Weapon System				0	2,894,000		
Base Info Infrastructure				3,681,000	3,224,000		
NAVSTAR GPS Space				162,000	0		
Tactical Communications - Electronics Equipment				19,933,000	31,728,000		
CCTV / Audiovisual Equipment				0	84,000		
Base Communications Infrastructure				31,221,000	0		
Other Base Maintenance and Support Equipment							
Night Vision Goggles				270,000	542,000		
Mechanized Material Handling Equipment				949,000	916,000		
Items Less Than $2M (Base Support)				5,988,000	1,694,000		
FY 2007 Title III NGREA Equipment							
Precision Strike							
F-16/A-10 Helmet Mounted Cueing System Integration						$3,900,000	$3,900,000
F-16/A-10 Targeting Pod Enhancements						5,000,000	5,000,000
F-16 Avionics Enhancement						1,000,000	1,000,000
A-10/F-16 All Weather Precision Strike Capability						2,000,000	2,000,000
Data Link/Combat ID							
A-10/KC-135 BLOS Radios						8,000,000	8,000,000
Rc-26 MSO Station Upgrades						825,000	825,000
A-10/HH-60/HC-130 Situational Awareness Datalink						4,750,000	4,750,000
A-10/HH-60/HC-130 LARS V-12						2,200,000	2,200,000
JSTARS Global CNS/ATM						1,000,000	1,000,000
Enhanced Survivability							
A-10/F-16 Defensive Systems Upgrade						500,000	500,000
ALE-47 Operational Tester						1,500,000	1,500,000
C-130 Chaff/Flare Dispenser Switches						1,500,000	1,500,000
C-130 LAIRCM						750,000	750,000

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
C-5 Defensive Systems						5,000,000	5,000,000
HH-60/A-10 Displays						1,750,000	1,750,000
KC-135 Situational Cockpit Displays						600,000	600,000
C-130 Active Noise Reduction						500,000	500,000
F-16/A-10 ALQ-213 APU Continuation and Flare						750,000	750,000
Security Forces Operational Equipment						2,000,000	2,000,000
PJ/ST/CRO High Altitude Equipment						1,220,000	1,220,000
HH-60 Weapons Modernization and CSAR Board						2,250,000	2,250,000
Propulsion Modernization							
C-130/F-16 Propulsion System Upgrades						2,500,000	2,500,000
Simulation Systems							
MWS Bench Tester						600,000	600,000
Manpad Simulator						680,000	680,000
C-130/F-16/A-10/HH-60 Vects						1,250,000	1,250,000
Boss Boom Operator Trainer						800,000	800,000
Multi-mission Crew Trainer						500,000	500,000
F-16/A-10/Predator DMO/DTS Enhancements						1,000,000	1,000,000
24-hour Operations							
C-130 APN 241						3,660,000	3,660,000
KC-135 NVG Compatible Lighting						500,000	500,000
Mobile Approach Control System (MCAS)						2,000,000	2,000,000
MC-130 FLIR						1,600,000	1,600,000
Command and Control							
Terminal Attack Controller (TAC) Kit						2,086,000	2,086,000
I-FACT Distributed Mission Operations						666,000	666,000
AOC DMO Capability						200,000	200,000
ACS Air Surveillance and Air Control (ASAC)						500,000	500,000
Intelligence, Surveillance, Recon (ISR)							
Predator Operations Equipment Mod and Integration						3,000,000	3,000,000
DCGS Collateral Enclave & Comm Support Mod						3,411,000	3,411,000
Senior Scout Situational Awareness Kit						1,750,000	1,750,000
Information Operations (IO)							
Network Warfare Test & Training Range						594,000	594,000
Network Warfare Learning Management System						407,000	407,000
Total				**$628,836,000**	**$1,309,314,000**	**$74,699,000**	**$74,699,000**

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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 2011 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 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	A-10/F-16 Helmet Mounted Integrated Targeting System	498	498	$120,000	$59,760,000	Reduces time required for pilots to acquire targets from minutes to seconds, enabling pilots to enage high value fleeting targets. Significantly increases pilot survivability and lethality by displaying information directly in front of pilot's eye at all times.
2	LAIRCM (C130, C-17, C-5)	189	116	$5,600,000	$649,600,000	Allows combat delivery/CSAR aircraft to survive attacks from shoulder launched missiles, a rapidly proliferating threat
3	ARC-210 Radio (A-10)	105	63	$98,238	$6,189,000	Provides improved radio communications to include Secure Line of Sight capability.
4	F-15 AESA	48	30	$8,720,000	$261,600,000	Replaces mechanically scanned radar with an electronically scanned array which provides detection and tracking in multiple directions simultaneously, and enables tracking of small asymmetric targets.
5	Advanced Targeting Pods Upgrades	69	20	$1,200,000	$24,000,000	Improves targeting pod sensors to more than double target acqusition and ID range, increasing standoff and improving weapon delivery accuracy.
6	HH-60 Color Displays/SADL	40	40	$135,000	$5,400,000	Smart Color Multi-Function Display – Color display of current FLIR picture and integrates a digital moving map. The additional on-board processing power will enable future modifications such as Situational Awareness Data Link, LARS V12 and IBR threat data.
7	RC-26 Avionics Upgrade	11	11	$2,389,000	$26,279,000	Updates the RC-26 avionics suite to address communications/navigation shortfalls occuring as a result of expanded aircraft employment.
8	C-5 Defensive Systems	33	23	$1,500,000	$34,500,000	Provides the C-5 with AAR-47 (V2+) Missile Warning System and ALE-47 Countermeasures Dispensing System to counter shoulder launched missiles.
9	C-5 Crown Skin and Contour Box Beam Fitting Replacement	33	33	$8,600,000	$283,800,000	Modification to upgrade components affected by Stress Corrosion Cracking (SCC) that are reducing C-5 payload capacity by 20%.
10	C-130 Real Time in Cockpit (RTIC)	120	120	$330,000	$39,600,000	Situational Awareness Data Link, ARC 210 Radio (LOS/BLOS capability), Tactical Display Unit. Integrated Unit providing C-130 community needed combat capability.

III. Air Force Reserve Overview

A. Current Status of the Air Force Reserve

1. General Overview

The mission of the Air Force (AF) is to fly, fight, and win in air, space, and cyberspace. The Air Force Reserve (AFR) shares that mission; it also shares in the top priorities of the Air Force, among which is modernizing our air and space inventories, organizations, and training. The AFR has a long history of operational engagement and is increasingly relied upon to support the requirements of the Air Force and combatant commanders. Air Force Reserve Command (AFRC) is responsible for organizing, training, and equipping AFR forces.

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

Top AFR Equipping Challenges

- **Defensive Systems:** LAIRCM, ADS, and MWS: equip aircraft lacking adequate infrared missile protection for combat operations
- **Data Link and Secure Communications:** Data link network supporting image/video, threat updates, and SLOS/BLOS communications for combat missions
- **C-5 Maintenance:** failing major fuselage structures and funding for depot maintenance

The AFR has 33 flying wings with 31 UE squadrons and 42 associate units. There are also eight associate units in the AFR operating space mission partnerships including: satellite command and control; missile warning; Joint Space Operations Center (JSpOC); 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. Total Force Integration initiatives currently underway will expand the AFR's role in multiple mission sets, both as classic associate and active associate partners.

AFR has 348 primary aircraft assigned to UE squadrons including the F-16C/D, A-10, B-52H, C-5A/B, C-9C, 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.

2. Status of Equipment

a. Equipment On-hand

i. Fighter Aircraft

a) F-16C Block 30 “Fighting Falcon”

F-16 “Fighting Falcon”

The F-16 is a highly maneuverable multi-role fighter with capabilities for offensive and defensive counter-air, air interdiction, suppression of enemy air defenses, close air support, Nontraditional ISR, and Forward Air Control (FAC)–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, Theater Air Reconnaissance System (TARS) pods, and LITENING AT ATP with VDL capabilities. Recent AFR F-16 modifications improved the capability to employ the latest generation of precision guided air-to-ground and air-to-air weapons and installed ARC-210 SLOS radios.

b) A-10 “Thunderbolt II”

A-10 “Thunderbolt II”

The A-10 is specifically designed for close air support and FAC missions. The AFR has 42 A-10 aircraft assigned between Whiteman AFB, MO and Barksdale AFB, LA. AFR A-10s were upgraded with EPLRS/SADL radios and a Smart Multi-Function Color Display (SMFCD) to an A-10+ configuration. These modifications provide digital connectivity with air and ground forces, increased LITENING ATP capability, and added a pilot programmable moving map display. Additionally, all AFR A-10s were upgraded with an ARC-210 BLOS radio capability to meet combatant commander requirements, providing the first ever capability in AF fighter aircraft. AFR A-10+ aircraft will enter the ACC sponsored PE upgrade in the first quarter of FY 2010. PE adds Joint Direct Attack Munition (JDAM) capability to the A-10. AFR will also install the AAR-47 MWS in AFR A-10s during the PE upgrade installation to provide an integrated and automatic missile warning and threat response to defeat IR missile threats. The first AFR A-10As have entered the A-10C upgrade at the depot. AFR A-10s are scheduled to complete upgrade by January 2011.

ii. Bomber Aircraft

B-52H "Stratofortress"

a) B-52H "Stratofortress"

The B-52H performs strategic attack, air interdiction, offensive counter air, air-to-surface, suppression of enemy air defenses, mine-laying, joint maritime operations, close air support, and nuclear missions. Sixteen B-52H aircraft assigned to the AFR 917th Wing at Barksdale AFB, LA train aircrews to employ laser guided bombs, conventional air launched cruise missiles, the precision GPS-guided Joint Direct Attack Munition (JDAM), the Wind Corrected Munitions Dispenser (WCMD), the Joint Air-to-Surface Stand-off Missile (JASSM), and unguided gravity conventional munitions. The 917th Wing also has associate aircrew that supports these B-52 capabilities in a combat role.

The AFR B-52 fleet, with an average fleet age of 49 years, has recently finished its Avionics Modernization Improvement (AMI) modification. AMI resolved inertial navigation system (INS) sustainment issues and integration. AFR B-52Hs are equipped with LITENING ATP 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. Additionally, the alternative mission equipment package has been upgraded to utilize the full capabilities and optimize LITENING ATP functionality.

iii. Airlift Aircraft

C-5 "Galaxy," Intertheater Airlift

a) C-5 "Galaxy," Intertheater Airlift

The C-5, with its tremendous payload capability, provides intertheater airlift in support of U.S. national security. AFR has 38 assigned long-range C-5A/B aircraft assigned between Westover ARB, MA; Lackland AFB, TX; and Wright-Patterson AFB, OH. Lackland is the home of the C-5 FTU and conducts all C-5 initial and upgrade training. The C-5 weapon system currently faces avionics obsolescence and CNS/ATM compliance challenges. It also historically has low mission capable and logistic reliability rates.

The Avionics Modernization Program (AMP) addresses CNS/ATM compliance issues and many avionics obsolescence concerns. AMP is complete for AFR C-5B's and ongoing for C-5A models, with completion expected in FY 2016. 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. RERP production starts the end of FY 2009 with completion in late FY 2016. The C-5A ADS program, largely funded with NGREA, provides an initial capability to defeat infrared surface to air missiles and begins installs in FY 2009 with completion of funded aircraft expected in FY 2013. LAIRCM is a critical follow-on defensive system enhancement that is currently only funded for AC C-5s.

b) C-130 "Hercules," Intratheater Airlift

The 92 C-130H/J aircraft assigned to AFR provide intratheater airlift support from Keesler AFB, MS; Pope AFB, NC; Dobbins ARB, GA; Peterson AFB, CO; Maxwell AFB, AL; Youngstown Air Reserve Station (ARS), OH; Pittsburg 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 and 100 percent of aerial spray requirements.

A major long-term modernization program, the AMP, plans to convert the entire C-130H fleet to a standard avionics configuration to include a "glass" cockpit and updated Communications, Navigation, Surveillance, and Avionics equipment to meet international CNS/ATM requirements. This upgrade will also install Night Vision Imaging System (NVIS) compatible lighting throughout the aircraft. This modification will allow C-130 aircraft to execute their missions both domestically and internationally for the next 20–30 years. However, budget concerns may prevent these modifications from going forward, forcing AFRC to procure equipment on its own to ensure future worldwide airlift operations.

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

The C-17 is the nation's core military airlifter. Eight C-17 aircraft assigned at March ARB, CA provide a wide-body, heavy-lift aircraft capability that spans intercontinental ranges and can operate into austere tactical airfields. Long-term modernization initiatives include LAIRCM, required navigation performance improvement, high-frequency data link, airdrop improvements, and BLOS secure voice.

C-17A "Globemaster III," Inter and Intratheater Airlift

d) C-9C Global VIP Airlift

AFR operates three C-9C aircraft assigned to the Very Important Person (VIP) airlift mission at Scott AFB, IL to provide reliable worldwide airlift of high-ranking U.S. and foreign dignitaries. The C-9Cs recently received CNS/ATM upgrade modifications that will extend their viability

into the next decade. Sustainment costs for the C-9Cs should remain stable for the near future. Currently, the three C-9C aircraft are scheduled to retire by the end of FY 2011. Recapitalization will be required to maintain current levels.

e) C-40C Global VIP Airlift

AFR operates three aircraft assigned C-40C 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. One C-40C received the LAIRCM upgrade in FY 2009 with the remaining two aircraft scheduled to receive the upgrade in FY 2010.

C-40C VIP Airlift

iv. Special Mission Aircraft

a) WC-130J "Hurricane Hunter"

WC-130J "Hurricane Hunter"

AFR conducts 100 percent of the Air Force weather reconnaissance mission using 10 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 for the National Hurricane Center. This national asset operates with a crew of meteorologists and other weather specialists and has proven critical in forecasting the movement of dangerous storms—increasing the accuracy of storm forecasting by as much as 30 percent.

b) MC-130E "Combat Talon I"

MC-130E "Combat Talon I"

AFR has eight MC-130E Combat Talon I aircraft located at Duke Field, FL providing 16 percent of Air Force special operations infiltration/exfiltration and 25 percent of SOF tanker capability. 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.

