

**NATIONAL GUARD AND RESERVE EQUIPMENT
REPORT FOR FISCAL YEAR 2006**

(NGRER FY 2006)

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

February 2005

**Prepared by
Department of Defense
Office of the Assistant Secretary of Defense for Reserve Affairs
Deputy Assistant Secretary of Defense
(Materiel and Facilities)**

**COL E. Stan Wilson, Editor
Washington, DC 20301-1500**



**ASSISTANT SECRETARY OF DEFENSE
1500 DEFENSE PENTAGON WASHINGTON, DC
20301-1500**

FORWARD

Our Nation is at war. While the Department of Defense (DoD) executes the Global War on Terror (GWOT), we must also prepare to meet the challenges of tomorrow. We must win the war on terror and transform the U.S. Armed Forces so that we can deter and defend against the emerging threats of the 21st Century. In support of the National Military Strategy (NMS), America's Reserve Components (RC) are improving their ability to mobilize faster and more efficiently while improving warfighting readiness. The RCs are engaged in securing and building new and stable democracies and combating global terrorism in Iraq, Afghanistan, Bosnia, Kosovo and other regions of the world. In addition, thousands of RC members are actively engaged in homeland defense missions.

Transformation lies at the heart of our new approach to defense. The development of transformation capabilities, processes, and forces will be given strategic focus by the principal challenges and opportunities to implement an effective Total Force Policy. The DoD cannot meet our global commitments without sizeable participation from our National Guard and Reserve. Properly equipping the RC with modern, interoperable equipment is vital to the success of our defense strategy.

Prosecuting the current war and responding to contingency operations has caused the National Guard and Reserve Forces to be called upon more frequently, and for longer durations than in recent history. Under the current level of operational tempo, each Service has experienced high demand for certain types of units and career specialties, which have required resolution. Some of the Services were able to identify rebalancing requirements early and have already programmed force structure changes to address overburdened capabilities. The continued deployment of RC ground forces is causing significant wear on the current fleet of equipment that is addressed in this report.

In response to Congressional reporting requirements identified in Title 10, United States Code, Section 10541, the National Guard and Reserve Equipment Report (NGRER) describes the individual plans of each Military Service and the United States Coast Guard Reserve (USCGR) to meet the RC equipment requirements in support of the NMS. This report is designed to answer the question: How well is the RC equipped to meet the current and future needs of the nation?

Chapter One of this report is an overview of the state of RC equipment readiness and provides an analysis of key issues, including equipment availability, equipment shortages, procurement plans to fill shortages, transformation, and compatibility and interoperability issues affecting the RC. Chapters Two through Six provide detailed narratives and data tables for fiscal year FY 2006, and projected data for FYs through 2008. The NGRER demonstrates the effort needed to better integrate the RC into their Services' equipping plans and programs to achieve a well-balanced, seamlessly integrated military force.

Sincerely,

A handwritten signature in black ink that reads "T. F. Hall". The signature is written in a cursive, flowing style.

T. F. Hall

Table of Contents

Chapter 1 Analysis and Conclusion

| | | |
|------|---|-----|
| I. | Analysis | 1-1 |
| II. | Scope of Report | 1-2 |
| III. | Equipment Shortages | 1-3 |
| IV. | Long-Term Equipping Strategy | 1-3 |
| V. | Equipment Procurements Programmed to Fill Current Equipment Shortages | 1-5 |
| VI. | Age and Compatibility | 1-6 |
| VII. | Conclusion | 1-7 |

Chapter 2 United States Army Reserve Components

| | | |
|-----|--|------|
| I. | Army Overview | 2-1 |
| | A. Overall Army-wide Planning Guidance | 2-1 |
| | B. Army Equipping Policy | 2-1 |
| | C. Army Plan to Fill Mobilization Shortages in the RC | 2-3 |
| | D. Current Army Initiatives Affecting RC Equipment | 2-3 |
| | E. Army Plan to Achieve Full Compatibility Between AC and RC | 2-8 |
| | F. Equipment On-Hand Substitutes | 2-8 |
| II. | Army National Guard (ARNG) Overview | 2-10 |
| | A. Current Status of the ARNG | 2-10 |
| | B. Changes Since Last NGRER | 2-19 |
| | C. Future Years Program (FY 2006–FY 2008) | 2-19 |
| | D. Summary/Conclusions | 2-24 |

Table 1: ARNG Consolidated Major Item Inventory and Requirements

Table 2: ARNG Average Age of Equipment

Table 3: ARNG Service Procurement Program - Reserve (P-1R)

Table 4: ARNG NGREAs Procurements

Table 5: ARNG Projected Equipment Transfer/Withdrawal Quantities

Table 6: ARNG FY 2002 Planned vs Actual Procurements and Transfers

Table 7: ARNG Major Item of Equipment Substitution List

Table 8: ARNG Significant Major Item Shortages

| | | |
|------|--|------|
| III. | United States Army Reserve (USAR) Overview | 2-25 |
| | A. Current Status of Equipment | 2-25 |
| | B. Changes Since Last NGRER | 2-38 |
| | C. Future Years Program (FY 2006–FY 2008) | 2-39 |
| | D. Summary/Conclusions | 2-40 |

Table 1: USAR Consolidated Major Item Inventory and Requirements

Table 2: USAR Average Age of Equipment

Table 3: USAR Service Procurement Program - Reserve (P-1R)

Table 4: USAR NGREAs Procurements

Table 5: USAR Projected Equipment Transfer/Withdrawal Quantities

Table 6: USAR FY 2002 Planned vs Actual Procurements and Transfers

Table 7: USAR Major Item of Equipment Substitution List
 Table 8: USAR Significant Major Item Shortages

Chapter 3 United States Marine Corps Reserve

| | |
|--|------|
| I. Marine Corps Overview | 3-1 |
| A. Overall Marine Corps Planning Guidance | 3-1 |
| B. Marine Corps Equipping Policy | 3-2 |
| C. Marine Corps Plan to Fill Mobilization Shortages in the RC | 3-3 |
| D. Current Marine Corps Initiatives Affecting RC Equipment | 3-3 |
| E. Marine Corps Plan to Achieve Full Compatibility between AC and RC | 3-3 |
| F. Other Marine Corps Specific Issues | 3-4 |
| II. Marine Corps Reserve (USMCR) Overview | 3-5 |
| A. Current Status of the USMCR | 3-5 |
| B. Changes Since Last NGRER | 3-10 |
| C. Future Years Program (FY 2006–FY 2008) | 3-11 |
| D. Summary/Conclusions | 3-13 |

Table 1: USMCR Consolidated Major Item Inventory and Requirements

Table 2: USMCR Average Age of Equipment

Table 3: USMCR Service Procurement Program - Reserve (P-1R)

Table 4: USMCR NGREA Procurements

Table 5: USMCR Projected Equipment Transfer/Withdrawal Quantities

Table 6: USMCR FY 2002 Planned vs Actual Procurements and Transfers

Table 7: USMCR Major Item of Equipment Substitution List

Table 8: USMCR Significant Major Item Shortages

Chapter 4 United States Naval Reserve

| | |
|---|------|
| I. Navy Overview | 4-1 |
| A. Overview of Navy Planning Guidance | 4-1 |
| B. Navy Equipping Policy | 4-1 |
| C. Navy Plan to Fill Mobilization Requirements | 4-3 |
| D. Current Navy Initiatives Affecting Naval Reserve Equipment | 4-3 |
| E. Navy Plan to Achieve Full Compatibility Between AC and RC | 4-6 |
| II. Navy Reserve (USNR) Overview | 4-8 |
| A. Current Status of the USNR | 4-8 |
| B. Changes Since Last NGRER | 4-16 |
| C. Future Years Program (FY 2006–FY 2008) | 4-16 |
| D. Summary/Conclusions | 4-16 |

Table 1: USNR Consolidated Major Item Inventory and Requirements

Table 2: USNR Average Age of Equipment

Table 3: USNR Service Procurement Program Reserve (P-1R)

Table 4: USNR NGREA Procurements

Table 5: USNR Projected Equipment Transfer/Withdrawal Quantities

Table 6: USNR FY 2002 Planned vs Actual Procurements and Transfers

Table 7: USNR Major Item of Equipment Substitution List

Table 8: USNR Significant Major Item Shortages

Chapter 5 United States Air Reserve Components

| | |
|---|------|
| I. United States Air Force Overview | 5-1 |
| A. Overall Air Force Planning Guidance | 5-1 |
| B. Air Force Equipping Policy | 5-2 |
| C. Service Plan to Fill Mobilization Shortages in the ARC | 5-2 |
| D. Current Service Initiatives Affecting RC Equipment | 5-3 |
| E. Service Plan to Achieve Full Compatibility between AC and RC | 5-5 |
| II. Air National Guard (ANG) Overview | 5-7 |
| A. Current Status of the ANG | 5-7 |
| B. Changes Since Last NGRER | 5-35 |
| C. Future Years Program (FY 2006–FY 2008) | 5-35 |
| D. Summary/Conclusions | 5-45 |

Table 1: ANG Consolidated Major Item Inventory and Requirements

Table 2: ANG Average Age of Equipment

Table 3: ANG Service Procurement Program - Reserve (P-1R)

Table 4: ANG NGREA Procurements

Table 5: ANG Projected Equipment Transfer/Withdrawal Quantities

Table 6: ANG FY 2002 Planned vs Actual Procurements and Transfers

Table 7: ANG Major Item of Equipment Substitution List

Table 8: ANG Significant Major Item Shortages

| | |
|---|------|
| III. Air Force Reserve Command (AFR) Overview | 5-46 |
| A. Current Status of the AFR | 5-46 |
| B. Changes Since Last NGRER | 5-54 |
| C. Future Years Program (FY 2006–FY 2008) | 5-55 |
| D. Summary/Conclusions | 5-57 |

Table 1: AFR Consolidated Major Item Inventory and Requirements

Table 2: AFR Average Age of Equipment

Table 3: AFR Service Procurement Program - Reserve (P-1R)

Table 4: AFR NGREA Procurements

Table 5: AFR Projected Equipment Transfer/Withdrawal Quantities

Table 6: AFR FY 2002 Planned vs Actual Procurements and Transfers

Table 7: AFR Major Item of Equipment Substitution List

Table 8: AFR Significant Major Item Shortages

Chapter 6 United States Coast Guard Reserve

| | |
|---|-----|
| I. Coast Guard Overview | 6-1 |
| A. Overall Coast Guard Planning Guidance | 6-1 |
| B. Coast Guard Equipping Policy | 6-3 |
| C. Plan to Fill Mobilization Requirements | 6-3 |
| D. Current Coast Guard Initiatives Affecting RC Equipment | 6-3 |
| E. Plan to Achieve Full Compatibility Between AC and RC | 6-4 |

| | |
|--|-----|
| II. Coast Guard Reserve (USCGR) Overview | 6-5 |
| A. Current Status of the USCGR | 6-5 |
| B. Changes Since Last NGRER | 6-6 |
| C. Future Years Program (FY 2006–FY 2008) | 6-6 |
| D. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2008 | 6-6 |
| E. Summary/Conclusions | 6-7 |

Table 1: USCGR Consolidated Major Item Inventory and Requirements

Table 2: USCGR Average Age of Equipment

Table 3: USCGR Service Procurement Program- Reserve (P-1R)

Table 4: USCGR NGREA Procurements

Table 5: USCGR Projected Equipment Transfer/Withdrawal Quantities

Table 6: USCGR FY 2002 Planned vs Actual Procurements and Transfers

Table 7: USCGR Major Item of Equipment Substitution List

Table 8: USCGR Significant Major Item Shortages

Appendix A: Report Requirements, Terminology, and Definitions

Appendix B: Points of Contact

Appendix C: Acronym Glossary

Chapter 1 Analysis and Conclusion

I. Analysis

Today, nearly 180,000 members of the Reserve components (RCs) are serving on active duty. The DoD, which cannot meet its global commitments without extensive participation from its National Guard and Reserve members, is fully engaged at war and simultaneously committed to a continuous process of change. RC members are securing and building new and stable democracies and combating global terrorism in Iraq, Afghanistan, Bosnia, Kosovo, and other regions of the world. In addition, thousands of RC members are actively engaged in homeland defense missions.

The continued deployment of ground forces is resulting in equipment being used at rates much greater than the normal tempo of non-deployed equipment, causing significant degradation of that equipment. As an example, the Army's tactical wheeled vehicle fleet has emerged as the key platform for counterinsurgency operations. These vehicles are being run very hard under harsh conditions, many with add-on-armor kits that exacerbate wear and tear. In addition, to meet the Combatant Commanders' equipment requirements, many units are being directed to leave equipment in theater (as stay behind equipment or SBE) for use by follow-on units. That equipment includes numerous tactical wheeled vehicles with add-on-armor.

Many lower priority RC units have been resourced over the years at levels below their mobilization requirements for equipment on-hand (EOH). This difference in past resourcing levels and current mobilization requirements has resulted in the Army National Guard (ARNG) and Army Reserve (USAR) cross-leveling equipment from non-deploying units, reducing readiness in donor units. The significant amount of equipment being cross-leveled and the return of many units from deployments without their equipment is making equipment available for training and future mobilizations a major challenge. In addition, equipment availability in the ARNG and USAR is further challenged by the significant amount of equipment returned from Operation Iraq Freedom (OIF) that remains at mobilization stations awaiting maintenance before being returned to owning RC units. The USAR reports that approximately 25 percent of its equipment returning from OIF 1 is still undergoing maintenance.

The consequences of this situation for the ARNG and USAR are dramatic: they are continuing to report significant shortfalls in meeting current equipment requirements. For the beginning FY 2005 dollar-weighted equipment requirements, the ARNG reports a 26 percent overall shortage and the USAR a 29 percent shortage, excluding substitute items. In contrast, the Air National Guard (ANG), Air Force Reserve (AFR), U.S. Naval Reserve (USNR), U.S. Marine Corps Reserve (USMCR), and U.S. Coast Guard Reserve (USCGR) all report beginning FY 2005 equipment requirement shortages of less than 6 percent.

The number of ARNG units (not federalized) that meet the minimum reporting requirements for EOH resource category dropped in the past year from 85 to 78 percent. The primary reason for this decrease was the cross-leveling of equipment. The USAR had 78 percent of its required EOH as of 30 September 2002, and 76 percent now. For readiness-reportable equipment only, the USMCR reports an overall EOH of 94 percent, but its equipment readiness

(ER) rate has continued to decline. The lower ER is caused by a combination of the age of legacy equipment, the effects of past funding shortfalls, and the lower priority of funding for maintenance.

The Army has established two programs that are providing equipment to mobilizing units to meet current operational challenges. The Rapid Fielding Initiative is designed to quickly fill soldier equipment shortfalls by fielding commercial off-the-shelf technology rather than wait for the standard acquisition programs to fill the shortages. The second program, Rapid Equipping Force, is focused on the requirements received from the Combatant Commanders for technical solutions to operational and tactical needs.

II. Scope of Report

The National Guard and Reserve Equipment Report (NGRER) identifies major items of equipment in the RCs that are of interest to DoD and Congress. Each year, the Services review the equipment in their RC inventories to decide which should be included in the NGRER. Major items of equipment include aircraft, tanks, ships, trucks, engineer equipment, and various support items. Data on equipment included in the report consist of high-value requirements and equipment shortages, critical RC shortages, Service procurements for RCs, and items procured with National Guard and Reserve Equipment Appropriation (NGREA) funds. Chart 1 shows the number of items of equipment included in recent NGRERs.

CHART 1 Items of Equipment Reported in Recent NGRERs

| Reserve Component | FY 2001 NGRER | FY 2002 NGRER | FY 2003 NGRER | FY 2004 NGRER | FY 2005 NGRER | FY 2006 NGRER |
|--------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| ARNG | 168 | 113 | 113 | 121 | 130 | 129 |
| USAR | 239 | 239 | 271 | 239 | 270 | 249 |
| USMCR | 154 | 157 | 156 | 156 | 152 | 151 |
| USNR | 44 | 38 | 38 | 35 | 35 | 36 |
| ANG | 29 | 30 | 31 | 31 | 30 | 27 |
| AFR | 17 | 16 | 27 | 27 | 28 | 19 |
| USCGR | 0 | 21 | 22 | 22 | 22 | 16 |
| Total | 651 | 614 | 658 | 631 | 667 | 627 |

RC equipment inventories include thousands of different types of equipment. The FY 2006 NGRER highlights 627 major equipment types whose total dollar value represents 95 percent of the value of all RC equipment. These equipment types include all aircraft, tanks, ships, and other important and expensive equipment items in the RC inventories. They also cover the critical RC equipment shortfalls and planned RC equipment procurements for FY 2006 through FY 2008. Overall, this equipment provides an accurate picture of the status of the current inventory of RC major equipment.

This report presents the results of analysis of RC inventories based primarily on the dollar value of the equipment, which allows the aggregation, comparison, and summary of diverse types of equipment. However, inventory and requirement item counts are also available at the

detailed level. The total requirement and inventory for each major equipment type is weighted by the equipment's procurement cost. The procurement costs are from the Services' official data and are either the latest procurement cost adjusted for inflation or the current replacement cost.

III. Equipment Shortages

Chart 2 shows the dollar value of the current total major equipment requirements and inventories. It does not include substitute items of equipment in determining shortages of Army RC equipment. For this report, accounting for substitute items in the Army RC has proven to be unhelpful in providing relevant data. This is primarily because of the way the Army documents modernized equipment and the way units in the field report their on-hand models of equipment. The best way to determine levels of modernization is by specific models of equipment. The current system does not allow an overall assessment. The RC total equipment shortfall is approximately \$15.2B, or 12.5 percent of the RC equipment requirements. This shortfall is slightly higher than the 11.3 percent FY 2004 shortfall shown in last year's NGRER.

CHART 2 Beginning FY 2005 Reserve Component Equipment Shortages

| Reserve Component | Requirements (\$) | On-Hand (\$) | Shortage (\$) | Shortage (% of Req'd \$s) |
|-------------------|-------------------------|-------------------------|-------------------------|---------------------------|
| ARNG | \$45,374,086,883 | \$33,712,447,990 | \$11,661,638,893 | 25.7% |
| USAR | 9,803,630,289 | 6,958,176,947 | 2,845,453,342 | 29.0% |
| USMCR | 6,722,925,387 | 6,447,127,841 | 275,797,546 | 4.1% |
| USNR | 12,320,374,951 | 12,289,774,951 | 30,600,000 | 0.2% |
| ANG | 30,322,355,145 | 30,114,564,392 | 207,790,753 | 0.7% |
| AFR | 17,429,600,000 | 17,243,065,300 | 186,534,700 | 1.1% |
| USCGR | 26,999,000 | 25,964,000 | 1,035,000 | 3.8% |
| Total | \$121,999,971,65 | \$106,791,121,42 | \$15,208,850,234 | 12.5% |

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

Chart 2 also shows that the ARNG and USAR have significant equipment shortages at the beginning of FY 2005. Despite the Army's authorization of substitute equipment items, many items may not be deployed because of Combatant Commander concerns. As an example, the Army RC currently has approximately 8,000 M800 series 5 ton trucks and 15,000 M35 series 2.5 ton truck—all built in the 1960s. It also has thousands of Commercial Utility Cargo Vehicles, M16A rifles, and old models of night vision devices and generators. These items are not being deployed to OIF because they cannot be maintained; neither trained mechanics nor replacement parts are available in the theater.

IV. Long-Term Equipping Strategy

DoD's transformation initiatives are having a profound effect on RC equipment. The Army is executing major changes to its structure, developing modular tactical organizations and restructuring the entire command and control of battlefield units. Many of the modularity plans

for combat support (CS) and combat service support (CSS) units are in the early development, making the future funding strategy and EOH situation difficult to assess at this time.

Marine Corps policy calls for the integration of new weapon systems and equipment into the USMCR to ensure the highest degree of interoperability with the active forces. As a result, new or modified equipment is being fielded to USMCR organizations concurrent with their active duty counterparts.

The Air Reserve Component (ARC) generally has older equipment, but through the Air Force Total Force policy, its assets continue to be modernized. This approach allows the ARC to remain compatible with active units.

The Navy's overriding goal is to establish and maintain a seamless and fully integrated Total Force. Navy Resource Sponsors, as part of the Navy's resource allocation process, identify RC requirements for new equipment.

These equipping strategies are based on identifying all RC equipment requirements, using smart business practices to resolve equipment shortfalls, and procuring new equipment only when necessary. It is vital that the Active components (ACs), RCs, and coalition partners use compatible and interoperable equipment. In some instances, equipping the RC with the most modern equipment must be postponed, leaving the RCs to maintain legacy equipment while the Services cope with transformation.

Some examples of smart business practices are employing just-in-time inventory techniques, using controlled humidity storage facilities, and substituting commercial items for military-specification items. Industry sources are also rebuilding equipment and providing repair parts support. The Service narrative sections describe these and other practices in more detail.

The RCs also utilize an Extended Service Program or Service Life Extension Program to rebuild equipment at a fraction of the cost of new procurement. For example, in the Army, a tactical truck nearing the end of its mechanical and functional life gains an additional 15 years of use through such a program. In addition, the ARNG and USAR Depot Maintenance Programs support the rebuild of key systems that are required to meet mobilization requirements. These programs are particularly effective at helping the ARNG and USAR keep many of their older models of equipment operational.

The Army is moving to a new strategy called the Army Force Generation Model. This model creates a 3-year rotation cycle for AC units and a 5- or 6-year cycle for RC units. These cycles are designed so that a RC unit will deploy only once in 5 or 6 years, providing predictability so that Soldiers know when they are likely to deploy. Under this model, all units will not have a full complement of equipment. Units will be provided all required equipment when they approach the phase of the cycle where they will be available to deploy.

The current overall shortage of Army RC equipment is approximately 25 percent, but SBE and battle losses are increasing this percentage. Many Army RC units will change as a result of the AC-RC rebalance and modularity, and much of the funding to support the equipment requirements for these changes is in the development stages. It is difficult at this time

to determine exactly what effect this model will have on future equipment readiness of Army RC units

V. Equipment Procurements Programmed to Fill Current Equipment Shortages

The Services program for the procurement of new equipment, both AC and RC, is in the President's Budget. The exhibit in the President's Budget that provides RC equipment procurement details is the P-1R. Table 3, which appears after each RC's narrative section, depicts the programmed procurements for the years FY 2006 through FY 2008. Equipment normally begins to arrive in the AC and RC inventories 1 to 2 years after appropriation. For example, equipment authorized for procurement in FY 2006 should begin arriving in FY 2007 and FY 2008.

Recent Service equipment procurements have not always been sufficient to meet the growing requirements to replace and modernize the RC equipment inventories. In response to this situation, Congress provided additional funds for the RC in the form of NGREA. These funds, which vary from year-to-year, have helped alleviate shortfalls in RC equipment procurement. The value of specific major equipment end items and miscellaneous equipment procured with NGREA funds from FY 2003 through FY 2005 is depicted in Table 4 after each RC narrative. NGREA projections beyond FY 2005 are not provided because the Services do not budget for these funds.

Funding levels from the RC procurement sources for FY 2000 through FY 2006 are shown in Chart 3. These funding levels are not adjusted for inflation and the FY 2006 funding does not include any NGREA or Congressional additions since they were unavailable when this report was prepared. The FY 2005 funding values in Chart 3 do not include new equipment procurements funded by the FY 2005 supplemental that was submitted to Congress in March of 2005. At the time of publication, the FY 2005 supplemental is not approved by Congress.

The FY 2006 P-1R funding totals show an increase of 30 percent from the previous year, primarily because of uncertainties in DoD's transformation efforts in response to the Global War on Terrorism. NGREA, an important funding source for the RCs, has been highly variable over the past several years. However, in contrast to the decrease in the FY 2004 P-1R funding levels, NGREA significantly increased in FY 2004 (from \$98 million to \$397 million) and remained stable in FY 2005 (\$398 million).

Chart 3 shows that the USAR and USNR experienced sizeable reductions in their 2006 P-1R submissions. USAR funding decreased from \$302 million in FY 2005 to almost \$38 million in FY 2006. Much of that decrease resulted from the Army modularity initiative that did not address CS and CSS forces in the 2006 President's Budget. The Army intends to address those equipment requirements in its Future Years Defense Planning (FYDP) funding strategy. The USNR reduction of slightly more than 20 percent was due to decreased funding for the C-40A aircraft.

Both the ARNG and USMCR show increases in their 2006 P-1R submissions. The 95 percent increase for the ARNG results primarily from the increased funding for the Stryker

combat vehicle and Family of Medium Tactical Vehicles. The USMCR's 353 percent increase is due primarily to the increased funding for weapon systems.

CHART 3 Reserve Component Procurement Funding

| FY | Procurement Funding Source | RC Procurement Funding (\$ in Millions) | | | | | | | Total | Grand Total |
|------|---------------------------------------|---|--------------|--------------|--------------|--------------|--------------|---------|------------------|-------------|
| | | ARNG | USAR | USMCR | USNR | ANG | AFR | | | |
| 2000 | President's Budget P-1R Submit | 661.1 | 176.0 | 56.9 | 77.4 | 334.1 | 149.3 | 1,454.9 | | |
| | Congressional Adds to AC Accts for RC | 267.1 | 12.0 | 2.8 | 35.6 | 270.8 | 17.6 | 605.9 | | |
| | NGREA | 29.8 | 29.8 | 19.9 | 19.9 | 29.8 | 19.9 | 149.2 | | |
| | Total | 958.1 | 217.8 | 79.6 | 132.9 | 634.8 | 186.8 | | \$2,210.0 | |
| 2001 | President's Budget P-1R Submit | 884.4 | 174.3 | 43.7 | 34.7 | 326.8 | 127.6 | 1,591.6 | | |
| | Congressional Adds to AC Accts for RC | 287.7 | 115.3 | 0.0 | 105.8 | 505.7 | 0.0 | 1,014.5 | | |
| | NGREA | 49.5 | 5.0 | 5.0 | 5.0 | 29.7 | 5.0 | 99.1 | | |
| | Total | 1,221.7 | 294.6 | 48.6 | 145.5 | 862.2 | 132.6 | | \$2,705.1 | |
| 2002 | President's Budget P-1R Submit | 925.6 | 181.5 | 40.4 | 24.1 | 377.9 | 108.7 | 1,658.3 | | |
| | Congressional Adds to AC Accts for RC | 151.1 | 3.5 | 0.0 | 4.5 | 33.4 | 2.0 | 194.5 | | |
| | NGREA | 217.3 | 101.5 | 4.9 | 9.9 | 280.4 | 75.2 | 689.3 | | |
| | Total | 1,294.0 | 286.6 | 45.4 | 38.5 | 691.7 | 186.0 | | \$2,542.1 | |
| 2003 | President's Budget P-1R Submit | 1,046.3 | 568.0 | 253.7 | 39.5 | 341.7 | 118.6 | 2,367.8 | | |
| | Congressional Adds to AC Accts for RC | 193.7 | 65.4 | 0.0 | 86.3 | 217.4 | 2.5 | 565.3 | | |
| | NGREA | 29.4 | 9.8 | 9.8 | 9.8 | 29.4 | 9.8 | 98.0 | | |
| | Total | 1,269.4 | 643.2 | 263.5 | 135.6 | 588.5 | 130.9 | | \$3,031.1 | |
| 2004 | President's Budget P-1R Submit | 501.2 | 244.3 | 66.8 | 129.7 | 453.5 | 169.8 | 1,565.3 | | |
| | Congressional Adds to AC Accts for RC | 290.8 | 6.7 | 0.0 | 63.4 | 45.4 | 0.0 | 406.3 | | |
| | NGREA | 99.3 | 44.7 | 44.7 | 44.7 | 119.1 | 44.7 | 397.0 | | |
| | Total | 891.3 | 295.7 | 111.5 | 237.8 | 618.0 | 214.5 | | \$2,368.6 | |
| 2005 | President's Budget P-1R Submit | 586.8 | 302.5 | 55.6 | 127.3 | 425.8 | 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 | | |
| | NGREA | 110.6 | 51.9 | 49.8 | 43.9 | 98.6 | 43.8 | 398.6 | | |
| | Total | 891.5 | 480.6 | 105.4 | 231.3 | 610.8 | 189.5 | | \$2,509.2 | |
| 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 | | | | | | | | | |
| | NGREA | | | | | | | | | |
| | Total | | | | | | | | \$2,128.1 | |

Note 1: USNR figures include USMCR aircraft procurement funds.
 Note 2: The above figures do not include Ammunition procured for the RC.
 Note 3: NGREA for FY 2005 includes both Title III & IX funding.
 Note 4: FY 2006 Congressional Adds and NGREA values will not be available until after publication.

The Army is in the process of “resetting the force” to restore operational capability as units rotate from OIF and Operation Enduring Freedom (OEF). This effort is designed to rapidly reconstitute the Army’s current force in preparation for future operations. RC equipment is being reconstituted through the demobilization stations and depot maintenance programs. The goal is to have demobilizing RC equipment repaired and returned to the owning units within 360 days.

VI. Age and Compatibility

RC units traditionally receive a large portion of their equipment when AC units receive more modern equipment. This process places equipment in the RC at least one level of modernization behind that in the AC. The age of RC equipment results in more than modernization shortfalls. In many cases, RC items, such as helicopters, trucks, armored

personnel carriers, and support equipment, are older than their pilots, drivers, and maintainers. The equipment also requires considerably more maintenance and repair parts as it ages—body metal rusts, seals begin to leak, and engines fail, so maintenance costs increase and reliability decreases. Although the Services have programmed for replacement vehicles and upgrades, full replacement of the RC fleets will stretch far beyond the FYDP. In response, RC units have initiated Service Life Extension Programs and partnered with industry in creative ways to leverage funding for interim solutions.

DoD policy directs all AC and RC units that fight together to be equipped with sufficient quantities of compatible and interoperable equipment. Measurement of compatibility between equipment items and systems ranges from non-interoperable and incompatible to identical and fully interchangeable.

The ANG has compatibility problems with many of the components on its older aircraft, while the ARNG has experienced most of its incompatibility issues in communications and electronics systems where Combatant Commanders require similar capability with all units regardless of component. The USAR reports that 31 percent of its EOH is at least one level of modernization behind the newer models of equipment fielded to the AC. This type of disparity occurs across all Services.

Another significant issue with age is the current usage of equipment in OIF and OEF. For example, the Commandant of the Marine Corps, when testifying before the House Armed Services Committee on November 17, 2004, stated that in the previous 7 months, 150 tactical vehicles were driven 825,000 miles while conducting 700 convoy security operations. This usage equates to more than 13 years of wear under normal peacetime conditions, and is made more significant by the harsh operating environment.

The Army is recapitalizing its high-priority systems to maintain combat capability and a technological advantage. Recapitalization efforts focus on improving the reliability, sustainability, safety, and efficiency of systems. In developing an affordable and executable recapitalization program, the Army has given priority to 17 systems for recapitalization to a near zero-time, zero-mile standard. It has also provided funds for the recapitalization program and the depot maintenance program to bring redeploying equipment to fully-mission-capable status.

VII. Conclusion

The RC is expected to spend about \$2.5 billion in FY 2005, and funding is expected to remain the same or higher in FY 2006, for RC equipment procurement to reduce current shortfalls and also to replace older equipment with the more modern and capable models. The FY 2005 funding values in Chart 3 do not include the supplemental that is currently before Congress. The USMCR, USNR, AFR, and USCGR are developing funding strategies based on the Total Force resourcing strategy and project EOH percentages of 94 percent and above through FY 2008. Despite these high percentages, the RCs still have challenges that interfere with full interoperability and compatibility with their AC counterparts.

The Army is executing its most ambitious restructuring since WWII: transforming a Cold War Army to the kind of versatile force required for the Global War on Terror. It is restructuring

and rebalancing more than 100,000 positions in both the Active and Reserve components. The effects include an increase in high-demand units in the AC and a decrease in the need to immediately mobilize RC units. To date, the Army has converted about 34,000 positions.