An upgrade of Talon I radar altimeter capability, funded by FY 2008 Global War on Terror (GWOT) supplemental funding, is in progress to ensure greater flight safety, with installations beginning in late FY 2009. 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 in FY 2015.

c) HC-130N/P “King”

HC-130 “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-130P/N also conducts helicopter 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 (NASA) space shuttle astronaut rescue and recovery support.

The entire HC-130 fleet is pending replacement through the HC/MC tanker recapitalization program, but it will remain as a “mixed fleet” with newer HC-130Js until FY 2021. Recently completed modifications include the AAQ-24 LAIRCM defensive system and the AAQ-36 FLIR sensors. Additional modifications under consideration are 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 for mid-FY 2010. Future upgrades include crashworthy loadmaster seats, defensive system suite integration, and engine oil cooler upgrades.

d) HH-60G “Pave Hawk”

HH-60G “Pave Hawk”

AFR has 13 HH-60G assigned helicopter aircraft between 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 NASA space shuttle support.

Major ongoing modifications include FLIR, improved aircraft ballistic armor, SADL, Multi-Function Color Display (MFCD), and an Improved Altitude Hold Hover Stabilization (IAHHS). Furthermore, a Lightweight Airborne Recovery System Radio (LARS V12) is ready to be fielded, but AFR aircraft have yet to be funded.

The AFR is scheduled to begin replacing the aging HH-60G Pave Hawks with the HH-60M helicopters starting in FY 2012. Cancellation of the Air Force’s $15B CSAR helicopter replacement program will have a major impact for the AFR as an estimated 58 percent of the entire Pave Hawk fleet of 99 helicopters will exceed service life of 7,000 hours by FY 2015.

v. Aerial Refueling Aircraft

KC-135 "Stratotanker" (w/C-17)

a) KC-135 "Stratotanker"

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 also can airlift cargo and personnel and can conduct aeromedical evacuation. AFR has 64 KC-135R aircraft 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 13 percent of the AC KC-135 aerial refueling capability.

vi. Training Systems

C-130 H2 and H3 WSTs

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

AFR uses C-130H WSTs to train Active, Guard, and Reserve C-130H pilots, flight engineers, and navigators. The C-130H WSTs simulate all cockpit instruments, including ground-mapping radar and air defensive systems, and support NVG, tactical, low level, and airdrop training. Stand-alone navigation trainers supplement each C-130H WST to provide C-130H navigators 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 wrap-around, out-the-window visual systems, and they comply with Federal Aviation Administration (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) A-10 Full Mission Trainer (FMT)

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

AFR has three A-10 FMTs: one at Whiteman AFB, MO and two at Barksdale AFB, LA. In FY 2008, ACC funded and replaced the Barksdale A-10 FMT 360-degree visual systems with

newer, more reliable and capable digital projectors. ACC plans to replace the Whiteman FMT with two PE modified A-10 FMTs in December 2009 and March 2010. A-10 FMTs lag the aircraft by a year. The A-10 SPO is diligently working to synchronize the FMT and aircraft software updates.

d) 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 very limited basis. The F-16 MTTs will not have full DMO network capability until $6M in procurement funding is available to purchase 360-degree visual systems. The F-16 MTTs are currently upgraded to Software Core Upgrade 6 and provide Tactical/Theater Airborne Reconnaissance System (TARS) training. AFR requirements specify upgrade of these devices to full tactical mission capability and full DMO over the next several years.

vii. Guardian Angel Weapons System (GAWS)

Guardian Angel (GA) is an AF CSAR weapon system consisting of combat rescue officers; pararescuemen; support equipment; and Survival, Evasion, Resistance, and Escape (SERE) specialists dedicated to prepare, report, locate, support, recover, and reintegrate isolated personnel. Three AFR GA Squadrons assigned to the 920th Rescue Wing support both the HH-60 and HC-130 rescue platforms and occasionally operate independently during selective ground operations.

AFR is accomplishing GA modernization through two increments funded by the lead command, ACC. 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

See *Table 2* for the average age of selected major items of equipment as of the beginning of FY 2010.

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. Congressional funding enables the AFR to keep its mission equipment compatible with the AC.

d. Maintenance Issues

i. C-5A/B Maintenance Issues

C-5A aircraft crown skins and contour boxes are developing corrosion cracks, and, when found, lead to flight restrictions and potential aircraft grounding. Crown skin and contour box repair costs are approximately $12.2M per aircraft. If not corrected, significant restrictions and aircraft groundings will occur between FY 2013–FY 2015 and negatively affect aircraft availability. Also, C-5B horizontal tie boxes are developing corrosion cracks and, when found, require severe flight restrictions.

ii. A-10 Maintenance Issues

The Air Force is experiencing wing structural issues in the A-10 fleet. Both thin-skin (early production) and thick-skin (later production) wings are exhibiting cracks in critical structures. All 53 AFR A-10s will receive an initial inspection due to wing Time-Compliance Technical Orders (TCTOs). AFR anticipates approximately 75 percent of the fleet will have some re-occurring inspections at field level to monitor wing crack progression. The expectation is 10 percent or less of the inspected AFR A-10 fleet will have damage exceeding the TCTO limits requiring grounding and depot-only repairs. Beginning in FY 2010, the Air Force will begin complete wing replacements for thin-skin wings on the A-10. The majority of AFR A-10s are thin-skin wing aircraft. ACC is considering wing replacement for the entire A-10 fleet to include thick-skin wing A-10s.

iii. Weapon Systems Sustainment (WSS)/Depot Purchased Equipment Maintenance (DPEM)

The Air Force has accepted increased risk on funding for WSS. AFR has seen a corresponding trend, along with increased requirements and costs. Starting in FY 2010, AFR has experienced a decrease in baseline funding for WSS and an increased reliance on supplemental funding and command reprioritization of enacted resources. AFR DPEM for FY 2011 is funded at 65 percent of the requirement. Without supplemental funding, there will be aircraft Program Depot Maintenance (PDM) deferrals. One KC-135 PDM, two C-5A PDMs, two C-5B PDMs, four A-10 SLEPs, and six A-10 Scheduled Structural Inspections (SSI) are projected for deferral in FY 2011 due to underfunded DPEM. KC-135, C-5, and A-10 aircraft availability are adversely affected without fully funding WSS/DPEM, resulting in a reduction of aircraft availability with loss of global strategic aerial refueling and airlift capability.

iv. Cost per Flying Hour (CPFH)

CPFH funds are used to cover the costs directly associated with operating aircraft. This includes parts, fuels, and other flying consumable items. Due to the timeline for budget development and volatility in costs (especially fuel), the programmed funds are less than the current flying hour rate requirement. For FY 2010, AFR is $12.5M underfunded for CPFH.

e. Modernization Programs and Shortfalls

Congress initiated NGREA funding in December 1981 to address RC readiness issues. Public laws and legislative language established this equipment appropriation to reduce RC shortfalls in readiness, combat capability, and modernization.

In general, there are several areas that will need attention to ensure modernization of AFR aircraft. The information demands of modern warfare require a fully integrated data-link network. A robust persistent airborne gateway system and SLOS and 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 Cueing System (HMCS). AFR aircraft require self protection suites that are effective against modern anti-aircraft missile systems. 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.

The following are the AFR shortfalls categorized by major weapon systems as identified through the AFRC corporate process in the development of the FY 2011 Equipment Modernization Roadmap.

i. Fighter Aircraft

a) F-16

An HMCS would allow pilots to rapidly target sensors and advanced weapons and to stay aware of critical developments in flight. An HMCS 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 HMCS that will significantly improve target location and identification, weapons employment, and battle damage assessment. AFR F-16s also require an over the horizon/BLOS communication capability to meet the demands of the combat commanders.

b) A-10

AFR A-10s have several modernization requirements. Installing an AAR-47 IR MWS will significantly improve situational awareness and survivability by automatically detecting the launch of SAMs. Just as with the F-16, HMCS 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. 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 but lacking full funding and system development maturity are electronic warfare (both defensive and offensive capabilities to

support standoff and penetration missions) and bomb bay smart weapons carriage capabilities. The B-52H has an immediate requirement for tactical data link 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 Combat Network Communications Technology (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 AMI is a potential interim solution to provide tactical data link 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 flight data recorder. Now that the primary function of AFR B-52Hs is to support flying training, filling this void is imperative so the 917 WG can properly debrief students.

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 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 in FY 2008 for the HH-60 modernization program; however, contractual issues at the SPOs have created significant delays in upgrading the aircraft.

For the long term, an Air Force program attempting replacement of the aging HH-60 helicopter fleet has been cancelled. 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 2014, as many of these airframes have over 45 years of service. For the AFR to maintain the capability to meet combatant commander requirements and homeland defense 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.

AFR MC-130E aircraft are planned to be retired no later than FY 2015. AFRC and AFSOC both agree that there will be a follow-on mission with UE aircraft for the 919th Special Operations Wing (SOW); however, no firm decisions have been made with regard to timeline or airframe.

b) WC-130

A significant shortfall in the WC-130J capability is its lack of a civilian SATCOM radio. Without this civilian radio, crews are unable to speak directly with FAA controllers while flying missions beyond line of sight from land.

c) C-130

Future upgrades include the continued modernization of the C-130 with a Yoke-Mounted Countermeasures Dispenser Switch, APN-241 navigation and ground mapping radar (funding

completed with FY 2009 NGREA), LAIRCM, 12.7mm resistant aircraft armor for crew protection, C-130 computerized take-off and landing data, NVIS windscreens, Improved SAFIRE Lookout capability, Loadmaster crashworthy seat, next generation MWS, RWR,and SLOS/BLOS with data link to improve aircrew protection and weapon system reliability. Unless a replacement for the 20+ year old Modular Aerial Spray System (MASS) is funded, the Air Forces' only aerial spray unit, located at Youngstown ARS, OH, will lose its capability to satisfy the DoD-mandated mission of maintaining a large area fixed-wing aerial spray capability to control disease-carrying vectors, pest organisms, and vegetation and to treat oil spills in combat areas, on DoD installations, or in declared emergencies.

d) C-5

Structural issues within the C-5 fleet are a significant concern: aircraft crown skins and contour boxes are developing corrosion cracks that, if not addressed, will result in a significant reduction in aircraft availability beginning in FY 2013. Currently, six AFR C-5As do not have ADS to allow the aircraft to fly in hostile areas. Modifying the C-5A with an ADS consisting of the AAR-47 MWS and ALE-47 Countermeasures Dispenser System will increase aircrew and aircraft protection, support the Air Mobility Master Plan, and reduce the operations tempo on current AC ADS equipped aircraft. An ADS funding shortfall of $10.3M remains for six AFR C-5A aircraft. 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 WSS/DPEM funding.

iv. Aerial Refueling Aircraft

KC-135 average age is over 40 years and will require several upgrades to remain viable and effective until replaced by the future KC-X tanker. Installing LAIRCM on the KC-135 will reduce the risk of losing an aircraft to an infrared 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. Support Equipment and Vehicles

Historically, the Air Force has only funded support equipment at 47 percent of the requirement. AFR has a current shortfall of approximately $16M for support equipment sustainment across all functional areas within the command. Assets required for procurement include such items as maintenance stands, avionics test stations, tow bars, radios, and NVGs.

The Air Force has decentralized all vehicle purchasing decisions to the Major Commands (MAJCOM). Beginning in FY 2003, funds originally held by the Air Force for vehicle purchases were distributed to the MAJCOMs. The AFR share was approximately 3.4 percent in FY 2007. For FY 2010, AFR is underfunded by $10M. At this rate, the AFR recapitalization period for vehicles is approximately 20 years.

vi. 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 UAS, C2, and ISR require training equipment to provide mission-ready personnel as part of the Total Force.

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

The AFR has continued to improve capabilities not withstanding constrained resources. AFR received a manpower increase of 4,256 authorizations which has driven a tactical equipment requirement for our increased security forces and cyber requirements for increased C2ISR forces. Additionally, AFR has continued to upgrade weapon systems with the recent inclusion of FY 2009 OCO NGREA funding of $25M. Of the OCO addition, we have identified $4.7M for LITENING ATP spiral upgrades, HC-130 real time in the cockpit (RTIC) SLOS/BLOS data link communication upgrade, F-16 ARC-210 Radios, and A-10/F-16 HMIT.

- The first AFR A-10As have entered the A-10C upgrade at the depot. AFR A-10s are scheduled to complete upgrade by January 2011
- Completed LAIRCM modification on one C-40, aircraft has been deployed to the area of operations
- Completed LAIRCM modification on the AFR fleet (9) C-17s
- C-5 AMP completed on all Westover aircraft and 12 Lackland aircraft
- C-5 fleet upgraded with aircraft armor
- Started the modification of C-5As with ADS
- Continued upgrade C-130s with LAIRCM; to date AFRC has funded/completed modification on 80 percent of the fleet
- Continued to upgrade C-130s with APN-241 Radar, funding in place to complete modification on all AFR C-130s
- Air Force Reserve B-52 aircraft have been modified to accept SMFCD; this modification will accommodate increased targeting pod capability, increasing target identification capabilities
- Completed delivery of 350 night mission sights for security forces
- Completed delivery of 150 night mission devices for Guardian Angels.

C. Future Years Program (FY 2011–FY 2013)

1. FY 2013 Equipment Requirements

The following are the top 23 unfunded items on the AFR Modernization List validated by the AFR Requirements Review Council (RRC) on November 23, 2009. The AFR continues to pursue AF and Office of the Secretary of Defense (OSD) support to provide the funding necessary to meet these unfunded equipment requirements.

- C-5A ADS
- C-130 LAIRCM
- C-5 Structural Issues
- HC/MC-130 Comm/Data Link
- C-5 LAIRCM
- C-130 Aircraft Armor
- C-130 Loadmaster Seat
- HC/MC-130 Loadmaster Seat
- C-130 Computerized Takeoff and Landing Data (TOLD)
- C-130 MASS replacement
- C-40 Aircraft
- C-130 NVIS-compatible Lighting
- A-10/F-16 HMCS
- A-10 MWS
- A-10/F-16/B-52 LITENING ATP Spiral Upgrades
- F-16 Imagery and Data Transfer
- A-10 Simultaneous SLOS/BLOS
- HH-60 Comm/Data Link
- F-16 Radar Improvements/Upgrades/Sustainment
- F-16 MTT/DMO/Visuals/Contract Support
- Tactical Equipment for Securty Forces
- Training Equipment for C2, ISR, and Space Missions
- Command-wide Communications System Upgrades

2. Anticipated New Equipment Procurements

The critical and executable equipment procurement efforts listed is the current FY 2009 NGREA Spend Plan Requirements:

- C-5A ADS
- C-130 APN-241 Radar
- C-130 SAFIRE Lookout Capability
- F-16 CFCC
- A-10/F-16 HMCS
- A-10 MWS
- LITENING ATP Spiral Upgrades
- F-16 BLOS
- F-16 Imagery and Data Transfer.

3. Anticipated Transfers from AC to RC

Ten AFR HH-60Gs will transfer to the AC with ten new HH-60M replacements starting in FY 2012.

4. Anticipated Withdrawals from RC Inventory

All three AFR C-9 aircraft are scheduled to retire in FY 2011. The C-40 replacements for the C-9s also represent another high cost item.

5. Equipment Shortages and Modernization Shortfalls at the End of FY 2013

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 MAF, CAF, and command requirements, rank requirements, and forward through the Corporate Group and council for approval of unfunded requirements. Available funding only covers a small percentage of equipment requirements for the AFR.

D. Summary

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

Over the last year, the AFR has greatly increased capability to the warfighter through modernization which added SLOS/BLOS and data link communications, advanced digital/analog secure video data link to ground forces, and improved weapons employment in the F-16, A-10A+/C, HH-60, HC-130, and B-52 AFR CAF. On the AFR MAF side, the AFR has significantly enhanced combat defensive capabilities in both strategic and tactical airlift, to include CSAR platforms, with C-5 armor kits, C-130/HC-130 LAIRCM, and improved all-weather situational awareness C-130 APN-241 radar.

Over the next year, the AFR will complete SLOS/BLOS on all AFR fighters, provide permanent tactical data link for AFR CSAR assets, introduce fourth generation LITENING ATP sensors

and capabilities on AFR A-10A+/F-16/B-52 platforms, continue to advance airlift defense capability with C-130 SAFIRE tactical lookout, and start installation of C-5 ADS.

The AFR has also expanded its existing missions as well as expanding into new mission areas. The increased missions in UAS, 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 Air Force 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.

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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 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Air Refueling							
Air Refueling, KC-135R/T	KC-135R/T	$50,000,000	64	64	64	64	64
Air Support							
Special Ops, MC-130E	MC-130E	$90,000,000	8	8	8	8	8
Weather, WC-130J	WC-130J	$68,000,000	10	10	10	10	10
Airlift							
Airlift, C-130H	C-130H	$37,400,000	84	84	84	84	84
Airlift, C-130J	C-130J	$66,400,000	8	8	8	8	8
Airlift, C-17A	C-17A	$274,500,000	8	8	8	8	8
Airlift, C-5A	C-5A	$194,100,000	24	24	24	24	24
Airlift, C-5B	C-5B	$222,600,000	14	14	14	14	14
Airlift, C-9C	C-9C	$24,000,000	3	0	0	0	0
Airlift, C-40C	C-40C	$73,000,000	3	4	4	4	4
Bomber							
Bomber, B-52H	B-52H	$67,000,000	16	16	16	16	16
Fighter							
Fighter, A-10A	A-010A	$12,200,000	42	42	42	42	42
Fighter, F-16C	F-16C	$20,300,000	45	45	45	45	45
Fighter, F-16D	F-16D	$20,300,000	3	3	3	3	3
Rescue							
Rescue, HC-130N	HC-130N	$20,000,000	1	1	1	1	1
Rescue, HC-130P	HC-130P	$22,000,000	4	4	4	4	4
Rescue, HH-60G	HH-60G	$12,000,000	13	13	13	13	13

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Table 2

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 2010.

Nomenclature	Equip No.	Average Age	Remarks
Air Refueling			
Air Refueling, KC-135R	KC-135R	50	
Air Support			
Special Ops, MC-130E	MC-130E	46	
Weather, WC-130J	WC-130J	13	
Airlift			
Airlift, C-130H	C-130H	23	
Airlift, C-130J	C-130J	6	
Airlift, C-17A	C-17A	5	
Airlift, C-5A	C-5A	41	
Airlift, C-5B	C-5B	24	
Airlift, C-9C	C-9C	37	
Airlift, C-40C	C-40C	3	
Bomber			
Bomber, B-52H	B-52H	49	
Fighter			
Fighter, A-10A	A-010A	31	
Fighter, F-16C	F-16C	24	
Fighter, F-16D	F-16D	24	
Rescue			
Rescue, HC-130N	HC-130N	41	
Rescue, HC-130P	HC-130P	46	
Rescue, HH-60G	HH-60G	20	

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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 2011 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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013.

Nomenclature	FY 2011	FY 2012	FY 2013
Modification of Inservice Aircraft			
B-52	$8,761,000	$19,657,000	$18,306,000
A-10	29,467,000	27,477,000	27,700,000
F-16	4,168,000	2,487,000	0
C-5	5,935,000	79,682,000	432,603,000
C-17A	458,000	17,323,000	30,662,000
C-130	0	65,203,000	108,560,000
C130J Mods	2,805,000	3,088,000	275,000
C-135	904,000	4,273,000	5,404,000
H-60	0	1,557,000	1,563,000
Aircraft Replacement Support Equipment	13,381,000	0	0
Vehicular Equipment			
Passenger Carrying Vehicles	1,267,000	1,135,000	1,119,000
Medium Tactical Vehicles	1,266,000	889,000	725,000
Items Less Than $5M - Cargo & Utility Vehicles	1,166,000	1,031,000	1,175,000
Security and Tactical Vehicles	1,823,000	1,863,000	1,899,000
Items Less Than $5M - Special Purpose Vehicles	2,135,000	2,183,000	2,215,000
Fire Fighting/Crash Rescue Vehicles	856,000	0	0
Items Less That $5M - Materials Handling Equipment	1,016,000	771,000	915,000
Runway Snow Removal and Cleaning Equpment	465,000	475,000	486,000
Items Less Than $5M - Base Maintenance Support Vehicles	172,000	121,000	121,000
Electronics and Telecommunications Equipment			
National Airspace System	6,544,000	0	0
Mobility Command and Control	1,040,000	0	0
Theater Battle Management C2 System	250,000	400,000	425,000
Air & Space Operations Center Weapon System	3,657,000	3,000,000	2,500,000
Navstar GPS Space	154,000	62,000	468,000
MILSATCOM Space	3,463,000	0	0
Tactical C-E Equipment	3,407,000	3,977,000	3,576,000
Base Communications Infrastructure	346,000	345,000	354,000
Other Base Maintenance and Support Equipment			
Night Vision Goggles	256,000	258,000	262,000
Base Procured Equipment	0	297,000	270,000
Items Less Than $5M - Base Support Equipment	0	300,000	0
Total	**$95,162,000**	**$237,854,000**	**$641,583,000**

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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013. All values are costs in dollars.

Nomenclature	FY 2008	FY 2009	FY 2010
FY 2008 Title III NGREA Equipment			
C-130 Surface-to-air Fire (SAFIRE) Lookout Capability	$14,000,000		
C-130 APN-241 Radar	7,000,000		
LITENING Targeting Pod Spiral Upgrade	5,835,000		
F-16 Upgraded Commercial Fire Control Computer (CFCC)	3,960,000		
Dobbins Trunking Land Mobile Radios (TLMR)	3,000,000		
C-130 SLOS/BLOS Capability (ARC-210 Radio)	2,500,000		
A-10/F-16 Countermeasures Set (CMS) Memory Upgrade	2,400,000		
C-130 Night Vision Imaging System (NVIS) Windscreen	1,400,000		
C-5A Airlift Defensive Systems (ADS)	1,300,000		
Combat Track II Systems	1,100,000		
Security Force Night Vision Devices & Laser Sights	1,100,000		
Space Electronic Warfare Trainer	1,000,000		
Security Forces Tactical Equipment Purchases	100,000		
FY 2009 Title III NGREA Equipment			
C-130 Surface-to-air Fire (SAFIRE) Lookout Capability		$9,200,000	
C-130 APN-241 Radar		5,840,000	
A-10 Missile Warning System; Groups A & B		5,730,000	
Crashworthy Loadmaster Seats		5,100,000	
Advanced Targeting Pod (ATP) Procurement & Spiral Upgrades		3,049,000	
Helmet-mounted Cueing System; Non-recuriing Engineering (NRE) & Low Rate Initial Production (		3,000,000	
F-16 Imagery & Data Transfer/Cursor On Target		2,000,000	
F-16 Upgraded Commercial Fire Control Computer (CFCC)		1,860,000	
F-16 Secure Line of Sight (SLOS)/Beyond Line of Sight (BLOS) Capability (ARC-210 Radio)		1,510,000	
Security Forces Tactical Equipment Purchases		100,000	
FY 2009 Title IX NGREA Equipment			
LITENING Advanced Targeting Pod (ATP)		11,700,000	
A-10/F-16 Helmet-mounted Integrated Targeting (HMIT)		7,900,000	
HC-130 SLOS/BLOS Comm/Datalink		5,400,000	
FY 2010 Title III NGREA Equipment			
A-10 Simultaneous SLOS/BLOS			$2,343,000
A-10/F-16 Helmet-mounted Integrated Targeting (HMIT)			4,500,000
A-10/F-16 Advanced Targeting Pod (ATP) Procurement & Spiral Upgrade			1,800,000
B-52 Mission Data Recording System			3,200,000

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2008	FY 2009	FY 2010
C-17 Palletized Seats			1,800,000
C-130 SLOS/BLOS			7,500,000
C-130 Oil Cooler Augmentation			3,950,000
HC-130 Oil Cooler Augmentation			3,300,000
C-130 Improved Night Vision Imaging System (NVIS) Cockpit Lighting			3,200,000
C-130 Crash-resistant Loadmaster Seats			2,700,000
C-130 Armor			2,607,000
C-130 Surface-To-Air Fire (SAFIRE) Lookout Capability			2,000,000
WC-130 Civil Satellite Communications (SATCOM)			2,000,000
C-130 APN-241 Radar			800,000
HC-130 Crash-resistant Loadmaster Seats			600,000
C-130 Computerized Takeoff and Landing Data (TOLD)			500,000
C-130 Yoke-mounted Chaff/Flare Dispensers			500,000
F-16 Center Display Unit			4,500,000
F-16 "Flair-Up" Modification for Pylon Integrated Dispenser System (PIDS) Flare Dispensers			2,000,000
F-16 Simulation Training Device Upgrade (PA)			1,100,000
HH-60 Smart Multi-Function Color Display (SMFCD) & Situation Awareness Data Link (SADL)			4,000,000
Security Forces Weapons and Tactical Equipment			100,000
TOTAL	**$44,695,000**	**$62,389,000**	**$55,000,000**

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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 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks
Airlift, C-9C	C-9C	-3			Aircraft retirement

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Table 6

FY 2007 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2007 with actual procurements and transfers. FY 2007 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 2009. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FY 2007 Planned Transfers & Withdrawals							
Airlift, C-5A	C-5A	+5	+5				
Airlift, C-5B	C-5B	+9	+9				
FY 2007 P-1R Equipment							
Modification of Inservice Aircraft							
B-52				$2,806,000	$6,209,000		
A-10				12,461,000	41,152,000		
F-16				15,139,000	16,369,000		
C-5				54,947,000	65,325,000		
C-17A				0	16,968,000		
C-130				60,950,000	98,412,000		
C130J MODS				13,261,000	3,637,000		
C-135				11,529,000	12,257,000		
H-60				2,878,000	2,084,000		
Aircraft Support Equipment and Facilities							
Common Support Equipment				23,615,000	0		
Vehicular Equipment							
Passenger Carrying Vehicles				0	294,000		
Medium Tactical Vehicle				0	36,473,000		
Security and Tactical Vehicles				0	357,000		
HMMWV, Armored				321,000			
HMMWV, Up-armored				171,000			
Fire Fighting/Crash Rescue Vehicles				0	684,000		
Runway Snow Removal and Cleaning Equipment				2,450,000	2,443,000		
Items Less Than $5M (Vehicles)				2,263,000	1,985,000		
Electronics and Telecommunications Equipment							
National Airspace System				14,139,000	11,696,000		
Weather Observation Forecast				2,702,000	0		
AF Global Command & Control System				527,000	442,000		
Combat Training Ranges				707,000	0		
Theater Battle Mgt C2 System				613,000	611,000		
Base Info Infrastructure				10,039,000	12,896,000		
NAVSTAR GPS Space				138,000	0		
CCTV / Audiovisual Equipment				497,000	0		
Tactical Communications - Electronics Equipment				0	4,401,000		

AFR

Table 6

FY 2007 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual
Other Base Maintenance and Support Equipment							
Night Vision Goggles				1,157,000	428,000		
Mechanized Material Handling Equipment				58,000	58,000		
Items Less Than $2M (Base Support)				742,000	176,000		
FY 2007 Title III NGREA Equipment							
C-5A Airlift Defensive Systems (ADS)						$10,500,000	$9,200,000
F-16 Secure Line of Sight (SLOS)/Beyond Line of Sight (BLOS) Capability (ARC-210 Radio)						0	5,794,105
A-10 Secure Multi-band Radio/BLOS Data Transfer Capability						6,700,000	4,827,736
A10+ Inertial Aided Munitions (IAMS) Integration						6,000,000	753,597
C-130 Yoke Mounted Chaffe/Flare Dispenser Switch						2,600,000	1,100,000
C-5 Armor						2,500,000	2,486,893
LITENING Pod Spiral Upgrade						2,309,000	3,848,669
C-130 APN-241 Radar Replacement						2,000,000	6,848,000
HH-60 Smart Multifunction Color Display (SMFCD)						1,750,000	0
Airlift Defensive System (ADS) Tester						500,000	0
Total				**$234,110,000**	**$335,357,000**	**$34,859,000**	**$34,859,000**