The current demands for fully equipped ARNG and USAR units to support overseas operations have forced the transfer of equipment from non-deploying units to deploying units, degrading the readiness of the non-deploying units. This continuing decline in readiness of non-deployed units hinders the ARNG's and USAR's ability to provide ready forces. Army transformation efforts, changes to funding priorities, uncertainty of future equipment attrition, and battle losses make it difficult to determine to what extent future budgets will improve equipment readiness. As a result of the tremendous demands being placed on Army RC equipment today, significant additional fiscal needs will be required to maintain and replace key systems and ensure the readiness of ARNG and USAR units.

The Army Force Generation Model will also change the way the Army equips its units. It will provide equipment to units when they fall into the window for deployment, so all units will not have their full complement of equipment. The implementation of this new model is in the development stages, making it difficult at this time to determine what effect this will have on future Army RC equipment readiness.

Chapter 2 United States Army Reserve Component

I. Army Overview

A. Overall Army Planning Guidance

The Army remains fully engaged in an ongoing global war on terrorism and with other enemies that confront our nation. A significant portion of our force comes from our Reserve Component—Army National Guard and Army Reserve. The effective training and equipping of these Soldiers are the necessary keys to success, not only in preparing for today’s world of increased Operations Tempo (OPTEMPO), but also in maintaining readiness for future operations.

The Army’s vision—to increase the relevance and readiness of our forces—focuses on two core competencies: 1) train and equip Soldiers and grow leaders, and 2) provide relevant and ready land power capability to the Combatant Commanders as part of the Joint Team. The Army Campaign Plan provides the direction, or overall Army-wide planning guidance, necessary to sustain a “campaign-quality Army with a Joint and Expeditionary Mindset.” In effect, we are conducting an “in-stride” transformation that supports our Army at war today, while simultaneously developing improved capabilities for the future.

No doubt, the Army’s commitment to equip the force has been significantly impacted by continual participation in Global War on Terrorism (GWOT) and OEF/OIF. For example, RC units rotating into theater may fall in on “stay behind equipment,” while redeploying troops return home without that equipment. Continuous use of equipment in theater presents sustainment challenges. Units back at home station require cross-leveled equipment in order to train and maintain readiness. In addition, vehicles in theater being fitted with add-on armor present challenges to that equipment ever returning to home base. Protecting the Soldier is a priority. The use of equipment in theater, wear and tear, and battle loss all have an impact on equipment readiness and resetting the force.

The Army has employed several initiatives that impact equipment and, therefore, require continued and additional resourcing to maintain proper support and readiness. On January 30, 2004, the Office of the Secretary of Defense approved the Army plan to increase Army force structure by ten modular brigades by FY 2006. The Army plan includes fully incorporating the RC into modularity, modernizing force capabilities, balancing capabilities between the AC and RC, and transforming the logistics structure.

B. Army Equipping Policy

Army equipping efforts are focused to support several objectives. One objective is supporting current operations by ensuring Soldiers deployed or scheduled to deploy are equipped with the critical equipment and materiel needed to execute assigned missions. Policy dictates that highest priority units are authorized equipment at a level equal to requirement. Other objectives include recapitalizing both AC and RC current force assets, resetting the current force, developing and fielding future force capabilities, and continuing modernization efforts. In

addition, Army policy supports initiatives that require equipping solutions such as modularity, AC/RC balance, and joint logistics.

In support of the overall goal of maintaining and enhancing current readiness while also implementing transformation into a more responsive and capable force for the future, the Army has developed a coordinated and comprehensive strategy of integrating all its efforts and programs toward the goal of equipping and organizing forces. This strategy can be described best as one of “balanced modernization,” which seeks to develop and field combat-capable units through an appropriate mix of selective procurement and fielding of new equipment (modernization), rebuilding and upgrading of key existing equipment (recapitalization), and preserving needed elements of current equipment (maintenance). Modernization programs are placed into three basic categories and are then subcategorized based upon the force they are fielded to support. These modernization strategy categories are:

- **Modernization:** Develop and/or procure new systems with improved war-fighting capabilities.
- **Recapitalization:** The rebuild and selected upgrade of currently fielded systems to ensure operational readiness and a zero time/zero mile system. The Army Recapitalization Strategy follows two paths: rebuild and selected upgrade. Rebuild restores the system to a like-new (near zero-time/zero-mile) condition in appearance, performance, and life expectancy. It inserts new technology where practical to improve reliability and maintainability. The result of a recapitalization rebuild is a system with the same model and a new life. Selected upgrade rebuilds the system and adds warfighting capability improvements that address capability shortcomings. The result of a recapitalization selected upgrade is a system with a new model and a new life and improved warfighting capability.
- **Maintenance:** Repair or replace end items, parts, assemblies, and subassemblies that wear or break. The Army has developed a concept for transformation of the Army’s maintenance process from the current four-level system to a two-level system. The current system echelons maintenance at four-levels with the least complex maintenance tasks being performed at the lowest echelon. When tasks exceed an echelon’s resources (time, tools, training, etc.), maintenance actions are referred (sometimes evacuated) to a higher maintenance echelon. This echeloned system of maintenance contributes to a large logistics footprint, is reliant on evacuation systems, has a built-in overhead burden at each echelon, and the units that provide the maintenance at each echelon themselves also require maintenance support (e.g. each direct support and general support maintenance company also has an organic motor pool to do its own organizational level maintenance).

The Army’s intent is to reduce the inefficiency created by multiple echelon maintenance and brigade or support unit sustainment footprint. The Army plans to combine the two lowest levels, called “field maintenance,” and combine the two highest levels, called “sustainment maintenance.” By combining echelons the Army is eliminating redundant capability and personnel.

C. Army Plan to Fill Mobilization Shortages in the RC

During a large-scale mobilization, the Army will employ the most practical and efficient means of redistribution. This includes issue of serviceable warehouse stocks, repair of unserviceable items, procurement and substitution of commercial equipment, cross-leveling of any excess unit equipment or equipment left behind by deploying units that acquire pre-positioned equipment. It also includes unserviceable equipment that can be repaired quickly, including depot work in progress, National Inventory Control Point stocks, and new procurement.

Upon mobilization notification, all Army units will update equipment on-hand data in the Army master database called the Continuing Balance System-Expanded. This data, when matched against requirements documents by Materiel Management Centers, will highlight equipment shortages and excesses. Orders for lateral transfer and materiel release orders will then be issued. Each level of command will perform redistribution from within its own resources before forwarding unfilled requirements to the next higher echelon. The Headquarters, Department of Army (HQDA) will issue prioritization guidance for all AC and RC units based on the needs of the Combatant Commanders, with consideration for modernization, interoperability, and readiness.

D. Current Army Initiatives Affecting RC Equipment

As the Army vision evolves to increase relevance and readiness, the Army will transition to a modular and expeditionary force. As force structure, doctrine, technology, and equipment evolve in support of this vision, the strategies associated with equipping the RC will also change. Ongoing initiatives that affect the Army are listed below.

1. Anti-terrorism

The Army is fully committed to the GWOT, executing critical tasks at home and abroad to preserve America's safety and security. These tasks are daunting because the Army must at all times carefully balance the needs of today, the "world as it is" with the needs of tomorrow, and the requirement to transform forces, capabilities, and institutions to extend America's advantages well into the future.

Since the attacks on September 11, 2001, the Nation continues to evaluate its requirements for both Homeland Defense and a long protracted GWOT. Homeland Defense requirements are ever changing and the GWOT is ongoing. The Army has a leading role in both Homeland Defense and the GWOT, and is currently assessing force structure changes needed to support these new missions.

2. Army Transformation

Army Transformation includes two broad vectors: the readiness and modernization of the Current Force, and the application of science and technology to achieve the Future Force capability. It integrates transformational advancements in doctrine, organizations, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) while also incorporating changes in deployment, installations, sustainment, and business processes. In

addition to transforming its operational forces, the Army will transform its generating forces – the Institutional Army. Studies and plans to accomplish this are well under way. For example, the Army is examining the structures of both the Training and Doctrine Command and the Army Materiel Command as part of the transformation of the Institutional Army. Since transformational change cannot be achieved on the margin of these institutions, a holistic solution must be developed to return resources to the warfighters. This will assist the Army in meeting its goal of increasing its tooth-to-tail (combat to support) ratio over this decade.

a. Current Force

The Current Force must be prepared to fight and win the Nation’s wars until transformation is complete. For this reason, the Army needs to continue to invest in the Current Force, which will be with us until the Future Force is completely fielded. However, because resources are limited and requirements are abundant, the Army must balance risk with current and future force requirements. As an initial step in transforming the Current Force, the Army has funded six Stryker Brigade Combat Teams (SBCT) that will be trained and ready to deploy to provide the Combatant Commanders with an increased land power option. The SBCT 1 (3rd Brigade, 2nd Infantry Division) was deployed to OIF in the fall of 2003. The SBCT 2 (1st Brigade, 25th Infantry Division) is stationed at Fort Lewis. One SBCT will be relocated to Europe. The remaining SBCTs are SBCT 3 (172nd Infantry Brigade, Alaska), SBCT 4 (2nd Cavalry Regiment, Fort Lewis, WA), SBCT 5 (2nd Brigade, 25th Infantry Division, Schofield Barracks, HI), and SBCT 6 (56th Brigade, 28th Infantry Division, Pennsylvania Army National Guard).

b. Future Force

The Army is transforming the world’s premier land power to a Future Force that is more responsive, agile, versatile, deployable, lethal, survivable, and sustainable. It will be dominant at every point on the spectrum of military operations, from major combat operations through counterterrorism to Homeland Security. A force with these characteristics will have the ability to place a combat-capable unit anywhere in the world, regardless of accessibility to ports or airfields, in 96 hours, with a division on the ground in 120 hours, and five divisions in theater in 30 days.

The Future Force is the Army’s ultimate transformation goal. The Future Force will be a more strategically responsive Army, capable of rapid transition between mission requirements without loss of momentum. The Future Force will be equipped with significantly advanced systems centered on the Future Combat System (FCS). It will be commander and execution centric, networked internally and externally through a mobile, adaptive, reliable command and control capability. It will leverage joint and interagency reachback and direct downlink capabilities for intelligence, force planning, administration, technical engineering, information operations and logistical support.

c. Modularity

The Army must retain a wide range of capabilities while significantly improving their flexibility and versatility. A key prerequisite to achieving this capability is developing modular

tactical organizations. Modularity is a force design methodology, which establishes a means of providing force elements that are interchangeable, expandable, and tailorable to meet the changing needs of the Army. Although divisions have long been the nominal measure of the Army's fighting strength, recent operations increasingly have witnessed deployment and employment of multifunctional brigade combat teams. The Army is in the process of changing its operational force structure by reorganizing to brigade combat teams as the basic units of maneuver, endowing them routinely with adequate combat, combat support, and sustainment capabilities, and assuring them connectivity to higher and joint assets.

d. Transforming Logistics

The Army delivers materiel readiness to the Current and Future forces as the land-power component of the joint force. The successes enjoyed during OIF were the result of the integrated logistics team of Soldiers, civilians and contractors, who developed innovative solutions to a range of challenges, caused by four major capability gaps in the current logistics system. To sustain combat power, the Army must have the ability to "see the requirements" on-demand through a logistics data network. The Army requires a responsive distribution system enabled by in-transit and total asset visibility and a single owner who has positive control end-to-end in the theater. The Army needs a robust, modular force-reception capability – a dedicated and trained organization able to quickly open a theater and support continuous sustainment throughout the joint operations area. The Army needs an integrated supply chain that has a single proponent who can reach across the breadth and depth of resources in a joint, interagency and multinational theater. The Army's logistics transformation is focused on closing these gaps.

e. Modular Sustainment

As the Army transforms to a modular force, our logistics capability has also transformed. The Army's echelon above division force structure has already begun to convert to modular plug and play organizations. The primary examples are the conversion of our maintenance force to the two-level maintenance design and the new modular quartermaster units that are already being sourced. The effect of modularity on logistics can be characterized by more modular and capable sustainment organizations, reduced echelons that allow for increased throughput directly to forward locations, with improved capability and mobility forward. At the core of this shift is the development of a combat force with increased self-sustainment capabilities, able to conduct sustainment operations internally, while relying on the distribution system to enable logistics reach.

3. Recapitalization

When operationally necessary and financially prudent, the Army will recapitalize systems to maintain combat overmatch capability and a technological advantage. Recapitalization efforts will focus on improving the reliability, maintainability, safety, and efficiency of the Army's current systems at a lower cost than procuring new systems. The Army's requirement to recapitalize all of its systems is significant and the requirement is clearly unaffordable, given the current fiscal constraints and planning guidance. In order to develop an affordable and executable recapitalization program, the Army has prioritized seventeen of its systems for recapitalization to a near zero-time/zero-mile standard. Therefore, the Army decided to focus its

resources on only those systems and units that are absolutely essential to maintaining today's warfighting readiness, while taking risk with other systems and other parts of the force. However, with today's climate, the need for recapitalization on other systems may be warranted due to the increased OPTEMPO in OEF/OIF.

While the Recapitalization Program approval process has helped the Army focus its resources, reduce requirements, and develop cost effective funded programs, the Army must still remain cognizant of the inherent risk in this program. The majority of the remaining systems will not reach an average half-life by FY 2010, and a large proportion of those systems will not be upgraded or rebuilt. With current operations in OEF/OIF, the systems are being used at a much higher rate than that of peacetime operations and thus, the recapitalization program might need to be expanded to cover more of the Army. The Army will continue to review the scope of its recapitalization requirements each year and make adjustments as appropriate. Recapitalization is essential for current and future readiness. This is a long-term, continuing process and is flexible based on the current needs of the Army. It is a key element of Army Transformation and supports the Army Vision. Recapitalization ensures that our Current forces retain their capability for combat overmatch as we complete our transformation to the Future Force.

4. Selected Modernization

The Army focuses its limited modernization efforts for the Current Force primarily on those systems that will benefit the warfighter today—particularly those incorporating newly developed technologies—but will also have direct applicability to the Future Force over the longer term. These systems are placed into two categories: those that are part of the near-term Current Force and will transition to the Future Force over time (e.g., the Family of Medium Tactical Vehicles (FMTV)) and those that are being built specifically for the Future Force, but which can be used today (e.g., Tactical Unmanned Aerial Vehicles (TUAV) and Highly Mobile Artillery System (HIMARS)). By doing this, the Army is ensuring that its scarce resources are efficiently spent on systems that benefit it today as well as in the future.

Moreover, the Army is focusing its modernization efforts on inserting new technologies that have been recently developed and offer the prospect of enhancing near-term readiness of Current Force units. The Army is reevaluating its past efforts to accept risk in the Current Force in order to accelerate transformation to the Future Force. Modernization efforts have been restricted to selected units and capabilities, with only two divisions and one armored cavalry regiment in III Corps, some XVIII Airborne Corps units, the SBCTs, and a limited number of other units, including Special Operations Forces (SOF) units, scheduled to receive upgrades and enhanced capabilities.

5. Reset

In conjunction with the rotation of units from OIF, the Army is in the process of “setting the force” or “reset” to restore and improve the operational readiness of the force. This process is particularly critical in light of the fact that deployed systems have been operating at five times normal tempo, prepositioned stocks are being significantly degraded, and a considerable number of major end items have been lost in combat operations. Reset includes a strategic assessment incorporating the lessons learned from OEF and OIF, the reconstitution of a long-term plan for

stability and support operations and force rotations, and the reestablishment and restructuring of Army prepositioned stocks worldwide. This is both a necessity and an opportunity, and the purpose is to continue support of Combatant Commanders, return forces to prehostility readiness levels, and integrate reset into continued transformation, modernization and recapitalization. The standards established for reset include bringing all equipment to normal operational status and, where sensible, upgrading capabilities and implementing lessons learned from recent operations, replacing obsolete equipment in prepositioned stocks, and reconfiguring those stocks to be more strategically relevant and responsive.

6. Army National Guard Division Redesign Study (ADRS)

The ARNG is continuing execution of the ADRS. This concept converts noncritical ARNG combat forces to combat support (CS)/combat service support (CSS) forces required to support the Army's warfighting requirements. ADRS Phases 1 and 2 are resourced and were programmed in the FY 2004–FY 2009 Plan. The total cost for Phases 1 and 2 is approximately \$2.3 billion and approximately 22,000 spaces are converted to CS/CSS units. The Army is closely examining continuation and or change to this process in light of current operational needs and its ability to supply Combatant Commanders with a proper force mix to execute all missions assigned.

7. AC/RC Rebalancing

The Army is making a concerted effort to rebalance the mix of AC and RC forces with the goal of mitigating stress on high-demand RC units for overseas rotations. This rebalancing effort results in the restructuring of 30,000 spaces of force structure (6,000 AC and 24,000 RC).

8. OEF and OIF

The mobilization requirements of OEF and OIF proved that the best resourced units were not always deployed first. As a result, the RC was forced to redistribute assets internally throughout the force to meet the requirement, both prior to and during the mobilization of units. The increased readiness targets for unit deployments and the additional equipment requirements beyond normal authorizations exacerbated the original minor shortfalls. Lower priority units have never been resourced above 70 percent Equipment On-Hand (EOH) but were required to mobilize at 90 to 100 percent. This change in mobilization requirements resulted in the depletion of equipment in those RC units that were not immediately mobilized. As a consequence, stay behind units losing equipment to cross-leveling are unable to maintain their training proficiency.

Army leadership realizes that providing RC units with the latest force protection equipment is a top priority. Items like individual soldier protective armor vests, night vision devices, and the M1114 Up-Armored High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) are essential for RC units to meet the high OPTEMPO of today's operations. The shortage of Single Channel Ground Air Radio System (SINCGARS), the Army's standard for tactical secure communications, is another area that created mobilization problems during OEF and OIF. SINCGARS were often cross-leveled without accessory equipment or unit training for radio operators. Units often addressed these shortfalls after they fell in on their equipment overseas.

During mobilization for OEF and OIF, RC units faced many maintenance readiness challenges. Lack of available parts for substitute items enlarged the logistics footprint in country by increasing the amount of effort required to support in-lieu-of items and cross-leveled equipment. The incompatibility of equipment between the AC and RC creates a host of maintenance challenges, to include a lack of Army training programs for operators and mechanics and the establishment of separate repair parts inventories, special tools, and test equipment. In addition, “stay behind equipment” results in more wear and tear and increased maintenance upkeep to achieve required readiness standards.

E. Army Plan to Achieve Full Compatibility Between AC and RC

The Army maintains a doctrinally integrated series of organizational designs for the purpose of achieving operational compatibility between types and echelons of units. Every effort is made to equip and modernize the AC and RC so that they remain an integrated team. Due to constrained resources, incremental improvements have been determined based on DoD’s first-to-fight/first-to-equip principle.

Reserve Component forces will maintain capabilities compatible with the units they support through the selective cascading of equipment from the AC. Limitations in the Current Force recapitalization and modernization effort, resulting from difficult decisions made to fully fund Future Force and Stryker programs, may delay the modernization of the RC forces that rely on cascading. This delay, however, is a necessary risk required to meet the Army’s objective of a future transformed force and to support overall DoD transformation goals while still preserving and upgrading the readiness of the Current Force.

Since 1998, the Army has budgeted more in their annual budgets for the RC and Congress has added more money to active accounts for RC specific equipment. Despite these increases, the RC still has significant equipment shortages, especially in the most modern equipment. Consequently, the RC must increasingly rely on limited overhaul and rebuild programs of existing equipment to retain mission capabilities.

Recapitalization may include pre-planned product improvements, extended service programs, and major modifications. However, these programs alone do not constitute recapitalization unless the system is restored to a near “zero time/zero mile” condition.

Since 1997 ARNG and Army Reserve projected procurement has been included in the FYDP. The intent is to provide visibility of funds for improvements in equipment compatibility between the AC and RC.

F. Equipment On-Hand Substitutes

The equipment on-hand in Table 1 includes authorized substitute equipment. Substitute LINs are reported as assets on-hand and are included in equipment totals for unit status reporting purposes. Army regulations define authorized substitutes as any piece of equipment that is able to perform the same function and purpose as the authorized equipment, but generally not to the same level of performance and efficiency. If substitute items of equipment are used, they are listed along with the quantity and item substituting for the prime LIN in Table 7.

An authorized substitute item, which is designated as on-hand equipment, does not exempt the unit from placing the authorized equipment on a valid requisition. Therefore, the requirement for the authorized item is still valid. Inclusion of authorized substitutes tends to skew the shortages of primary equipment, but better depicts a more accurate equipment status of the RC. Without the use of authorized substitute equipment, the Army's equipment posture, both AC and RC, would be degraded.

II. Army National Guard (ARNG) Overview

A. Current Status of the ARNG

1. General Overview

The ARNG has been actively supporting the Global War on Terrorism and other missions by mobilizing in excess of 170,000 personnel and their unit sets of equipment. Each deployment to Iraq, OIF, and Afghanistan, OEF, has involved a sizable contribution of ARNG units and equipment. Other missions include unit rotations to the Horn of Africa, the Sinai, the Balkans and nationwide support to Homeland Defense.

The ARNG has been able to consistently meet mobilization requirements, but often extensive cross-leveling is required to fill unit equipment on-hand shortages, meet operational needs of additional equipment and modernize equipment on-hand as required. The specific shortages associated with the equipment on-hand and the cross-leveling involved will be addressed in more detail later in this report.



Patrol in Iraq using the M1114 Up-Armored HMMWV for Support

The primary focus of the ARNG has been preparing units for mobilization and all new procurements using congressional adds to Army procurement as well as NGREA have been focused on filling equipment shortages and training requirements for deploying units. The cross-leveling to fill mobilization shortfalls has increased the maintenance and transportation requirements to meet the normally short timelines for mobilizations. The net result for the ARNG is units deploy with all the equipment that the ARNG can provide and some of the shortages are passed back to the Army to attempt to fill during the unit's mobilization. Equipment on-hand levels of fill across the ARNG have dropped as a result.

The Army continues to modernize the ARNG under Phase 2 of the Army Division Redesign Study that converts combat units into combat support and combat service support units. In FY 2005, the first three Brigade Combat Teams (BCT) (formerly called Enhanced Separate Brigades) will be converted to a modular design after they return from OIF. The ARNG will have 10 heavy brigades and 23 light BCTs converted to a modular design. The ARNG will also have 8 division headquarters converted to Units of Employment. Originally, the Stryker Brigade conversion of the 56th Infantry Brigade in the Pennsylvania ARNG was scheduled to be completed in FY 2008. A Program Budget Decision to move \$6.8M from Stryker procurement to Stryker RDT&E in FY 2006 will result in a procurement slip of one year for six Medical Evacuation Vehicles for the 56th Stryker BCT. This will move the 56th Stryker BCT completion to FY 2009.

The ARNG has also provided equipment for training sets for units to train on while their equipment is being shipped to support OIF or OEF. The ARNG has also been tasked to leave equipment for OIF and OEF as stay behind equipment (SBE) for other ARNG units, other Army

Components, and other services. The units returning that left equipment as SBE are receiving to some equipment through cross-leveling to allow them some equipment to train on and some capability pending the return of the SBE sets.

2. Status of Equipment

a. Equipment On-Hand (EOH)

A majority of ARNG lower priority units have never been resourced above 70 percent for EOH but were required to mobilize units at 90 to 100 percent for all items of equipment. Auxiliary equipment and auxiliary support equipment are often under funded and filled through cascade. These units EOH shortages have been filled through cross-leveling throughout the ARNG which enabled the units to meet their mobilization requirements. The higher priority units (typically BCTs) that were mobilized also had EOH shortages that required filling and had additional requirements above authorizations to meet the operational needs of the mission. These shortages were also filled through cross-leveling and in most cases because of the types of equipment involved the equipment was pulled from non-deploying high priority BCTs. The consequence is that the EOH fill across the ARNG has dropped and compared to a year ago the number of ARNG reporting units (not federalized) that meet the minimum reporting requirement for EOH has dropped three percent.

Reasons Reported for EOH Shortfalls

| | SHORT EQUIPMENT | EQUIPMENT NOT AVAILABLE DUE TO LOANS, PARTIAL DEPLOYMENT, DEPLOYMENT RETURN DELAY | FORCE MOD DELAY | NO REPORTED PROBLEMS |
|----------|-----------------|---|-----------------|----------------------|
| SEP 2003 | 57% | 3% | 5% | 35% |
| SEP 2004 | 60% | 5% | 4% | 31% |

Some of the critical current mobilization shortages are: Chemical Monitors, Chemical Decon Apparatus, PVS-7 & PVS-14 Night Vision Goggles, M4 Carbines, M240B Machine Guns, AN/TVS-5 crew served weapons sights, M872 34T semi-trailers, 20/40 foot container top handlers, and HMMWV weapons carriers (M1025/M1026), Up-Armored HMMWVs M1114, and SINCGARS radios.

b. Stay Behind Equipment (SBE)

Some of the first ARNG deploying units for OIF and OEF were directed to leave (hand receipt) SBE for their replacement units to use. The units returned with very little if any of their own equipment. The SBE falls into categories of long term for all or some equipment and short term hand receipts. These SBE sets are being used by ARNG units and by other components or services. Some ARNG units are also using equipment from other



WV ARNG Artillery Unit Serving as Provisional Military Police Providing Site Security in Iraq

components or services. The Army's intent is to redeploy the SBE sets minus certain equipment back to their component. In the interim the ARNG is cross-leveling equipment from equipment sets left behind to provide some capability and training sets pending the return of the SBE. The long term concern is the HMMWV for 14 ARNG Military Police Companies, for a total of 616 HMMWV, and other trucks that have had bolt on armor added and other specific equipment may be retained in OIF and OEF for the war's duration.

The ARNG will cross-level when possible, and it is imperative that the Army plans, programs, and budgets for replacement trucks.

c. Average Age of Major Items of Equipment

Table 2 provides the average of older systems. The majority of the ARNG's equipment was received through cascade from the AC already near the end of its projected service life. The ARNG relies heavily on its depot maintenance programs to keep readiness rates at or near the Army's standards. The shortage of maintenance technicians and the persistent shortage of repair parts for older equipment add to the units' burden to maintain older systems. The ARNG's primary compatibility concern is that the primary systems are aging faster than they can be replaced or rebuilt.

d. Compatibility of Current Equipment with AC

The GWOT deployments primarily to OIF and OEF have dictated the compatibility issues. Homeland defense missions have also identified equipment compatibility issues. The primary concern is with the problems of locating repair parts for systems no longer in the active component system, and other concerns are with the systems capabilities. The majority of the capability issues are in the communications & electronic systems where combatant commanders require similar capability with all units regardless of component. The ARNG replaces the equipment not considered compatible for the above reasons whenever possible. While capable of being deployed, the following equipment is not considered as supportable or as capable and is not recommended for deployment by the Army combatant commanders: Commercial Utility Cargo Vehicles (CUCVs) (commercial light 4x4s from 1980s, substitutes for HMMWVs), and the Dragon Anti-tank guided missile launch system.



ARNG soldier on patrol in Iraq. He is wearing interceptor body armor, and has a bracket for a PVS-14 Night Vision Goggle on his helmet. The M4 carbine he carries has a PEQ-2 Aiming Light attached on top of the barrel. These items are all in short supply for the ARNG and all assets are being used for deploying forces.

e. Maintenance Issues

The requirement to maintain and/or accelerate equipment to the 10/20 standard for mobilizations and cross-leveling to fill shortages has greatly burdened the ARNG maintenance capability over the last few years. The mobilization and shortage of key State maintenance technicians, and repair parts problems has added to the maintenance readiness challenge. Maintenance surges to meet mobilization requirements are accomplished with normal limited peacetime OPTEMPO funding pending the release of operational funds.

The majority of ARNG equipment, primarily the combat tracked systems and trucks, will have a service life in the ARNG of 20–25 years before it is replaced through modernization. The equipment cascaded to the ARNG normally arrives at or near the end of its expected service life and in some cases will require extensive maintenance to maintain it as serviceable.

The ARNG greatly relies on Army depot funding to maintain its readiness. The current projected funding status through FY 2011 is shown below:

ARNG funding for tactical wheeled vehicles and for the category known as “other equipment” increases from \$121.3M in FY 2006 to \$226.3M in FY 2011. This funding supports depot maintenance, calibration, construction, engineering equipment, weapons/armament, watercraft, and maintenance of Tactical Wheeled Vehicles (TWV). Currently, the ARNG depot maintenance program is funded at 73 percent of its total requirement for FY 2006. Funding for the total program increases steadily to 88 percent of total requirements in FY 2011.

ARNG depot maintenance for aircraft is funded at 78 percent of requirements in FY 2006 but increases to 90 percent by FY 2007. ARNG depot funding for communications-electronics equipment is at 86 percent through FY 2006 but decreases in by FY 2009 to 82 percent. Funding increases to 90 percent by FY 2011. Depot funding for combat vehicles ranges from a low of 53 percent of total requirements in FY 2006 to a high of 67 percent in FY 2011. Depot funding for missile systems increases from 69 percent in FY 2006 to 87 percent in FY 2011.

The fielding of FMTVs was originally thought to be able to purge the ARNG of the thirty year old M35 2 ½ ton trucks and the 800 series 5-ton fleet within fifteen years. Cut backs and diversions of funding for procurement has reversed this plan and these systems are now going to be in the ARNG until at least 2030. This older, obsolete fleet is difficult to maintain and proven especially difficult to obtain repair parts since it is no longer in the active component inventory.

f. Modernization Programs and Shortfalls

Listed below are the ARNG’s top ten modernization shortages which are also listed in Table 8. These systems all have unfunded requirements that are not currently projected to be filled through Army procurement through FY 2009. Additional top modernization shortfalls are also indicated.

i. HMMWV

The HMMWV family of vehicles is the Army's lightweight 4X4 vehicle that serves a variety of duties from troop and shelter carrier to weapons system carrier. The continued shortage (currently 12,567, projected through FY 2007 requirements) of the different variants continues to be the ARNG's most significant shortage in the tactical wheeled vehicle fleet. The Army's transformation to a lighter force will continue to increase these requirements and future procurement will, at best, only fill new requirements.



HMMWV with a MK 19 40mm Grenade Launcher

The ARNG fills shortages for the lowest priority units using the 1980 era CUCV series of vehicles, which were retired by the Active component seven years ago and are no longer deployable/supportable by the Active component. The overall shortage is a primary problem for the ARNG in filling mobilizations and modernizing force structure and is expected to remain a top priority of the ARNG over the next decade.

The ARNG has provided several hundred HMMWVs for training sets to support the continued training of units whose equipment had been shipped for deployments and over six hundred HMMWVs were left as stay behind equipment for Military Police Companies in Iraq.

The ARNG will need to acquire an additional new procurement of at least 300 vehicles a year in order to maintain the pace of activations/mobilizations and fill current shortfalls.

ii. SINCGARS

SINCGARS requirements for OIF and OEF continue to increase due to the operational requirements for OIF and OEF that add additional dual radio systems to more vehicles than were originally intended for already fielded units. The ARNG projects to require at least another 15,000 systems to complete fielding to all ARNG and replace obsolete 20–30 year old VRC-12 series radios that are no longer deployable. The SINCGARS system is the Army's tactical communication standard for tactical secure communications for aircraft and ground vehicles and is expected to remain in the Army inventory for another 20 years. The Army cascade fielding to the ARNG ended in FY 2004 and the ARNG will need to expend an average of \$12M of operational funds to continue fieldings to support mobilization. The ARNG will also continue to depend on available funding to continue to procure the 15,000 needed radios to complete fielding to the ARNG even with the Army fielding of the new JTRS system.



SINCGARS Radio

iii. Night Vision Goggles (NVG)

The PVS-14 NVG has become one of the major shortage items for ARNG mobilizations for OIF and OEF. Current requirements adjustments have resulted in an unfunded requirement for over 56,000 of these devices and even after a steady procurement of NVGs since FY 2002 with NGREA, the delivery schedule can't keep up with the mobilization demands. The SBCT and modularity fieldings that will occur over the next few years will help improve the ARNG's overall on-hand availability but the ARNG will still need to continue to procure the latest model NVGs with available funding over the next 20+ years to attempt to fill the shortfalls.



PVS-14 Night Vision Goggle

iv. UH-60 Blackhawk

The utility helicopter for the Army that provides air assault transport, general support transport, airborne command and control, airborne electronic warfare, and special operations support to combat operations and medical air evacuation. The delay in replacing the obsolete UH-1 in the ARNG beyond the FY 2004 projected retirement date keeps this system a high priority.



UH-60 Blackhawk Utility Helicopter

The Light Utility Helicopter or (LUH) is an initiative to procure commercial off the shelf helicopters to immediately replace existing UH-1H/V used as subs for UH-60s and also replace the OH-58A/C scout helicopters beginning in FY07. The LUH may be deployed in permissive environments (non-hostile). The LUH candidate/candidates have not yet been selected.

v. Heavy Expanded-Mobility Tactical Truck (HEMTT)

The HEMTT is a critical requirement for deploying units and the workhorse for forward logistical support in the heavy combat forces and support units. The HEMTT Cargo series is the prime vehicle for supplies such as ammunition, while the HEMTT Tanker is a 2,500-gallon capacity fuel tanker capable of traversing most all terrain and is essential for quick refuels of both aircraft and combat vehicles. The HEMTT wrecker is the heavy vehicle recovery system. There are no substitute vehicles for the wreckers and this shortage remains the most critical of the HEMTT fleet. The HEMTT family is an objective force requirement that is critical for all force modernization objectives. The ARNG over the last few years has used NGREA to



*HEMTT M984
10-Ton Wrecker*



HEMTT 2500 Gal Fuel Tanker

procure HEMTTs to accelerate the fill of shortages and provide some capability across all states.

vi. Small Arms Modernization

The requirements for OIF and OEF are generating new requirements for small arms authorizations. The M16A2 is being replaced by the more compact M4 carbine as individual assigned weapon. Additionally the M240B is the modern replacement medium machine gun for the Vietnam era M60 machine gun and has been listed as a critical need by commanders for use in Iraq and Afghanistan. The new requirements for additional crew served weapons for OIF and OEF operations has increased the requirement for additional M249 Squad Automatic Weapons (SAW) and the MK19, 40mm grenade launcher. The ARNG is working with the Army to receive more M4s and M240B and is using NGREA funds to procure several thousand M4s and several hundred M240B for issue as replacement weapons for units in Iraq and Afghanistan.



Additionally the infrared illuminator/pointer mounted on the M16 or M4 provides the ability to illuminate targets at close range with a light that is observable only through night vision goggles. The latest model PEQ-2A is another high priority requirement for small arms modification for OIF and OEF. The ARNG is short over 10,000 of these devices and is going to continue to use available funding to procure PEQ-2s for ARNG mobilizations.

vii. Family of Medium Tactical Vehicles (FMTV)

The FMTV fleet consists of the Light Medium Tactical Vehicle (LMTV) or 2-½ ton vehicle fleet and the Medium Tactical Vehicle (MTV) family of 5-ton variants. The LMTV comes in cargo vehicle variants and has been partially fielded to the ARNG, primarily to newly activating units. The MTV variants consist of cargo vehicle variants, a wrecker, and a 5-ton tractor (M1088) that pulls the M871A3 Stake and Platform Trailer. The FMTVs are the essential supply and recovery vehicles for our type of units and form the nucleus of support operations in separate brigades and all divisions and are critical components for all force modernization objectives. The FMTV is a critical requirement for unit deployments and the ARNG will continue to rely on available funding to procure unfunded requirements.



M1088 5-Ton Tractor & Semi Trailer

viii. Javelin Anti-Tank Missile System

The Javelin is the Army's first man-portable, fire and forget anti-tank missile system. Javelin's unique top-attack flight mode, superior self-guiding tracking system and advanced warhead design allows it to defeat all known tanks out to ranges of 2500m.

The Javelin system weighs 49 pounds, and its key technical feature is the use of fire-and-forget technology that allows the gunner to fire and immediately take cover. Additional special features are the top-attack and direct-fire modes (for targets under cover), advanced tandem warhead, imaging infrared seeker, and target lock-on before launch and soft launch. Soft launch allows the Javelin to be fired safely from enclosures and covered fighting positions, increasing gunner survivability.



Javelin Anti-tank Fire and Forget Missile Launcher

The fielding to the ARNG will begin in FY 2004 and is currently funded through FY 2011. Fielding for two ARNG additional divisions, a light separate brigade and a scout group are still to be determined. The Javelin fielding to the ARNG will replace the now obsolete 30-year-old Dragon Anti-tank missile system and is a key weapon in both the current and future forces. Infantry and Reconnaissance, Surveillance Target Acquisition (RSTA) units of the Stryker brigade combat teams depend on Javelin as their principal tank killer.

The ARNG desires an acceleration that would eliminate the 30-year-old Dragon sooner and replace it with Javelin in all ARNG units prior to FY 2010 and especially to units scheduled to deploy to Iraq and Afghanistan.

ix. AN/PAS-13 Thermal Weapon Sight (TWS) Night Sight

The AN/PAS-13 TWS is an advanced infrared weapon sight now being fielded to the Army as a modern replacement weapon sight for the TVS-5 and to fill existing shortages. It comes in a light model which can be used as a weapon sight or hand held imager, a medium model for use on medium sized machine guns and the heavy model for use on .50 cal machine guns or the MK 19 automatic grenade launcher. This sight is a state of the art night sight that requires no visible light to operate and its use cannot be detected since it emits no heat or radio frequency energy. The AN/PAS-13 can also see through other obscurants such as smoke, rain, fog and dust. This new sight is considered to be a critical requirement for operations in Iraq and Afghanistan and the ARNG is requesting early fielding to its combat brigades



PAS-13 Heavy Thermal Weapon Sight System for Crew Served Weapons like the M2 50. CAL Machine Gun

scheduled for deployment to those areas. The current limited visibility sight, the aged TVS-5, is critically short and out of production. The ARNG is using NGREA funds to procure systems to provide training capability for its BCTs prior to deployment and to fill critical shortages for deploying units.

x. Movement Tracking System (MTS)

MTS is being used extensively in OIF and OEF and is a critical Logistics enabler that provides visibility for convoy operations, vehicle recovery and other support missions. The system is being fielded to deploying CSS units in OIF. The ARNG is using the \$4.5M NGREA FY 2004 procurement to field to the 42nd Div (NY) and its three BCTs for deployment to OIF to fill an unfunded Army requirement. Additional systems are being procured in FY 2005 to field to any other potential OIF ARNG unfunded units or to provide training capability on the system for home station use.



Soldier Using the Movements Tracking System Mounted in the Cab

g. Overall Equipment Readiness

The ARNG's average EOH for a majority of its units has dropped as a result of extensive requirements to cross-level equipment to fill shortages for mobilizing ARNG units. An additional factor is the large amount of stay behind equipment that will remain for the duration of the war and has created shortages for returning units. The ARNG's continued priority is support for deploying units and the continued focus on cross-leveling equipment to fill their shortages and makes replacing stay behind equipment a lower priority. The ARNG will continue to rely on available funding to procure new equipment for deploying units in order to cascade older equipment to fill other shortages and/or create training sets. The ARNG will continue to work with the Army staff to emphasize the de-mobilization plan for repairing equipment for its returning units and back-fill the equipment that doesn't return. The ARNG continues to be heavily dependent on full-time military technicians and depot funding to support readiness in its current force fleet.



Soldiers Training With an EST 2000

h. Other Equipment Specific Issues

The ARNG extensively uses Training Aids, Devices, Simulators, and Simulations to overcome limited training time, ammunition, ranges, and qualified trainers to support mobilizations and deployments. Devices such as the Armor Full Crew Interactive Simulator, Bradley Fire Support Team, and Engagement Skills Trainer 2000 provide a training baseline for Inactive Duty Training at home station and do not require the resource-intensive activities of firing live rounds, traveling to and from training areas, and competing for ranges. Using these technologies, soldiers can conduct preliminary gunnery and maneuver training so they maximize live training events during Annual Training. Training of the ARNG is different from the AC due to geographic dispersion of units and significant time constraints of our soldiers. These differences necessitate unique solutions to meet the training requirements of the ARNG.



ARNG Artillery Battalion Personnel from West Virginia Performing as Provisional Military Police Conducting Highway Security. The Unit is Using ARNG Stay Behind Equipment from an ARNG MP Company.

B. Changes Since Last NGRER

The Army has decided to modernize the ARNG's brigades and divisions through modular conversion that will be similar to the active component modular design. This new design replaces the Mobile Light Brigade design of last year and accelerates the plan to modernize the ARNG's combat force. The decision to leave significant amounts of equipment as stay behind equipment in Iraq and Afghanistan has created shortages for returning forces and new requirements for training sets to maintain unit and individual readiness. The ARNG has created provisional units by retraining units such as artillery and armor units into military police companies that will deploy and fall in on stay behind equipment sets from military police units. Current plans will create more provisional type units from other specialties. This will fill critical Army shortfalls and employ more of the ARNG's personnel. This requirement will also increase the ARNG's requirement to resource training by drawing from unit equipment.

C. Future Years Program (FY 2006–FY 2008)

ADRS Phase II will finish in FY 2007. The Army conversion of 33 ARNG combat brigades and 8 division headquarters to a modular design will start in FY 2005 and run through FY 2010. The Stryker Brigade conversion of the 56th Infantry Brigade in the Pennsylvania ARNG is scheduled to be completed in FY 2009.

1. FY 2008 Equipment Requirements

The exact equipment requirements for FY 2009 are still being calculated. The procurement of equipment through available funding potentially will decrease the current overall

shortages. Although there is no formal cascade plan, each year the ARNG acquires equipment from the Army and on occasion other services. Some cascaded equipment requires extensive maintenance work prior to issue to units. The Global War on Terror has changed mission requirements and equipment authorizations have been adjusted to meet the missions, sometimes increasing shortages.

2. Anticipated New Equipment Procurements

a. TOW Improved Target Acquisition System (ITAS) M41

ITAS is a materiel change to the current ground TOW 2 weapon system for first-to-deploy light forces. ITAS will increase target acquisition ranges and be able to fire all configurations of TOW missiles while allowing room for growth for follow-on missiles. TOW ITAS is being fielded at battalion level, replacing TOW 2 in light infantry units. The ITAS modification kit consists of an integrated (day/night sight with laser range finder) target acquisition subsystem, fire-control subsystem, battery power source and modified traversing unit. TOW ITAS will operate from the HMMWV and the dismounted tripod platform. The Army is in the process of completing fielding to its light forces and will field ITAS to the ARNG's Stryker Brigade (until the Stryker Anti-Tank Guided Missile (ATGM) system is fielded) and potentially to a limited number of ARNG activating Light Anti-tank Companies. The ITAS procurement for the remainder of ARNG units was left unfunded and the Army announced it was terminating ITAS procurement. The remainder of all other ARNG light separate brigades and its light division will continue to use the TOW 2 Anti-Tank system. The ARNG has requested that ITAS be fielded to brigades scheduled to deploy to Iraq and Afghanistan to give them the same capability as their AC counterparts.

b. Line of Sight Antitank (LOSAT) Weapon System

This HMMWV based kinetic energy missile system uses a second generation forward looking infrared/video acquisition sensor to acquire targets and then launch a fire and forget kinetic energy missile. This air-mobile, lightweight system provides over-match capability at the maximum range of direct-fire engagements. The ARNG is scheduled to field LOSAT to a light anti-tank battalion after FY 2007.

c. High-Mobility Artillery Rocket System (HIMARS)

HIMARS is a highly mobile artillery rocket system offering the Multiple Launch Rocket System (MLRS) type fire power from a single six pack of rockets on one Army Tactical Missile System (ATACMS). The HIMARS system is a highly mobile, C130 or larger aircraft transportable FMTV 5-ton mounted wheeled system. It carries a three-man crew and has a self-loading capability. HIMARS is scheduled to replace some of the MLRS M270 tracked systems and M198 towed 155mm howitzers in the ARNG. The ARNG desires additional HIMARS systems to replace all M198s towed 155mm howitzer battalions not being replaced by



HIMARS

the M777 lightweight 155mm howitzer and M270s not being upgraded to the M270A1.

d. Stryker

The eight-wheeled Stryker family of vehicles is the Army's first new armored vehicle to be fielded in 18 years. The primary design has two variants: the Infantry Carrier Vehicle (ICV) and Mobile Gun System (MGS). The ICV carries nine infantry soldiers and a crew of two. There are eight other variants of the basic ICV, which include a commander's vehicle, a fire-support vehicle, a mortar carrier, an ATGM vehicle, a medical evacuation vehicle and a nuclear, biological and chemical reconnaissance vehicle. The MGS is based on the ICV but has a 105mm turreted gun with an autoloader and a crew of three.



Stryker Vehicle on patrol in Iraq

The vehicles are being fielded to six different Stryker Brigade Combat Teams (SBCT) between now and FY 2010. SBCT number six will be the 56th Infantry Brigade, of the 28th Infantry Division (Mechanized) from the Pennsylvania ARNG which is converting from a M113 based infantry brigade. The 56th SBCT will first require base modernization of its equipment, and then will undergo the Army Unit Set Fielding that will equip the brigade with Stryker vehicles, digital command and control suites, and other state of the art systems by FY 2009.

e. Tactical Unmanned Aerial Vehicles (TUAV)

TUAVs are aviation systems which provide commanders in hostile areas with real-time information where immediate feedback is needed, but manned aircraft are unavailable, or conditions make use of manned aircraft imprudent. The Shadow 200 is the TUAV being fielded to brigade combat teams, Stryker brigades, and Armored Cavalry Regiments. The system comes with three air vehicles, launch and recovery equipment and ground control stations and data terminals. The first two units to be fielded in the ARNG are the 56th Stryker Brigade and the 629th MI BN in FY 04 for deployment to OIF and which will remain as stay behind systems with follow on platoons deployed to operate the systems. The ARNG procured a system with FY 2004 NGREA to provide a training set for platoons that will alternate deploying to Iraq to operate the deployed sets.



Shadow 200 Tactical Unmanned Aerial Vehicle Being Prepared for Launch

3. Anticipated Transfers from AC to ARNG

There are currently no detailed projections for equipment expected to be transferred to the ARNG for FY 2006 outside of the brigades and division headquarters that are being converted under the Army's modular design. While modernizing the majority of the combat force structure there are still large numbers of shortages in the echelons above division and units. The cascade of older equipment could fill some of the shortages, but there is no formal plan to address these shortages. Based on projected Army fielding and/or programmed force structure changes, the ARNG anticipates cascade of equipment to the ARNG for the following systems:

- Combat Tracked Vehicles: M1A1 Main Battle Tanks, M2A2 Bradley Fighting Vehicles.
- Tactical Wheeled Vehicles: M900 series 5-ton truck variants, HEMTT basic model variants, M35A2 trucks, heavy trucks such as Heavy Equipment Transport (HET), M900 series line haul tractors and trailers, engineer equipment.
- Communications & Electronic Equipment: PVS-5 Night Vision Devices, early model SINCGARS Radios.
- Power Generation: Diesel small, medium and large generators
- Aviation: UH-60 Blackhawk helicopters

4. Anticipated Withdrawals from ARNG Inventory

The ARNG anticipates the ability to purge some of the following equipment from its inventory in FY 2006 due to anticipated cascades and fielding of new equipment (*Table 5*): CUCVs, M109A5 Howitzers, M113 Variants, M1IP Tanks, OH-58 aircraft, UH-1 Utility Helicopter, VRC-12 Radios, Dragon Anti-Tank Missile Guidance Systems, M16A1 Rifles, M60 Machine Guns. The anticipated withdrawal of obsolete 800 series 5-tons and early model M35 2 ½ ton vehicles has been delayed indefinitely with no force structure initiatives that will increase the truck fleet requirements, the diversion of Army funds from vehicle procurement to other requirements and the increased requirement to resource training sets and provide stay behind equipment of trucks for the duration of the war.

5. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2008

- Armored Combat Systems. The M1A1 Main Battle Tank and M2/3 Bradley Fighting Vehicle (BFV) remain the primary system in the ARNG heavy brigades. The ARNG's primary concern is continuing to modernize the M2A2 Bradley



M2A2ODS Bradley Fighting Vehicles

fighting vehicle fleet to the M2A2ODS configuration. This modernization requirement is currently unfunded and is dependent upon additional funding.

- Power Generation. As the Army transforms, the power generation requirements continue to increase to support the new systems being fielded. The ARNG goals in power generation are to eliminate the obsolete gasoline generators (single fuel requirement) and eliminate unreliable, obsolete models of diesel generators to improve readiness. Generators range from the smaller 3 and 5 Kilowatt (KW) capable models up to the larger 30KW and 60KW models. The Tactical Quiet Generator (TQG) is being fielded by the Army to achieve these goals. The majority of the ARNG's TQG shortfall lies in the smaller 3KW and 5KW model. Current fielding of 5-60KW generators are primarily for high priority units and if funding remains constant, the completion of the fielding will take eight to ten years.



Tactical Quiet Generator

- Aviation. The ARNG rotary wing fleet is roughly broken into four major categories of aircraft: 1) attack aircraft, 2) utility aircraft (which includes air evacuation), 3) cargo aircraft, and 4) reconnaissance aircraft. The attack helicopter for the Army remains the AH-64

Apache and the Army is currently modifying its fleet to the AH-64D Longbow. The ARNG has one battalion of AH-64D Longbow Apaches while the remainder will remain AH-64A.



AH-64D Longbow Apache Helicopter

In the utility aircraft fleet the ARNG is predominately equipped with the UH-60A aircraft. The planned retirement of the UH-1 Huey aircraft has been delayed till at least FY 05 due to the continued shortage of UH-60s. The Army plans to eventually rebuild all UH-60s into the UH-60M model. The ARNG shortage of UH-60s is predominately in the UH-60 air-ambulance fleet.

The ARNG CH-47D fleet is included in the Army plan to convert the Chinook inventory to the CH-47F. The ARNG CH-47Ds will eventually be delivered to the induction line for conversion to the F model. ARNG units will subsequently be resourced as the Army continues to restructure the CH-47F program. The primary reconnaissance



CH-47 Preparing to Sling Load a M198 155mm

aircraft for the ARNG is the OH-58D Kiowa Warrior armed scout. The shortage of OH-58Ds has been handled by placing AH-64A aircraft in some of the Divisional Calvary squadrons as “in lieu of” aircraft to provide armed reconnaissance capability.

- Medium Transportation. The ARNG has activated seven new medium truck companies that have the 120 ea M872A4 trailers as an unfunded requirement. This significant trailer shortfall continues to be a major shortage concern and an unfunded requirement in the current Army procurement budget.



M915 Tractor & M872 Trailer

The ARNG projects to have inventory shortages for the items listed below.

- Combat Vehicles: M113A3 variants, M2A2 ODS Bradley Fighting Vehicles.
- Tactical Wheeled Vehicles: FMTVs, HMMWV variants, Up-Armored HMMWVs.
- Communications and Electronic Equipment: Night Vision Devices, SINCGARS, Precision Lightweight GPS Receiver and Enhanced Position Location Reporting System.
- Power Generation: Small, medium and large diesel fuel tactical quiet generators.
- Missile Systems: Javelin & ITAS Anti-Tank Missile System, Sentinel Radar.
- Aviation: AH-64D Longbow Apache Helicopters, UH-60M Blackhawks.

D. Summary/Conclusions

The ARNG has significantly increased the number of ARNG personnel and units mobilized to resource the Global War on Terror and continues to meet all mission requirements. Mobilizing and equipping units has become more challenging due to: 1. increased number of unit deployments, 2. delays in demobilizing returned equipment, 3. significant amount of stay behind equipment in OIF and OEF.

The newly announced Army modular design will modernize the ARNG’s combat brigades and divisions starting in FY 2005 and insure that the ARNG will be a more viable combat force in the future. The ARNG’s Stryker Brigade Combat Team is scheduled to be activated in FY 2008, and the ADRS conversion of support units will complete their activations in FY 2007-2008.

The ARNG continues to rely heavily on miltech support and depot maintenance to maintain readiness. The ARNG also continues to rely heavily on additional funding to fill shortages for unit mobilizations and in the future to modernize units not included in Army modularity conversions.

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 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|--|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| ROTARY WING AIRCRAFT | | | | | | | |
| HELICOPTER,ATTACK AH-64 (APACHE) | H28647 | 25,128,800 | 148 | 157 | 188 | 188 | 220 |
| HELICOPTER,CARGO CH-47D (CHINOOK) | H30517 | 30,000,000 | 131 | 131 | 131 | 131 | 131 |
| HELICOPTER,OBSERVATION OH-58A (KIOWA) | K31042 | 92,290 | 183 | 183 | 183 | 183 | 148 |
| HELICOPTER,OBSERVATION OH-58C (KIOWA) | H31110 | 190,817 | 75 | 76 | 76 | 76 | 110 |
| HELICOPTER,OBSERVATION,OH-58D (KIOWA) | A21633 | 4,075,800 | 20 | 20 | 20 | 20 | 29 |
| HELICOPTER,UTILITY UH-1H (IROQUOIS) | K31795 | 922,704 | 40 | 40 | 20 | 10 | 10 |
| HELICOPTER,UTILITY UH-1V (IROQUOIS) | H31872 | 948,158 | 60 | 60 | 38 | 0 | 0 |
| HELICOPTER,UTILITY UH-60A (BLACK HAWK) | K32293 | 4,635,000 | 476 | 493 | 523 | 523 | 523 |
| HELICOPTER,UTILITY UH-60L (BLACK HAWK) | H32361 | 4,855,000 | 149 | 149 | 149 | 149 | 187 |
| UH-60A EXTERNAL STORES SUBS | E21985 | 676,111 | 67 | 67 | 67 | 67 | 357 |
| FIXED WING AIRCRAFT | | | | | | | |
| AIRPLANE, CARGO, TRANSPORT, C-12D | A29812 | 1,967,301 | 9 | 9 | 9 | 9 | 1 |
| AIRPLANE, CARGO, C-12 | A30062 | 3,068,422 | 25 | 25 | 25 | 25 | 45 |
| AIRPLANE, CARGO, C-23 | A29880 | 7,424,158 | 39 | 39 | 39 | 39 | 38 |
| AIRPLANE CARGO, TRANSPORT, C-26 | A46758 | 800,000 | 7 | 7 | 7 | 7 | 11 |
| MISSILES | | | | | | | |
| FIRE UNIT VEHICLE MOUNTED,AVENGER | F57713 | 1,059,018 | 380 | 380 | 382 | 382 | 468 |
| MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) | L44894 | 1,973,897 | 340 | 340 | 340 | 340 | 291 |
| DRAGON TRACKER, ANTI-TANK GM | W80715 | 8,330 | 2,038 | 2,038 | 2,038 | 2,038 | 712 |
| LAUNCHER, TOW II ATGM M220A1 | L45740 | 133,000 | 1,095 | 1,095 | 1,095 | 1,095 | 996 |
| COMMUNICATIONS EQUIPMENT | | | | | | | |
| RADIO SET AN/ARC-114 | Q25990 | 20,857 | 267 | 267 | 267 | 267 | 961 |
| RADIO SET AN/VRC-92A (SINCGARS) | R45407 | 21,238 | 3,689 | 3,689 | 3,689 | 3,689 | 2,202 |
| RADIO SET AN/VRC-87A (SINCGARS) | R67160 | 12,109 | 2,292 | 2,292 | 2,293 | 2,293 | 243 |
| RADIO SET AN/VRC-88A (SINCGARS) | R67194 | 12,519 | 3,767 | 3,767 | 3,767 | 3,767 | 1,059 |
| RADIO SET AN/VRC-89A (SINCGARS) | R44863 | 22,822 | 3,538 | 3,538 | 3,538 | 3,538 | 1,356 |
| RADIO SET AN/VRC-90A (SINCGARS) | R67908 | 13,178 | 11,676 | 11,677 | 11,679 | 11,679 | 5,723 |
| RADIO SET AN/VRC-91A (SINCGARS) | R68010 | 23,249 | 4,699 | 4,699 | 4,699 | 4,699 | 3,666 |
| RADIO SET AN/VRC-119A (SINCGARS) | R83005 | 10,117 | 3,851 | 3,853 | 3,853 | 3,853 | 2,190 |
| RADIO SET AN/PRC-112 | R82903 | 6,018 | 889 | 1,418 | 1,510 | 1,510 | 6,137 |
| GUN LAYING POSITIONING SYSTEM | G97730 | 96,400 | 300 | 306 | 306 | 306 | 315 |
| CHEMICAL DEFENSIVE EQUIPMENT | | | | | | | |
| ALARM,CHEMICAL AGENT,AUTOMATIC,M8A1 | A32355 | 8,432 | 12,488 | 12,488 | 12,501 | 12,501 | 8,255 |
| ALARM CHEM DET M22 | A33020 | 10,000 | 1,451 | 1,533 | 1,606 | 1,609 | 11,526 |

ARNG

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|--|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| MASK,CHEMICAL BIOLOGICAL M40 | M12418 | 202 | 322,972 | 325,124 | 325,691 | 325,691 | 307,568 |
| MASK,PROTECTIVE,COMBAT VEHICLE M42 | M18526 | 640 | 50,015 | 50,015 | 50,015 | 50,015 | 18,266 |
| CONSTRUCTION EQUIPMENT | | | | | | | |
| BRIDGE ARMORED VEHICLE,SCISSOR TYPE | C20414 | 87,742 | 274 | 274 | 274 | 274 | 103 |
| COMPACTOR, HIGH SPEED | E61618 | 135,186 | 120 | 120 | 120 | 120 | 124 |
| CRANE,WHEEL MOUNTED,20T | F39378 | 162,393 | 1 | 1 | 1 | 1 | 28 |
| CRANE-SHOVEL, CRAWLER MOUNTED | F40474 | 270,000 | 4 | 4 | 4 | 4 | 20 |
| ATEC CRANE | F43429 | 160,953 | 66 | 66 | 66 | 66 | 28 |
| GRADER, ROAD, MOTORIZED, FRONT WHEEL STEER | J74852 | 129,684 | 2 | 2 | 2 | 2 | 23 |
| INTERIOR BAY BRIDGE, FLOATING | K97376 | 62,910 | 254 | 254 | 259 | 259 | 277 |
| ASPHALT PLANT | M57048 | 1,254,600 | 1 | 1 | 1 | 1 | 6 |
| VIBRATOR ROLLER | S12916 | 45,183 | 110 | 110 | 110 | 110 | 148 |
| TRACTOR, WHLD EXCAVATOR | T34437 | 69,583 | 762 | 762 | 764 | 764 | 713 |
| TRACTOR, FULL-TRACKED, HIGH SPEED, M9 | W76473 | 887,050 | 41 | 41 | 41 | 41 | 48 |
| TRACTOR, FULL-TRACKED, LOW SPEED | W76816 | 205,000 | 678 | 678 | 678 | 678 | 562 |
| TRACTOR, FULL-TRACKED, LOW SPEED, DED, MED | W83529 | 245,275 | 329 | 329 | 329 | 329 | 564 |
| ELECTRICAL GENERATION | | | | | | | |
| GENERATOR SET, DSL ENG, TM, 10KW, 60HZ, MTD ON M116 PU | G40744 | 12,102 | 1,078 | 1,078 | 1,078 | 1,078 | 67 |
| GENERATOR SET, DSL ENG, SKID MTD, 3KW, 60HZ, AC, 120/208 | G54041 | 6,459 | 2,947 | 2,949 | 2,966 | 2,966 | 2,561 |
| GENERATOR SET, DIESEL ENGINE, 30KW | J36383 | 20,810 | 458 | 458 | 458 | 458 | 97 |
| OTHER PROCUREMENT | | | | | | | |
| AVIATION NIGHT VISION GOGGLE, AN/AVS-6 | A06352 | 6,145 | 3,446 | 3,446 | 5,151 | 3,446 | 4,568 |
| MONOCULAR, NIGHT VISION, PVS-14 | M79678 | 3,607 | 24,470 | 24,470 | 24,470 | 24,470 | 9,991 |
| NIGHT VISION GOGGLES AN/PVS-5 | N04456 | 4,300 | 34,033 | 34,033 | 34,036 | 34,036 | 1,604 |
| NIGHT VISION SIGHT, CREW SERV WPN, AN/TVS-5 | N04596 | 3,500 | 4,944 | 4,944 | 5,163 | 5,163 | 15,449 |
| NIGHT VISION DEVICE, AN/PVS-4 WMG (WEAPON) | N04732 | 8,535 | 26,096 | 26,100 | 26,189 | 26,189 | 19,990 |
| NIGHT VISION GOGGLES, AN/PVS-7B | N05482 | 3,578 | 62,646 | 69,414 | 77,220 | 84,469 | 186,389 |
| METEOROLOGICAL MEASURING SET/TMQ-41 | M35941 | 640,273 | 33 | 34 | 38 | 38 | 68 |
| MELIOS PVS-6 EYE SAFE LASER OBSERVATION | M74849 | 22,015 | 1,906 | 2,174 | 2,235 | 2,235 | 8,631 |
| NIGHT SIGHT, TOW II ANTI-TANK SYSTEM, AN/VAS UAS-12 | N04982 | 61,791 | 1,131 | 1,131 | 1,131 | 1,131 | 1,087 |
| NIGHT VISION SIGHT, AN/UAS-11(V)1 | N05050 | 69,641 | 38 | 43 | 44 | 44 | 274 |
| NAVIGATION SYSTEM, PSN-11 | N95862 | 1,873 | 27,519 | 32,309 | 34,199 | 34,637 | 52,371 |
| POSITION AZIMUTH DETECTION SYSTEM | P21220 | 299,115 | 196 | 196 | 196 | 196 | 209 |
| EPLRS (ENHANCED POSITION LOCATION RADIO SYS) | P49587 | 55,206 | 1,417 | 1,447 | 1,613 | 1,628 | 1,402 |
| RADAR SET, AN/TPQ-36(V) | R14148 | 3,760,576 | 16 | 16 | 16 | 16 | 0 |
| ROPU WATER PURIFICATION SYSTEM, 3000 GPH | W47225 | 748,000 | 93 | 93 | 93 | 93 | 105 |
| TACTICAL VEHICLES | | | | | | | |
| TRUCK, AMBULANCE, M997 (HMMWV) | T38844 | 113,998 | 1,431 | 1,431 | 1,431 | 1,431 | 1,606 |