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 2011 Qty	Deployable?	
					Yes	No

Service Does Not Use Substitution To Satisfy Major Item Equipment Requirements

AFR

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	C-5A Airlift Defensive Systems (ADS)	25	6	$1,300,000	$7,800,000	Current defensive systems do not effectively protect aircraft from current and future IR threats.
2	C-130 Large Aircraft Infrared Countermeasures (LAIRCM) [1]	84	16	$2,400,000	$38,400,000	Current defensive systems do not effectively protect aircraft from current and future IR threats.
3	A-10/F-16 Helmet Mounted Cueing System (HMCS)	200 Helmets 108 Installs	all	various	$8,640,000	HMCS allows pilots to rapidly locate and identify targets to employ advanced weapons and stay aware of critical developments in flight to include friendly force location. Day/night and low cost.
4	A-10 Missile Warning System (MWS)	54	40	$130,000	$5,200,000	AN/AAR-47 MWS is a passive electro-optical system designed to reduce pilot workload, provide warning of unobserved infrared (IR)-guided surface-to-air missile or air-to-air missile attack, and automatically cue onboard dispensers to eject flares to defeat threats. Combatant commander (CCDR) Requirement.
5	C-5 Structural Issues	24	24	$11,000,000	$264,000,000	Aircraft structural components and aircraft skin require replacement due to stress corrosion cracking. Cracks have resulted in aircraft restrictions and aircraft groundings.
6	HC/MC-130 Comm/Datalink	15	15	$600,000	$9,000,000	No Datalink presently installed, current test effort for an interim roll-on system, planned permanent system design, not presently funded. CCDR Requirement.
7	LITENING Advanced Targeting Pod (ATP) Spiral Upgrade	65	54	$1,100,000	$59,400,000	Upgrade current LITENING ATP to Generation IV technology.
8	C-5 LAIRCM [1]	42	42	$10,000,000	$420,000,000	Current defensive systems do not effectively protect aircraft from current and future IR threats.
9	C-130 Aircraft Armor	12 Basic / 25 Refurb	all	$2,500,000	$2,500,000	Armament around the crew compartment is needed to provide protection for aircrews and auxiliary oxygen tanks - Basic & Critical Refurb.
10	F-16 Imagery and Data Transfer [1]	53	53	$175,000	$9,275,000	AFR F-16 Block 30 require high-res multifunction color display for full sensor imaging/transfer to replace mechanical/analog flight instruments.

1. Total shortage cost includes spares.

Chapter 6
United States Coast Guard Reserve

I. Coast Guard Overview

The United States Coast Guard (USCG) was established as a maritime law enforcement agency in 1790 and has continuously served as America's Maritime Guardian. Today's Coast Guard and Coast Guard Reserve (USCGR) actively support a broad array of humanitarian, law enforcement, regulatory, diplomatic, and military missions. The USCGR serves as an operational reserve force that significantly enhances the Coast Guard's ability to respond to "all threats, all hazards." The USCGR focuses its competencies on mission readiness for maritime homeland security, domestic and expeditionary support to national defense, and response to domestic disasters, both natural and manmade. America's Coast Guard is a key component of the Nation's emergency response force and a unique instrument of national security.

A. Coast Guard Planning Guidance

1. Coast Guard Defense Responsibilities

The United States Code (U.S.C) describes the Coast Guard's authorities primarily in Titles 10, 14, and 33. The following references specifically address Coast Guard defense responsibilities:

- 10 U.S.C 101(a)(4). "The term 'armed forces' means the Army, Navy, Air Force, Marine Corps, and Coast Guard."

- 14 U.S.C 1. Establishment of Coast Guard. "The Coast Guard as established January 28, 1915, shall be a military service and a branch of the armed forces of the United States at all times."

- 14 U.S.C 2. Primary duties. "The Coast Guard…shall maintain a state of readiness to function as a specialized service in the Navy in time of war…"

- 14 U.S.C 3. Relationship to Navy Department. "Upon the declaration of war if Congress so directs in the declaration or when the President directs, the Coast Guard shall operate as a service in the Navy, and shall so continue until the President, by Executive order, transfers the Coast Guard back to the Department of Homeland Security."

- 14 U.S.C 145. Navy Department. "When the Coast Guard is operating in the Department of Homeland Security, the Secretary shall provide for such peacetime training and planning of reserve strength and facilities as is necessary to insure an organized, manned, and equipped Coast Guard when it is required for wartime operation in the Navy."

2. Unified Maritime Strategy

The May 20, 2008 Memorandum of Agreement (MOA) between the Department of Defense (DoD) and the Department of Homeland Security (DHS) on the "Use of U.S. Coast Guard Capabilities and Resources in Support of the National Military Strategy" identifies certain U.S.

Coast Guard National Defense capabilities and improves the process by which the U.S. Coast Guard serves as a force provider for DoD missions.

The Coast Guard supports the National Security Strategy and related defense strategies as a complement to U.S. Navy capabilities and as an essential component of the National Fleet. The Coast Guard operates alongside the U.S. Marine Corps, as it has done throughout the past two centuries. As part of the U.S. Armed Forces, the Coast Guard provides unique support to the military combatant commanders, including maritime interception, military environmental response, port security, peacetime military engagement, and coastal sea control.

The Coast Guard's assets that support the combatant commanders include cutters, aircraft, patrol boats, Maritime Safety and Security Teams (MSSTs), Law Enforcement Detachments (LEDETs), Port Security Units (PSUs), and other specialized capabilities. These mission-critical assets deliver services such as maritime surveillance, security, and response capabilities, particularly where hostile intent is not immediately discernable or is intermingled with civil maritime operations.

The Coast Guard's 2009 defense activities illustrate the numerous contributions it makes to the six key military capabilities highlighted in the National Maritime Strategy:

- Forward Presence: Coast Guard cutters and other forces provided vital specialized theater security operations supporting national security and defense strategies.

- Deterrence: The Coast Guard's principal contributions are domestic deterrence to transnational, unconventional threats, primarily drug smuggling, which jeopardize our national sovereignty and border integrity, and weaken regional political stability and order at sea.

- Sea Control: In 2009, the Coast Guard continued to support national interests in the Arabian Gulf, working alongside U.S. Navy and allied naval units in support of Overseas Contingency Operations.

- Power Projection: The Coast Guard protected and escorted Navy high-value units, including Military Sealift Command ship arrivals and departures at U.S. seaports of embarkation/debarkation, moving over 6 million square feet of military cargo.

- Maritime Security: The Coast Guard fulfills DHS' role as one of the lead Maritime Operational Threat Response (MOTR) agencies in the maritime domain. The MOTR Plan provides for the U.S. government's coordinated response to threats against the U.S. and its interests in the maritime domain by establishing roles and responsibilities enabling rapid and decisive response.

- Humanitarian Assistance/Disaster Relief (HA/DR): The Coast Guard brings highly-practiced skills, long-standing domestic authority, and experience in organizing and responding to maritime and civil disasters to the expanded core naval service mission of HA/DR.

With more than 40 of the world's 70 naval forces structured and focused on performing coast guard type functions, combatant commanders continue to seek Coast Guard capabilities to support their theater security cooperation initiatives that are designed to improve governance and

security. The Coast Guard works with combatant commanders to allocate Coast Guard forces and deploy assets to the highest priority requests in support of DoD operations and theater security cooperation requirements.

3. National Fleet Policy Statement

The March 3, 2006 National Fleet Policy Statement by the Chief of Naval Operations and the Commandant of the Coast Guard synchronizes research and development, planning, fiscal stewardship, procurement, development of doctrine, training, and operations. To implement the National Fleet, the Coast Guard and Navy are charged with different aspects of national security and work together to plan, acquire, and maintain forces that mutually support and complement each Service's roles and missions. Additionally, the Coast Guard and Navy ensure the highest level of maritime capabilities and readiness during surge or high-tempo operations through mutual cooperation and integrated capabilities. The National Fleet is

- comprised of ships, boats, aircraft, and shore command and control nodes that are affordable, adaptable, interoperable, and possess complementary capabilities;
- designed, wherever possible, around common equipment and systems, and includes coordinated operational planning, training, and logistics; and
- capable of supporting the broad spectrum of national security requirements, from power projection to security and defense of the homeland.

4. An Operational Coast Guard Reserve

The Coast Guard maintains an operational reserve force, which requires reservists to be operationally ready for three core strategic functions: maritime homeland security, domestic and expeditionary support to national defense, and domestic disaster response and recovery. Coast Guard reservists achieve and maintain operational readiness through augmentation and formal training. Approximately 80 percent of the Selected Reserve (SELRES) force is directly assigned to Active component (AC) units. The remaining 20 percent is assigned to the Coast Guard's 8 PSUs or to DoD units and staffs.

Since 9/11, 7,200 Coast Guard reservists have been recalled under Title 10 of the U.S.C, providing maritime homeland security at home, and support to the combatant commanders overseas. The majority of the Coast Guard men and women recalled for contingency operations served domestically safeguarding ports and waterways along 95,000 miles of U.S. coastline, or enforcing security zones in strategic ports on the Atlantic, Pacific, and Gulf Coast.

At the end of FY 2009, approximately 600 SELRES members were mobilized under Title 10 U.S.C 12301(d) and 12302, to conduct expeditionary and domestic missions in support of OIF and OEF. The majority of them are mobilized to provide security for CONUS military outload operations; while others serve as members of PSUs and Maritime Expeditionary Security Squadrons (MSRON) operating in Iraq, Kuwait, and Bahrain, and as individuals supporting Coast Guard units in overseas contingency operations.

Since 2002, the Coast Guard has supported the joint task force mission to provide safe, humane care and custody of detained enemy combatants. During FY 2009, the Coast Guard deployed reservists to Guantanamo Bay, Cuba to continue supporting this mission. Seventy-five Coast Guard reservists serve in this capacity, with personnel rotations occurring every six to nine months. Coast Guard assets deployed to Naval Station Guantanamo Bay include PSUs, MSSTs, and other elements to support waterside anti-terrorism and force protection (AT/FP) security operations.

For the Coast Guard, operating in a "joint" arena often includes working with multiple federal and state agencies in response to natural disasters. As water levels were rising in the Southeastern states in late FY 2009, the Coast Guard deployed 10 Disaster Area Response Teams (DARTs) as part of a Federal Emergency Management Agency (FEMA) coordinated response. Each DART consisted of three flat-bottom boats and seven Coast Guard crews. These crews of active and reserve personnel were part of a multi-agency effort that also included the Army Corps of Engineers, General Services Administration, Defense Logistics Agency, Small Business Association, National Guard, Environmental Protection Agency, Department of Health and Human Services, Department of Energy, and Department of Labor.

B. Coast Guard Equipping Policy

The DHS budget provides equipment for Coast Guard domestic operations.

The Coast Guard's AC units provide equipment for mobilization under 14 U.S.C 712 or for surge operations, from existing unit inventories, from supporting units, or through procurement procedures using the DHS budget.

The Coast Guard AC owns and manages all Reserve component (RC) equipment.

DoD provides selected equipment for the Coast Guard to perform defense operations in support of the combatant commanders. This includes weapons and communications systems that are interoperable with the U.S. Navy and allied forces, and other special purpose equipment needed for the Coast Guard to meet DoD requirements. Units affected include the National Security Cutter (NSC), 378-foot high-endurance cutters, 270-foot and 210-foot medium-endurance cutters, 110-foot patrol boats, PSUs, and the Engineering Logistics Center's Mobile Support Unit (MSU).

Coast Guard unit operations and maintenance budgets provide personal protective equipment (PPE) for all Coast Guard personnel.

C. Plan to Fill Mobilization Shortages in the RC

The Coast Guard continually reviews the optimal structure and size of the SELRES to ensure it aligns with the intent of the RC as described in 10 U.S.C. 10102, and the Service's ongoing modernization efforts.

D. Initiatives Affecting RC Equipment

Approximately 80 percent of the SELRES use unit-level equipment acquired and supported by ongoing operations funding mechanisms. The remaining 20 percent are assigned to deployable

PSUs, MSRONs, and Maritime Expeditionary Security Groups (MESGs). The following initiatives were pursued in recent years:

- The Reserve Force Readiness System (RFRS) was implemented in 2009 as part of the Coast Guard's overall modernization effort. RFRS maximizes SELRES mobilization readiness and training objectives by placing Full Time Support (FTS) personnel in direct support of reservists at all levels of the organization.

- To enhance mission execution, the Force Readiness Command (FORCECOM) was established in 2009, and represents a significant stride in Coast Guard modernization. FORCECOM is responsible for all aspects of Coast Guard workforce readiness.

- The Chief, Reserve Force Operations Division (OC-1) directs reserve program execution for reserve forces for the Operations Command (OPCOM) to ensure a ready reserve force. As the OPCOM commander's principal reserve force advisor and subject matter expert, OC-1 interprets policy, validates unit-level training, and mitigates gaps that prevent reserve force readiness. In addition, OC-1 oversees mobilization and demobilization, and manages OPCOM's reserve assets.

- The first step of Coast Guard modernization was the Deployment Operations Group (DOG) commissioning in 2007. The DOG provides organized, equipped, and trained adaptive force packages to Coast Guard, DHS, DoD, and interagency operational and tactical commanders. Twelve percent of USCG SELRES are assigned to DOG units. The DOG includes the National Strike Force, Tactical Law Enforcement Teams, PSUs, MSSTs, and the Maritime Security Response Team. The DOG maximizes and sustains superior mission execution by ensuring interoperability and standardization.