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| TRUCK, UTILITY TOW, M966 (HMMWV) | T05096 | 49,521 | 1,093 | 1,093 | 1,113 | 1,113 | 1,135 |
| TRUCK, UTILITY, 1-1/4 TON ARM, M1025 (HMMWV) | T92242 | 74,969 | 3,002 | 3,002 | 3,002 | 3,002 | 2,447 |
| TRUCK, UTILITY, 1-1/4 TON TOW, M1036 (HMMWV) | T92310 | 39,518 | 1,125 | 1,125 | 1,125 | 1,125 | 1,228 |
| TRUCK, UP-ARMORED, M1114 (HMMWV) | T92446 | 146,844 | 1,124 | 1,182 | 1,211 | 1,211 | 2,724 |
| TRUCK, UTILITY, 1-1/4 TON, M1097 (HMMWV) | T07679 | 61,665 | 2,707 | 3,137 | 4,050 | 5,436 | 3,967 |
| TRUCK, UTILITY, 1-1/4 TON, M998 (HMMWV) | T61494 | 36,076 | 19,155 | 19,355 | 19,356 | 19,356 | 30,279 |
| TRUCK, UTILITY, 1-1/4 TON, M1038 (HMMWV) | T61562 | 36,672 | 1,446 | 1,446 | 1,446 | 1,446 | 1,203 |
| TRUCK, UTILITY, 1-1/4 TON, M1113 (HMMWV) | T61630 | 61,042 | 508 | 508 | 525 | 632 | 1,961 |
| TRUCK, CARGO, TACTICAL, W/LT CRANE (HEMTT) | T39518 | 260,574 | 263 | 263 | 263 | 263 | 117 |
| TRUCK, CARGO, W/MED CRANE, M985 (HEMTT) | T39586 | 272,033 | 961 | 961 | 961 | 961 | 812 |
| TRUCK, CARGO, TACTICAL, M985 (HEMTT) | T39654 | 282,002 | 174 | 174 | 174 | 174 | 118 |
| TRUCK, CARGO, 10 TON, W/LT CRANE (HEMTT) | T59278 | 251,388 | 768 | 768 | 768 | 768 | 137 |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T58161 | 278,409 | 613 | 620 | 624 | 624 | 485 |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T87243 | 268,440 | 896 | 909 | 909 | 909 | 1,342 |
| TRUCK, WRECKER, 8X8, M948E1 (HEMTT) | T63093 | 379,000 | 730 | 732 | 735 | 746 | 855 |
| TRUCK, CARGO, LMTV, M1078 | T60081 | 176,428 | 1,480 | 1,491 | 1,526 | 1,893 | 6,374 |
| TRUCK, CARGO, LMTV, M1079 | T93484 | 162,060 | 51 | 60 | 72 | 74 | 247 |
| TRUCK, CARGO, MTV, 5-TON, M1084 | T41203 | 180,357 | 57 | 71 | 142 | 278 | 790 |
| TRUCK, CARGO, MTV, 5-TON, M1083 | T41135 | 134,047 | 129 | 132 | 148 | 160 | 432 |
| TRUCK, TRACTOR, MTV, 5-TON, M1088 | T61239 | 142,132 | 967 | 988 | 997 | 997 | 2,284 |
| TRUCK, CARGO, MTV, 5-TON, M1085 | T61704 | 118,791 | 35 | 36 | 36 | 36 | 51 |
| TRUCK, CARGO, MTV, 5-TON, M1083 | T61908 | 128,076 | 602 | 603 | 645 | 726 | 3,690 |
| TRUCK, WRECKER, MTV, 5-TON, M1089 | T94709 | 331,680 | 66 | 94 | 106 | 119 | 544 |
| TRUCK, CARGO, 5-TON, DROP SIDE | X40931 | 85,946 | 1,577 | 1,577 | 1,577 | 1,577 | 957 |
| TRUCK, TACTICAL FIRE FIGHTING | H56391 | 151,000 | 71 | 76 | 90 | 90 | 93 |
| SEMITRAILER, 22-1/2 TON, M871 | S70027 | 26,500 | 3,492 | 3,496 | 3,517 | 3,602 | 4,550 |
| SEMITRAILER, FULL BED, TRANSPORTR, 34 TON | S70159 | 75,000 | 2,711 | 2,740 | 2,822 | 2,841 | 4,323 |
| SEMITRAILER, LOW BED, 40 TON, 6-WHEEL | S70594 | 22,947 | 1,002 | 1,009 | 1,011 | 1,011 | 971 |
| SEMITRAILER, HVY EQUIP TRANSPORTER (HET), 60 TON, M747 | S70661 | 70,564 | 202 | 202 | 202 | 202 | 190 |
| SEMITRAILER, HVY EQUIP TRANSPORTER SYSTEM (HETS), 70 TON, M1000 | S70859 | 229,219 | 618 | 641 | 647 | 647 | 865 |
| SEMITRAILER, 5000 GAL POL | S73372 | 97,413 | 489 | 489 | 561 | 697 | 432 |
| TRAILER, HEMAT, M989A1 (MLRS) | T45465 | 34,714 | 933 | 1,010 | 1,044 | 1,055 | 1,364 |
| TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076 | T93761 | 46,731 | 721 | 748 | 772 | 772 | 1,992 |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1075 | T40999 | 276,410 | 454 | 454 | 467 | 471 | 673 |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1074 | T41067 | 288,015 | 657 | 657 | 657 | 657 | 358 |
| TRUCK, TRACTOR, HVY EQUIP TRANSPORTER SYSTEM (HETS), M1070 | T59048 | 256,704 | 724 | 724 | 724 | 724 | 923 |
| TRUCK, TRACTOR, LINE HAUL, M915 | T61103 | 162,968 | 2,300 | 2,300 | 2,348 | 2,348 | 2,391 |

ARNG

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|--|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916 | T91656 | 164,760 | 857 | 872 | 908 | 923 | 1,192 |
| TRUCK, FORKLIFT, ALL TERRAIN LIFTER, ARMY SYSTEM (ATLAS) | T73347 | 100,199 | 195 | 308 | 431 | 437 | 505 |
| TRUCK, 2 1/2 TON, M35A2 | X40146 | 56,500 | 3,313 | 3,313 | 3,315 | 3,315 | 697 |
| TRUCK, DUMP, 5-TON, 6X6, M929 | X43708 | 89,115 | 1,621 | 1,621 | 1,621 | 1,621 | 258 |
| TRUCK, DUMP, 5-TON, 6X6 | X43845 | 93,130 | 491 | 491 | 491 | 491 | 2 |
| TRUCK, DUMP, 20-TON, 12 CY, M917 | X44403 | 191,616 | 501 | 511 | 513 | 513 | 621 |
| TRACKED & WHEELED COMBAT SYSTEMS | | | | | | | |
| CARRIER, AMMO TRACKED, M992A2 | C10908 | 1,140,667 | 344 | 344 | 344 | 344 | 352 |
| ARMORED PERSONNEL CARRIER, FISTV, M113 | C12155 | 627,881 | 448 | 448 | 448 | 448 | 78 |
| ARMORED PERSONNEL CARRIER, M1059A2 | C12815 | 298,778 | 99 | 99 | 99 | 99 | 0 |
| ARMORED PERSONNEL CARRIER, M113A3 | C18234 | 405,815 | 1,572 | 1,572 | 1,572 | 1,572 | 897 |
| CARRIER, CARGO, FULL-TRACKED, 6 TON, M548 | D11049 | 323,416 | 555 | 555 | 555 | 555 | 176 |
| CARRIER, COMMAND POST, M577A1 | D11538 | 345,787 | 1,737 | 1,737 | 1,737 | 1,737 | 563 |
| ARMORED PERSONNEL CARRIER, M113A1/2 | D12087 | 244,844 | 2,419 | 2,419 | 2,419 | 2,419 | 45 |
| INFANTRY FIGHTING VEHICLE, M2A0 (BRADLEY) | J81750 | 1,061,457 | 359 | 359 | 359 | 359 | 153 |
| INFANTRY FIGHTING VEHICLE, M2A2 (BRADLEY) | F40375 | 1,349,348 | 718 | 718 | 718 | 763 | 386 |
| CAVALRY FIGHTING VEHICLE, M3A0 (BRADLEY) | C76335 | 1,056,845 | 85 | 85 | 85 | 85 | 15 |
| CAVALRY FIGHTING VEHICLE, M3A2 (BRADLEY) | F60530 | 1,144,000 | 186 | 218 | 218 | 218 | 268 |
| HOWITZER, LIGHT TOWED, 105MM, M102 | K57392 | 126,016 | 264 | 276 | 276 | 276 | 756 |
| HOWITZER, LIGHT TOWED, 105MM, M119 | H57505 | 1,100,000 | 47 | 47 | 47 | 47 | 40 |
| HOWITZER, MEDIUM, SP, 155MM, M109A5 | K57667 | 758,038 | 364 | 364 | 364 | 364 | 94 |
| HOWITZER, MEDIUM, SP, 155MM, M109A6 (PALADIN) | H57642 | 1,435,000 | 354 | 354 | 354 | 354 | 349 |
| LAUNCHER, M60 TANK CHASSIS | L43664 | 527,126 | 256 | 256 | 256 | 256 | 139 |
| RECOVERY VEHICLE, MEDIUM, FULL-TRACKED, M88A1 | R50681 | 1,210,755 | 867 | 867 | 867 | 867 | 537 |
| TANK, COMBAT, 120MM, M1A1 (ABRAMS) | T13168 | 2,393,439 | 1,683 | 1,695 | 1,695 | 1,695 | 598 |
| TANK, COMBAT, 105MM, M1 (ABRAMS) | T13374 | 1,645,697 | 630 | 630 | 630 | 630 | 29 |
| TRACTOR, FULL-TRACKED, ARMORED, M9 (ACE) | W76473 | 887,050 | 41 | 41 | 41 | 41 | 48 |
| WEAPONS | | | | | | | |
| MACHINE GUN, 7.62MM 240B | M92841 | 6,000 | 4,057 | 4,261 | 4,473 | 5,142 | 2,719 |
| RIFLE, 5.56 MM M16A2 | R95035 | 449 | 244,179 | 244,256 | 244,375 | 244,375 | 243,137 |

ARNG

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 2005.

| Nomenclature | Equip No. | Average Age | Remarks |
|--|-----------|-------------|---------|
| ROTARY AIRCRAFT | | | |
| HELICOPTER, ATTACK, AH-64A (APACHE) | H28647 | 16 | |
| HELICOPTER, CARGO, CH-47D (CHINOOK) | H30517 | 14 | |
| HELICOPTER, OBSERVATION, OH-58D (KIOWA) | A21633 | 14 | |
| HELICOPTER, UTILITY, UH-60A (BLACKHAWK) | K32293 | 21 | |
| HELICOPTER, UTILITY, UH-60L (BLACKHAWK) | H32361 | 9 | |
| FIXED WING AIRCRAFT | | | |
| AIRPLANE, CARGO, TRANSPORT, C-23 | A29880 | 12 | |
| AIRPLANE, CARGO, TRANSPORT, C-26 | A46758 | 13 | |
| AIRPLANE, CARGO, TRANSPORT, UC-35 | Z95382 | 6 | |
| AIRPLANE, CARGO, TRANSPORT, C-12 | 2 LINS | 19 | |
| MISSILES | | | |
| FIRE UNIT VEHICLE MOUNTED, AVENGER | F57713 | 12 | |
| MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) | L44894 | 17 | |
| COMMUNICATION EQUIPMENT | | | |
| SINGARS SYSTEMS, ICOM (A) MODEL | VARIOUS | 16 | |
| SINGARS SYSTEMS, ASIP (F) MODEL | VARIOUS | 6 | |
| VRC-12 RADIO SYSTEMS | VARIOUS | 28 | |
| CHEMICAL DEFENSIVE EQUIPMENT | | | |
| DECONTAMINATION APPARATUS, SKID MOUNTED | F81880 | 30 | |
| CONSTRUCTION EQUIPMENT | | | |
| BRIDGE ARMORED VEHICLE, SCISSOR TYPE | C20414 | 34 | |
| CRANE, WHEEL MOUNTED, 20T | F39378 | 34 | |
| CRANE-SHOVEL, CRAWLER MOUNTED | F40474 | 14 | |
| GRADER, ROAD, MTR, FRONT WHEEL STEER | J74852 | 28 | |
| SMALL EMPLACEMENT EXCAVATOR W/FRONT LOADER | T34437 | 16 | |
| TRUCK, DUMP, 20T, 12 CY M917 | X44403 | 27 | |
| TRUCK, DUMP, 5T 6X6 WW WE | X43845 | 36 | |
| ROLLER PNEUMATIC, VARIABLE PRESSURE | S11793 | 27 | |
| TRACTOR, FULLTRACKED, ARMORED M9 (ACE) | W76473 | 11 | |

ARNG
Average Age of Equipment

Table 2

| Nomenclature | Equip No. | Average Age | Remarks |
|--|-----------|-------------|---------|
| TRACTOR, FULLTRACKED, LOW SPEED | W76816 | 33 | |
| TRACTOR, FULLTRACKED, LOW SPEED, DED, MED | W83529 | 25 | |
| ELECTRICAL GENERATION | | | |
| GENERATOR SET, DIESEL ENGINE, 30KW | J36383 | 21 | |
| GENERATOR SET, DSL ENG, TM, 10KW, 60HZ | G40744 | 15 | |
| GENERATOR, PU-405 | J35492 | 21 | |
| TACTICAL VEHICLES | | | |
| TRUCK, CARGO, 5T, DROP SIDE WW | X40931 | 21 | |
| TRUCK, TRACTOR, HEAVY EQUIP TRANS SYS (HET) | T59048 | 11 | |
| TRK UTILITY: HEAVY VARIANT HMMWV 4X4 10000 | T07679 | 11 | |
| TRUCK, UTILITY, 1-1/4 TON, M998, WE (HMMWV) | T61494 | 14 | |
| TRUCK, UTILITY, 1-1/4 TON, M1036, TOW (HMMWV) | T92310 | 15 | |
| TRUCK, CARGO, TACTICAL, W/W-LT CR (HEMTT) | T39518 | 17 | |
| TRUCK, M985, CARGO, W/MED CR (HEMTT) | T39586 | 14 | |
| TRUCK, TANKER, FUEL, 2500G WW (HEMTT) | T58161 | 15 | |
| TRUCK, CARGO, 10 TON, W/LT CRANE (HEMTT) | T59278 | 21 | |
| TRUCK, WRECKER, M948E1, 8X8 (HEMTT) | T63093 | 14 | |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T87243 | 15 | |
| TRUCK, TRACTOR, TACTICAL, 8X8, HVY EXPANDED | T88677 | 19 | |
| ROUGH TERRAIN CARGO HANDLER, 50K LB (RTCH) | T48941 | 21 | |
| TRUCK, FORK LIFT, 6K LB, RT, VARIABLE REACH | T48944 | 12 | |
| TRUCK, FORK LIFT, DD, 4K LB, RT | T49255 | 22 | |
| TRACTOR, WHEELED, WAREHOUSE, 4K LB | W89557 | 25 | |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS) | T40999 | 9 | |
| SEMITRAILER, 221/2 TON M871 | S70027 | 21 | |
| SEMITRAILER, FB, TRANSPORTER, 34T | S70159 | 21 | |
| SEMITRAILER, LOW BED, 40 TON, 6-WHEEL | S70594 | 26 | |
| SEMITRAILER, HVY EQUIP TRANSPORTER, 60T (HET) | S70661 | 29 | |
| SEMITRAILER TANK, PETROLEUM, 7500 GAL, BULK HAUL | S73119 | 13 | |
| SEMITRAILER, VAN, SUP M129A2C | S75175 | 36 | |
| TRUCK, TRACTOR, LET M916 | T91656 | 21 | |
| TRACKED & WHEELED COMBAT SYSTEMS | | | |
| ARMORED PERSONNEL CARRIER M113A3 | C18234 | 16 | |
| ARMORED PERSONNEL CARRIER, FISTV | C12155 | 37 | |
| ARMORED PERSONNEL CARRIER, FM113A1/2 | D12087 | 33 | |
| CARRIER CARGO, FT, 6 TON M548 | D11049 | 36 | |
| CARRIER, AMMO, TRACKED M992A2 | C10908 | 18 | |

ARNG

Table 2

Average Age of Equipment

| Nomenclature | Equip No. | Average Age | Remarks |
|---|------------------|--------------------|----------------|
| CARRIER, COMMAND POST M577A1 | D11538 | 17 | |
| CARRIER, M106A1, 107MM MORT, 4.2IN | D10741 | 38 | |
| CARRIER, SMOKE GENERATOR, FT, ARMD | C12815 | 32 | |
| CAVALRY FIGHTING VEHICLE M3A0(BRADLEY) | C76335 | 20 | |
| CAVALRY FIGHTING VEHICLE M3A2 (BRADLEY) | F60530 | 16 | |
| HOWITZER, M102, 105MM, LT, TWD | K57392 | 16 | |
| HOWITZER, MEDIUM, SP, 155MM M109A5 | K57667 | 33 | |
| INFANTRY FIGHTING VEHICLE M2A0 (BRADLEY) | J81750 | 20 | |
| INFANTRY FIGHTING VEHICLE M2A2 (BRADLEY) | F40375 | 13 | |
| LAUNCH, M60 TANK CHASSIS | L43664 | 28 | |
| RECOVERY VEHICLE, FT, MDM M88A1 | R50681 | 29 | |
| TANK, COMBAT, 105 MM M1 (ABRAMS) | T13374 | 20 | |
| TANK, COMBAT, 120MM M1A1 (ABRAMS) | T13168 | 17 | |
| TRACTOR, FULLTRACKED, ARMORED M9 (ACE) | W76473 | 11 | |
| TRACTOR, FULLTRACKED, LOW SPEED | W76816 | 33 | |
| TRACTOR, FULLTRACKED, LOW SPEED, DED, MED | W83529 | 25 | |

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 2006 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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008.

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---|-------------|-------------|-------------|---------|
| MODIFICATION OF AIRCRAFT | | | | |
| UTILITY/CARGO AIRPLANE MODS | 11,355,000 | 8,415,000 | | |
| AIRBORNE AVIONICS | 9,953,000 | 8,726,000 | 11,253,000 | |
| GATM ROLLUP | 4,800,000 | 4,100,000 | | |
| OTHER MISSILES | | | | |
| JAVELIN (AAWS-M) SYSTEM SUMMARY | 15,178,000 | 19,599,000 | | |
| HIGH MOBILITY ARTILLERY ROCKET SYS (HIMARS) | | 90,374,000 | 159,086,000 | |
| MODIFICATION OF MISSILES | | | | |
| ITAS/TOW MODS | | | 22,402,000 | |
| TRACKED COMBAT VEHICLES | | | | |
| STRYKER | 562,487,000 | 218,392,000 | | |
| WEAPONS AND OTHER COMBAT VEHICLES | | | | |
| M107, CAL. 50, SNIPER RIFLE | 3,338,000 | | | |
| 5.56 CARBINE M4 | 241,000 | | | |
| HOWITZER LT WT 155MM (T) | 29,927,000 | | 46,123,000 | |
| TACTICAL AND SUPPORT VEHICLES | | | | |
| TACTICAL TRAILERS/DOLLY SETS | 5,512,000 | 978,000 | 392,000 | |
| SEMI TRAILERS, FLATBED | 5,181,000 | 4,136,000 | 10,165,000 | |
| SEMI TRAILERS, TANKERS | 1,397,000 | 6,509,000 | 2,606,000 | |
| HI MOB MULTI-PURP WHLD VEH (HMMWV) | 28,458,000 | 71,449,000 | 189,613,000 | |
| FAMILY OF MEDIUM TACTICAL VEH (FMTV) | 259,785,000 | 171,307,000 | 34,231,000 | |
| FIRE TRUCKS & ASSOCIATED FIREFIGHTING EQUIP | 4,728,000 | 25,019,000 | 15,893,000 | |
| FAMILY OF HEAVY TACTICAL VEHICLES (FHTV) | 75,537,000 | 125,877,000 | 167,107,000 | |
| TRUCK, TRACTOR, LINE HAUL, M915/M916 | 15,763,000 | 8,920,000 | 2,430,000 | |
| HEAVY EXPANDED MOBILE TACTICAL TRUCK EXTENDED SERVICE PROGRAM | 16,180,000 | 5,395,000 | 8,434,000 | |
| COMMUNICATIONS AND ELECTRONICS EQUIPMENT | | | | |
| NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE) | 220,000 | | 25,853,000 | |
| MEDICAL COMM FOR CBT CASUALTY CARE (MC4) | | 524,000 | | |
| PROPHET GROUND (TIARA) | | | 7,694,000 | |
| TUAV | | | 18,718,000 | |
| CI HUMINT INFO MANAGE SYS (CHIMS) (TIARA) | 730,000 | | 1,837,000 | |
| NIGHT VISION DEVICES | | | 16,321,000 | |

ARNG

Table 3

Service Procurement Program - Reserve (P-1R)

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---|------------------------|----------------------|----------------------|---------|
| LONG RANGE ADVANCED SCOUT SURVEILLANCE SYSTEM | 1,367,000 | | | |
| FORCE XXI BATTLE CMD BRIGADE & BELOW (FBCB2) | | | 42,817,000 | |
| MANEUVER CONTROL SYSTEM (MCS) | 552,000 | 1,127,000 | 8,952,000 | |
| OTHER SUPPORT EQUIPMENT | | | | |
| TACTICAL BRIDGING | 22,931,000 | | 23,649,000 | |
| TACTICAL BRIDGE, FLOAT-RIBBON | 280,000 | 802,000 | | |
| HEATERS AND ECU'S | 914,000 | 83,000 | | |
| SOLDIER ENHANCEMENT | | 3,758,000 | 7,387,000 | |
| FIELD FEEDING EQUIPMENT | 6,997,000 | 7,594,000 | 6,810,000 | |
| ITEMS LESS THAN \$5.0M (ENG SPT) | 49,000 | | | |
| DISTRIBUTION SYSTEMS, PETROLEUM & WATER | 2,790,000 | 2,806,000 | 5,684,000 | |
| WATER PURIFICATION SYSTEMS | 2,786,000 | | 1,764,000 | |
| COMBAT SUPPORT MEDICAL | | 726,000 | | |
| SHOP EQ CONTACT MAINTENANCE TRK MTD (MYP) | 3,240,000 | 3,367,000 | 3,456,000 | |
| WELDING SHOP, TRAILER MTD | 252,000 | | | |
| ITEMS LESS THAN \$5.0M (MAINT EQ) | | | 9,211,000 | |
| MISSION MODULES - ENGINEERING | 600,000 | 7,819,000 | 3,115,000 | |
| GENERATORS AND ASSOCIATED EQUIP | 30,901,000 | 20,692,000 | 31,256,000 | |
| ALL TERRAIN LIFTING ARMY SYSTEM | | | 8,310,000 | |
| INTEGRATED FAMILY OF TEST EQUIPMENT (IFTE) | 20,267,000 | 22,139,000 | 24,514,000 | |
| TOTAL | \$1,144,696,000 | \$840,633,000 | \$917,083,000 | |

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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008. All values are costs in dollars.

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|---|-----------|------------|------------|---------|
| AN/PVS-7D NIGHT VISION GOGGLES | 3,902,700 | | | |
| AN/PVS-14 NIGHT VISION GOGGLES | | 14,932,500 | 16,000,000 | |
| AN/PEQ-2 RIFLE ILLUMINATOR | | 4,302,700 | 2,671,950 | |
| AN/PAS-13 THERMAL WEAPON SIGHT | | | 4,200,000 | |
| M4 CARBINE | | 5,000,000 | 9,100,000 | |
| M240B MACHINE GUN | | 3,600,000 | 3,400,000 | |
| LASER MARKSMANSHIP TRAINER (LMTS) | | 1,620,000 | | |
| LASER MARKSMANSHIP TRAINER (LMTS) - SNIPER VERSION | | 300,000 | | |
| HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) | 2,870,000 | 15,050,000 | | |
| HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) CONVOY TRAINER | | | 2,320,000 | |
| HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) SHELTER, M1097/M1192 | | | 8,766,810 | |
| HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) WEAPONS, M1151 | | | 8,300,000 | |
| FMTV M1083 5-TON CARGO TRUCK | 4,900,000 | 5,600,000 | | |
| HEAVY EXPANDED MOBILITY TACTICAL TRUCK (HEMTT) WRECKER, M985A2 | 3,204,000 | | | |
| HEAVY EXPANDED MOBILITY TACTICAL TRUCK (HEMTT) TANKER, M978 | 2,900,000 | 2,709,900 | 2,408,840 | |
| M917A2 DUMP TRUCK, 20 TON | | | 6,450,000 | |
| SINGARS RADIOS/CASCADE TOTAL PACKAGE FIELDING (TPF) | 7,300,000 | | | |
| SINGARS AIRBORNE RADIOS | 3,300,000 | 2,940,900 | | |
| SINGARS R/T 1523E RECEIVER/TRANSMITTER | | | 10,000,000 | |
| AN/USD-60A SATELLITE TERMINAL | | 9,800,000 | | |
| AN/PRC-112 AIRCREW INDIVIDUAL RADIO | | 1,650,000 | 1,626,900 | |
| METEOROLOGICAL MEASURING SYSTEM | 1,455,000 | | | |
| MOVEMENT TRACKING SYSTEM (MTS) | | 4,500,000 | 4,500,000 | |
| ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (AFATDS) | | 900,000 | | |
| SHADOW 200 TACTICAL UNMANNED AERIAL VEHICLE | | 12,000,000 | | |

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|---|---------------------|---------------------|---------------------|---------|
| ADVANCED BRADLEY FULL-CREW INTERACTIVE SKILLS TRAINER (AB FIST) | | 9,350,000 | 4,400,000 | |
| DEPLOYABLE FORCE-ON-FORCE INSTRUMENTED RANGE SYSTEM (DFIRST) | | 2,502,000 | 3,850,000 | |
| ENGAGEMENT SKILLS TRAINER 2000 (EST 2000) | | 2,500,000 | 3,200,000 | |
| MOBILE CONDUCT-OF-FIRE TRAINER (MCOFT) XXI | | | 3,437,500 | |
| TOTAL | \$29,831,700 | \$99,258,000 | \$94,632,000 | |

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 Active 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 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|--|-----------|-------------|-------------|-------------|---------|
| ROTARY WING AIRCRAFT | | | | | |
| HELICOPTER,CARGO CH-47D (CHINOOK) | H30517 | | 34 | 6 | |
| HELICOPTER,OBSERVATION,OH-58D (KIOWA) | A21633 | 2 | | | |
| HELICOPTER,OBSERVATION OH-58C (REPLACED BY LUH) | H31110 | | 1 | | |
| HELICOPTER,UTILITY UH-60L/Q (BLACK HAWK) | H32361 | 1 | | 10 | |
| UH-60A EXTERNAL STORES SUBS | E21985 | 49 | 18 | 26 | |
| HELICOPTER,UTILITY UH-60A/HH (BLACK HAWK) | K32293 | 4 | 13 | 18 | |
| HELICOPTER,ATTACK AH-64A/D (APACHE) | H28647 | 5 | | | |
| MISSILES | | | | | |
| FIRE UNIT VEHICLE MOUNTED,AVENGER | F57713 | 56 | | 2 | |
| MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) | L44894 | 1 | | | |
| COMMUNICATIONS EQUIPMENT | | | | | |
| RADIO SET AN/VRC-92A (SINCGARS) | R45407 | 5 | | | |
| RADIO SET AN/VRC-87A (SINCGARS) | R67160 | | | 1 | |
| RADIO SET AN/VRC-90A (SINCGARS) | R67908 | 1 | 1 | 2 | |
| RADIO SET AN/VRC-91A (SINCGARS) | R68010 | 4 | | | |
| RADIO SET AN/VRC-119A (SINCGARS) | R83005 | | 2 | | |
| RADIO SET AN/PRC-112 | R82903 | 136 | 529 | 92 | |
| GUN LAYING POSITIONING SYSTEM | G97730 | | 6 | | |
| CHEMICAL DEFENSIVE EQUIPMENT | | | | | |
| ALARM,CHEMICAL AGENT,AUTOMATIC,M8A1 | A32355 | 427 | | 13 | |
| ALARM CHEM DET M22 | A33020 | 890 | 82 | 73 | |
| MASK,CHEMICAL BIOLOGICAL M40 | M12418 | 8,518 | 2,152 | 567 | |
| MASK,PROTECTIVE,COMBAT VEHICLE M42 | M18526 | 2 | | | |
| CONSTRUCTION EQUIPMENT | | | | | |
| CRANE,WHEEL MOUNTED,20T | F39378 | 1 | | | |
| CRANE-SHOVEL, CRAWLER MOUNTED | F40474 | 2 | | | |
| GRADER, ROAD, MOTORIZED, FRONT WHEEL STEER | J74852 | 1 | | | |
| INTERIOR BAY BRIDGE, FLOATING | K97376 | | | 5 | |
| TRACTOR, WHLD EXCAVATOR | T34437 | 2 | | 2 | |
| TRACTOR, FULL-TRACKED, HIGH SPEED, M9 | W76473 | 1 | | | |
| TRACTOR, FULL-TRACKED, LOW SPEED | W76816 | 1 | | | |
| TRACTOR, FULL-TRACKED, LOW SPEED, DED, MED | W83529 | 2 | | | |
| ELECTRICAL GENERATION | | | | | |
| GENERATOR SET, DSL ENG, SKID MTD, 3KW, 60HZ, AC, 120/208 | G54041 | 3 | 2 | 17 | |

Projected Equipment Transfer/Withdrawal Quantities

| Nomenclature | Equip No. | FY 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|---|-----------|-------------|-------------|-------------|---------|
| OTHER PROCUREMENT | | | | | |
| AVIATION NIGHT VISION GOGGLE, AN/AVS-6 | A06352 | 169 | 138 | 92 | |
| MONOCULAR, NIGHT VISION, PVS-14 | M79678 | 4,912 | | | |
| NIGHT VISION GOGGLES AN/PVS-5 | N04456 | 2,188 | | 3 | |
| NIGHT VISION SIGHT, CREW SERV WPN, AN/TVS-5 | N04596 | 2,229 | | 219 | |
| NIGHT VISION DEVICE, AN/PVS-4 WMG (WEAPON) | N04732 | 2,255 | 4 | 89 | |
| NIGHT VISION GOGGLES, AN/PVS-7B | N05482 | 18,873 | 6,768 | 7,806 | |
| METEOROLOGICAL MEASURING SET/TMQ-41 | M35941 | | 1 | 4 | |
| MELIOS PVS-6 EYE SAFE LASER OBSERVATION | M74849 | 733 | 268 | 61 | |
| NIGHT VISION SIGHT, AN/UAS-11(V)1 | N05050 | 34 | 5 | 1 | |
| NAVIGATION SYSTEM, PSN-11 | N95862 | 7,523 | 4,790 | 1,890 | |
| POSITION AZIMUTH DETECTION SYSTEM | P21220 | 1 | | | |
| ROPU WATER PURIFICATION SYSTEM, 3000 GPH | W47225 | 3 | | | |
| TACTICAL VEHICLES | | | | | |
| TRUCK, UTILITY TOW, M966 (HMMWV) | T05096 | 41 | | 20 | |
| TRUCK, UTILITY, 1-1/4 TON ARM, M1025 (HMMWV) | T92242 | 40 | | | |
| TRUCK, UTILITY, 1-1/4 TON TOW, M1036 (HMMWV) | T92310 | 1 | | | |
| TRUCK, UP-ARMORED, M1114 (HMMWV) | T92446 | 779 | 58 | 29 | |
| TRUCK, UTILITY, 1-1/4 TON, M1097 (HMMWV) | T07679 | 609 | 276 | 750 | |
| TRUCK, UTILITY, 1-1/4 TON, M998 (HMMWV) | T61494 | 13 | 200 | 1 | |
| TRUCK, UTILITY, 1-1/4 TON, M1038 (HMMWV) | T61562 | 2 | | | |
| TRUCK, UTILITY, 1-1/4 TON, M1113 (HMMWV) | T61630 | | | 17 | |
| TRUCK, CARGO, W/MED CRANE, M985 (HEMTT) | T39586 | 25 | | | |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T87243 | 40 | 13 | | |
| TRUCK, WRECKER, 8X8, M948E1 (HEMTT) | T63093 | 46 | | 3 | |
| TRUCK, CARGO, LMTV, M1078 | T60081 | 59 | 11 | 35 | |
| TRUCK, CARGO, LMTV, M1079 | T93484 | 19 | 9 | 12 | |
| TRUCK, CARGO, MTV, 5-TON, M1084 | T41203 | 39 | 14 | 44 | |
| TRUCK, CARGO, MTV, 5-TON, M1083 | T41135 | 56 | 3 | 16 | |
| TRUCK, TRACTOR, MTV, 5-TON, M1088 | T61239 | 153 | 1 | | |
| TRUCK, CARGO, MTV, 5-TON, M1085 | T61704 | 31 | 1 | | |
| TRUCK, CARGO, MTV, 5-TON, M1083 | T61908 | 227 | | 42 | |
| TRUCK, WRECKER, MTV, 5-TON, M1089 | T94709 | 40 | 28 | 12 | |
| TRUCK, TACTICAL FIRE FIGHTING | H56391 | 15 | | 7 | |
| SEMITRAILER, 22-1/2 TON, M871 | S70027 | 542 | 4 | 1 | |
| SEMITRAILER, FULL BED, TRANSPORTR, 34 TON | S70159 | 458 | 29 | 82 | |
| SEMITRAILER, LOW BED, 40 TON, 6-WHEEL | S70594 | | 7 | 2 | |
| SEMITRAILER, HVY EQUIP TRANSPORTER SYSTEM (HETS), 70 TON, M1000 | S70859 | 8 | 23 | 6 | |
| SEMITRAILER, 5000 GAL POL | S73372 | 1 | | 40 | |
| TRAILER, HEMAT, M989A1 (MLRS) | T45465 | 122 | 77 | 34 | |

ARNG

Table 5

Projected Equipment Transfer/Withdrawal Quantities

| Nomenclature | Equip No. | FY 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|--|------------------|--------------------|--------------------|--------------------|----------------|
| TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076 | T93761 | 96 | 27 | 24 | |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1075 | T40999 | 53 | | 13 | |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1074 | T41067 | 6 | | | |
| TRUCK, TRACTOR, HVY EQUIP TRANSPORTER SYSTEM (HETS), M1070 | T59048 | 116 | | | |
| TRUCK, TRACTOR, LINE HAUL, M915 | T61103 | 105 | | 48 | |
| TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916 | T91656 | | | 6 | |
| TRUCK, FORKLIFT, ALL TERRAIN LIFTER, ARMY SYSTEM (ATLAS) | T73347 | 3 | | | |
| TRUCK, 2 1/2 TON, M35A2 | X40146 | | | 2 | |
| TRUCK, DUMP, 20-TON, 12 CY, M917 | X44403 | 7 | 10 | 2 | |
| TRACKED & WHEELED COMBAT SYSTEMS | | | | | |
| CAVALRY FIGHTING VEHICLE, M3A2 (BRADLEY) | F60530 | | 32 | | |
| HOWITZER, LIGHT TOWED, 105MM, M102 | K57392 | | 12 | | |
| HOWITZER, MEDIUM, SP, 155MM, M109A6 (PALADIN) | H57642 | 1 | | | |
| LAUNCHER, M60 TANK CHASSIS | L43664 | 2 | | | |
| TANK, COMBAT, 120MM, M1A1 (ABRAMS) | T13168 | | 12 | | |
| WEAPONS | | | | | |
| MACHINE GUN,7.62MM 240B | M92841 | 1,036 | 204 | 212 | |
| RIFLE,5.56 MM M16A2 | R95035 | 26 | 77 | 119 | |

ARNG

Table 6

FY 2002 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2002 with actual procurements and transfers. FY 2002 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 2004. Procurement and NGREA columns reflect cost values in dollars.

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|--|-----------|--------------------------------|--------|----------------------------|-------------|---------------------|--------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| ARMORED PERSONNEL CARRIER,FISTV M113 | C12155 | 1 | 0 | | | | |
| MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) | L44894 | 9 | 9 | | | | |
| MELIOS | M74849 | 9 | 0 | | | | |
| NIGHT VISION GOGGLES AN/PVS-7B | N05482 | 2,120 | 0 | | | | |
| RADIO SET AN/VRC-87A (SINGARS) | R67160 | 3 | 3 | | | | |
| RADIO SET AN/PRC-112 | R82903 | 118 | 0 | | | | |
| SEMITRAILER,22-1/2 TON M871 | S70027 | 4 | 4 | | | | |
| SEMITRAILER 5000 GAL POL | S73372 | 1 | 1 | | | | |
| TRUCK,M985,CARGO,W/MED CRANE (HEMTT) | T39586 | 2 | 6 | | | | |
| TRUCK,CARGO,TACTICAL, M985 (HEMTT) | T39654 | 9 | 0 | | | | |
| TRANSPORTER,PALLETIZED LOAD SYSTEM (PLS) | T40999 | 1 | 0 | | | | |
| TRUCK,TANKER,FUEL,2500G (HEMTT) | T58161 | 12 | 0 | | | | |
| TRAILER,PALLETIZED LOAD SYSTEM (PLS) | T93761 | 6 | 0 | | | | |
| TRACTOR,FULL TRACKED,ARMORED M9 (ACE) | W76473 | 21 | 0 | | | | |
| UH-60 BLACKHAWK (MYP) | | | | 173,900,000 | 173,939,000 | | |
| UTILITY/CARGO AIRPLANE MODS | | | | 5,900,000 | 5,900,000 | | |
| JAVELIN (AAWS-M) SYSTEM SUMMARY | | | | 97,200,000 | 97,243,000 | | |
| AVENGER MODS | | | | 4,000,000 | 0 | | |
| MLRS MODS | | | | 1,900,000 | 0 | | |
| HOWITZER, MED SP FT 155MM M109A6 (MOD) | | | | 5,400,000 | 0 | | |
| ARMOR MACHINE GUN, 7.62MM M240 SERIES | | | | 6,400,000 | 6,383,000 | | |
| M16 RIFLE | | | | 2,000,000 | 1,950,000 | | |
| SEMITRAILERS, FLATBED: | | | | 5,600,000 | 5,603,000 | | |
| SEMITRAILERS, TANKERS | | | | 6,700,000 | 0 | | |
| HI MOB MULTI-PURP WHLD VEH (HMMWV) | | | | 2,400,000 | 4,260,000 | | |

ARNG

Table 6

FY 2002 Planned vs Actual Procurements and Transfers

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|--|-----------|--------------------------------|--------|----------------------------|-------------|---------------------|--------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| FAMILY OF MEDIUM TACTICAL VEH (FMTV) | | | | 163,100,000 | 163,116,000 | | |
| FIRETRUCKS & ASSOCIATED FIREFIGHTING EQUIPMENT | | | | 2,500,000 | 2,512,000 | | |
| FAMILY OF HEAVY TACTICAL VEHICLES (FHTV) | | | | 82,000,000 | 82,041,000 | | |
| TRUCK, TRACTOR, LINE HAUL, M915/M916 | | | | 43,300,000 | 42,260,000 | | |
| ACUS MOD PROGRAM | | | | 17,800,000 | 17,800,000 | | |
| ALL SOURCE ANALYSIS SYS (ASAS) (TIARA) | | | | 2,000,000 | 2,047,000 | | |
| ARTILLERY ACCURACY EQUIP | | | | 6,800,000 | 0 | | |
| MOD OF IN-SVC EQUIP (TAC SURV) | | | | 21,400,000 | 0 | | |
| FORCE XXI BATTLE CMD BRIGADE & BELOW (FBCB2) | | | | 4,500,000 | 4,450,000 | | |
| ADV FIELD ARTILLERY TACT DATA SYS (AFATDS) | | | | 49,300,000 | 0 | | |
| FAAD C2 | | | | 6,200,000 | 6,165,000 | | |
| FORWARD ENTRY DEVICE (FED) | | | | 14,100,000 | 14,110,000 | | |
| LOGTECH | | | | 1,500,000 | 1,515,000 | | |
| GUN LAYING AND POS SYS (GLPS) | | | | 9,900,000 | 9,866,000 | | |
| ISYSCON EQUIPMENT | | | | 2,100,000 | 2,101,000 | | |
| STAMIS TACTICAL COMPUTERS (STACOMP) | | | | 16,700,000 | 16,717,000 | | |
| AUTOMATED DATA PROCESSING EQUIP | | | | 1,200,000 | 993,000 | | |
| RESERVE COMPONENT AUTOMATION SYS (RCAS) | | | | 55,400,000 | 54,784,000 | | |
| LIGHTWEIGHT MAINTENANCE ENCLOSURE (LME) | | | | 0 | 10,000 | | |
| FIELD FEEDING AND REFRIGERATION | | | | 2,500,000 | 2,468,000 | | |
| DISTRIBUTION SYSTEMS, PETROLEUM & WATER | | | | 8,700,000 | 9,137,000 | | |
| ASSAULT HOSELINE SYSTEM | | | | 2,100,000 | 0 | | |
| WATER PURIFICATION SYSTEMS | | | | 21,900,000 | 11,391,000 | | |
| COMBAT SUPPORT MEDICAL | | | | 1,000,000 | 985,000 | | |
| HYDRAULIC EXCAVATOR | | | | 1,100,000 | 0 | | |
| CRANES | | | | 1,800,000 | 0 | | |
| CRUSHING/SCREENING PLANT, 150 TPH | | | | 4,500,000 | 4,474,000 | | |
| GENERATORS AND ASSOCIATED EQUIP | | | | 9,900,000 | 9,863,000 | | |

ARNG

Table 6

FY 2002 Planned vs Actual Procurements and Transfers

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|--|-----------|--------------------------------|--------|----------------------------|------------|----------------------|----------------------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| ALL TERRAIN LIFTING ARMY SYSTEM | | | | 3,500,000 | 3,500,000 | | |
| TRAINING DEVICES, NONSYSTEM | | | | 36,500,000 | 36,489,000 | | |
| CALIBRATION SETS EQUIPMENT | | | | 400,000 | 385,000 | | |
| INTEGRATED FAMILY OF TEST EQUIPMENT (IFTE) | | | | 13,300,000 | 13,279,000 | | |
| TEST EQUIPMENT MODERNIZATION (TEMOD) | | | | 5,200,000 | 5,162,000 | | |
| INITIAL SPARES - C&E | | | | 2,200,000 | 200,000 | | |
| UH-60 BLACKHAWK HELICOPTERS | | | | | | 57,848,111 | 48,279,000 |
| AVIATION SUPPORT SETS | | | | | | 0 | 8,000,000 |
| BRADLEY ODS | | | | | | 50,848,111 | 50,848,112 |
| FAMILY OF HEAVY TACTICAL VEHICLES (FHTV) | | | | | | 17,548,111 | 17,477,203 |
| HEAVY EQUIPMENT TRANSPORT SYSTEM (HETS) | | | | | | 2,335,000 | 2,070,112 |
| HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) | | | | | | 17,348,111 | 17,276,609 |
| MULTI-ROLE BRIDGING COMPANIES | | | | | | 15,348,111 | 14,566,111 |
| SINGLE CHANNEL GROUND AIR RADIO SYSTEM (SINCGARS) | | | | | | 17,887,923 | 17,887,923 |
| NIGHT VISION GOGGLES (AN/PVS-7) | | | | | | 6,112,077 | 6,111,490 |
| NIGHT VISION GOGGLES (AN/PVS-14) | | | | | | 0 | 1,159,275 |
| RESERVE COMPONENT AUTOMATION SYSTEM (RCAS) | | | | | | 15,348,111 | 15,348,111 |
| LASER MARKSMANSHIP TRAINING SYSTEM (BEAMHIT) | | | | | | 8,348,111 | 8,348,111 |
| ENGAGEMENT SKILLS TRAINER | | | | | | 4,048,111 | 4,048,111 |
| DISTANCE LEARNING | | | | | | 5,848,111 | 5,848,111 |
| TOTAL | | | | | | \$218,867,999 | \$217,268,279 |

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 2006 Qty | Deployable? | |
|---|---------------------|---|---------------------------|-------------|-------------|--------|
| | | | | | Yes | No |
| HELICOPTER,ATTACK AH-64 (APACHE) | H28647 | HELICOPTER OBSERVATION: OH-58A | K31042 | 6 | | X |
| HELICOPTER,CARGO CH-47D (CHINOOK) | H30517 | HELICOPTER OBSERVATION: OH-58A & UH-1 | 3 ea LINS | 17 | | X |
| HELICOPTER,MEDICAL UH-1V (IROQUOIS) | H31872 | HELICOPTER UTILITY: UH-1H | K31795 | 5 | | X |
| HELICOPTER,OBSERVATION OH-58A (KIOWA) | K31042 | HELICOPTER OBSERVATION: OH-58C | H31110 | 3 | | X |
| HELICOPTER,OBSERVATION,OH-58D (KIOWA) | A21633 | HELICOPTER OBSERVATION: OH-58A | K31042 | 1 | | X |
| HELICOPTER,UTILITY UH-1H (IROQUOIS) | K31795 | HELICOPTER UTILITY: UH-1V | H31872 | 8 | | X |
| HELICOPTER,UTILITY UH-60A (BLACK HAWK) | K32293 | HELICOPTER UTILITY: UH-60 & UH-1 | 5ea LINS | 59 | | X |
| HELICOPTER,UTILITY UH-60L (BLACK HAWK) | H32361 | HELICOPTER UTILITY: UH-1 & UH-60 | 3ea LINS | 106 | X | NOTE 6 |
| AIRPLANE CARGO TRANSPORT: C-12F | A30062 | AIRPLANE CARGO TRANSPORT: C-12D | 4 ea LINS | 7 | X | |
| ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK M8A1 | A33020 | MISCELLANEOUS LINS | 6 ea LINS | 4,342 | X | |
| ALARM: CHEMICAL AGENT AND OTHER DETECTION DEVICES | A32355 | MISCELLANEOUS LINS | 34 ea LINS | 472 | X | |
| ARMORED PERSONNEL CARRIER M113A1/2 | D12087 | CARRIER PERSONNEL FULL TRACKED: ARMORED (RISE) | C18234 | 29 | X | |
| ARMORED PERSONNEL CARRIER M113A3 | C18234 | CARRIER PERSONNEL FULL TRACKED: ARMORED (RISE) | 3 ea LINS | 1,319 | X | |
| ARMORED PERSONNEL CARRIER,FISTV M113 | C12155 | CARRIER PERSONNEL FULL TRACKED: ARMORED | D12087 | 3 | X | |
| ATEC CRANE | F43429 | CRANE: WHEEL MOUNTED HYDRAULIC 25 TON ALL TERRAIN AT422T | 3 ea LINS | 15 | X | |
| CARRIER,COMMAND POST M577A1 | D11538 | CARRIER ARMORED COMMAND POST: FULL TRACKED | C11158 | 21 | X | |
| CARRIER,COMMAND POST M577A1 | D11538 | CARRIER PERSONNEL FULL TRACKED: ARMORED | D12087 | 4 | X | |
| CAVALRY FIGHTING VEHICLE,M3A0 (BRADLEY) | C76335 | CARRIER PERSONNEL FULL TRACKED: ARMORED (RISE) | C18234 | 2 | X | |
| CRANE,WHEEL MOUNTED,20T | F39378 | CRANE: WHEEL MOUNTED HYDRAULIC 25 TON ALL TERRAIN AT422T | 3 ea LINS | 7 | X | |
| CRANE-SHOVEL,CRAWLER MOUNTED | F40474 | EXCAVATOR: HYDRAULIC (HYEX) TYPE II MULTIPURPOSE CRAWLER MOUNT | E41791 | 1 | X | |
| CRANE-SHOVEL,CRAWLER MOUNTED | F40474 | EXCAVATOR: HYDRAULIC (HYEX) TYPE III MULTIPURPOSE CRAWLER MOUNT | E27860 | 1 | X | |
| DRAGON TRACKER, ANTI-TANK GM | W80715 | NIGHT VISION SIGHT-TRACKER: INFARRED AN/TAS-5 (DRAGON) | N23721 | 1 | X | |
| GENERATOR SET,DIESEL ENGINE,30KW | J36383 | GEN ST DSL ENG TM: 15KW 60HZ MTD ON M-200A1 PU-405 | J35492 | 1 | X | NOTE 5 |
| GENERATOR SET,DIESEL ENGINE,30KW | J36383 | GEN ST DSL ENG TM: 60KW 60HZ MTD ON M-200A1 PU-650 | J35629 | 9 | X | NOTE 5 |

Major Item of Equipment Substitution List

| Required Item Nomenclature | Reqd Item Equip No. | Substitute Item Nomenclature | Substitute Item Equip No. | FY 2006 Qty | Deployable? | |
|---|---------------------|--|---------------------------|-------------|-------------|--------|
| | | | | | Yes | No |
| GENERATOR SET,DIESEL ENGINE,30KW | J36383 | GEN ST DSL ENG: 15KW 60HZ 3PH AC 120/208 240/416V SKD TAC UTIL | J35835 | 1 | X | NOTE 5 |
| GENERATOR SET,DIESEL ENGINE,30KW | J36383 | GENERATOR SET DIESEL ENGINE TM: PU-803 | G35851 | 2 | X | NOTE 5 |
| GENERATOR SET,DIESEL ENGINE,30KW | J36383 | POWER PLANT ELEC TM: 30KW 60HZ 2EA PU-406 W/DIST BOX AN/MJQ-10 | P27819 | 1 | X | NOTE 5 |
| GENERATOR SET,DSL ENG, SKID MTD,3KW | G54041 | VARIOUS GENERATOR SETS | 29 ea LINs | 534 | X | NOTE 5 |
| GENERATOR SET,DSL ENG, TM,10KW | G40744 | GEN SET DED TM: 10KW 60HZ | 2 ea LINs | 2 | X | NOTE 5 |
| GRADER,ROAD,MOTORIZED,FRONT WHEEL STR | J74852 | GRADER ROAD MOTORIZED: DSL DRVN HVY (CCE) | G74783 | 9 | X | |
| HOWITZER,M102,105MM,LT,TWD | K57392 | HOWITZER LIGHT TOWED: M119 | H57505 | 9 | X | |
| INFANTRY FIGHTING VEHICLE M2A0 (BRADLEY) | J81750 | CARRIER PERSONNEL FULL TRACKED: ARMORED (RISE) | C18234 | 40 | X | |
| INFANTRY FIGHTING VEHICLE M2A0 (BRADLEY) | J81750 | CAVALRY FIGHTING VEHICLE: M3 | C76335 | 3 | X | |
| INFANTRY FIGHTING VEHICLE M2A2 (BRADLEY) | F40375 | FIGHTING VEHICLE: FULL TRACKED CAVALRY HI SURVIVABILITY (CFV) | F60530 | 25 | X | |
| INFANTRY FIGHTING VEHICLE M2A2 (BRADLEY) | F40375 | INFANTRY FIGHTING VEHICLE: M2 | J81750 | 44 | X | |
| LAUNCHER, TOW II ATGM M220A1 | L45740 | TARGET ACQUISITION SYSTEM: TOW IMPROVED ITAS M41 | T24690 | 24 | X | |
| MACHINE GUN,7.62MM 240B | M92841 | MACHINE GUN 7.62 MILLIMETER: LIGHT FLEXIBLE | L92386 | 205 | X | |
| MASK,CHEMICAL BIOLOGICAL M40 | M12418 | MASK CHEMICAL BIOLOGICAL: COMBAT VEHICLE VARIOUS MODELS | 5 ea LINs | 6,324 | X | |
| MASK,PROTECTIVE,COMBAT VEHICLE M42 | M18526 | MASK CHEMICAL BIOLOGICAL: COMBAT VEHICLE VARIOUS MODELS | 3 ea LINs | 1,081 | X | |
| MELIOS PVS-6 EYE SAFE LASER OBSERVATION | M74849 | LASER INFRARED OBSERVATION SET: AN/GVS-5 | L40063 | 779 | X | |
| METEOROLOGICAL MEASURING SET/TMQ-41 | M35941 | METEOROLOGICAL STATION MANUAL: AN/TMQ-4 & OTHER SUB ITEMS | 9ea LINs | 22 | X | |
| MONOCULAR, NIGHT VISION, PVS-14 | M79678 | SIGHT: NIGHT VISION SNIPERSCOPE AN/PVS-10 | S90433 | 4 | X | |
| NAVIGATION SYSTEM, PSN-11 | N95862 | TWO OTHER MODELS NAVIGATION SET: SATELLITE SIGNALS | 2 ea LINs | 54 | X | |
| NIGHT VISION DEVICE, AN/PVS-4 WMG | N04732 | OTHER NIGHT VISION DEVICES | AL1082 | 69 | X | |
| NIGHT VISION GOGGLES AN/PVS-5 | N04456 | NIGHT VISION GOGGLE: AN/PVS-7B | N05482 | 65 | X | |
| NIGHT VISION GOGGLES AN/PVS-7B | N05482 | OTHER NIGHT VISION DEVICES | 04730N | 47,960 | X | |
| NIGHT VISION SIGHT AN/UAS-11(V)1 | N05050 | OTHER NIGHT VISION DEVICES | 4ea LINs | 26 | X | |
| NIGHT VISION SIGHT,CREW SERV WPN AN/TVS-5 | N04596 | OTHER NIGHT VISION DEVICES | 47ea LINs | 3,989 | X | |
| RADIO SET AN/PRC-112 | R82903 | POWER SUPPLY VEHICLE: HYP-57/TSEC | V98788 | 2 | X | |
| RADIO SET AN/PRC-112 | R82903 | RADIO SET: AN/PRC-90 | 14 ea LINs | 2,920 | X | |
| RADIO SET AN/PRC-119A (SINGGARS) | R83005 | VARIOUS RADIO SETS SINGGARS & VRC-12 SYSTEMS | 13 ea LINs | 1,881 | X | NOTE 1 |

Major Item of Equipment Substitution List

| Required Item Nomenclature | Reqd Item Equip No. | Substitute Item Nomenclature | Substitute Item Equip No. | FY 2006 Qty | Deployable? | |
|---|---------------------|---|---------------------------|-------------|-------------|--------|
| | | | | | Yes | No |
| RADIO SET AN/VRC-87A (SINGARS) | R67160 | VARIOUS RADIO SETS SINGARS & VRC-12 SYSTEMS | 11 ea LINs | 507 | X | NOTE 1 |
| RADIO SET AN/VRC-88A (SINGARS) | R67194 | VARIOUS RADIO SETS SINGARS & VRC-12 SYSTEMS | 16 ea LINs | 1,044 | X | NOTE 1 |
| RADIO SET AN/VRC-89A | R44863 | VARIOUS RADIO SETS SINGARS & VRC-12 SYSTEMS | 14 ea LINs | 905 | X | NOTE 1 |
| RADIO SET AN/VRC-90A (SINGARS) | R67908 | VARIOUS RADIO SETS SINGARS & VRC-12 SYSTEMS | 24 ea LINs | 2,721 | X | NOTE 1 |
| RADIO SET AN/VRC-91A (SINGARS) | R68010 | VARIOUS RADIO SETS SINGARS & VRC-12 SYSTEMS | 14ea LINs | 1,113 | X | NOTE 1 |
| RADIO SET AN/VRC-92A (SINGARS) | R45407 | VARIOUS RADIO SETS SINGARS & VRC-12 SYSTEMS | 20ea LINs | 1,884 | X | NOTE 1 |
| RECOVERY VEHICLE,FT,MDM M88A1 | R50681 | RECOVERY VEHICLE FULL TRACKED: LIGHT ARMORED | R50544 | 2 | X | |
| RIFLE,5.56 MM M16A2 | R95035 | VARIOUS RIFLE AND CARBINE MODELS | 6 ea LINs | 15,678 | X | NOTE 2 |
| ROPU WATER PURIFICATION 3000 GPH | W47225 | WATER PURIF EQUIP SET: REVERSE OSMOSIS 600 GPH | W35417 | 6 | X | |
| SEMITRAILER 5000 GAL POL | S73372 | OTHER SEMITRAILERS FUEL AND DRY CARGO | 3 ea LINs | 87 | X | |
| SEMITRAILER,22-1/2 TON M871 | S70027 | SEMITRAILER FLATBED: BREAKBULK/CONTAINER TRANSPORT | 9 ea LINs | 665 | X | |
| SEMITRAILER,FB,TRANSPORTR,34T | S70159 | SEMITRAILER FLAT BED: BREAKBULK/CONT TRANSPORTER 22-1/2 TON | 2 ea LINs | 20 | X | |
| SEMITRAILER,HVY EQUIP TRANSPORTER,60T (HET) | S70661 | SEMITRAILER LOW BED: 60 TON 8 WHEEL LEVEL OR DROP DECK | S70825 | 1 | X | |
| SEMITRAILER,LOW BED,40 TON,6-WHEEL | S70594 | SEMITRAILER LOW BED | 3 ea LINs | 29 | X | |
| TACTICAL FIRE TRUCK | H56391 | VARIOUS FIRE TRUCKS | 4 ea LINs | 4 | X | |
| TANK,COMBAT,120MM M1A1 (ABRAMS) | T13168 | TANK COMBAT FULL TRACKED: 105 MM M1 (ABRAMS) | T13374 | 14 | | X |
| TRACTOR FT HIGH SPEED M9 | W76473 | TRACTOR FULL TRCKD LOW SPD: DSL MED DBP W/BULDOZ W/SCARIF WINCH | W76816 | 2 | X | |
| TRACTOR WHLD EXCAVATOR | T34437 | TRACTOR WHL IND: DSL W/BACKHOE W/LOADER W/HYD TOOL ATTACH (CCE) | W91074 | 8 | X | |
| TRACTOR,FT,LS,DED,MED | W83529 | TRACTOR,FT,LS,DED,MED | 9 ea LINs | 268 | X | |
| TRACTOR,FULL TRACKED,LOW SPEED | W76816 | TRACTOR,FULL TRACKED,LOW SPEED VARIOUS MODELS/CONFIGURATIONS | 9 ea LINs | 38 | X | |
| TRAILER HEMAT M989A1 (MLRS) | T45465 | VARIOUS TRAILERS | 6 ea LINs | 16 | X | |
| TRANSPORTER,PALLETIZED LOAD SYS W/MHE (PLS) | T41067 | VARIOUS TRUCKS - 5 TON VARIANTS | 10 ea LINs | 50 | X | NOTE 4 |
| TRANSPORTER,PALLETIZED LOAD SYSTEM (PLS) | T40999 | TRUCK CARGO: HEAVY PLS TRANSPORTER 15-16.5 TON | T41067 | 116 | X | |
| TRANSPORTER,PALLETIZED LOAD SYSTEM (PLS) | T40999 | TRUCK CARGO: TACTICAL 8X8 HEAVY EXPANDED MOBILITY W/LT CRANE | T59278 | 2 | X | |
| TRK 5 TON TRACTOR, FMTV M1088 | T61239 | TRUCK TRACTOR VARIOUS MODELS & OTHER TRUCKS | 5 ea LINs | 1,038 | X | NOTE 4 |
| TRUCK 5 TON WRECKER FMTV M1089 | T94709 | TRUCK CARGO: OTHER MODELS | 4 ea LINs | 267 | X | NOTE 4 |

Major Item of Equipment Substitution List

| Required Item Nomenclature | Reqd Item Equip No. | Substitute Item Nomenclature | Substitute Item Equip No. | FY 2006 Qty | Deployable? | |
|---|---------------------|--|---------------------------|-------------|-------------|--------|
| | | | | | Yes | No |
| TRUCK CARGO LMTV M1079 | T93484 | TRUCK CARGO: 2-1/2 TON 6X6 2 MODELS | 2 ea LINs | 113 | X | |
| TRUCK CARGO MTV LWB M1085 | T61704 | TRUCK CARGO: 5 TON 6X6 XLWB VARIANTS | 2 ea LINs | 44 | X | NOTE 4 |
| TRUCK CARGO MTV M1084 W/MHE | T41203 | TRUCK CARGO: 5 TON 6X6 AND HEMTT VARIANTS | 10 ea LINs | 144 | X | NOTE 4 |
| TRUCK UTILITY CARGO/TROOP 1 1/4 TON M1038 | T61562 | VARIOUS HMMWV AND CUCV SUBS | 10 ea LINs | 451 | X | |
| TRUCK UTILITY CARGO/TROOP 1 1/4 TON M1097 | T07679 | VARIOUS HMMWV AND CUCV SUBS | 18 ea LINs | 1,680 | X | |
| TRUCK, 2 1/2 TON M35A2 | X40146 | VARIOUS OTHER 2-1/2 TON 6X6 MODELS | 14 ea LINs | 146 | X | |
| TRUCK, AMBULANCE HMMWV M997 | T38844 | TRUCK AMBULANCE: 2 LITTER ARMD AND HVY VARIANT 4X4 (HMMWV) | 2 ea LINs | 5 | X | |
| TRUCK, CARGO, MTV M1083 | T41135 | TRUCK CARGO: 5 TON 6X6 LWB & DROP SIDE MODEL & MTV | 2 ea LINs | 146 | X | NOTE 4 |
| TRUCK, TRACTOR M915 | T61103 | TRUCK TRACTOR: 5 TON 6X6 | X59326 | 1 | X | NOTE 4 |
| TRUCK, UP-ARMORED HMMWV, M1114 | T92446 | TRUCK UTILITY: ARMT CARRIER ARMD 1-1/4 TON 4X4 (HMMWV) | T92310 | 15 | X | NOTE 3 |
| TRUCK, UTILITY TOW HMMWV M966 | T05096 | TRUCK UTILITY: TOW/ITAS CARRIER ARMD XM1121 | Z94175 | 36 | X | NOTE 3 |
| TRUCK, UTILITY, 1-1/4 TON, M1113 | T61630 | TRUCK UTILITY: S250 SHELTER CARRIER 4X4 (HMMWV) | T07543 | 1 | X | NOTE 3 |
| TRUCK,CARGO,10TON,W/LT CRANE (HEMTT) | T59278 | TRUCK CARGO: 5 TON 6X6 LWB-VARIOUS MODELS | 7 ea LINs | 48 | X | NOTE 4 |
| TRUCK,CARGO,4X4,LMTV M1078 | T60081 | VARIOUS OTHER 2-1/2 TON 6X6 MODELS | 14 ea LINs | 2,330 | X | |
| TRUCK,CARGO,5T,DROP SIDE WW | X40931 | VARIOUS OTHER 2-1/2 TON 6X6 MODELS | 11 ea LINs | 334 | X | |
| TRUCK,CARGO,MTV M1083 | T61908 | VARIOUS OTHER 5 TON 6X6 MODELS | X40146 | 1 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: 5 TON 6X6 LWB | X40831 | 48 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: 5 TON 6X6 LWB | X40968 | 30 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: 5 TON 6X6 MTV LAPES/AD | T41036 | 5 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: 5 TON 6X6 XLWB | X41105 | 4 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: 5 TON 6X6 XLWB | X41242 | 2 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: DROP SIDE 5 TON 6X6 | X40794 | 923 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: DROP SIDE 5 TON 6X6 | X40931 | 98 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: MTV LWB | T61772 | 1 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK CARGO: MTV | T41135 | 21 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK TRACTOR: 5 TON 6X6 | X59326 | 1 | X | NOTE 4 |
| TRUCK,CARGO,MTV M1083 | T61908 | TRUCK VAN: EXPANSIBLE 5 TON 6X6 | X62237 | 1 | X | NOTE 4 |