E. Plan to Achieve Full Compatibility between AC and RC

The Coast Guard's fully integrated operational reserve force serves as a force multiplier for the AC in all missions. As a result, SELRES training and mission execution are performed side-by-side with AC personnel. Additionally, the PSUs and Maritime Expeditionary Security Commands, which are mostly reserve-staffed, are specifically organized for OCONUS military operations.

II. Coast Guard Reserve Overview

A. Current Status of the Coast Guard Reserve

1. General Overview

a. Funding

The USCG Reserve Training (RT) Appropriation for FY 2009 provides $130.6M for necessary USCGR expenses as authorized by law: operations and maintenance of the reserve program, personnel and training costs, equipment, and services.

b. Personnel

The USCGR provides critical skills and experience that are vital to the Coast Guard's ability to lead, manage, and coordinate the national response to acts of terrorism, disasters, or other emergencies in the maritime region. Accordingly, the core strategic purpose of the USCGR is to maintain the competencies to perform three core functions: maritime homeland security, domestic and expeditionary support to national defense, and response to and recovery of domestic disasters, natural or manmade.

Foremost, the USCGR must be ready for call-up at any time to provide surge capacity during such contingencies. Training, including normal drill periods and two-weeks annual active duty, focuses on building and honing the skills and knowledge required for these mobilization duties. Secondly, by virtue of full integration into shore-based units, reservists are available as an augmentation force for the continuum of traditional Coast Guard missions. Their employment in day-to-day operations is structured to complement mobilization readiness requirements.

The Coast Guard Selected Reserve is staffed at 8,100 billets, which is about 20 percent of the uniformed Coast Guard strength.

Reserve staffing for DoD contingency operations is shown in Table 6-1.

Table 6-1. FY 2009 DoD Contingency Reserve Staffing

Unit type (number of units)	Officers		Enlisted	
	Active	SELRES	Active	SELRES
Port Security Unit (8)	8	92	40	817
Maritime Expeditionary Security Squadron (4)	0	19	0	10
Maritime Expeditionary Security Group (2)	0	3	0	1
Joint Reserve Unit (4)	0	43	0	18
Deployable Operations Group (1)	59	21	26	9
MSST (12)	0	7	0	103
Strike Teams (3)	0	18	0	79
Tactical Law Enforcement Teams (2)	0	0	0	5
Grand total	67	203	66	1,042

2. Status of Equipment

a. Equipment On-hand

Table 1 identifies the major equipment inventory for FY 2011–2013. All equipment is procured and accounted for by the AC.

b. Average Age of Major Items of Equipment

As specified in *Table 2*, the average age of SELRES equipment is 10 years or less, and could be a factor affecting equipment readiness.

c. Compatibility of Current Equipment with AC

The Transportable Port Security Boats (TPSBs) are maintained only in the PSU inventories due to their unique mission; however, the communications, weapons systems, and navigation packages are the same as those found in the AC.

d. Maintenance Issues

None. Units maintain an adequate preventative maintenance schedule.

e. Modernization Programs and Shortfalls

Current boat resources are inadequate to support rapidly changing in-theater combatant commander requirements. The Coast Guard has launched an initiative to re-evaluate operating requirements and environments in an effort to update its boat resources to better support OCONUS contingency requirements. Project completion is expected to occur during the first half of FY 2011.

f. Overall Equipment Readiness

Equipment is in a manageable state of repair. Continued operation tempo indicates that the equipment continues to decline at a minimal rate.

g. Summary/Conclusion

After a more in-depth review and analysis of the overall equipment readiness, there are major equipment issues that hinder training and potentially affect the utilization of the reserve force. While there is no immediate negative impact to mission capability, the degradation in the training capability due to lack of available resources will ultimately impact the unit's capabilities to support the operations.

B. Changes Since Last NGRER

None.

C. Future Years Program (FY 2011–FY 2013)

1. FY 2013 Equipment Requirements

Combatant commander contingency plans validate requirements for deployable Coast Guard units. The Coast Guard has one MSU with two detachments (MSU1 and MSU2) augmented by RC personnel. The MSU is currently a deployable unit within the Engineering Logistics Command.

2. Anticipated New Equipment Procurements

The Generation 4 (GEN4) Transportable Port Security Boats (TPSBs) have an anticipated delivery schedule commencing in the first half of FY 2011. Once the Coast Guard has received 50 percent of the platforms under this initiative, the training degradation experienced in FY 2009 and anticipated in FY 2010 should be eliminated.

3. Anticipated Transfers from AC to RC

None.

4. Anticipated Withdrawals from RC Inventory

None.

5. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2012

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

D. Summary

The USCGR is on the leading edge of Coast Guard organizational design by establishing the Reserve Force Readiness System. The Operations Command directs reserve program execution for reserve forces to ensure a ready reserve force. The Reserve Force Readiness Command manages and coordinates reserve forces to optimize Coast Guard Reserve readiness and capabilities.

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 2011 Unit Cost	Begin FY 2011 QTY O/H	Begin FY 2012 QTY O/H	Begin FY 2013 QTY O/H	End FY 2013 QTY O/H	End FY 2013 QTY REQ
Port Security Units						
25' Transportable Port Security Boat (6 per unit)	$220,000	48	48	48	48	48
175hp Outboard Motor (2 per boat and 6 total spares)	$10,000	162	162	162	162	162
Vehicle, F350 Pickup (2 per unit)	$45,000	16	16	16	16	16
Vehicle, F350 12-passenger Van (1 per unit)	$50,000	7	8	8	8	8
Vehicle, F550 Stakebed (1 per unit)	$50,000	8	8	8	8	8
PRC-117F Radio, Tri-band (1 per boat and 2 spares at each unit)	$45,000	64	64	64	64	64
PRC-117F Radio, Tri-band, Base (2 per unit)	$45,000	18	18	18	18	18
PSU Equipment Package	$2,000,000	8	8	8	8	8
Mobile Support Units						
Trailer, Connex Box	$30,000	18	23	23	23	23
Truck, Pick-up	$45,000	3	2	2	2	2
Truck, Stakebed	$50,000	6	4	4	4	4
Truck, Tractor Trailer	$105,000	2	2	2	2	2
Forklift, 10,000 lb.	$30,000	2	2	2	2	2
Forklift, 6,000 lb.	$20,000	1	1	1	1	1
Generator, Microsilent 10kW	$23,000	4	4	4	4	4
Kitchen, Portable	$50,000	2	2	2	2	2
Welding/Cutting Shops, Portable	$30,000	2	2	2	2	2
A/C - H/P (Air Rover Units) w/25kW Generators	$40,000	2	2	2	2	2
Welder, Gas Powered	$3,000	1	1	1	1	1

* The AC manages all equipment for the Coast Guard Total Force.

USCGR
Average Age of Equipment

Table 2

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 2010.

Nomenclature	Average Age	Remarks
PORT SECURITY UNITS		
25' Transportable Port Security Boat	6	
175hp Outboard Motor	6	
Vehicle, F350 Pickup	10	
Vehicle, F350 12-passenger Van	10	
Vehicle, F550 Stakebed	11	
PRC-117F Radio, Tri-band	5	

USCGR

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 2011 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 2011 would be expected to arrive in RC inventories in FY 2012 or FY 2013.

Nomenclature	FY 2011	FY 2012	FY 2013

Table 3 not applicable for 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 2010 would be expected to arrive in RC inventories in FY 2011 or FY 2012. All values are costs in dollars.

Nomenclature	FY 2008	FY 2009	FY 2010

Table 4 not applicable for USCGR

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 2011 Qty	FY 2012 Qty	FY 2013 Qty	Remarks

Service has no planned transfers or withdrawals for the years FY 2011 thru FY 2013

USCGR

Table 6

FY 2007 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2007 with actual procurements and transfers. FY 2007 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 2009. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2007 Transfers (# of items)		FY 2007 Procurements ($s)		FY 2007 NGREA ($s)	
		Plan	Actual	Plan	Actual	Plan	Actual

USCGR had no planned or actual transfers or procurements of major equipment during FY 2007

USCGR

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 2011 Qty	Deployable?	
					Yes	No

Service Does Not Use Substitution To Satisfy Major Item Equipment Requirements

USCGR

Table 8

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	Item Cost	Total Shortage Cost	Rationale/Justification
1	Ford Excursion Van, 15 Passenger	8	2	$40,000	$80,000	Port Security Units
2	Mobile Support Unit (MSU) TOE	2	1	$1,259,000	$1,259,000	Mobile Support Unit #2
3	Truck, 2S3 Series	2	2	$210,000	$420,000	Mobile Support Unit
4	Truck, F750	2	2	$95,000	$170,000	Mobile Support Unit
5	Truck, F450	4	4	$60,000	$240,000	Mobile Support Unit
6	Computer, Laptop	2	2	$4,000	$8,000	Mobile Support Unit
7	Trailer, (ET & EM)	4	2	$180,000	$360,000	Mobile Support Unit
8	Trailer, Parts	2	1	$150,000	$150,000	Mobile Support Unit
9	Trailer, Parts	5	3	$140,000	$420,000	Mobile Support Unit
10	Parts, WPB (MSU1)	1	1	$500,000	$500,000	Mobile Support Unit
11	Forklift, Hyster	3	1	$85,000	$85,000	Mobile Support Unit
12	Light Tower	2	2	$16,000	$32,000	Mobile Support Unit
13	Tents, GP	4	4	$7,000	$28,000	Mobile Support Unit
14	Trailers, Tools / equipment	1	1	$150,000	$150,000	Mobile Support Unit
15	Generator (MSU1)	2	2	$95,000	$190,000	Mobile Support Unit
16	Generator, Diesel	4	4	$15,000	$60,000	Mobile Support Unit
17	Vehicle, Utility	2	2	$18,000	$36,000	Mobile Support Unit
18	Trailer, 28' Kitchen	2	2	$200,000	$400,000	Mobile Support Unit

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 AC and 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 (NG) 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 NG 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 2011 to 2013 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 2011–FY 2013
  - remaining shortfall for FY 2014 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 2007 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 (LIN) for the Army; Table of Authorized Materiel Control Number (TAMCN) for the Marine Corps; Equipment Cost Code (ECC) for Navy engineering items; and National Stock Number (NSN) for the Air Force.

Cost is the FY 2011 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 2011, 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 2010.

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 2007 Planned vs Actual Procurements and Transfers. This table compares what the Service planned to procure and transfer to the RC in FY 2007 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 2009.

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 2011–2015 FYDP, 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 *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.

A. FY 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 responsibilities in an emergency or major disaster" come 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 DoD 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 will be 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. 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 Teams (WMD-CST) units are the notable exception to this unit approach.

The National Guard WMD-CSTs were established in 1999, with the initial ten WMD-CSTs certified to Congress in August 2001. There are currently 57 such teams, missioned to respond at the direction of the governors to known or suspected, intentional or unintentional chemical, biological, radiological, and nuclear (CBRN) events or catastrophic natural or manmade disasters, where significant risk to lives or property exists. The WMD-CSTs identify CBRN agents and substances, assess current and projected consequences, advise on response measures, and assist with requests for additional support. The WMD-CSTs have deployed in response to dozens of known or suspected CBRN incidents or catastrophic events, including 9/11 deployments to both the World Trade Centers and the Pennsylvania crash site, the Space Shuttle "Columbia" disaster, Hurricane Katrina, and many more in the 9 years that they have been operational. WMD-CSTs performed 70 response and 211 standby missions in FY 2008; these numbers continue to steadily increase over the years. Response missions are defined as anytime a WMD-CST deploys in response to a validated request for support by local, state, or federal agencies. Stand-by missions are whenever a WMD-CST deploys, as requested, to provide WMD-CST personnel and equipment

expertise prior to or during a high profile event. Standby missions include operations to clear venues for CBRN including site characterization and screening for CBRN materials in support of the incident commander or lead agency. 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.

The NGB is committed to the fundamental principle that every state and territory must have access to the 10 core capabilities to respond to emergencies and major disasters in the United States. These NG "Essential 10" capabilities are: command and control; CBRN High-yield Explosive (CBRNE) consequence management; engineering assets; communications; transportation (surface); aviation/airlift; medical; security; logistics; and maintenance.

2. Army National Guard Equipment

a. ARNG Equipment Shortfalls

To accomplish their Homeland Defense (HD)/ Homeland Security (HS)/Defense Support of Civil Authorities (DSCA) missions, ARNG units leverage equipment listed in their Modified Table of Organization and Equipment (MTOE) or Table of Distribution and Allowances (TDA). To assess a unit's readiness to perform these types of missions, the ARNG identified specific Line Item Numbers (LINs) of standard Army equipment that are referred to as Critical Dual Use (CDU) items. These items are essential for both domestic and war-fighting missions. The Army and ARNG calculate CDU Equipment On-hand (EOH) for MTOE units as the "total number of items of equipment on-hand" divided by "total number of items required." TDA equipment is also used to support domestic missions, but the Army does not currently track or report CDU EOH for TDA units.

The Army's Equipping Strategy, published in September of 2009, is to leverage the Army Force Generation (ARFORGEN) model to ensure units are always equipped for their mission—whether that mission is performing combat operations, training for deployment, or providing DSCA in either a Title 10 or a Title 32 role. Because of the intensive operational tempo for many high-demand ARNG units in this "era of persistent conflict," ARNG forces must be prepared to respond to domestic emergencies under the command and control of their respective governors, regardless of their position in the ARFORGEN cycle.

For DSCA, the objective is to ensure that states and territories are always sufficiently equipped—with assigned equipment or by support from Emergency Management Assistance Compact (EMAC) arrangements—to provide the necessary level of response to any domestic requirement. However, it takes more than 100 percent of a unit's equipment requirements to mobilize that unit. Any time equipment is in maintenance, in use for training at pre-mobilization or mobilization stations, or is left behind in theater, the percentage of ARNG equipment available to support domestic missions drops. Cross-leveling also takes equipment out of the available pool during the packing and transit phases. Approximately 12 to17 percent of all ARNG equipment is unavailable at any given time. The Army Equipping Strategy refers to this loss of availability of equipment as "friction." While cross-leveling has allowed the ARNG to meet its immediate commitments, constant cross-leveling is both a financial and a manpower challenge. It is particularly challenging in the logistics arena for full time support to inventory, package, and ship cross-leveled equipment.

The Army Equipping Strategy recognizes that enduring global conflicts cause friction and reduce the amount of equipment available for use by Army units. The intent of the strategy is, therefore, to procure equipment to 100 percent of the Army Acquisition Objective (AAO), and move to an ARFORGEN-based equipping process whereby units will ramp-up their EOH as they move from one phase of ARFORGEN to the next. The current length of the overall ARFORGEN cycle for ARNG units is five years: one year available for deployment (Available Force Pool), and four years of dwell time (Reset and Train-Ready Force Pools). Key to making ARFORGEN a success is the Reset phase when units are restored to a desired level of capability commensurate with future mission requirements and availability of resources. Based on the new strategy, the goal for ARNG units in Reset will be a minimum of 80 percent of their CDU equipment.

b. Effects of ARNG Shortfalls

The Army made significant improvements in its investment in ARNG equipment over the past several years and has secured funding to buy out many critical systems. However, based upon ARNG's assessment, a significant amount of funding is still required to procure and/or modernize CDU items. For instance, over half of the systems on the FY 2011 ARNG Top 25 (T25) Equipment Modernization Shortfall List are considered critical for support of the ARNG's HD/HS/DSCA missions. The FY 2011 T25 List is outlined below in *Figure B-1*. Current shortages have especially pronounced impacts in the communications, command and control, transportation (light and medium trucks), field logistics, and aviation "Essential 10 Capabilities." Table 8 (Significant Major Item Shortages) in each RC section provides a top ten prioritized shortage list for major items of equipment required for wartime missions but which are currently not funded in the FutureYears Defense Plan (FYDP). Regardless of the domestic event or phase of the ARFORGEN cycle a unit may be in, these capabilities must be available for both overseas contingency operations (OCO) and HD/HS/DSCA missions.

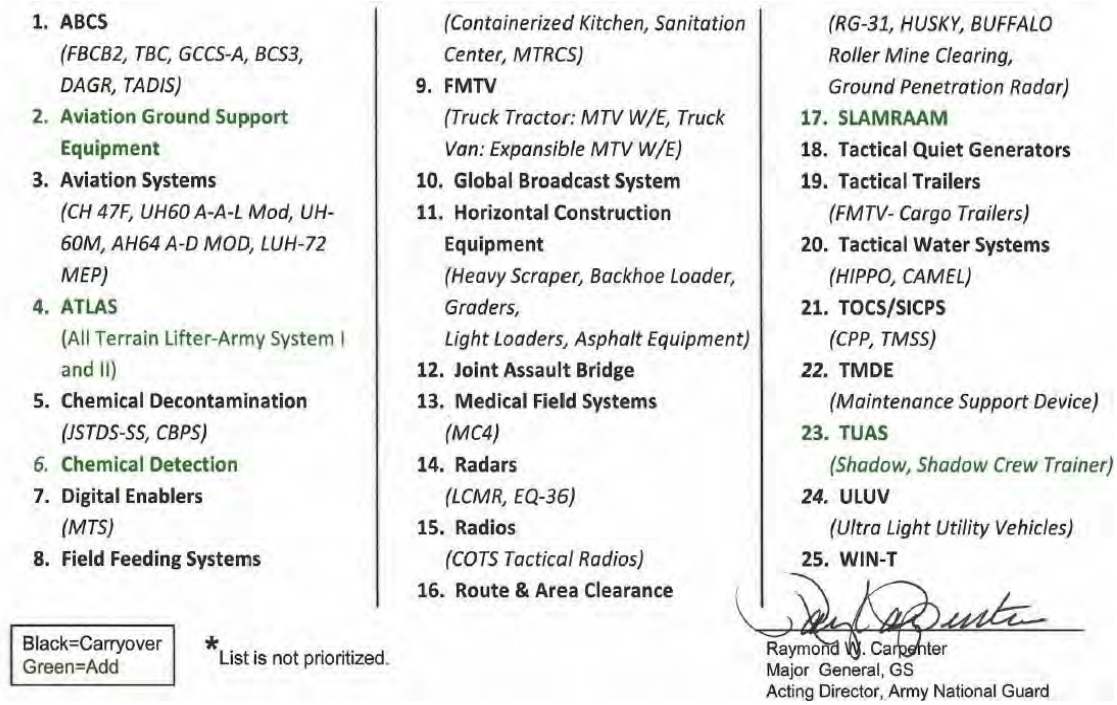

Figure B-1. FY 2011 ARNG Top 25 Equipment Modernization Shortfall List

c. ARNG Requirements and Strategies

The ARNG's strategy to meet today's global challenge is to fully man, train, and equip units to serve as operational reserve forces; organized as their AC counterparts, capable of seamless integration into the Army force mix to leverage their readiness and availability for deployment. This means that units may not always have their full MTOE set of equipment, but the ARNG will strive to cross-level the necessary amount of equipment to execute their mission—in combat, in training, or providing HD/HS/DSCA.

While current and projected equipping demands on the Army exceed the level of EOH that the Army is able to procure, current equipment procurement has increased to an average of approximately $5B per year—a 400 percent increase from 2001 levels. Programmed equipment procurement for January 2009 through December 2011 delivery is approximately 193K pieces of equipment valued at $8.9B. Available funding is being used to procure new equipment and to modernize CDU equipment currently on-hand.

Despite increased investment, ARNG estimates slow growth in equipment on-hand percentages through FY 2011. ARNG's evaluation predicts an increase in requirements, based upon the current operational tempo in this area of persistent conflict. However, documentation for these requirements may lag behind as much as three years as transformation of the ARNG continues. In addition, much of the new equipment will replace older, obsolete equipment and will not result in an EOH increase. Examples include the replacement of M35 trucks with Light and Medium Tactical Vehicles, and AN/PVS-5 Night Vision Goggles with the newer AN/PVS-14 Night Vision Goggles.

3. Air National Guard Equipment

Almost all ANG equipment is procured in support of the federal mission. Air Force (AF) equipment authorizations are outlined in Tables of Allowances (TA) that prescribe the equipment necessary for a unit to perform its federal mission. These equipment authorizations are then filled based on operational priority. As a general rule, ANG units are treated no differently than AC units when setting equipment distribution priorities.

The majority of ANG equipment can also be used to support requirements for domestic operations and is classified as "dual use." Recent refinements in our equipment tracking methods show that approximately 88 percent of all the authorized ANG equipment (873,865 pieces) has a valid capability to be used in either a federal or state capacity. The Total Force relationship between the AF and ANG has resulted in excellent support for these dual-use items. Currently, the ANG has 94 percent (820,312 pieces) of all authorized dual-use items on-hand in the Essential 10 categories. The 94 percent equipment availability rate is comparable to the overall AF availability rate (see Table B-1).

15 September 2009							
CABABILITY	AUTH QTY	INUSE QTY	FILL RATE	AUTH COST	INUSE COST	NEEDED QTY	NEEDED COST
Aviation SE	88,514	81,349	92%	$4,476,657,316	$3,801,764,923	7,165	$674,892,393
CBRNE Civil Support & Force Protection	2,788	2,581	93%	$906,436,715	$839,136,715	207	$67,300,000
Command & Control	14,907	14,207	95%	$681,279,181	$651,710,794	700	$29,568,387
Communication	9,229	8,702	94%	$54,106,023	$38,859,465	527	$15,246,558
Engineering	43,091	37,129	86%	$228,950,469	$170,030,119	5,962	$58,920,350
Logistics	80,466	63,832	79%	$198,179,467	$188,204,057	16,634	$9,975,410
Maintenance	136,916	127,444	93%	$2,475,661,876	$2,027,099,843	9,472	$448,562,033
Medical	420,703	416,654	99%	$53,318,153	$51,602,416	4,049	$1,715,737
Security	61,212	53,456	87%	$105,899,592	$81,965,858	7,756	$23,933,734
TOTAL SE	857,826	805,354	94%	$9,180,488,792	$7,850,374,190	52,472	$1,330,114,602
VEHICLES	16,039	14,958	93%	$643,955,373	$668,336,863	1,081	$43,401,444
TOTAL SE & VEHICLES	873,865	820,312	94%	$9,824,444,165	$8,518,711,053	53,553	$1,373,516,046

Table B-1. ANG Equipment

The ANG also benefits from the Air Force's general guidelines to use mostly AC equipment in support of OCO. Currently, only 1.5 percent of ANG equipment is deployed in support of OCO. Another 0.5 percent of ANG equipment is deployed throughout the 54 states and territories in support of domestic operations.

a. ANG Equipment Shortfalls

Despite the overall excellent equipment support provided by the Air Force, the ANG still has shortfalls in critical support areas. The advancing age of some ANG equipment could also be a barrier to the ANG's ability to support domestic operations. A more detailed review of the ANG equipment health is described in four of the Essential 10 categories.

Logistics. The overall ANG logistics status is fair at 79 percent. However, the limited domestic availability of Body Armor Personal Protective Equipment (15,648 items) is driving the metric down. The Air Force is in the process of procuring much of these to fill Air Force and ANG worldwide requirements, as well as pre-position these items at locations in the Area of

Operations (AOR) for deploying personnel. The ANG is very sensitive to this shortage. While the Air Force always ensures Guardsmen have body armor when deploying to support OCO, the ANG "fight in place" domestic operations mission dictates that body armor be available constantly for a majority of our Airmen.

Maintenance. The overall maintenance status is excellent at 93 percent. One support equipment shortage in the airlift area is limiting our ability to safely perform maintenance on our aircraft. ANG C-5 and C-130 units are short Isochronal Inspection (ISO) stands that are erected around the airframes during heavy maintenance actions. Maintenance is currently using out-dated equipment that is manpower intensive to assemble and that does not meet the latest safety standards. The use of this equipment increases the time needed for aircraft to be down for maintenance, limiting the time the aircraft are available to support a federal or domestic operations mission. Currently, ISO stands are in limited supply at all AF component bases and those that are in use are deteriorating due to excessive use. ANG is taking all steps possible to acquire new stands and reconstitute existing stands to ensure safe, reliable, and timely maintenance.

Transportation. Vehicle on-hand status is good, at 93 percent. However, 31 percent, or 4,440 ANG vehicles have reached or exceed their life expectancy. These aging vehicles include 326 aircraft maintenance vehicles, refuelers, and firefighting vehicles with a replacement cost of over $80M and 460 civil engineering heavy maintenance and snow removal vehicles with a replacement cost of over $85M. Such legacy vehicles are expensive to maintain and prone to mechanical failure, which increases the burden on our already-stressed vehicle maintenance personnel. Ironically, such general support vehicles are those most in demand for domestic operations, so the aging vehicle fleet could actually negatively impact the domestic operations mission before affecting the federal mission. Current future funding plans only cover 12.3 percent of the total ANG requirements funded, which means the ANG fleet average age of 24 years will continue to increase. Currently, no ANG vehicles are deployed in support of a federal mission. Lastly, despite vehicle funding constraints, the ANG continues to aggressively pursue the Presidential Directive to reduce energy use by 30 percent through acquisition of low speed vehicles and vehicles that use alternative fuels.

Communications. The overall communication status is excellent at 94 percent. However, this status does not take into account the many critical systems that are operating in a degraded state. Furthermore, many systems are in immediate need of modernization or acquisition. Competing priorities have relegated these important communications systems to lower status, potentially impacting support to state and federal command authorities/centers.

Data switches deployed across the ANG are over six years old and are unable to support near and long range information technology initiatives; incidents of failure continue to increase. Switches need to be replaced with approved Internet Protocol version six (IPv6) compatible switches, because the Air Force has mandated implementation of IPv6 capability by 2012. The ANG used approximately $20M in FY 2009 to maintain this old equipment, creating a shortfall of $14M.

The ANG currently lacks installation warning and mass notification systems that have the capability to provide mass notification to personnel on changing conditions during peacetime, exercises, and contingencies. Mass notification systems at ANG wings and large Geographically

Separated Units (GSUs) are practically non-existent. Successful implementation of this $9M system will bring effective command and control to the forefront of the ANG. This system will play an integral part of any Air Force directed Installation Command Center (ICC) initiative solutions, and impact ANG personnel related to real-world threats, weather, suspicious packages, etc. Without these systems, over 125 ANG wings and GSUs will remain incapable of, or have a diminished capability to, provide mass notification to personnel on changing conditions, threats, etc. during domestic operations, contingencies, and air base defense operations.

ANG Wing Command Posts (WCPs) are required to establish and maintain a responsive and reliable communications system linking the WCP with the National Military Command Center, Air Force Space Warfare Center, ANG Command Center, Major Commands, combatant commands, and applicable State Joint Operations Centers (JOCs) during routine operations, emergencies, contingencies, and/or increased readiness. ANG Wing Operation Center command consoles also support emergency management, reporting, and the monitoring of critical missions, such as Northern Command (NORTHCOM)Air Sovereignty Alert, Nuclear Enterprise, etc. Today, these consoles either do not exist at the wings or are antiquated, and will not interface with modern systems. To mitigate this risk, over $50M in upgrades will be needed to 88 ANG command consoles and radios. These upgrades will enable real-time or near real-time collaboration regardless of location with emergency preparedness personnel.

b. Effects of ANG Shortfalls

Shortfalls in equipment could prevent or delay an ANG response to natural or manmade disasters in the homeland. Improved availability of equipment strengthens readiness for both federal and domestic operations, and improves the capability to train on mission essential equipment.

c. ANG Requirements and Acquisition Strategies

Basic ANG requirements are determined through a Total Force process to determine standard support equipment needed 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 fungible across the AF enterprise, such as personal protective equipment, communications equipment, and some vehicles. The ANG has also been aggressive in seeking OCO funds to replace items that have been expended in supporting that effort. Lastly, the ANG also takes full advantage of NGREA funding to procure any authorized support equipment item that can increase a unit’s ability to support the domestic operations mission.