Major Item of Equipment Substitution List

| Required Item Nomenclature | Reqd Item Equip No. | Substitute Item Nomenclature | Substitute Item Equip No. | FY 2006 Qty | Deployable? | |
|--|---------------------|---|---------------------------|-------------|-------------|--------|
| | | | | | Yes | No |
| TRUCK,CARGO,TACTICAL,W/W-LT CR (HEMTT) | T39518 | TRUCK CARGO: 2-1/2 TON 6X6 XLWB | X40283 | 1 | X | |
| TRUCK,CARGO,TACTICAL,W/W-LT CR (HEMTT) | T39518 | TRUCK CARGO: 5 TON 6X6 XLWB | X41242 | 1 | X | NOTE 4 |
| TRUCK,CARGO,TACTICAL,W/W-LT CR (HEMTT) | T39518 | TRUCK CARGO: TACTICAL 8X8 HEAVY EXPANDED MOBILITY W/LT CRANE | T59278 | 26 | X | |
| TRUCK,CARGO,TACTICAL,W/W-LT CR (HEMTT) | T39518 | TRUCK CARGO: TACTICAL 8X8 HEAVY EXPANDED MOBILITY W/MED CRANE | T39586 | 20 | X | |
| TRUCK,CARGO,TACTICAL,W/W-LT CR (HEMTT) | T39518 | TRUCK CARGO: TACTICAL 8X8 HEAVY EXPANDED MOBILITY MED CRANE | T39654 | 5 | X | |
| TRUCK,DUMP,20T,12 CY M917 | X44403 | TRUCK DUMP: 5 TON 6X6 | X43708 | 43 | X | NOTE 4 |
| TRUCK,DUMP,20T,12 CY M917 | X44403 | TRUCK DUMP: 5 TON 6X6 | X43845 | 1 | X | NOTE 4 |
| TRUCK,LIFT,FORK,10K,VARIABLE REACH (ATLAS) | T73347 | VARIOUS OTHER MODELS OF FORKLIFTS | 5 ea LINs | 181 | X | |
| TRUCK,M985,CARGO,W/MED CR (HEMTT) | T39586 | OTHER MODELS OF HEMTT CARGOS & 5 TON TRUCKS | 7 ea LINs | 59 | X | NOTE 4 |
| TRUCK,TANKER,FUEL,2500G (HEMTT) | T87243 | 2 1/2 TON AND 5 TON TRUCKS WITH FUEL PODS OF VARIOUS MODELS | 17 ea LINs | 349 | X | NOTE 4 |
| TRUCK,TANKER,FUEL,2500G WW (HEMTT) | T58161 | 2 1/2 TON AND 5 TON TRUCKS WITH FUEL PODS OF VARIOUS MODELS | 6 ea LINs | 52 | X | |
| TRUCK,TRACTOR,LET M916 | T91656 | TRUCK TRACTOR: LET 6X6 66000 GVW C/S | T91656 | 4 | X | |
| TRUCK,TRACTOR,LET M916 | T91656 | TRUCK TRACTOR: MET 8X6 75000 GVW C/S | T61171 | 272 | X | |
| TRUCK,UTILITY,1-1/4 TON,M1025,ARM (HMMWV) | T92242 | VARIOUS TRUCK CARGO: 4X4 ARMT & TROOP/CARGO CARRIERS | 9 ea LINs | 52 | X | NOTE 3 |
| TRUCK,UTILITY,1-1/4 TON,M1036,TOW (HMMWV) | T92310 | VARIOUS TRUCK CARGO: 4X4 ARMT & TROOP/CARGO CARRIERS | 9 ea LINs | 185 | X | NOTE 3 |
| TRUCK,UTILITY,1-1/4 TON,M998,WE (HMMWV) | T61494 | VARIOUS TRUCK CARGO: 4X4 ARMT & TROOP/CARGO CARRIERS & CUCV | 20 ea LINs | 5,583 | X | NOTE 3 |
| TRUCK,WRECKER,M948E1,8X8 (HEMTT) | T63093 | TRUCK WRECKER: 5 TON 6X6 | X63299 | 222 | X | NOTE 4 |
| VIBRATOR ROLLER | S12916 | VARIOUS MODELS OF MOTORIZED ROLLERS | 6 ea LINs | 86 | X | |
| NOTE 1 - VRC-12 RADIO SYSTEMS ARE NOT DEPLOYABLE TO OEF & OIF | | | | | | |
| NOTE 2 - M16A1 RIFLES ARE NOT DEPLOYABLE TO OEF & OIF | | | | | | |
| NOTE 3 - CUCVS ARE NOT DEPLOYABLE TO OEF & OIF | | | | | | |
| NOTE 4 - M800 SERIES 5 TONS ARE NOT DEPLOYABLE TO OEF & OIF | | | | | | |
| NOTE 5 - GAS ENGINE GENERATORS ARE NOT DEPLOYABLE TO OEF & OIF | | | | | | |
| NOTE 6 - UH-1 AND OH-58A/C MODEL AIRCRAFT ARE NOT DEPLOYABLE | | | | | | |

Significant Major Item Shortages

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

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/Justification |
|----|------------------------------------|-------------|---------------|------------|---------------------|--|
| 1 | HMMWV | 45,877 | 14,242 | 90,000 | 1,281,780,000 | This depicts the projected UFR for all HMMWV (less the Up-Armored M1114) after all known procurements thru FY 09. HMMWV shortfalls are a major concern for OIF/OEF mobilizations |
| 2 | SINGARS | 96,645 | 13,407 | 14,000 | 187,698,000 | This is the projected UFR to complete fielding for ARNG after modularity and other fieldings. SINGARS fielding/system upgrades are a major concern for OIF/OEF |
| 3 | Night Vision Goggles PVS-7D/PVS-14 | 131,104 | 56,076 | 3,400 | 190,658,400 | Depicts the new requirement and projected shortfall after DA procurements thru FY 09. Fills shortages in high priority, eSBs and divisional units and replaces the obsolete PVS-5. One of the primary mobilization challenges for Homeland Defense and overseas contingencies. |
| 4 | UH-60 BLACK HAWK HELICOPTER | 687 | 95 | 12,000,000 | 1,140,000,000 | After DA procurement through FY 09 and aircraft cascades this is the projected UFR. The UH-60 modernization of the UH-60A fleet is also a critical concern. |
| 5 | HEMTT Cargos | 2,263 | 366 | 272,000 | 99,552,000 | HEMTTs are still a critical shortfall for ARNG mobilizations. The shortfalls are a UFR after DA procurement through FY 09. |
| | HEMTT Wreckers | 969 | 176 | 379,000 | 66,704,000 | |
| | HEMTT Tankers | 1,786 | 62 | 274,000 | 16,988,000 | |
| 6 | Small Arms M4 Carbine | 60,837 | 12,286 | 1,000 | 12,286,000 | These systems are paramount for OIF/OEF operations. This group includes the M4 Carbine, M249 Squad Automatic Weapon (SAW), M240B Machine Gun, MK19 Automatic Grenade Launcher. Shortfalls are UFR after procurements through FY 09. |
| | Small Arms M249 SAW | 23,406 | 2,715 | 10,000 | 27,150,000 | |
| | Small Arms M240B MG | 4,123 | 577 | 2,700 | 1,557,900 | |
| | Small Arms MK19 Grenade launcher | 9,172 | 105 | 15,000 | 1,575,000 | |
| 7 | Family of Tactical Vehicles (FMTV) | 29,859 | 27,530 | 150,000 | 4,129,500,000 | Critical modernization requirement to replace obsolete 2 1/2 and 5 ton vehicles for mobilizations. Shortage is the UFR from procurements through FY 09. |
| 8 | Javelin Anti-Tank Missile | 2,847 | 1,776 | 460,000 | 816,960,000 | Critical requirement to replace the obsolete Dragon Anti-Tank Guided Missile System for unit mobilizations. Provides a fire and forget missile that has more range and accuracy than the Dragon. Project UFR is from shortfall after known procurements through FY 09. |

ARNG

Table 8

Significant Major Item Shortages

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/Justification |
|-----------|--|--------------------|----------------------|------------------|----------------------------|--|
| 9 | AN/PAS-13 version 1/2/3 Thermal Crew Served Weapon Sight | 44,154 | 43,046 | 21,000 | 903,966,000 | Fills critical shortages of crew served weapons night sights for operations in Iraq and Afghanistan. Comes in a light (ver 1-rifle, \$12K), medium (ver 2 medium machine gun, \$19K) and heavy (ver 3 heavy machine gun, \$21K) configuration. UFR depicts shortfall after known procurement for the ARNG through FY 09. |
| 10 | Movement Tracking System (MTS) | 16,400 | 16,325 | 9,000 | 146,925,000 | Critical requirement for operations in Iraq and Afghanistan. Provides vital tracking & communication system used primarily with supply/support vehicles. Provides asset control by control nodes and blue force type tracking. |

III. United States Army Reserve (USAR) Overview

A. Current Status of Equipment

1. General Overview

Terrorism, large and small scale-scale contingency operations, commitments to nation building, multiple fronts and homeland defense and security all demand a different approach for the design, use and rotation of the Army Reserve. The threats are powerful, devious, cunning, and capable. To meet this challenge, the Nation needs an Army that is fast, mobile, flexible, strong, and modern. The Army Reserve is an integral part of the Army's fighting forces. The Army Reserve has been deployed more frequently in the last 12 years than during the previous 75 years. Since the terrorist attacks of September 11, 2001 nearly 121,490 soldiers in the Army Reserve have been engaged in the GWOT, to include Operation Nobel Eagle, OEF, and OIF. The Army Reserve has served with the Army's combat forces by providing Combat Support (CS)/Combat Service Support (CSS) functions such as driving trucks, analyzing intelligence, operating field hospitals, planning logistics and serving as military police, as well as providing specialists in everything from biohazard protection and homeland security to civil engineering and information technology. Rather than a "force in reserve," the Army Reserve has become, and serves as, a force of specialized capabilities employable as teams, units or individuals, all essential to powering the Army and defending America's interests.

The Army Reserve maintains a high OPTEMPO and is fully engaged, ready and relevant to fighting the nation's GWOT. Since recent world events dictate that the Army will continue to be engaged in a wide variety of contingency operations, equipment modernization and sustainment efforts must be a high priority in order to continue to successfully integrate with the Army and defend the Nation's interests across the full spectrum of operations. Adequate funding for procurement of modern equipment is essential to maintain relevancy and readiness.

Balanced modernization is part of the overall strategy for weighing current requirements against the need to continually transform to meet the changing world threats. To free up the valuable resources to support transformation, the Army has reduced investments in the current force to more limited modernization and recapitalization efforts. The focus of funding has been directed to support Army Transformation, Modularization and other high priority programs, resulting in the reduction of new equipment procurement for the Army Reserve. While the Army is focusing much of its effort on investments in the future, it simultaneously is intent on sustaining a decisive-win capability and maintaining a high state of readiness. This means the Army must continue to invest sufficient, but limited, resources in the current force through new equipment procurement, and by recapitalizing key combat, CS and CSS systems to maintain combat superiority.

To sustain the current force capability, many of these systems require recapitalization. Current Army recapitalization programs include few CS/CSS systems that are essential to the Army Reserve's ability to perform its mission. Today more than 75 percent of the Army Reserve's systems exceed the Department of Defense's half-life goals. The Army Reserve averages less than nine percent of the annual P-1R projection for new equipment. At the same time, the Army Reserve provides 19 percent of the deployable force structure (27 percent of the

deployable force structure that is not “dual missioned” under Federal and state authority), 25 percent of the forces committed to support OIF/OEF and 33 percent of the national institutional sustainment base supporting training, preparation for deployment and deployment of Army forces. The Army Reserve delivers maximum value and utility to the Army for resources expended.

2. Status of Equipment

a. EOH

The USAR had 78 percent of the required equipment on-hand as of 30 September 2002. The current situation can be estimated at 76 percent, based on losses due to battle damage and attrition produced by accelerated service life expenditure. This percentage represents equipment on-hand rather than actual modernization requirements. The equipment on-hand percentage includes substitute and “in lieu of” items that are authorized in accordance with regulatory guidance for reporting equipment. As a result, 31 percent of the equipment on-hand in the Army Reserve is obsolete or obsolescent. This equipment is mostly non-interoperable and/or incompatible with current and future doctrine, force structure and equipment performance requirements.

Current operations supporting OIF/OEF are placing additional strain to the USAR Equipment-on-Hand (EOH) and Equipment Readiness (ER) status. To support current operations, units are being directed to leave equipment in theater as Stay Behind Equipment (SBE) to support other Services and contractor-run operations. This will place an additional EOH and ER challenge when this equipment is finally returned from theater. Some of this SBE is being left in theater for two and three years. In addition, tactical wheeled vehicles are having Add-on-Armor (AoA) placed on them and retained in theater as SBE. This AoA initiative will again create additional EOH and ER challenges for USAR equipment.

In previous years, the Army Reserve, faced with constrained resources, invested heavily in Force Packages 1 and 2 units deemed as “early deployers” in the warfight. Unfortunately, the best-resourced units have not always been the first to deploy. In OIF/OEF, 31 percent of the units deployed were not deployed in Tier or DAMPL sequence. The mobilization requirements of OEF and OIF forced the Army Reserve to redistribute assets internally throughout its force to meet the requirements, both prior to and during the mobilization of units. Since the beginning of OIF 1, the Army Reserve has executed almost 40,000 lateral transfers for over 250,000 end items between mobilizing and non-mobilizing units. The original shortfalls were exacerbated by the increased readiness targets for deploying units and the addition of equipment requirements beyond normal authorizations. These changes significantly degraded the equipment or hand balances of non- units. In addition, the large amount of equipment in the reconstitution process has limited the Army Reserve’s capability to respond immediately to additional GWOT or homeland security/defense demands.

With the reporting criteria changes brought about by the implementation of the Strategic Readiness System and the Balanced Scorecard, anomalies in the reporting system will change and, it is anticipated, equipment on-hand metrics will show a downward trend. This may be attributed to many factors ranging from metric changes to losses of equipment through

retirement or war damage. Other significant factors are the decrease in the NGREA and Army procurement deliveries over the last five years. The Army Reserve is suffering significant equipment shortages that will last through FY 2011 and beyond.

b. Average Age of Major Items of Equipment

Several major items of equipment are near or past their economical useful life. A few examples include the current light and light-medium tactical truck fleets, materiel handling and engineer equipment. Aging equipment means operational and sustainment costs will continue to increase while equipment serviceability rates decrease, thereby negatively impacting unit readiness. Such equipment also represents a safety risk to Army Reserve Soldiers. Current recapitalization initiatives and competing resources make it difficult to recapitalize Army Reserve systems. The Army’s recapitalization plan does not allow the Army Reserve to achieve the half-life goal. The Army Reserve must be funded at an adequate level to develop comprehensive repair, overhaul, rebuild, and conversion programs to extend the service life for existing equipment to maintain readiness and ensure mission accomplishment.

c. Compatibility of Current Equipment with the Active Component

The analysis of current equipment in the Army Reserve indicates an increasing degree of incompatibility and non-interoperability with the AC. In many instances, this incompatibility is a result of cascading older equipment models from the AC as they received newer, more modern equipment. Although this practice improves equipment on-hand readiness, the cascading of older equipment creates a host of maintenance and compatibility challenges, to include lack of Army training programs for mechanics and operators, the establishment of separate repair parts inventories, and special tools and test equipment unique to each equipment model. The Army Reserve must also establish, provide, and maintain costly training programs on this older, less modern equipment in order to maintain personnel proficiency. Current resource constraints restrict sustainment efforts required to properly maintain or upgrade this older and less compatible equipment.

The Army Reserve must be modernized to keep pace with the requirements of Army Transformation. The concept of a Modular Army, using “Plug and Play” units, demands that all like units and organizations are equipped, trained and manned to the same level, regardless of the component resourcing the requirement. The lag in equipment modernization, variance in operational characteristics, and unmet logistical support requirements delay total integration with the AC. From a purely economic standpoint, modernization of Army Reserve equipment reduces associated requirements (training, spares, ammunition, etc.) needed to maintain a capability associated with an assortment of modern and current systems. As a result of an AC and RC equipment compatibility study completed in FY 2000, the following equipment, while not obsolete, is less capable and more maintenance intensive:

| | |
|------------------------------|-----------------------------|
| CUCV | 40-Ton Crane |
| Compactors, Plate/High-Speed | Materiel Handling Equipment |
| 3/5/10 KW Generators | Yard Truck |
| Trailers Over 5-Ton | Bridge Transporter |
| 4K Forklifts, Rough Terrain | Fire Truck |

| | |
|--|----------------------|
| 2.5-Ton Truck (M-35 Series Trucks) | 25-Ton Cranes |
| Maintenance Contact Truck | Medical Sets |
| Armored Vehicle Launched Bridge | Medium Girder Bridge |
| 5-Ton Truck Family | 5-Yard Scoop Loader |
| 75-Ton, Crushing Screening and Washing Plant | |

This study is now over four years old, and the findings have even more relevance, as there has been little achieved since the release of the study. Additional procurements are required to offset Army funding shortfalls and ensure the Army Reserve’s deploying units are equipped with the equipment compatible and interoperable with the Transforming doctrine, operations and tactics. Because the RC deals with such protracted lead times and constrained resources, creativity in developing ways to stretch these resources and extend the economic life of existing equipment is essential. The Army Reserve increasingly relies on limited overhaul and rebuild programs for equipment to retain mission capabilities. Cross-leveling and upgrading equipment through refurbishment programs must be used to meet current mission requirements and offset funding constraints.

Cascaded CS/CSS equipment from the AC to the Army Reserve was an important source of viable, if older generation equipment. Future planned force structure changes indicate that cascading will be adversely impacted. The creation of the Brigade Combat Teams and other force structures within Modularity and the conversion of ARNG combat structure to CS/CSS forces will generate greater demand for limited resources such as tactical wheeled vehicles and CS/CSS equipment. New initiatives will shift equipment from the RC to the AC to support force rebalancing and ongoing operational requirements. These withdrawals will exacerbate an already severe CS/CSS equipment problem in the Army Reserve.

d. Maintenance Issues

i. Field Level Maintenance

The operational readiness rate in the Army Reserve is 93 percent for reportable equipment. This percentage applies to less than ten percent of all Army Reserve equipment. Readiness rates remain high because commanders place most of their managerial emphasis on maintaining readiness of their reportable equipment at the expense of non-reportable (ERC B&C) equipment. It is estimated that 44 percent of all Army Reserve equipment has deferred services or is not receiving scheduled services due to shortages of civilian and military maintenance technicians, time, and funding.

Army Reserve maintenance activities, called Area Maintenance Support Activities (AMSA), have been established to perform unit-level maintenance beyond the unit’s capability to perform during scheduled training assemblies. The maintenance activities are designated as (G) for ground support equipment, (W) for watercraft, or (G/W) for ground and watercraft. Average staffing for an AMSA is 10-12 personnel. Currently, AMSA shops are staffed at 50 percent of authorizations. Simply stated, the Army Reserve is currently facing a 4.1 million man-hour maintenance backlog. This translates into a \$375M funding shortfall since our last

manpower survey conducted in FY 2001. This situation is made worse by the requirement for AMSA employees to be “dual status” Military Technicians. These employees are subject to unplanned mobilizations that reduces staff at a time of increasing demands. The Army Reserve has developed programs to modernize and reduce the numbers of its facilities. This is accomplished by leveraging commercially available services and practices needed to reduce the backlog and cost of equipment and personnel resources needed to maintain Army Reserve equipment readiness. This program is called Army Reserve Logistics XXI and requires a capital investment of \$175M.

In addition to AMSAs, Army Reserve Equipment Concentration Sites contain a maintenance branch with an area support mission, along with a storage branch for equipment that goes beyond the capability of an owning unit commander to store, maintain, or utilize at home station. To reduce maintenance requirements and increase the service life of equipment, the Army Reserve is pursuing the use of Controlled Humidity Preservation (CHP). This program places unit sets of equipment in CHP at storage sites located at strategic locations near ports of embarkation, including overseas ports. It will not only reduce Army Reserve maintenance costs, but support overseas training objectives of the Army Reserve and the war-fighting Combatant Commanders, while increasing the readiness and speed of deployment of high demand Army Reserve units to the war fight. The initial capital investment required to execute this program is \$256M.

ii. National Level Maintenance

Due to limited funding, the Army Reserve has been forced to become adept at developing alternatives to stretch funds and extend the life of existing equipment. The Army Reserve relies on limited overhaul and rebuild programs of existing equipment to retain mission capabilities. Upgrading existing equipment, through rebuild initiatives and depot maintenance programs, is used to extend the service life of equipment.

In partnership with industry, the Army Reserve is working to infuse commercial concepts into CSS improvement initiatives. This will allow the Army Reserve to use commercial industry for the manufacture of combat service support equipment and follow-on rebuild or overhaul. The Army Reserve understands the need to optimize all equipment funding sources and encourages the Army to design equipment with the intent to remanufacture. All new equipment procurements should include both prognostics, as well as diagnostics, as part of its design and manufacture.

iii. Sustainment Initiatives

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

The M109A4 Shop Van Truck (LIN X62340/X62477) is designed to function as a mobile repair shop van that can also be used to transport special equipment requiring protection from dirt, dust, and moisture. In February 2000, the Army Reserve successfully completed two M109A4 Shop Van Proof of Principle upgrades at their Installation Materiel Maintenance Activity facility at Fort McCoy, WI. The Army Reserve utilizes the Maintenance Training Program to modify these shop vans.



M109A4 Shop Van



M878/M878A1 5-Ton Tractor

The original M109A3 bodies were removed from their M35A2 truck chassis. The chassis underwent an extended service program, while the van body was disassembled, modified, and upgraded, before reinstalling it onto the 2½-ton extended service program M35A3 chassis, thus creating the new M109A4 configuration. The program is about 78 percent completed.

The M878/M878A1, 5-ton tractor (LIN T60353) is designed for terminal yard operations such as spotting and moving trailers. The Army Reserve requires 141 M878 Tractors and has 36 on-hand. NGREA resources will purchase an additional 68 M878A2 tractors between FY 2004 and FY 2005. Ottawa Truck, the original manufacturer, conducted a proof of principle to install a new cab, controls, instrumentation, and wiring on the older model of tractor (1978), which will extend the projected service life. The Army Reserve rebuilt a portion of the fleet's M878s in FY 2002 and FY 2003 at Red River Army Depot.



Lubricating & Servicing Unit

The lubricating and servicing unit (LIN L85283) is a trailer-mounted, self-contained, gasoline-powered unit equipped for heavy duty servicing and lubrication of all types of equipment and components. The Army Reserve lube unit fleet was manufactured in the late 1960s to early 1970s and



4,000-LB Truck, Forklift

has exceeded its projected 20-year service life. The Army Reserve is authorized 150 units and currently has 127 on-hand. This equipment will be retained at least through 2012 until a suitable replacement is identified for procurement and funded or a change is made to sustainment doctrine. The finding of a recently conducted feasibility assessment proposes initiating a two-phase proof of principle. The first phase will replace the gasoline engines and exhaust systems with diesel engines and new exhaust systems. The second phase proposes overhauling the on-hand fleet by using the first phase product and upgrading, replacing, or rebuilding all

deficient systems. In addition, the Army Reserve has acquired 94 units located at Sierra Army Depot under the control of U.S. Tank Automotive and Armament Command. These units have never been issued and have been at the depot approximately nine years. The Army Reserve will bring these items to the same standards and configuration as proposed in the study and be issued to replace the oldest systems on-hand with our units.



10,000-LB Truck, Forklift

There are three models of the 4,000-lb forklift (LIN T49255), the Materiel Handling Equipment (MHE)-237, MHE-270 and MHE-271 forklifts. The MHE-237 forklift 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 Army Reserve requirement is 726 forklifts and has 670 on-hand. By FY 2005, the Army Reserve is projected to need 690. It is not likely that additional MHE-237s will be cascaded to the Army Reserve. Consequently, a shortfall of about twenty 4000-lb. forklifts is projected throughout FY 2003. The Army Reserve has initiated a proof of principle partial overhaul of one MHE-237 forklift to determine the economic feasibility of the program and to document overhaul procedures, and to assess the most cost effective method of sustaining the 4,000-lb forklifts in the future. During FY 2002 and FY 2003, 260 were rebuilt at Red River Army Depot. An additional 80 are being overhauled in FY 2004 and 60 more in FY 2005 at Red River Army Depot.

The 10,000-lb. forklift (LIN T49119) has a capacity of 10K pounds, a 48-inch load center, and can lift a load to a maximum of 121.6 inches. It has an estimated useful life of 15 years. There are 423 of these forklifts on-hand in the Army Reserve. The forklift was manufactured and fielded from 1979 to 1985 and is past its expected 15-year life span. The All Terrain Lifter Army System (ATLAS) replaces this forklift. The USAR requirement will be 961 ATLAS forklifts by 2007, but has only received 401. Consequently, all of the older 10K forklifts will be retained to meet requirements. There are 52 forklifts being rebuilt in FY 2004, the remaining 371 forklifts will be overhauled between FY 2005 and FY 2009.

e. Modernization Programs and Shortfalls

Several years ago the Army initiated significant changes that are already being applied in the form of new capabilities available to the Joint Force, and additional and dramatic efforts are underway for transforming the Army into an even more responsive, effective, and modern force. Army Modernization is a continuous process of integrating new doctrine, training, organizations and equipment. The Army has placed priority on pursuing advanced technologies and developing new weapons systems such as the FCS. As the Army modernizes its weapon systems, the Army's highest priority equipment, current weapon systems are often redistributed to the RC. The majority of this equipment is combat arms and is not authorized in the Army Reserve. The Army's modernization strategy should also include developing and procuring CS and CSS systems that provide increased mobility, survivability, and agility to ensure the appropriate classes of supply and services are available to support soldiers at the right time, at the right place, and with the right quantities.

The Army Reserve is the essential provider of support and critical expansion capability to enable the Army to sustain itself over any duration across the full spectrum of military operations. Increased OPTEMPO and the diversion of new CS/CSS equipment and equipment funding from the RC have stretched the useful life of equipment and reemphasized the need for recapitalization and replacement of various major end items, parts, assemblies, and subassemblies. It is critical that equipment programmed for receipt in the P-1R (*Table 3*) is procured and distributed as planned. The Army must continue to modernize the RC units along a timeline that ensures the equipment remains interoperable and compatible with the AC.

The following equipment reflects some of those items that are most critical to the Army Reserve in supporting Army requirements. This procurement must be funded between FY 2006–FY 2011 to support the Transformation of the Army Reserve as a component of the Modular Army. These requirements are high dollar items that meet planned force structure initiatives of the Federal Reserve Restructuring Initiative and Modularity.

The M4 5.56mm Carbine (LIN R97234) is an essential requirement for the execution of support missions in combat environments, not just for engineers and military police, but for any soldier who may come under fire while performing his duties, such as truck drivers, civil affairs and psychological operations specialists and medical personnel. The Army Reserve has a requirement for 2,500 M4 carbines and has 167 on-hand, with 1,707 on order through FY 2004 NGREA and 3,080 from NGREA FY 2005 and Title IX funds appropriated in 2005. The requirement, however, will climb, as experience in operations in support of GWOT, OIF and OEF show that the M16A2 rifle is too long and cumbersome in certain combat situations where Soldiers need to employ their weapons in split seconds. Replacing the M16A2 on a one-for-one basis with M4s generates a need for 45,132 M4 carbines at \$47.98 million. The fielding of additional M4 carbines will also allow the final retirement of the M16A1 rifle.

The light version of the 5.56mm M249 Squad Automatic Weapon supports small unit offensive and defensive actions. It is particularly important to dismounted military police and combat engineer operations and security missions executed by other CS and CSS units. The Army Reserve currently has a shortage of 2,150 of the light version of the M249 SAW, with the M16A1 rifle being used as a substitute. 1,424 light versions of the M249 SAW have been funded through Title IX and NGREA in FY 2005.

The M240B 7.62mm Machine Gun provides a base of fire weapon, suppressing enemy forces while they are engaged in close combat or denied access to areas from which to threaten Army Reserve Soldiers performing their missions in support of GWOT and OIF/OEF. The Army Reserve requires 53 M240B machine guns to replace the 30 year old (and older) M60 7.62mm machine guns which are substituting for the M240B. The M60 not only is wearing out faster than it can be over hauled, but it cannot mount the modern generations of optical and night vision devices. Additional 259 are needed to replace the M60 machine guns currently authorized. 302 M240B machine guns would cost \$1.6 million.

The 40mm automatic grenade launcher Mk-19 is an essential weapon in both offensive and defensive security operations. The Mk-19 places effective, continuous indirect fire on enemy forces or terrain areas that cannot be reached by direct fire weapons such as machine guns.



*Joint Biological Point
Detection System
(JBPDS)*

The Joint Biological Point Detection System (JBPDS) is a semi-automated biological agent detection/identification suite mounted on a dedicated heavy HMMWV utilizing multi-complementary bio-detection technologies. It provides a rapid and fully automated detection, identification, warning, and sample isolation of high threat biological warfare agents. Capabilities include 12-hour continuous point detection and identification and it can operate on man-portable, fixed-site, vehicle, and ship platforms. The total Army Reserve requirement is 175 at \$1.2M each. The Army Reserve unfunded requirement is \$168M.

The Improved High Frequency Emergency Radio (IHFR) belongs to a family of combat net radios with a primary role of voice transmission for battle command communications. The IHER is designed to provide secure, long-range data and voice transmissions in a Joint tactical environment. The IHFR is compatible with the



*Improved High Frequency
Emergency Radio (IHFR)*

Joint Tactical Radio System (JTRS). The USAR requirement is 1,750; the shortfall is 1,200. The total unfunded requirement is \$57M.



*Multi-Band Super High
Frequency (SHF) Terminal
(PHOENIX)*

The PHOENIX provides high-capacity, Inter-and Intra-Theater range extension support at selected EAC and Corps signal units. The terminal will provide a highly mobile, strategic, transportable, wide band communications capability, and will replace selected AN/TSC-85/93 terminals and complement the AN/TSC-85/93 SLEP at selected EAC and Corps signal units. The USAR requirement is 40 terminals at a cost of \$2M each.

The Deployable Medical Systems (DEPMEDS) family provides deployable hospitals with standard medical care equipment and consists of medical components, sets, and medical equipment to provide current technology and life-saving clinical support for soldiers in the Theater of Operations. Shortages of DEPMEDS components in the USAR are Medical Materiel Sets for triage/emergency/pre-operation, operating room, and post-operation/intensive care unit. Total requirement is 361 systems. Unfunded requirement is \$21.9M.



*Deployable Medical Systems
(DEPMEDS)*



Movement Tracking System (MTS)

The MTS is a critical Logistics enabler that provides visibility for the Joint Logistics Corporate Enterprise and enables Distribution Based Logistics. The MTS provides asset visibility and situational awareness that assists CS/CSS commanders and their staffs in planning and executing CS/CSS operations. The MTS allows for continuous asset visibility across the tactical area of operations. The USAR has a requirement of 10,573 systems at a cost of \$12K each. The Army will purchase 708 MTS with FY 2003 Congressional add funding. The USAR purchased another 202 MTS with FY 2004 NGREA funds and plans to procure 210 with FY 2005 NGREA funds. The USAR unfunded requirement is \$113M.



Night Vision Goggles (NVG) AN/PVS-7D

The NVG is a lightweight, binocular goggle that enables soldiers to operate more effectively and safely in day or night and under degraded battlefield conditions. It uses a single, passive, third generation image intensifier tube. The goggle is used in combat, CS and CSS operations. The USAR requirement is 40,917 at \$3.9K each; on-hand are 17,215. The unfunded requirement is \$84M.

The Rough Terrain Container Handler (RTCH) is the primary materiel handling equipment capable of lifting standard 20- and 40-foot-long International Standardization Organization containers weighing up to 53,000 pounds. The RTCH can be operated on beaches, rough terrain, and unimproved surfaces and can stack containers three high. The RTCH is air deployable and can be used to lift containers and pre-positioned Palletized Load System (PLS) flatracks, breakbulk cargo and heavy palletized Class V (ammunition) loads. The USAR requirement is 275 at \$525K each; there are 32 on-hand. The USAR is projected to receive 122 in POM 04-09. The USAR procured 10 with FY 2004 NGREA funds. The USAR unfunded requirement is \$122M.



Rough Terrain Container Handler (RTCH)

The ATLAS is a self-deployable rough terrain, manually operated forklift capable of operating efficiently in a wide variety of environmental conditions. The ATLAS lifts 10,000 lbs and can stuff and un-stuff various sized containers. The USAR requirement is 946 at a cost of \$130K each. There are 503 ATLAS on-hand. The USAR is projected to receive 436 in POM 04-09 and 34 with Congressional add funding. The production of the ATLAS temporarily halted at the end of FY 2004 and will resume in FY 2007. The USAR has an unfunded requirement of \$20M.



All Terrain Army Lifting System (ATLAS)

The Up-Armored HMMWV is designed to provide light tactical vehicle capability in a wide variety of environments with the addition of light armor to protect soldiers against small arms fire and land mines. The Up-Armored HMMWV is critical Force Protection equipment used by Military Police, Special Operations and contingency forces. The average cost of an Up-Armored HMMWV is \$179K. The USAR requirement is 929. There are currently 287 Up-Armored HMMWVs projected in POM 04-09 and 33 pending procurement with NGREA and Congressional add funding. The USAR unfunded requirement is \$129M.



Up-Armored High Mobility Mult-Purpose Wheeled Vehicle (HMMWV)

featuring over 80 percent commonality of parts and components between models and weight classes. The FMTV is a key logistics enabler and reduces the Army's logistical footprint by providing commonality of parts and components, reduced maintenance



High Mobility Multipurpose Wheeled Vehicle (HMMWV)

downtime, and lower operating and support costs than older trucks. It replaces maintenance-intensive trucks currently in the medium tactical vehicle fleet. Typical missions include line haul, local haul, unit mobility, unit re-supply and other missions in the combat, CS and CSS role. The FMTV consists of a common truck chassis that is used for several vehicle configurations in two payload classes. The LMTV is available in van and cargo variants and has a 2.5-ton payload capacity. The total USAR requirement is 13,329. There are currently 1,623 FMTVs projected for the USAR in POM 04-09. The USAR has 392 FMTVs with an unfunded requirement of 11,166 FMTVs. The USAR has a \$1.5B funding shortfall of FMTVs. This system is one of the USAR's highest equipment priorities.

The FMTV is built around a common chassis and drive train, featuring over 80 percent commonality of parts and components between models and weight classes. The FMTV is a key logistics enabler and reduces the Army's logistical footprint by providing commonality of parts and components, reduced maintenance



Family of Medium Tactical Vehicles

downtime, and lower operating and support costs than older trucks. It replaces maintenance-intensive trucks currently in the medium tactical vehicle fleet. Typical missions include line haul, local haul, unit mobility, unit re-supply and other missions in the combat, CS and CSS role. The FMTV consists of a common truck chassis that is used for several vehicle configurations in two payload classes. The LMTV is available in van and cargo variants and has a 2.5-ton payload capacity.

The HMMWV provides a common light tactical vehicle capability in a wide variety of environments. The HMMWV is produced in several configurations to support weapon systems, command and control systems, field ambulances; troop and general cargo transport, and replaces the CUCV. The basic cost of a HMMWV is \$75K. The USAR requirement is 16,624. Total shortfall is 4,664. The USAR procured 20 with FY 2004 NGREA funds.

f. Overall Equipment Readiness

The Army Equipping Policy requires units to be fielded in a "first to fight, first to support" basis, yet the Army Order of Precedence and current operational requirements often divert equipment assets that are critical to the USAR.

Prior to the start of mobilization for OIF, the USAR had reached a level of fill for reportable equipment, considered essential to effective performance of a unit's mission of 91 percent for required quantities with substitutes. Without substitutes, the percentage of items on-

hand would have dropped below 70 percent. While authorized, these substitutes are often less capable. Upgrading existing equipment through rebuild initiatives has extended the life of some items, freeing funds to purchase other required items. The USAR continues to rebuild, upgrade, and overhaul equipment by partnering with industry and employing USAR soldiers to enhance training.

In FY 2003, the USAR rebuilt the following systems to enhance equipment readiness and capability.

| | |
|------------------------------------|--|
| 99-HMMWV | \$17.5M—Various Watercraft & Rotary Wing Equipment |
| 111 - Line Haul Tractors | \$2.9M Communications Equipment |
| 140 - 22.5 Ton Trailers | 102 - 5 Ton Cargo Trucks |
| 9 - Armored Vehicle Launch Bridges | 19 - HETT Cargo Truck/Fuel Tankers |
| 17 - 5 Ton Dump Trucks | 122 - 10K/4K Forklifts |
| 65 - 5000 Gallon Fuel Tankers | 12 - Yard Tractors |

FY 2004 NGREA

| | |
|--------------------------------------|----------------------------|
| 54 - Light Medium Tactical Vehicle | 1707 - M4 Carbine Rifle |
| 40 - Medium Tactical Vehicle | 2 - Phoenix Terminal |
| 202 - Movement Tracking System | 521 - Night Vision Devices |
| 10 - Rough Terrain Container Handler | 72 - M915A3 Truck Tractor |
| 6 - Data Packages for C4E | 200 - Antennas for IHFRs |
| 20-HMMWV | |

The following equipment was purchased with NGREA funds during FY 2003 for delivery in future fiscal years.

| | |
|---|---|
| 22 - Up-Armored HMMWVs | 13 - Top Handlers, 20 Foot |
| 91 - Refrigerated Container Systems | 673 - Light Tactical Trailers |
| 99—Semi-Trailer Flat Bed 22.5 Ton, M871A3 | Multiple Parts for Laser Marksmanship Training System |

g. Other Equipment Specific Issues

i. Tactical and Support Vehicles

The current status of the light medium 2.5-ton, and medium 5-ton tactical wheeled vehicle fleet is a major concern for the USAR. These systems are one of the USAR's highest equipment priorities. Based on the recent migration of funding from the FMTV program to the Future Tactical Truck System, the elimination of the extended service program, and decrements to projected FMTV procurements in FY 2004–FY 2009, the USAR should receive 1,714 of its required 13,296 systems by FY 2009. To date, the USAR has received less than 3 percent of this 1,714 vehicle commitment. As a result, the USAR is utilizing 2.5 and 5 Ton trucks of 1960's technology as authorized substitutes for the more modern FMTV.

The USAR is short approximately 3,075 HMMWVs, to include the up-armored model. To offset this shortage, the USAR committed \$250K in FY 2002 to the modernization of the contact maintenance truck fleet. This shortfall also prompted the USAR to commit \$9.1M for 152 M1097A2 model HMMWVs to be distributed during FY 2002–FY 2003. Procurement of these vehicles for the USAR satisfies only interchange requirements, such as part of a communication system or a smoke generation unit. The critical OIF up-armored HMMWV shortage will impact distribution of up-armored HMMWVs to the USAR. The USAR has a requirement of 758 up-armored HMMWVs and was projected to receive 287 vehicles in FY 2004-2009.

ii. Communication-Electronic Equipment

The USAR, while maintaining 13 percent of the Army’s Signal capability, requires extensive Commercial-Off-The-Shelf (COTS) upgrades to effectively offset AC Signal unit OPTEMPO. Currently, over 50 percent of the AC Signal force is deployed in support of Army, Joint, and Combined forces throughout the world. Current Signal equipment utilizes 20-year-old technology such as Mobile Subscriber Equipment (MSE) and Tri-Service Tactical Communications (TRITAC) Program communications systems that were originally designed to primarily transmit voice communications vice the current war-fighting commander’s requirements of real time data such as imagery, common operational picture, Army Battle Command System, Non-Secure Internet Protocol Router Network (NIPRNET), Secret Internet Protocol Router Network (SIPRNET), battlefield Video Tele-Conferencing (VTC), etc. Through the years, the AC procured COTS technology to offset older technology through the use of operational, maintenance, and contingency funds. The USAR does not have this funding capability. As a direct result, some USAR signal units were not deployed as a result of the supported Commander’s reluctance to degrade the overall communications network with the insertion of older, less capable communications equipment. In a simplified example, the War-fighting Commanders expect the same type of communications support in the field as in garrison. AC units provide garrison-type LAN connectivity, whereas the USAR provides the old 9.6KB telephone system support. Therefore, the data requirements cannot be met. In addition to breaking the old acquisition paradigm, it is essential that COTS technology be fielded concurrently to the USAR to ensure a totally seamless digitized force.

Major systems projected for receipt by the USAR in FY 2003 and beyond as a result of Army P-1R, NGREA, or modification/rebuild programs include:

| | |
|------------------------------------|---|
| Family of Medium Tactical Vehicles | Lightweight Maintenance Enclosures |
| Shop Vans, M109 | AVLB Upgrades to MLC 70 |
| HMMWVs | Trailer Conversions from M101A1 to M101A3 |
| SINCGARS Radios | Fuel Tankers, M967A1 |
| HEMTT Fire Trucks | M915A3, Truck Tractor Line-Haul |
| Semi-Trailer, Tank 5K | Palletized Loading Systems |
| Water Purification Systems | Generator Sets & Associate Equipment |
| Welding Shop Trailers | Rough Terrain Container Handler |
| JPIDS | Yard Tractor, M878A2 |

| | |
|-------------------------------------|----------------------------------|
| Semi-Trailer, 22.5 T, M871A3 | Communications Equipment |
| Fuel Distribution Systems | Field Feeding Equipment |
| Laser Marksmanship Training Systems | Refrigeration Container Systems |
| Contact Maintenance Trucks | Tactical Bridging Equipment |
| Light Tactical Trailers | Combat Support Medical Equipment |
| Family of Heavy Tactical Vehicles | Water Purification Systems |

B. Changes Since Last NGRER

As a result of OIF, there are several initiatives within DoD to rebalance the forces to meet the challenges and demands of the GWOT. This rebalance requires the transfer of some capabilities from the RC to the AC, refinement of the mobilization process to minimize the time required from alert to deployment, and use of the RC to meet predictable, long lead-time rotational requirements. The transfer of capabilities from the RC to the AC will require the diversion of new equipment procured for the RC, as well as the transfer of equipment from the RC to the AC. The rebalance of the forces may initially impact the delivery of new equipment to the USAR, delaying deliveries for two to four years.

The USAR has embarked on an ambitious initiative to restructure itself to a fully transformational force providing ready soldiers, ready units, and shortened deployment timelines. This initiative is the USAR Federal Reserve Restructuring Initiative (FRRI). Transforming to meet the challenges of a changing environment is nothing new to the USAR; what is different is the sense of urgency. We are at war! The FRRI will eliminate broken or irrelevant structure while establishing rotational depth and creating an Individual's Account based on the Combatant Commander's requirements. The reduction in structure will produce excess equipment that can be cross-leveled internally to increase the equipment-on-hand quantities for tactical wheeled vehicles, materiel handling and engineer equipment.

The USAR receives equipment through four sources: Army P-1R, NGREA, cascading of equipment from the AC, and Congressional adds.

The P-1R is a subset of the Army Procurement Programs (P-1) exhibit and reflects the Army's estimate or projection for those funds, which will be used to procure equipment for the RC. As stated earlier, the USAR is projected to receive three to six percent of the total P-1R funding during POM 04-09. Unfortunately, the P-1R is a distribution planning document and not a budget execution document. Requirements are based on best estimates for future needs and there is lag time between purchase and delivery dates, making fielding and tracking of USAR equipment from the P-1R a challenge. In FY 2003, key systems such as FMTV, HMMWV, ATLAS, and RTCH, projected in the P-1R, were either decremented in total or procurements continuously "slipped to the right," thus shorting the USAR of much needed modernized equipment.

The USAR provides 31 percent of the CS and 45 percent of the CSS assets to the Army. Since the RC constitutes the majority of the CS/CSS provider for the Army, cascading of logistics equipment is very minimal.

From an equipment perspective, the greatest risk facing the USAR in support of the NMS is the potential deferment of key logistics equipment procurement programs identified in the P-1R over the FYDP. Consequently, the Army procurement plan identified for USAR fielding in the P-1R must be monitored closely to ensure proper execution, since there are no formal procedures within the Department of the Army to compare equipment projections with what is actually fielded.

C. Future Years Program (FY 2006–FY 2008)

1. FY 2007 Equipment Requirements

Previously identified modernization shortfalls continue through FY 2006.

2. Anticipated New Equipment Procurements

Table 3 reflects the service-planned procurements from P-1R data.

3. Anticipated Transfers from AC to RC

Table 6 reflects data regarding transfers from the AC to the USAR. A major concern by the USAR is the poor condition of equipment that is cascaded. HQDA is currently addressing this issue. To offset this problem, the USAR has to invest the time and resources in repairing and rebuilding cascaded equipment prior to issuing it to units.

4. Anticipated Withdrawals from RC Inventory

Table 5 reflects USAR projected equipment transfer and withdrawal quantities.

5. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2008

The USAR's P-1R projects the USAR will receive limited quantities of modern equipment during FY 2006 and FY 2007. Although the distribution is limited, certain systems are crucial to USAR modernization. Projected deliveries of HEMTT chassis tactical fire trucks, FMTV, RTCH, and the ATLAS will replace aging equipment in high priority, high demand USAR units. Critical logistics enablers such as electric forklifts, CSS automation systems, PLS, Petroleum and water distribution systems, and communications equipment remain under-funded for the USAR.

The increase in recent OPTEMPO, in support of OIF, challenges equipment materiel readiness. Increased USAR mobilizations and deployments increase the need for repairs, services, and the replacement of worn or destroyed equipment. Increased mission requirements have forced the Army to accept risk in modernization of CS and CSS equipment. Because of funding constraints and the need for additional OPTEMPO funds, procurement programs have been maintained at minimum sustaining rates or totally decremented. As the FYDP is modified, it is vital that the integration of the AC and RC into a "seamless" force continues with appropriate modernization to ensure interoperability and compatibility.

The cumulative depot maintenance shortfall from FY 2001 to FY 2004 stands in excess of \$46M with an estimated shortfall of \$18M in FY 2005. This shortfall in depot maintenance funding will exacerbate the degradation of aging equipment, severely impacting training objectives, contingency operations, and materiel readiness.

6. Other Comments

Shortages of common systems such as FMTVs, HMMWVs, C4I items, and MHE are detractors to both readiness and training. Compatibility of equipment will continue to be a problem for communications and logistic support systems.

In order to ensure maximum compatibility of high priority units, equipping is based on a force packaging match using the “first to fight” principle. This works well for USAR units planned for early deployment, but creates a problem with later deploying units which have older substitute equipment. In the current environment, USAR units that deploy late for a crisis often are early deployers for peacetime missions. Therefore, mobilization of these late deploying units, for other than war operations, requires last minute redistribution of equipment to bring the deploying unit to an acceptable level of readiness.

The Department of the Army defines recapitalization as the maintenance and systemic upgrade of currently fielded systems to ensure operational effectiveness and a near “zero time/zero mile” system using research, development, test and evaluation, procurement, or operation and maintenance funds. The objectives of the Recapitalization Program include extending maintainability, safety, and efficiency, and enhancing capability. Recapitalization may include pre-planned product improvements, ESPs and major modifications. These programs alone are not recapitalization unless they restore the system to a near “zero time/zero mile” condition.

The USAR depot maintenance program is a repair-and-return-to-unit program. However, the present Army recapitalization program under development is very different, in so much as it does not return equipment to the losing unit. Equipment is to be reissued in unit sets by DAMPL sequence to all Army units. Consequently, as the RC turns in their older equipment for recapitalization, other equipment will need to be cascaded to the RC to replace the equipment being recapitalized. Consequently, it is crucial that the RC receive equipment that is mission capable and compatible with its AC counterparts.

D. Summary/Conclusions

It is a precedent-setting time for the Army as it transforms core business processes and force designs during a time of war on multiple fronts. The challenges are many, but our mission remains the same: to provide trained and ready units and individuals to mobilize and rapidly deploy in support of the NMS.

As the AC transforms, so does the USAR to a capabilities-based force to meet potential threats. The effectiveness of the USAR as a combat multiplier to the Army is dependent on its ability to attain modernization goals. The Army modernization strategy must focus on developing and procuring systems that provide the key capabilities, such as increased mobility, survivability, and agility, to the soldiers and weapons systems they will support. The USAR is

the premier provider of support forces; hence it is imperative that the USAR receives adequate and consistent funding in the Army's procurement accounts to support modernization and recapitalization requirements.

In past years, NGREA and Congressional adds have played a key role in the modernization efforts of the USAR. The lack of adequate funding for equipment procurement and modernization is a challenge to maintaining readiness. The need to fully fund ongoing operations and current readiness, combined with continued pressure on the defense budget because of political and fiscal constraints, is keeping procurement accounts from being raised to levels sufficient to assure the modernization of our CS/CSS forces. The GWOT increased the need for strategic responsiveness across the full spectrum of operations. To achieve these goals, CS and CSS forces resident in the USAR must be modernized and recapitalized on a synchronized and complementary timeline with the combat forces. Significant reductions in the logistics footprint will not be attained unless key logistics enablers such as FMTV, HMMWV, MHE, and communications systems are procured in sufficient quantity to support the requirements. We cannot maintain equipment readiness and achieve the transformational modernization goals if we are forced to endure further procurement delays. The USAR is an accessible and integral full partner of the Army....it is in America's interest to provide American Soldiers the best and most modern equipment.

Future State: A Transformed Army Reserve



**Skilled Soldiers
& Modern
Equipment . . .**



**. . . Trained &
Ready . . .**



**. . . To Go
Anywhere**

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 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| ROTARY WING AIRCRAFT | | | | | | | |
| HELICOPTER,ATTACK AH-64D (APACHE) | H48918 | 25,128,800 | 48 | 48 | 48 | 48 | 48 |
| HELICOPTER,CARGO CH-47D (CHINOOK) | H30517 | 30,000,000 | 48 | 48 | 48 | 48 | 48 |
| HELICOPTER,UTILITY UH-60L/Q (BLACK HAWK) | H32361 | 11,188,480 | 16 | 16 | 16 | 16 | 16 |
| FIXED WING AIRCRAFT | | | | | | | |
| AIRPLANE, CARGO, TRANSPORT, C-12R | A30062 | 3,068,422 | 30 | 30 | 30 | 30 | 30 |
| AIRPLANE, CARGO, TRANSPORT, UC-35 | Z95382 | 4,500,000 | 12 | 12 | 12 | 12 | 12 |
| BRIDGE & VESSEL EQUIPMENT | | | | | | | |
| LOGISTIC SUPPORT VESSEL | V00426 | 26,748,800 | 3 | 3 | 3 | 3 | 4 |
| LANDING CRAFT MECHANIZED, LCM-8 | L36739 | 162,612 | 19 | 19 | 19 | 19 | 21 |
| LANDING CRAFT UTILITY, LCU-1646 | L36876 | 1,530,000 | 5 | 5 | 5 | 5 | 1 |
| LANDING CRAFT UTILITY, LCU-2000 | L36989 | 5,000,000 | 22 | 22 | 22 | 22 | 12 |
| TUG, LARGE COASTAL & INLAND WATERWAY | T68330 | 1,250,000 | 2 | 2 | 2 | 2 | 9 |
| INTERIOR BAY BRIDGE, FLOATING | K97376 | 62,910 | 163 | 163 | 183 | 183 | 214 |
| RAMP BAY, FLOATING BRIDGE | R10527 | 70,575 | 69 | 69 | 74 | 74 | 87 |
| RAMP LOADING VEHICLE | R11154 | 7,229 | 316 | 316 | 316 | 316 | 106 |
| TRANSPORTER, FLOATING BRIDGE | X23277 | 102,218 | 10 | 11 | 11 | 11 | 11 |
| MODULAR CAUSEWAY SYSTEM (MCS) | Z14597 | 0 | 0 | 0 | 0 | 0 | 6 |
| BRIDGE ERECTION SET, FIXED BAILEY BRIDGE | C22058 | 43,944 | 1 | 1 | 1 | 1 | 0 |
| BRIDGE ERECTION SET, FIXED MEDIUM GIRDER BRIDGE | C22126 | 488,354 | 4 | 4 | 4 | 4 | 12 |
| BRIDGE, FIXED BAILEY | C23017 | 303,673 | 1 | 1 | 1 | 1 | 0 |
| BRIDGE, FIXED MEDIUM GIRDER, 100FT | C22811 | 964,515 | 9 | 9 | 9 | 9 | 24 |
| CHEMICAL DEFENSIVE EQUIPMENT | | | | | | | |
| ALARM, BIOLOGICAL AGENT, AUTOMATIC, M31 | A48430 | 785,483 | 56 | 56 | 56 | 56 | 14 |
| ALARM, CHEMICAL AGENT, AUTOMATIC, M8A1 | A32355 | 8,432 | 5,105 | 5,105 | 5,105 | 5,105 | 361 |
| MONITOR, CHEMICAL AGENT | C05701 | 7,500 | 3,905 | 3,905 | 3,905 | 3,905 | 4,481 |
| COLLECTIVE PROTECTION EQUIPMENT, NBC, M20 | C79000 | 17,713 | 55 | 57 | 57 | 57 | 213 |
| DECONTAMINATING APPARATUS, POWER DRIVEN, LIGHTWEIGHT | D82404 | 23,121 | 636 | 678 | 678 | 678 | 1,001 |
| DECONTAMINATING APPARATUS, SKID MOUNTED, MULTIPURPOSE | F81880 | 21,626 | 22 | 22 | 22 | 22 | 18 |
| MASK, PROTECTIVE, COMBAT VEHICLE, M42 | M18526 | 640 | 1,781 | 1,783 | 1,783 | 1,783 | 1,288 |
| MASK, CHEMICAL-BIOLOGICAL, M40 | M12418 | 202 | 187,626 | 188,973 | 189,003 | 189,008 | 130,755 |
| MASK, CBR PROTECTIVE FIELD, M17A1 | M11895 | 93 | 1,049 | 1,058 | 1,310 | 1,310 | 5,582 |
| RADIAC SET, AN/PDR-75 | R30925 | 2,978 | 682 | 682 | 682 | 682 | 1,149 |

USAR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|--|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| RADIAC SET, AN/UDR-13 | R31061 | 631 | 1,990 | 1,991 | 1,991 | 1,991 | 4,373 |
| RADIACMETER, IM-93A/UD | Q20935 | 73 | 4,259 | 4,260 | 4,274 | 4,274 | 6,310 |
| SMOKE GENERATOR, M157 | G51840 | 26,622 | 433 | 433 | 433 | 433 | 120 |
| SMOKE GENERATOR, M3A3 | J30492 | 0 | 0 | 0 | 0 | 0 | 56 |
| SMOKE GENERATOR, M56 | G58151 | 145,000 | 120 | 120 | 120 | 120 | 120 |
| SMOKE GENERATOR, M58 | G87229 | 410,000 | 21 | 21 | 21 | 21 | 28 |
| MOUNTING KIT, SMOKE GENERATOR, M284 | M17931 | 2,306 | 386 | 386 | 386 | 386 | 145 |
| COMMUNICATIONS EQUIPMENT | | | | | | | |
| CENTRAL OFFICE COMMUNICATIONS, AN/TTC-39A(V)1 | C41311 | 2,801,000 | 6 | 6 | 6 | 6 | 0 |
| COMPUTER SET, DIGITAL, AN/UKY-128 | Z26542 | 15,954 | 17 | 17 | 17 | 17 | 0 |
| DATA TRANSFER DEVICE, AN/CYZ-10 | D78555 | 1,899 | 8,176 | 8,198 | 8,198 | 8,198 | 16,637 |
| DIGITAL FAX SET, LIGHTWEIGHT, AN/UXC-10 | Z26923 | 0 | 12 | 12 | 14 | 14 | 1,459 |
| RADAR SIGNAL DETECTION SET, AN/APR-39A(V)1 | D03159 | 39,984 | 111 | 111 | 111 | 111 | 8 |
| RADIO SET, AN/GRC-106 | Q32756 | 18,602 | 300 | 300 | 300 | 300 | 5 |
| RADIO SET, AN/GRC-193A | H35404 | 37,000 | 249 | 267 | 292 | 296 | 720 |
| RADIO SET, AN/GRC-213 | R30895 | 20,000 | 54 | 62 | 63 | 63 | 438 |
| RADIO SET, AN/PRC-104A | R55200 | 12,500 | 160 | 176 | 176 | 176 | 340 |
| RADIO SET, AN/VRC-90A (SINGARS) | R67908 | 13,178 | 6,162 | 6,193 | 6,193 | 6,193 | 6,369 |
| RADIO SET, AN/VRC-91A (SINGARS) | R68010 | 23,249 | 1,417 | 1,417 | 1,417 | 1,417 | 1,574 |
| RADIO SET, AN/VRC-92A (SINGARS) | R45407 | 21,238 | 466 | 479 | 479 | 479 | 680 |
| RADIO SET, AN/VRC-119A (SINGARS) | R83005 | 10,117 | 1,687 | 1,687 | 1,687 | 1,687 | 1,157 |
| RADIO SET, AN/VRC-87A (SINGARS) | R67160 | 12,109 | 378 | 378 | 380 | 380 | 202 |
| RADIO SET, AN/VRC-88A (SINGARS) | R67194 | 12,519 | 2,355 | 2,356 | 2,356 | 2,356 | 2,111 |
| RADIO SET, AN/VRC-89A (SINGARS) | R44863 | 22,822 | 1,367 | 1,371 | 1,375 | 1,375 | 1,953 |
| RADIO TELETYPEWRITER SET, AN/GRC-122 | Q90100 | 52,347 | 4 | 4 | 4 | 4 | 0 |
| RADIO REPEATER SET, AN/TRC-138C | Z63463 | 0 | 0 | 0 | 0 | 0 | 24 |
| RADIO REPEATER SET, AN/TRC-174 | R39520 | 619,000 | 33 | 33 | 33 | 33 | 0 |
| RADIO REPEATER SET, AN/TRC-174B | Z54228 | 0 | 0 | 0 | 0 | 0 | 24 |
| RADIO TERMINAL SET, AN/TRC-173B | Z57406 | 0 | 0 | 0 | 0 | 0 | 28 |
| RADIO TERMINAL SET, AN/TRC-170 (V)2 | R92967 | 2,000,000 | 16 | 16 | 16 | 16 | 12 |
| RADIO TERMINAL SET, AN/TRC-170 (V)3 | R93035 | 1,000,000 | 16 | 18 | 18 | 18 | 16 |
| RADIO TERMINAL SET, AN/TRC-175 | R39588 | 640,000 | 11 | 11 | 11 | 11 | 0 |
| SPEECH SECURITY EQUIPMENT, TSEC/KY-57 | S01373 | 1,930 | 380 | 381 | 381 | 381 | 179 |
| SPEECH SECURITY EQUIPMENT, TSEC/KY-58 | S01441 | 3,063 | 247 | 248 | 248 | 248 | 133 |
| TELEPHONE, DIGITAL NON-SECURE VOICE, TA-1035/U | T45408 | 2,459 | 2,517 | 2,517 | 2,517 | 2,517 | 0 |
| TERMINAL, RADIO-TELEPHONE MOBILE SUBSCRIBER, AN/VRC-97 | T55957 | 110,000 | 698 | 698 | 702 | 702 | 670 |
| FACSIMILE, LIGHTWEIGHT DIGITAL, AN/UXC-7 | L67964 | 21,972 | 1,563 | 1,563 | 1,565 | 1,565 | 633 |
| ELECTRONIC TRANSFER KEYING DEVICE, KYK-13/TSEC | E98103 | 235 | 3,107 | 3,115 | 3,115 | 3,115 | 290 |
| DIGITAL DATA GENERATOR, SG-1139/G | D37041 | 5,100 | 73 | 73 | 73 | 73 | 60 |
| NET CONTROL DEVICE, KYX-15/TSEC | N02758 | 2,300 | 1,451 | 1,451 | 1,451 | 1,451 | 57 |

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|--|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| SPECTRUM ANALYZER, AN/USM-489(V)1 | S01416 | 12,917 | 11 | 25 | 34 | 34 | 54 |
| CONSTRUCTION EQUIPMENT | | | | | | | |
| ASPHALT MIXING PLANT | M57048 | 1,254,600 | 4 | 4 | 4 | 4 | 3 |
| COMPACTOR, HIGH SPEED, SELF-PROPELLED, CCE | E61618 | 135,186 | 50 | 50 | 50 | 50 | 39 |
| CRANE, BARGE, 89 TO 250 TON | F36090 | 8,000,104 | 1 | 1 | 1 | 1 | 0 |
| CRANE, WHEEL MOUNTED, 20 TON | F39378 | 162,393 | 8 | 8 | 8 | 8 | 9 |
| CRANE, WHEEL MOUNTED, HYDRAULIC, LIGHT 7-1/2 TON | C36151 | 58,481 | 91 | 91 | 91 | 91 | 27 |
| CRANE, WHEEL MOUNTED, HYDRAULIC, 25 TON, ALL TERRAIN, AT422T | C36586 | 226,341 | 138 | 138 | 138 | 138 | 95 |
| CRANE, WHEEL MOUNTED, HYDRAULIC, ROUGH TERRAIN (RTCC) | C39398 | 450,194 | 82 | 82 | 82 | 82 | 15 |
| CRANE-SHOVEL, CRAWLER MOUNTED, 50 TON | F40474 | 270,000 | 10 | 10 | 10 | 10 | 12 |
| CRANE, TRUCK MOUNTED, HYDRAULIC, 25-TON, CCE | F43429 | 160,953 | 55 | 55 | 55 | 55 | 4 |
| CRUSHING, SCREENING, & WASHING PLANT, 150 TPH | F49673 | 1,543,579 | 8 | 8 | 8 | 8 | 3 |
| ROAD GRADER, MOTORIZED, CCE | G74783 | 67,724 | 220 | 220 | 220 | 220 | 178 |
| ROAD GRADER, MOTORIZED | J74920 | 62,181 | 2 | 2 | 2 | 2 | 0 |
| ROLLER, PNEUMATIC, SELF-PROPELLED, CCE | S11793 | 28,706 | 10 | 10 | 10 | 10 | 6 |
| ROLLER, VIBRATING, TOWED | S10682 | 17,086 | 9 | 9 | 9 | 9 | 18 |
| ROLLER, VIBRATORY, SELF-PROPELLED, CCE | S12916 | 45,183 | 69 | 69 | 69 | 69 | 23 |
| SCOOP LOADER, CCE | L76321 | 75,450 | 38 | 38 | 38 | 38 | 38 |
| SCOOP LOADER, 950BNS | L76556 | 58,890 | 149 | 149 | 149 | 149 | 126 |
| SCRAPER, EARTH MOVING, SELF-PROPELLED, CCE | S56246 | 120,410 | 223 | 223 | 223 | 223 | 146 |
| SPREADER LIFT FRT CON | U12203 | 4,490 | 109 | 109 | 109 | 109 | 10 |
| TRACTOR, WHEELED, EXCAVATOR & FRONT LOADER | T34437 | 69,583 | 363 | 363 | 365 | 365 | 326 |
| ELECTRICAL GENERATION | | | | | | | |
| GENERATOR SET, TRAILER MOUNTED, PU-798 | G42170 | 13,000 | 312 | 332 | 332 | 332 | 411 |
| GENERATOR SET, TRAILER MOUNTED, PU-406 | J36383 | 20,810 | 137 | 137 | 137 | 137 | 0 |
| GENERATOR SET, MEP-002A | J35813 | 8,332 | 1,233 | 1,233 | 1,233 | 1,233 | 173 |
| GENERATOR SET, MEP-003A | J35825 | 13,635 | 505 | 505 | 505 | 505 | 143 |
| GENERATOR SET, MEP-805A | G74575 | 21,998 | 119 | 129 | 136 | 136 | 186 |
| GENERATOR SET, MEP-806A | G12034 | 25,073 | 125 | 125 | 125 | 125 | 95 |
| GENERATOR SET, MEP-802A | G11966 | 8,145 | 1,320 | 1,671 | 1,852 | 1,878 | 2,283 |
| GENERATOR SET, MEP-803A | G74711 | 6,979 | 531 | 563 | 581 | 581 | 754 |
| GENERATOR SET, MEP-804A | G12170 | 16,160 | 118 | 139 | 140 | 140 | 205 |
| GENERATOR SET, MEP-009A | J40158 | 49,440 | 5 | 5 | 5 | 5 | 0 |
| GENERATOR SET, MEP-016A | J45699 | 4,491 | 611 | 611 | 614 | 614 | 99 |
| GENERATOR SET, MEP-108A | J40150 | 19,204 | 0 | 0 | 0 | 0 | 6 |
| GENERATOR SET, TRAILER MOUNTED, PU-803 | G35851 | 28,521 | 45 | 86 | 86 | 86 | 153 |
| GENERATOR SET, TRAILER MOUNTED, PU-802 | G53778 | 19,080 | 167 | 193 | 193 | 193 | 537 |
| GENERATOR SET, TRAILER MOUNTED, PU-805 | G78306 | 31,596 | 32 | 33 | 33 | 33 | 44 |
| POWER PLANT, AN/MJQ-36 | P28151 | 33,627 | 7 | 7 | 7 | 7 | 1 |