4. Specialized Equipment

a. Specialized Equipment Shortfalls

The WMD-CST continues to have a limiting factor of non-redundant commercial CBRN equipment for monitoring and down-range detection and analysis. Some critical COTS equipment is fielded to the WMD-CSTs on a single piece basis. This creates a potential single point of failure for a CST mission. Failure of any of these equipment items would reduce the

team's mission capability to effectively and efficiently respond until replacements could be obtained or operational readiness float could be repositioned.

The CBRNE Emergency Response Force Packages (CERFPs) require an organic reach-back communications capability (NORTHCOM communications standard level 2 platform) that does not rely on civilian infrastructure to provide situational awareness to the Joint Task Force State and the Joint Force Headquarters State Joint Operations Center.

In addition, CERFPs still have a potential limiting factor in the dual-use Small Portable Expeditionary Aeromedical Rapid Response (SPEARR) gear associated with the medical element. The Air Force allowance standards in the Defense Medical Logistics Supply System (DMLLS) are regularly adjusted to changes in quality controls, safety recalls, obsolescence, or lack of continued manufacturer support. While the SPEARR mission has not changed, the teams must continually assess changing equipment allowances to identify and mitigate potential impact on operations. NGB has procured current allowance standards.

b. Effects of Shortfalls of Specialized Equipment

The CST and SPEARR issues are limiting factors, with no specific effects unless a 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.

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 ARNG, ANG, Army, Air Force appropriations, and DoD-wide appropriations, e.g., the Chemical and Biological Defense Program (CBDP) funds as well as ANG and ARNG NGREA. The NGB continues to work with DoD to pursue modernization for equipment used by CSTs as technology evolves. The CBDP has programmed increases starting in FY 2010 for research, development, test, and evaluation (RDT&E); procurement; and life-cycle management for CST equipment, although significant unfunded requirements remain. One objective for this CBDP program will be to mitigate or eliminate the single failure points in CBDP equipment mentioned above.

NGB has purchased equipment according to the new SPEARR allowance standards for the 17 CERFPs; delivery and fielding is projected to occur by December 2009. The NGB will continue to monitor allowance standards and purchase against changes as funding is available.

B. FY 2008 NDAA, Section(s) 1826 Language

Fiscal Year (FY) 2008 National Defense Authorization Act (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 of the 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 Air Force 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 the NGB from adequately determining how much of the funding provided by Congress for National Guard 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 National Guard units.

To provide the level of transparency and accountability the CNGB needs to certify future NDAA, Section 1826 reports, Army and Air Force procurement processes must be modified to allow the 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. The Office of the Secretary of Defense 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 2009, FY 2010, and FY 2011 are commensurate with funding provided in past fiscal years.

2. Army National Guard

For the first time, the Army National Guard is now able to use Army data to track delivered equipment back to its funding source for 30 systems funded in FY 2009 at $50M or more. To facilitate this capability, the Army G-8 began a massive data collection effort in April 2009 to track and trace funding for these 30 systems from request, to appropriation, to contracting, to delivery. The Army is leveraging a Financial Synchronization and Transparency Integrated Product Team (IPT), a Delivery Certification IPT, and a Transparency General Officer Steering Committee (T-GOSC) to manage this effort. Beginning in FY 2011, the Army will collect transparency data on all major weapons systems, regardless of funding level.

While this is extremely good news, it will still be several years before the Army can provide complete component-level visibility for all systems. This is because funding sources prior to FY 2009 were not tracked at the component level, and several of these appropriations will continue to result in equipment deliveries through at least FY 2011. ARNG will not be able to evaluate whether all its equipment was delivered, based upon funds appropriated, until these funding sources have been fully executed. Furthermore, transparency data collection for FY 2009 funding was limited to only 30 systems; FY 2009 funding for other systems was not tracked at the level of detail required for transparency and will continue to execute through FY 2012 or beyond. Finally, even for the 30 systems tracked in FY 2009, the Army did not project the number of items planned for delivery to ARNG units. Therefore, the ARNG was not able to assess delivered quantities against those that were due in, as specified in the NDAA reporting

requirement. In its fourth quarter Equipment Delivery Report to OSD, the Army fixed this issue for FY 2010 by including "due in" quantities in the Remarks section of the report for the 30 systems covered.

For the 30 systems intensively tracked by the Army in FY 2009, most of the deliveries to ARNG units were from prior year funding sources. For instance, the ARNG received 74 Armored Security Vehicles, 940 Family of Medium Tactical Vehicles (FMTVs), 19 High Mobility Artillery Rocket System (HIMARS), 324 Javelins, 34 Lightweight Laser Designator Rangefinder (LLDRs), 28 Light Utility Helicopters, 388 Line Haul trucks, 32,120 M4 Carbine rifles, 12,843 Single-channel Ground and Airborne Radio System (SINCGARS) radios, and 215 Warfighter's Information Network-Tactical (WIN-T) nodes, all from funding sources prior to FY 2009. The ARNG also received 3,383 Heavy Tactical Vehicles (HTVs), 2,515 Generators, 24,756 Night Vision Devices, and 8,380 Thermal Weapons Sites in FY 2009 from a combination of FY 2009 and prior year funding sources. Because of the transparency effort, the Army identified a total of $1.43B in decrements to ARNG resources during FY 2009, $772M of which may require a payback of some type. The ARNG is working with the Army staff to reconcile these discrepancies and develop payback plans, where appropriate.

3. Air National Guard

To meet the equipment transparency requirements in NDAA 2008 and the Committee on National Guard and Reserve (CNGR) recommendations, the Under Secretary of the Air Force for Acquisition Integration (SAF/AQX) is developing new guidelines for development of the RC President's budget exhibits. While an improvement to the need for equipment transparency, the first iteration of these budget exhibits did not contain the level of detail needed for the CNGB to certify the end-to-end process for the delivery of equipment procured for the ANG. SAF/AQX has begun to provide quarterly equipment procurement plans and delivery reports to meet CNGB requirements. It is hoped the fidelity of the reports will continue to improve until they eventually meet the requirements of the NDAA. A major upgrade to the Air Force logistics management computer system may assist in that effort.

The Expeditionary Combat Support System (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 is designed to improve warfighter capability by transforming Air Force logistics business processes and leveraging ongoing initiatives and capabilities that information technology can deliver. ECSS will absorb most Total Air Force logistics processes, absorbing the capabilities of over 200 current logistics systems. ECSS will combine with other Expeditionary Logistics for the 21st Century (eLog21) initiatives to provide a single data source for equipment from source of supply to the use of the equipment at the unit level. ECSS links with Air Force funding systems will better allow all Air Force components to trace equipment expenditures from procurement to delivery. ECSS is the Air Force's system that will provide the required solution for the ANG; however, ECSS will not be fully operational until FY 2013. In the mean time, 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.

4. Conclusion

Over the past year, the Services have greatly improved their processes to facilitate the tracking of resources through the acquisition and distribution process. Although transparency and visibility are now much better than in years past, there is still work to be done to automate the new process and inculcate it into the Army and Air Force culture. The key to achieving full transparency is to continue the current level of effort and command emphasis by senior Army, Air Force, and OSD leaders, and Congress.

Appendix C
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Acronym	Nomenclature
A/C	Aircraft
AAO	Approved Acquisition Objective (Marine Corps)
AAO	Army Acquisition Objective (Army)
AAV	Assault Amphibious Vehicle
ABCS	Army Battle Command System
ABSAA	Airborne Sense and Avoid
AC	Active Component
ACC	Air Combat Command
ACP	Army Campaign Plan
ACS	Air Control Squadron
ADS	Airlift Defensive Systems
AEA	Airborne Electronic Attack
AEERC	Army Enterprise Equipping and Reuse Conference
AEF	Air and Space Expeditionary Force
AESA	Active Electronically Scanned Array
AEW	Airborne Early Warning
AF	Air Force
AFATDS	Advanced Field Artillery Tactical Data System
AFB	Air Force Base
AFR	Air Force Reserve
AFRC	Air Force Reserve Command
AFSOC	Air Force Special Operations Command
AH	Attack Helicopter
AIFF	Advanced Identification Friend or Foe
AIP	Aircraft Improvement Program
AMC	Air Mobility Command
AMC	Army Materiel Command
AMCM	Airborne Mine Countermeasures
AMDWS	Air and Missile Defense Workstation
AMI	Avionics Midlife Improvement
AMP	Avionics Modernization Program
ANG	Air National Guard
AOC	Air and Space Operations Center
AOC-WS	Air and Space Operations Center - Weapon System
AOR	Area of Responsibility
APC	Armored Personnel Carrier
APN	Aircraft Procurement Navy
AR	United States Army Reserve
ARB	Air Reserve Base
ARC	Air Reserve Component
ARFORGEN	Army Force Generation
ARH	Armed Reconnaissance Helicopter
ARI	Active-Reserve Integration (Navy)
ARI	Automatic Reset Induction (Army)
ARNG	Army National Guard
ARS	Air Reserve Station
ASAS	All Source Analysis System
ASC	Army Sustainment Command
ASOC	Air Support Operations Center

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ASOG	Air Support Operations Group
ASOS	Air Support Operations Squadron
ASV	Armored Security Vehicle
ASW	Antisubmarine warfare
AT/FP	Anti-terrorism and Force Protection
AT3	Advanced Tactical Targeting Technology
ATLAS	All-terrain Lifter Army System
ATM	Air Traffic Management
ATP	Advanced Targeting Pod
AVCRAD	Aviation Classification Repair Activity Depot
BCS3	Battle Command Sustainment Support System
BCT	Brigade Combat Team
BDE	Brigade
BFT	Blue Force Tracker
BFV	Bradley Fighting Vehicle
BLOS	Beyond Line-of-sight
BOG	Boots on the Ground
BOS	Budget Operating System
BOSS	Boom Operator Simulation System
BRAC	Base Realignment and Closure
C2	Command and Control
C2ISR	Command and Control, and Intelligence, Surveillance, and Reconnaissance
C4I	Command, Control, Communications, and Computers
C4ISR	Command, Control, Communications, Computers,
CA	Civil Affairs
CAF	Combat Air Force
CBDP	Chemical and Biological Defense Program
CBMU	Construction Battalion Maintenance Unit
CBPSS	Chemical Biological Protective Shelter System
CBRN	Chemical, Biological, Radiological, and Nuclear
CBRNE	Chemical, Biological, Radiological, Nuclear, and High-yield Explosive
CBU	Construction Battalion Unit
CCIP	Common Configuration Implementation Program
CCMRF	CBRNE Consequence Management Response Force
CDU	Critical Dual Use
CENTCOM	United States Central Command
CERFP	CBRNE Emergency Response Force Package
CESE	Civil Engineering Support Equipment
CFACC	Combined Force Air Component Commander
CFCC	Commercial Fire Control Computer
CH	Cargo Helicopter
CHARCS	Counterintelligence/Human Intelligence Automated Reporting and Collection System
CHU	Container Handling Unit
CIT	Counter Illicit Trafficking
CLASSRON	Class Squadrons
CMCT	Combined Mission Crew Trainer
CNGB	Chief, National Guard Bureau

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CNGR	Commission on the National Guard and Reserves
CNO	Chief of Naval Operations
CNR	Chief of Navy Reserve
CNS	Communication, Navigation, and Surveillance
COCOM	Combatant Command
COMCAM	Combat Camera
CONECT	Combat Network Communications Technology
CONUS	Continental United States
COTS	Commercial Off–the-shelf
CPFH	Cost Per Flying Hour
CRMT	Crew Resource Management Trainer
CS	Combat Support
CSA	Chief of Staff of the Army
CSAR	Combat Search and Rescue
CSP	Consolidated Storage Program
CSS	Combat Service Support
CST	Civil Support Team
CVTS	Combat Vehicle Training System
CVW	Carrier Air Wing
DAGR	Defense Advanced Global Positioning System Receiver
DART	Disaster Area Response Team
DART	Domestic All Hazards Response Team
DC	Delivery Certification
DCGS	Distributed Common Ground System
DET	Displaced Equipment Training
DGS	Distributed Ground Station
DHS	Department of Homeland Security
DLRC	Deployable Learning Resource Center
DMLLS	Defense Medical Logistics Supply System
DMO	Distributed Mission Operations
DMT	Distributed Mission Training
DOC	Designed Operational Capability
DoD	Department of Defense
DoDD	Department of Defense Directive
DOER	Domestic Operations Essential-10 Requirements
DOG	Deployment Operations Group
DoN	Department of the Navy
DPEM	Depot Purchased Equipment Maintenance
DSCA	Defense Support of Civil Authorities
DTOC	Distributed Training Operations Center
DTOT	Distributive Training Operations Center
DTSS	Digital Topographic Support System
DVTE	Deployable Virtual Training Environment
EA	Electronic Attack
ECS	Expeditionary Combat Support
ECSS	Expeditionary Combat Support System
EDR	Equipment Delivery Report

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EFV	Expeditionary Fighting Vehicle
eLog21	Expeditionary Logistics for the 21st Century
EMAC	Emergency Management Assistance Compact
EMEDS	Expeditionary Medical System
EO	Electro-optical
EOD	Explosive Ordnance Disposal
EODOSU	Explosive Ordnance Disposal Operational Support Unit
EOH	Equipment On-hand
EPCS	Electronic Propeller Control System
EPLRS	Enhanced Position Location Reporting System
ESU	Expeditionary Support Unit
EVS	Enhanced Vision System
EW	Electronic Warfare
F2T2EA	Find, Fix, Track, Target, Engage, and Assess
FAA	Federal Aviation Administration
FAC	Forward Air Control
FBCB2	Force XXI Battle Command, Brigade and Below
FCMT	Full Combat Mission Trainer
FEMA	Federal Emergency Management Agency
FFG	Guided Missile Frigate
FLIR	Forward-looking Infrared
FMC	Fully Mission Capable
FMT	Full Mission Trainer
FMTV	Family of Medium Tactical Vehicles
FORCECOM	USCG Force Readiness Command
FRP	Fleet Response Plan
FST	Financial Synchronization and Transparency
FTS	Full-time Support
FTU	Formal Training Unit
FY	Fiscal Year
FYDP	Future Years Defense Plan
G-3	Deputy Chief of Staff for Operations and Plans
G-8	Deputy Chief of Staff for Programs
GA	Guardian Angel
GATM	Global Air Traffic Management
GAWS	Guardian Angel Weapons System
GCAS	Ground Collision Avoidance System
GCCS-A	Global Command and Control System–Army
GCS	Ground Control Station
GOSC	General Officer Steering Committee
GOTS	Government Off–the-shelf
GPH	Gallons of Water Per Hour
GPS	Global Positioning System
GSU	Geographically Separated Unit
GWOT	Global War on Terrorism
HA/DR	Humanitarian Assistance/Disaster Relief

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HD	High Definition
HD	Homeland Defense
HEMTT	Heavy Expanded Mobility Tactical Truck
HET	Heavy Equipment Transport
HF	High Frequency
HH	Hospital Helicopter
HIMARS	High Mobility Artillery Rocket System
HMCS	Helmet Mounted Cueing System
HMEE	High Mobility Engineer Excavator
HMIT	Helmet-mounted Integrated Targeting System
HMLA	Marine Light Attack Helicopter Squadron
HMMWV	High Mobility Multipurpose Wheeled Vehicle
HQDA	Headquarters, Department of the Army
HS	Helicopter Submarine
HS	Homeland Security
HSC	Helicopter Sea Combat
HTV	Heavy Tactical Vehicle
HUD	Head-up Display
HUMINT	Human Intelligence
IAHHS	Improved Altitude Hold and Hover Stabilization
IAHHS	Improved Altitude Hold Hover Stabilization
IAMS	Inertially-aided Munitions
IAN	Integrated Approach Navigation
IAP	International Airport
ICAM	Improved Chemical Agent Monitor
ICAO	International Civil Aviation Organization
ICC	Installation Command Center
IED	Improvised Explosive Device
IEWS	Intelligence and Electronic Warfare System
I-FACT	Indirect Fire—Forward Air Control Trainer
IISR	Integrated Intra-squad Radio
IMA	Individual Mobilization Augmentee
INS	Inertial Navigation System
IO	Information Operations
IPADS	Improved Position and Azimuth Determining System
IPOC	Integrated Predator Operation Center
IPT	Integrated Product Team
IR	Infrared
IRCM	Infrared Countermeasures
ISADS	Integrated Situational Awareness Display System
ISMT	Indoor Simulated Marksmanship Trainer
ISR	Intelligence, Surveillance, and Reconnaissance
ITAS	Improved Target Acquisition System
J/CFACC	Joint/Combined Force Air Component Commander
JASSM	Joint Air-to-surface Stand-off Missile
JATO	Jet Assisted Takeoff
JCS	Joint Chiefs of Staff

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JDAM	Joint Direct Attack Munitions
JEM	JTRS Enhanced Multi-Band Inter/Intra Team Radio
JFHQ	Joint Force Headquarters
JFMCC	Joint Force Maritime Component Commander
JHMCS	Joint Helmet-mounted Cueing System
JIATF-S	Joint Interagency Task Force South
JNN	Joint Network Node
JOC	Joint Operation Center
JRB	Joint Reserve Base
JRE	Joint Range Extension
JSF	Joint Strike Fighter
JSpOC	Joint Space Operations Center
JSTARS	Joint Surveillance Target Attack Radar System
JSTDS	Joint Services Transportable Decontamination System
JTAC	Joint Terminal Attack Controller
JTEP	JRE Transparent Multi-Platform Gateway Equipment Package
JTF	Joint Task Force
JTRS	Joint Tactical Radio System
kW	Kilowatt
LAIRCM	Large Aircraft Infrared Countermeasures
LAN	Local Area Network
LARS	Lightweight Airborne Recovery System
LAV	Light Armored Vehicle
lb	Pound
LCAC	Landing Craft, Air Cushion
LCS	Littoral Combat Ship
LEDET	Law Enforcement Detachment
LHS	Load Handling System
LIN	Line Item Number
LLDR	Lightweight Laser Designator Rangefinder
LMS	Learning Management System
LMTV	Light Medium Tactical Vehicle
LOS	Line of Sight
LRAS	Long Range Advanced Scout Surveillance System
LRC	Learning Resource Center
LSWAN	Logistics Support Wide Area Network
LTV	Light Tactical Vehicle
LUH	Light Utility Helicopter
LVC	Live-Virtual-Constructive
LVSR	Logistics Vehicle System-Replacement
MAF	Mobility Air Forces
MAG	Marine Aircraft Group
MAGTF	Marine Air-Ground Task Force
MAJCOM	Major Command
MANPADS	Man-portable Air Defense Systems
MARFORRES	Marine Forces Reserve

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MASS	Modular Aerial Spray System
MAW	Marine Aircraft Wing
MC	Marine Corps
MC4	Medical Communications for Combat Casualty Care
MCAG	Maritime Civil Affairs Group
MCAST	Maritime Civil Affairs and Security Training
MCLC	Marine Corps Logistics Command
MCM	Mine Countermeasures
MCR	Marine Corps Reserve
MCS	Maneuver Control System (Army)
MEDEVAC	Medical Evacuation
MEEL	Mission Essential Equipment List
MESF	Maritime Expeditionary Security Force
MESG	Maritime Expeditionary Security Group
MET	Medium Equipment Transporter
MFCD	Multi-function Color Display
MFO	Multinational Force and Observers
MHC	Mine Hunter Coastal
MHE	Materiel Handling Equipment
MIE	Major Items of Equipment
MILCON	Military Construction
MOA	Memorandum of Agreement
MOS	Military Occupational Specialty
MOTR	Maritime Operational Threat Response
MPRA	Maritime Patrol Reconnaissance Aviation
MRAP	Mine Resistant Ambush Protected
MSRON	Maritime Expeditionary Security Squadron
MSST	Maritime Safety and Security Team
MSU	Mobile Support Unit
MTOE	Modified Table of Organization and Equipment
MTS	Movement Tracking System
MTT	Multi-task Trainer
MTV	Medium Tactical Vehicle
MTVR	Medium Tactical Vehicle Replacement
MTVR-ODS	MTV Replacement-Operator Driving Simulator
MWS	Missle Warning System
MYP	Multi-year Procurement
NAS	Naval Air Station
NASA	National Aeronautics and Space Administration
NAVELSG	Naval Expeditionary Logistics Support Group
NBC	Nuclear, Biological, and Chemical
NCC	Navy Component Commander
NCD	Naval Construction Division
NCF	Naval Construction Force
NCFSU	Naval Construction Force Support Unit
NCHB	Navy Cargo Handling Battalion
NCR	Naval Construction Regiment
NCW	Naval Coastal Warfare

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NDAA	National Defense Authorization Act
NECC	Navy Expeditionary Combat Command
NEIC	Navy Expeditionary Intelligence Command
NELR	Navy Expeditionary Logistics Regiment
NET	New Equipment Training
NFELC	Naval Facilities Engineering Logistics Center
NG	National Guard
NGB	National Guard Bureau
NGPA	National Guard Pay and Allowances
NGREA	National Guard and Reserve Equipment Appropriation
NGRER	National Guard and Reserve Equipment Report
NHC	National Hurricane Center
NMCB	Naval Mobile Construction Battalion
NORTHCOM	United States Northern Command
NRF	Navy Reserve Force
NSC	National Security Cutter
NUFEA	Navy Unique Fleet Essential Airlift
NVG	Night Vision Goggles
NVIS	Night Vision Imaging System
O&M	Operation and Maintenance
OCO	Overseas Contingency Operations
OCOM	Operations Command (Coast Guard)
OCONUS	Outside the Continenantal United States
ODS	Operation Desert Storm
ODS	Operator Driving Simulator
OEF	Operation Enduring Freedom
OFP	Operational Flight Program
OIF	Operation Iraqi Freedom
OPLAN	Operation Plan
OPN	Other Procurement, Navy
OPNAV	Chief of Naval Operations
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
OSU	Operational Support Unit
PC	Personal Computer
PDM	Program Depot Maintenance
PDTE	Pre-deployment Training Equipment
PE	Precision Engagement
PGI	Protective Gear Items
PLS	Palletized Load System
PM	Program Manager
PMC	Procurement Marine Corps
POC	Predator Operation Center
POL	Petroleum, Oils, and Lubricants
POM	Program Objective Memorandum
PPBES	Planning, Programming, Budgeting, and Execution System
PPE	Personal Protective Equipment

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Acronym	Nomenclature
PRESBUD	President's Budget
PRIDE	Planning Resource for Infrastructure Development and Evaluation
PSU	Port Security Unit
QDR	Quadrennial Defense Review
RBAV	releasable body armor vest
RC	Reserve Components or Reserve Component
RDT&E	Research, Development, Test, and Evaluation
REF	Rapid Equipping Force
Reg AF	Regular Air Force
RERP	Reliability Enhancement and Re-engining Program
RF	Radio Frequency
RFF	Request for Forces
RFI	Rapid Fielding Initiative
RFRS	Reserve Force Readiness System
RFT	Ready for Tasking
ROC	Reaper Operation Center
ROC	Required Operational Capability
ROWPU	Reverse Osmosis Water Purification Unit
RRC	Requirements Review Council
RSMS	Readiness Sustainment Maintenance Site
RT	Reserve Training (Coast Guard)
RTC	Reserve Training Center
RTIC	Real Time Information in Cockpit
RVS	Reconfigurable Vehicle Simulator
RVSM	Reduced Vertical Separation Minimum
RWR	Radar Warning Receiver
SADL	Situation Awareness Data Link
SAFIRE	Surface-to-air Fire
SAM	Surface-to-air Missile
SAR	Search and Rescue
SATCOM	Satellite Communications
SAW	Squad Automatic Weapon
SCORE	Southern California Offshore Range
SEAD	Suppression of Enemy Air Defenses
SecDef	Secretary of Defense
SELRES	Selected Reserve
SEMF	Surface Equipment Maintenance Facility
SERE	Survival, Evasion, Resistance, and Escape
SICPS	Standardized Integrated Command Post System
SINCGARS	Single-channel Ground and Airborne Radio System
SKL	Simple Key Loader
SLEP	Service Life Extension Program
SLOS	Secure Line-of-sight
SMCR	Selected Marine Corps Reserve
SMFCD	Smart Multi-function Color Display
SOC	Squadron Operations Center

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SOCOM	Special Operations Command
SOF	Special Operations Forces
SOUTHCOM	Southern Command
SPEARR	Small Portable Expeditionary Aeromedical Rapid Response
SPIRIT	Special Purpose Intelligence Remote Integrated Terminal
SPO	System Program Office
SPP	State Partnership for Peace
SS	Senior Scout
SSI	Scheduled Structural Inspection
SSU	Ship Support Units
STAR	Structural Augmentation Roadmap
SWE	Surface Warfare Enterprise
T/A	Training Allowance (Marine Corps)
TA	Table of Allowances (Air Force)
TACP	Tactical Air Control Party
TAG	The Adjutant General
TAIS	Tactical Airspace Integrated System
TAMCN	Table of Authorized Materiel Control Number
TARS	Tactical/Theater Airborne Reconnaissance System
TAWS	Terrain Awareness and Warning System
TBC	Tactical Battle Command
TC-AIMS	Transportation Coordinators Automated Information Management System
TCAS	Traffic Alert and Collision Avoidance System
TCTO	Time-Compliance Technical Order
TDA	Table of Distribution and Allowances
TFFT	Tactical Fire Fighting Truck
TO&E	Table of Organization and Equipment
TOA	Table of Allowance
TOE	Table of Organization and Equipment
TOLD	Take-off and Landing Data
TPE	Theater Provided Equipment
TPSB	Transportable Port Security Boat
TQG	Tactical Quiet Generator
TRASYS	Training Systems
TSW	Tactical Support Wing
TWPS	Tactical Water Purification System
TWS	Thermal Weapon Sight
TWV	Tactical Wheeled Vehicle
UAS	Unmanned Aircraft System
UAV	Unmanned Aerial Vehicle
UDP	Unit Deployment Program
UE	Unit Equipped
UH	Utility Helicopter
USAR	United States Army Reserve
USCG	United States Coast Guard
USCGR	United States Coast Guard Reserve
USMC	United States Marine Corps

Appendix D
Acronym Glossary

Acronym	Nomenclature
USMCR	United States Marine Corps Reserve
V/STOL	Vertical and/or Short Takeoff and Landing
VAQ	Navy Tactical Electronics Warfare Squadron
VAW	Navy Carrier Airborne Early Warning Squadron
VCC	VHSIC Central Computer
VCC+	VCC Plus
VCCT	Virtual Combat Convoy Trainer
VCCT-M	Virtual Combat Convoy Trainer-Marine
VDL	Video Downlink
VECTS	Virtual Electronics Combat Training System
VHF	Very High Frequency
VHSIC	Very High Speed Integrated Circuitry
VHSIC CC	Very High Speed Integrated Circuit Central Computer
VIP	Very Important Person
VMU	Marine Unmanned Aerial Vehicle Squadron
VSAT	Very Small Aperture Satellite Terminal
VSD	Vertical Situation Display
WAATS	Western Army/National Guard Aviation Training Site
WCMD	Wind Corrected Munitions Dispenser
WCP	Wing Command Post
WEPTAC	Weapons and Tactics Conference
WIN	Warfighter Information Network
WIN-T	Warfighter Information Network-Tactical
WMD	Weapons of Mass Destruction
WRMS	War Reserve Materiel Stock
WSS	Weapon Systems Sustainment
WST	Weapon Systems Trainer

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