USAR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| POWER PLANT, AN/MJQ-35 | P28083 | 11,000 | 16 | 16 | 16 | 16 | 19 |
| POWER PLANT, AN/MJQ-10 | P27819 | 45,447 | 67 | 67 | 67 | 67 | 0 |
| POWER PLANT, AN/MJQ-40 | P42126 | 63,941 | 24 | 24 | 24 | 24 | 8 |
| POWER PLANT, AN/MJQ-41 | P42194 | 70,891 | 6 | 6 | 6 | 6 | 1 |
| POWER PLANT, AN/NJQ-37 | P42262 | 36,558 | 50 | 50 | 50 | 50 | 11 |
| POWER SUPPLY, PP-6224/U | P40750 | 1,491 | 1,380 | 1,382 | 1,383 | 1,383 | 2,401 |
| MEDICAL EQUIPMENT | | | | | | | |
| ANESTHESIA APPARATUS | A62773 | 19,530 | 216 | 216 | 216 | 216 | 35 |
| COMBAT AUTOMATED SERVICE SUPPORT-MEDICAL (CASS-M) COMPUTER SYSTEM | C18514 | 5,000 | 1,968 | 1,969 | 1,969 | 1,969 | 1,504 |
| DEFIBRILLATOR MONITOR RECORDER | D86072 | 25,795 | 854 | 1,050 | 1,051 | 1,066 | 232 |
| MEDICAL EQUIPMENT SET, FIELD SICK CALL | M30156 | 8,380 | 72 | 78 | 85 | 87 | 72 |
| MEDICAL EQUIPMENT SET, FIELD TRAUMA | M30499 | 17,713 | 82 | 88 | 88 | 88 | 66 |
| MEDICAL MATERIEL SET, CENTRAL MATERIAL SERVICE, DEPMEDS | M08417 | 741,931 | 171 | 203 | 207 | 207 | 61 |
| MEDICAL MATERIEL SET, INTERMEDIATE CARE WARD, DEPMEDS | M08599 | 180,203 | 330 | 340 | 353 | 353 | 204 |
| MEDICAL MATERIEL SET, LABORATORY GENERAL, DEPMEDS | M72482 | 200,320 | 12 | 12 | 12 | 12 | 0 |
| MEDICAL MATERIEL SET, OPERATING ROOM, DEPMEDS | M72936 | 470,238 | 178 | 210 | 214 | 214 | 61 |
| MEDICAL MATERIEL SET, POST-OP/ICU WARD, DEPMEDS | M09576 | 278,773 | 338 | 402 | 406 | 406 | 80 |
| MEDICAL MATERIEL SET, X-RAY, DEPMEDS | M72300 | 281,240 | 36 | 44 | 47 | 47 | 21 |
| MEDICAL MATERIEL SET, X-RAY RADIOGRAPHIC, DEPMEDS | M86675 | 203,223 | 41 | 41 | 41 | 41 | 19 |
| OPERATING AND TREATMENT UNIT, FIELD DENTAL | P19377 | 17,515 | 44 | 44 | 44 | 44 | 267 |
| OSCILLOSCOPE, AN/USM-488 | P30693 | 2,084 | 270 | 271 | 271 | 271 | 193 |
| TENT, MEDICAL, EXTENDABLE, MODULAR (TEMPER) | T47745 | 21,870 | 589 | 595 | 631 | 631 | 399 |
| TENT, SURGICAL, EXTENDABLE, MODULAR (TEMPER) | T47813 | 26,484 | 148 | 151 | 157 | 157 | 118 |
| TRUCK, AMBULANCE, M996 (HMMWV) | T38707 | 49,357 | 6 | 8 | 8 | 8 | 11 |
| TRUCK, AMBULANCE, M997 (HMMWV) | T38844 | 113,998 | 224 | 224 | 224 | 224 | 219 |
| MISSILES | | | | | | | |
| JAVELIN ANTI-TANK MISSILE CONTROL LAUNCH UNIT | C60750 | 460,205 | 18 | 18 | 18 | 18 | 20 |
| OTHER PROCUREMENT | | | | | | | |
| LASER INFRARED OBSERVATION SET, AN/GVS-5 | L40063 | 4,879 | 28 | 28 | 28 | 28 | 30 |
| MELIOS PVS-6 EYE SAFE LASER OBSERVATION | M74849 | 22,015 | 20 | 28 | 28 | 28 | 139 |
| NIGHT SIGHT, TOW II ANTI-TANK SYSTEM, AN/VAS UAS-12 | N04982 | 61,791 | 25 | 25 | 25 | 25 | 22 |
| NIGHT VISION SIGHT, AN/UAS-11(V)1 | N05050 | 69,641 | 3 | 3 | 3 | 3 | 5 |
| NIGHT VISION DEVICE, AN/PVS-4 WMG (WEAPON) | N04732 | 8,535 | 4,823 | 4,851 | 4,851 | 4,851 | 3,251 |
| NIGHT VISION GOGGLES, AN/PVS-7B | N05482 | 3,578 | 20,683 | 21,141 | 21,496 | 21,873 | 39,378 |
| NIGHT VISION GOGGLES, AN/PVS-5 | N04456 | 4,300 | 5,564 | 5,564 | 5,840 | 5,840 | 685 |

USAR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|--|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| NIGHT VISION SIGHT-TRACKER, INFRARED, AN/TAS-5 (DRAGON) | N23721 | 23,099 | 25 | 25 | 25 | 25 | 3 |
| VIEWER INFRARED, AN/PAS-7 | Y03104 | 16,779 | 7 | 7 | 7 | 7 | 44 |
| NAVIGATION SYSTEM, PSN-11 | N95862 | 1,873 | 6,939 | 6,957 | 6,957 | 6,957 | 8,866 |
| BATH UNIT, PORTABLE, SH-63LP | B43663 | 8,186 | 38 | 38 | 38 | 38 | 110 |
| BATTLE COMMAND SUSTAINMENT SUPPORT SYSTEM (BCS3) | C56827 | 56,688 | 36 | 50 | 50 | 50 | 69 |
| CLEANER, STEAM PRESSURE JET, TRAILER MOUNTED | C32887 | 18,528 | 367 | 367 | 367 | 367 | 565 |
| CONTAINER ASSEMBLY, REFRIGERATED, W/9K BTU REF UNIT | C84541 | 58,326 | 208 | 219 | 219 | 219 | 368 |
| DIVING EQUIPMENT SET | D32927 | 55,753 | 1 | 1 | 1 | 1 | 0 |
| FLOODLIGHT SET, TRAILER MOUNTED | F79334 | 4,489 | 164 | 164 | 164 | 164 | 1,053 |
| FOOD SANITATION CENTER | S33399 | 12,735 | 457 | 513 | 562 | 567 | 689 |
| LAUNDRY UNIT, TRAILER MOUNTED | L48315 | 54,944 | 213 | 213 | 213 | 213 | 28 |
| MINE DETECTING SET MINE, AN/PSS-11 | G02341 | 2,944 | 1,716 | 1,716 | 1,716 | 1,716 | 1,784 |
| REFRIGERATION UNIT, 10000 BTU | R61428 | 8,639 | 110 | 110 | 110 | 110 | 250 |
| PRINTING PLANT, SPECIAL WARFARE, TRANSPORTABLE, LIGHT WT | P61665 | 283,221 | 9 | 9 | 9 | 9 | 11 |
| PROCESSING MACHINE RAD FILM TABLE TOP | P98514 | 13,112 | 74 | 90 | 90 | 90 | 40 |
| SHELTER, TACTICAL EXPANDABLE | S01359 | 62,143 | 323 | 355 | 355 | 355 | 136 |
| PETROLEUM EQUIPMENT | | | | | | | |
| FUEL SYSTEM SUPPLY POINT | J04717 | 30,213 | 369 | 369 | 369 | 369 | 144 |
| FORWARD AREA REFUELING EQUIPMENT (FARE) | H94824 | 9,093 | 128 | 128 | 128 | 128 | 62 |
| LABORATORY, PETROLEUM SEMITRAILER MOUNTED | L33800 | 650,000 | 14 | 14 | 14 | 14 | 12 |
| PUMPING ASSEMBLY, FLAMMABLE LIQUID, 350 GPM | P97119 | 26,244 | 164 | 164 | 164 | 164 | 296 |
| PUMP, CENTRIFUGE, 125 GPM | P92030 | 2,267 | 777 | 784 | 784 | 784 | 469 |
| TANK ASSEMBLY, FABRIC COLLAPSIBLE, 20000 GAL PETROLEUM | T12620 | 6,065 | 271 | 271 | 271 | 271 | 136 |
| TANK ASSEMBLY, FABRIC COLLAPSIBLE, 10000 GAL PETROLEUM | V12552 | 6,990 | 557 | 557 | 557 | 557 | 190 |
| TERMINAL, TACTICAL PETROLEUM, MARINE | T56041 | 1,400,873 | 0 | 0 | 0 | 0 | 7 |
| TESTING KIT, AVIATION FUEL CONTAMINATION | T05741 | 4,565 | 206 | 206 | 206 | 206 | 191 |
| FILTER-SEPARATOR LIQUID FUEL, DL13217E9320 | H52087 | 4,041 | 1,327 | 1,327 | 1,327 | 1,327 | 354 |
| REPAIR EQUIPMENT | | | | | | | |
| ELECTRONIC SHOP, AN/ASM-189 | H01855 | 169,817 | 66 | 66 | 66 | 66 | 77 |
| ELECTRONIC SHOP, AN/ASM-146 | H01907 | 124,000 | 92 | 92 | 92 | 92 | 40 |
| ELECTRONIC SHOP, AN/ASM-147 | H01912 | 82,000 | 38 | 38 | 38 | 38 | 16 |
| INSTUMENT REPAIR SHOP, M185A3 | K90188 | 94,021 | 6 | 6 | 6 | 6 | 0 |
| SHOP EQUIPMENT, AUTO MAINTENANCE & REPAIR | T24660 | 120,827 | 40 | 40 | 40 | 40 | 48 |
| SHOP EQUIPMENT, AUTO MAINTENANCE & REPAIR | T25756 | 124,948 | 13 | 13 | 13 | 13 | 16 |
| SHOP EQUIPMENT, AUTO MAINTENANCE & REPAIR | T25619 | 58,235 | 42 | 42 | 42 | 42 | 41 |
| SHOP EQUIPMENT, MAINTENANCE, DAVEY MODEL CMU-5 | T10138 | 16,361 | 8 | 13 | 17 | 17 | 29 |

USAR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|------------------|--------------------------|------------------------------|------------------------------|------------------------------|----------------------------|----------------------------|
| TEST SET, RADIO, AN/GRM-114 | T87468 | 11,822 | 129 | 131 | 131 | 131 | 40 |
| TEST SET, ELECTRONIC SYSTEMS, DIRECT SUPPORT (DESETS) | T52849 | 561,312 | 4 | 4 | 4 | 4 | 0 |
| TOOL OUTFIT, HYDRAULIC SYSTEM TEST & REPAIR | T30377 | 83,000 | 46 | 46 | 46 | 46 | 140 |
| WELDING SHOP, TRAILER MOUNTED | W48391 | 43,250 | 168 | 170 | 171 | 172 | 160 |
| WELDING SHOP TRAILER MOUNTED | Y48255 | 7,383 | 2 | 2 | 2 | 2 | 0 |
| WELDING SHOP, TRAILER MOUNTED | Y48323 | 9,603 | 8 | 8 | 8 | 8 | 18 |
| TACTICAL VEHICLES | | | | | | | |
| TRUCK, UTILITY, M998 (HMMWV) | T61494 | 36,076 | 9,862 | 9,874 | 9,874 | 9,874 | 13,111 |
| TRUCK, UTILITY, M1025 (HMMWV) | T92242 | 74,969 | 1,769 | 1,769 | 1,769 | 1,769 | 179 |
| TRUCK, UTILITY, M1037 (HMMWV) | T07543 | 36,932 | 496 | 496 | 496 | 496 | 149 |
| TRUCK, UTILITY, M1038 (HMMWV) | T61562 | 36,672 | 361 | 361 | 361 | 361 | 432 |
| TRUCK, UTILITY, M1097 (HMMWV) | T07679 | 61,665 | 934 | 1,107 | 1,239 | 1,311 | 369 |
| TRUCK, CARGO, LMTV, M1078 | T60081 | 176,428 | 976 | 995 | 1,004 | 1,005 | 2,442 |
| TRUCK, CARGO, LMTV, M1078, WITH WINCH | T60149 | 115,639 | 220 | 220 | 222 | 224 | 446 |
| TRUCK, CARGO, LMTV, M1081 | T41995 | 101,742 | 16 | 16 | 16 | 16 | 24 |
| TRUCK, VAN, LMTV, M1079 | T93484 | 162,060 | 31 | 63 | 63 | 63 | 206 |
| TRUCK, CARGO, MTV, M1083 | T61908 | 128,076 | 259 | 265 | 265 | 265 | 1,694 |
| TRUCK, CARGO, MTV, M1085 | T61704 | 118,791 | 2 | 2 | 2 | 2 | 2 |
| TRUCK DUMP, MTV, M1090 | T64911 | 141,557 | 53 | 64 | 64 | 64 | 387 |
| TRUCK, TRACTOR, MTV, M1088 | T61239 | 142,132 | 208 | 329 | 420 | 420 | 1,223 |
| TRUCK, WRECKER, MTV, M1089 | T94709 | 331,680 | 38 | 42 | 42 | 43 | 137 |
| TRUCK, CARGO, W/MED CRANE, M985 (HEMTT) | T39586 | 272,033 | 68 | 68 | 70 | 70 | 84 |
| TRUCK, CARGO, 10 TON, W/LT CRANE (HEMTT) | T59278 | 251,388 | 80 | 80 | 80 | 80 | 48 |
| TRUCK, CARGO, W/LT CRANE (HEMTT) | T39518 | 260,574 | 18 | 18 | 18 | 18 | 9 |
| TRUCK, WRECKER, M948E1 (HEMTT) | T63093 | 379,000 | 346 | 346 | 350 | 350 | 253 |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T87243 | 268,440 | 147 | 147 | 147 | 147 | 246 |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T58161 | 278,409 | 154 | 154 | 154 | 154 | 34 |
| TRUCK, COMMON BRIDGE TRANSPORTER (CBT), M1977 | T91308 | 226,150 | 231 | 231 | 231 | 231 | 392 |
| TRUCK, TRACTOR, M878 | T60353 | 62,000 | 34 | 34 | 42 | 87 | 143 |
| TRUCK, TRACTOR, LINE HAUL, M915 | T61103 | 162,968 | 2,534 | 2,617 | 2,662 | 2,662 | 2,248 |
| TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916 | T91656 | 164,760 | 546 | 547 | 548 | 603 | 555 |
| TRUCK, TRACTOR, MEDIUM EQUIP TRANSPORTER, M920 | T61171 | 74,288 | 284 | 284 | 284 | 284 | 28 |
| TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M1070 | T59048 | 256,704 | 363 | 363 | 363 | 363 | 199 |
| TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M911 | T61035 | 75,416 | 9 | 9 | 9 | 9 | 1 |
| TRUCK, TANK, FUEL SERVICING, 2-1/2 TON, M49A2C | X57271 | 98,162 | 1 | 1 | 1 | 1 | 0 |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1074 | T41067 | 288,015 | 123 | 123 | 123 | 123 | 0 |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1075 | T40999 | 276,410 | 687 | 687 | 687 | 687 | 842 |
| CARGO BED, DEMOUNTABLE, PLS, M1077A1 | B83002 | 16,633 | 2,174 | 2,174 | 2,239 | 2,254 | 1,998 |

USAR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|--|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076 | T93761 | 46,731 | 850 | 851 | 883 | 883 | 1,226 |
| TRUCK, FORKLIFT, ROUGH TERRAIN, M-10A | T49119 | 75,923 | 470 | 470 | 470 | 470 | 42 |
| TRUCK, FORKLIFT, ROUGH TERRAIN, DV43 | T48941 | 159,138 | 90 | 90 | 90 | 90 | 93 |
| TRUCK, FORKLIFT, ALL TERRAIN LIFTER, ARMY SYSTEM (ATLAS) | T73347 | 100,199 | 688 | 783 | 948 | 967 | 501 |
| TRUCK, FORKLIFT, ROUGH TERRAIN | T48944 | 72,370 | 354 | 354 | 354 | 354 | 83 |
| TRUCK, FORKLIFT, ROUGH TERRAIN | T49255 | 47,692 | 679 | 679 | 681 | 681 | 280 |
| TRUCK, TACTICAL FIRE FIGHTING | H56391 | 151,000 | 48 | 48 | 60 | 72 | 56 |
| SEMITRAILER VAN, REPAIR PARTS STORAGE | S74832 | 32,952 | 70 | 70 | 70 | 70 | 82 |
| SEMITRAILER, BREAKBULK/CONTAINER TRANSPORTER | S70159 | 75,000 | 3,153 | 3,153 | 3,153 | 3,153 | 1,560 |
| SEMITRAILER, FUEL TANK, M131A5C | S72983 | 15,064 | 21 | 21 | 21 | 21 | 100 |
| SEMITRAILER, BREAKBULK/CONTAINER TRANSPORTER, M871 | S70027 | 26,500 | 1,258 | 1,262 | 1,262 | 1,263 | 675 |
| SEMITRAILER, FUEL TANK, M967 | S10059 | 77,550 | 1,035 | 1,035 | 1,035 | 1,035 | 1,080 |
| SEMITRAILER, FUEL TANK, M1062 | S73119 | 27,774 | 596 | 596 | 596 | 596 | 420 |
| SEMITRAILER, FUEL TANK, M969 | S73372 | 97,413 | 510 | 585 | 599 | 599 | 143 |
| SEMITRAILER VAN, CARGO, M128A1C | S74079 | 7,111 | 17 | 17 | 17 | 17 | 3 |
| SEMITRAILER VAN, ELECTRONIC, M373A2 | S74353 | 24,125 | 21 | 21 | 21 | 21 | 0 |
| SEMITRAILER VAN, SUPPLY, M129A1C | S75175 | 84,466 | 394 | 394 | 394 | 394 | 40 |
| TRAILER, BOLSTER, GENERAL PURPOSE, 4 TON, M796 | W94536 | 9,618 | 449 | 449 | 449 | 449 | 288 |
| TRAILER, CARGO, 3/4 TON, M101 | W95537 | 3,894 | 2,165 | 2,166 | 2,174 | 2,174 | 547 |
| TRAILER, FLAT BED, HEMAT, M989 | T45465 | 34,714 | 81 | 81 | 81 | 81 | 65 |
| TRACKED & WHEELED COMBAT SYSTEMS | | | | | | | |
| RECOVERY VEHICLE, MEDIUM, FULL-TRACKED, M88A1 | R50681 | 1,210,755 | 33 | 33 | 33 | 33 | 25 |
| TRACTOR, FULL TRACKED, CAT D7F DV29 | W76816 | 205,000 | 293 | 293 | 293 | 293 | 250 |
| TRACTOR, FULL TRACKED, CAT D7F DV29 | W83529 | 245,275 | 290 | 290 | 290 | 290 | 236 |
| TRACTOR, FULL TRACKED, CAT D8K-8S-8, CCE | W88699 | 197,322 | 7 | 7 | 7 | 7 | 0 |
| WATER EQUIPMENT | | | | | | | |
| DISTRIBUTOR, WATER TANK TYPE, 6000 GL | D28318 | 30,289 | 81 | 81 | 81 | 81 | 102 |
| HYPOCHLORINATION UNIT, WATER PURIFICATION, A506 | K60988 | 14,342 | 88 | 88 | 90 | 90 | 28 |
| FORWARD AREA WATER POINT SUPPLY SYSTEM | F42612 | 19,484 | 100 | 100 | 100 | 100 | 24 |
| TACTICAL WATER DISTRIBUTION EQUIPMENT SET | T09094 | 660,000 | 34 | 34 | 34 | 34 | 14 |
| TANK, FABRIC COLLAPSIBLE, WATER, 3000 GAL | T19033 | 2,377 | 1,708 | 1,724 | 1,724 | 1,732 | 1,092 |
| TANK, FABRIC COLLAPSIBLE, WATER, 3000 GAL | V15018 | 1,762 | 14 | 14 | 14 | 14 | 28 |
| TANK, LIQUID DISPENSING UNIT, TRAILER MOUNTED | V19950 | 2,000 | 578 | 578 | 578 | 578 | 772 |
| WATER STORAGE/DISTRIBUTION SET, 800,000 GALLON | W37311 | 200,508 | 22 | 22 | 22 | 22 | 0 |
| WATER PURIFICATION UNIT, REVERSE OSMOSIS 3000 GPH | W47225 | 748,000 | 117 | 117 | 117 | 117 | 40 |
| DRUM, FABRIC COLLAPSIBLE, WATER 500 GAL | D69050 | 2,088 | 466 | 466 | 466 | 466 | 144 |
| PUMPING ASSEMBLY, TACTICAL WATER DISTRIBUTION, 600GPM | P97369 | 27,426 | 218 | 218 | 218 | 218 | 84 |

USAR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|------------------|--------------------------|------------------------------|------------------------------|------------------------------|----------------------------|----------------------------|
| WEAPONS | | | | | | | |
| MACHINE GUN, 5.56MM, M249 | M09009 | 2,653 | 10,622 | 10,622 | 10,634 | 10,634 | 7,972 |
| MACHINE GUN, 7.62MM, M240B | M92841 | 6,000 | 360 | 364 | 364 | 364 | 149 |
| MACHINE GUN, GRENADE, 40MM, MK19 MODIII | M92362 | 15,320 | 2,040 | 2,040 | 2,040 | 2,040 | 2,195 |
| RIFLE, 5.56MM, M16A2 | R95035 | 449 | 114,891 | 115,020 | 115,033 | 115,033 | 97,112 |
| RIFLE, 5.56MM, M16A4 | R97175 | 587 | 1,964 | 2,398 | 2,398 | 2,398 | 2,690 |
| CARBINE, 5.56MM, M4 | R97234 | 587 | 2,605 | 2,606 | 2,737 | 2,835 | 7,609 |

USAR
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 2005.

| Nomenclature | Equip No. | Average Age | Remarks |
|--|-----------|-------------|---------|
| ROTARY WING AIRCRAFT | | | |
| HELICOPTER,ATTACK AH-64A (APACHE) | H28647 | 16 | |
| HELICOPTER,CARGO CH-47D (CHINOOK) | H30517 | 14 | |
| HELICOPTER,UTILITY UH-60L/Q (BLACK HAWK) | H32361 | 9 | |
| FIXED WING AIRCRAFT | | | |
| AIRPLANE, CARGO, TRANSPORT, C-12D | A29812 | 20 | |
| AIRPLANE, CARGO, TRANSPORT, C-12R | A30062 | 10 | |
| AIRPLANE, CARGO, TRANSPORT, UC-35 | Z95382 | 6 | |
| BRIDGE & VESSEL EQUIPMENT | | | |
| RAMP LOADING VEHICLE | R11154 | 14 | |
| CHEMICAL DEFENSIVE EQUIPMENT | | | |
| SMIOKE GENERATOR, M3A3 | J30492 | 30 | |
| CONSTRUCTION EQUIPMENT | | | |
| ASPHALT MIXING PLANT | M57048 | 8 | |
| CRANE, WHEEL MOUNTED, HYDRAULIC, LIGHT 7-1/2 TON | C36151 | 14 | |
| CRANE, WHEEL MOUNTED, HYDRAULIC, 25 TON, ALL TERRAIN, AT422T | C36586 | 5 | |
| CRANE, WHEEL MOUNTED, HYDRAULIC, ROUGH TERRAIN (RTCC) | C39398 | 13 | |
| CRANE, TRUCK MOUNTED, HYDRAULIC, 25-TON, CCE | F43429 | 28 | |
| ROLLER, PNEUMATIC, SELF-PROPELLED, CCE | S11793 | 25 | |
| ROLLER, VIBRATING, TOWED | S10682 | 18 | |
| ROLLER, VIBRATORY, SELF-PROPELLED, CCE | S12916 | 25 | |
| SCOOP LOADER, CCE | L76321 | 25 | |
| SCOOP LOADER, 950BNS | L76556 | 18 | |
| SCRAPER, EARTH MOVING, SELF-PROPELLED, CCE | S56246 | 18 | |
| ELECTRICAL GENERATION | | | |
| GENERATOR SET, TRAILER MOUNTED, PU-406 | J36383 | 20 | |
| GENERATOR SET, TRAILER MOUNTED, PU-802 | G53778 | 8 | |
| MEDICAL EQUIPMENT | | | |
| TRUCK, AMBULANCE, M996 (HMMWV) | T38707 | 18 | |
| TRUCK, AMBULANCE, M997 (HMMWV) | T38844 | 15 | |

USAR
Average Age of Equipment

Table 2

| Nomenclature | Equip No. | Average Age | Remarks |
|---|-----------|-------------|---------|
| OTHER PROCUREMENT | | | |
| FLOODLIGHT SET, TRAILER MOUNTED | F79334 | 19 | |
| LAUNDRY UNIT, TRAILER MOUNTED | L48315 | 35 | |
| REPAIR EQUIPMENT | | | |
| INSTUMENT REPAIR SHOP, M185A3 | K90188 | 32 | |
| TACTICAL VEHICLES | | | |
| TRUCK, UTILITY, M998 (HMMWV) | T61494 | 13 | |
| TRUCK, UTILITY, M1025 (HMMWV) | T92242 | 14 | |
| TRUCK, UTILITY, M1037 (HMMWV) | T07543 | 13 | |
| TRUCK, UTILITY, M1038 (HMMWV) | T61562 | 15 | |
| TRUCK, UTILITY, TOW CARRIER, 1 1/4 TON (HMMWV) | T05096 | 17 | |
| TRUCK, UTILITY, TOW CARRIER, 1 1/4 TON, M1026 (HMMWV) | T92310 | 14 | |
| TRUCK, VAN, LMTV, M1079 | T93484 | 3 | |
| TRUCK, WRECKER, MTV, M1089 | T94709 | 3 | |
| TRUCK, CARGO, W/MED CRANE, M985 (HEMTT) | T39586 | 15 | |
| TRUCK, CARGO, 10 TON, W/LT CRANE (HEMTT) | T59278 | 16 | |
| TRUCK, CARGO, W/LT CRANE (HEMTT) | T39518 | 16 | |
| TRUCK, WRECKER, M948E1 (HEMTT) | T63093 | 12 | |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T87243 | 14 | |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T58161 | 13 | |
| TRUCK, BOLSTER, 5 TON, 6X6 | X39187 | 33 | |
| TRUCK, CARGO, 1 1/4 TON, CUCV | T59346 | 19 | |
| TRUCK, CARGO, 1 1/4 TON, M1008, CUCV | T59482 | 18 | |
| TRUCK, CARGO, 1 1/4 TON, M1028, CUCV | T59414 | 18 | |
| TRUCK, CARGO, 2 1/2 TON, 6X6 | X40009 | 9 | |
| TRUCK, CARGO, 2 1/2 TON, 6X6 | X40146 | 8 | |
| TRUCK, CARGO, 2 1/2 TON, M35A2C | X40077 | 8 | |
| TRUCK, CARGO, 2 1/2 TON, M36A2 | X40283 | 7 | |
| TRUCK, CARGO, 5 TON, 6X6 | X40831 | 34 | |
| TRUCK, CARGO, 5 TON, 6X6 | X40968 | 35 | |
| TRUCK, CARGO, 5 TON, 6X6 | X41105 | 17 | |
| TRUCK, CARGO, 5 TON, 6X6 | X41242 | 34 | |
| TRUCK, CARGO, DROP SIDE, 5 TON | X40794 | 15 | |
| TRUCK, CARGO, DROP SIDE, 5 TON | X40931 | 17 | |
| TRUCK, CARGO, M35A2C | X40214 | 8 | |

USAR
Average Age of Equipment

Table 2

| Nomenclature | Equip No. | Average Age | Remarks |
|--|-----------|-------------|---------|
| TRUCK, CARGO, M36A2 | X40420 | 8 | |
| TRUCK, DUMP, 20 TON, 12 CY | X44403 | 26 | |
| TRUCK, DUMP, 5 TON, 6X6 W/E | X43708 | 20 | |
| TRUCK, DUMP, 5 TON, 6X6 | X43845 | 30 | |
| TRUCK, FORKLIFT, ROUGH TERRAIN, M-10A | T49119 | 21 | |
| TRUCK, FORKLIFT, ROUGH TERRAIN, DV43 | T48941 | 18 | |
| TRUCK, FORKLIFT, ROUGH TERRAIN | T48944 | 12 | |
| TRUCK, FORKLIFT, 6K LB | T49096 | 15 | |
| TRUCK, FORKLIFT, ROUGH TERRAIN | T49225 | 20 | |
| TRUCK, TRACTOR, M878 | T60353 | 23 | |
| TRUCK, TRACTOR, LINE HAUL, M915 | T61103 | 22 | |
| TRUCK, TRACTOR, 5 TON, 6X6 | X59326 | 23 | |
| TRUCK, TRACTOR, 5 TON, 6X6 | X59463 | 25 | |
| TRUCK, TRACTOR, WRECKER, 5 TON | X60696 | 33 | |
| TRUCK, TRACTOR, 2-1/2 TON | X59052 | 36 | |
| TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916 | T91656 | 12 | |
| TRUCK, TRACTOR, MEDIUM EQUIP TRANSPORTER, M920 | T61171 | 24 | |
| TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M1070 | T59048 | 10 | |
| TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M911 | T61035 | 25 | |
| TRUCK, TANK, FUEL SERVICING, 2-1/2 TON, M49A2C | X57271 | 31 | |
| TRUCK, UTILITY, 1/4 TON, 4X4 | X60833 | 30 | |
| TRUCK, UTILITY, 3/4 TON, M1009 | T05028 | 18 | |
| TRUCK, VAN, EXPANSIBLE, 5 TON, 6X6 | X62237 | 18 | |
| TRUCK, VAN, SHOP, 2 1/2 TON | X62340 | 35 | |
| TRUCK, VAN, SHOP, M109A3 | X62477 | 19 | |
| TRUCK, WATER, 1000 GAL, M50A3 | X58367 | 33 | |
| TRUCK, WRECKER, 5 TON | X63299 | 25 | |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1074 | T41067 | 10 | |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1075 | T40999 | 9 | |
| TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076 | T93761 | 8 | |
| SEMITRAILER, HEAVY EQUIPMENT, 60 TON | S70661 | 27 | |
| SEMITRAILER VAN, REPAIR PARTS STORAGE | S74832 | 31 | |
| SEMITRAILER, FUEL TANK, M131A5C | S72983 | 36 | |

USAR
Average Age of Equipment

Table 2

| Nomenclature | Equip No. | Average Age | Remarks |
|--|-----------|-------------|---------|
| SEMITRAILER, BREAKBULK/CONTAINER TRANSPORTER, M871 | S70027 | 10 | |
| SEMITRAILER, FUEL TANK, M967 | S10059 | 17 | |
| SEMITRAILER, FUEL TANK, M1062 | S73119 | 13 | |
| SEMITRAILER VAN, CARGO, M128A1C | S74079 | 35 | |
| SEMITRAILER VAN, SUPPLY, M129A1C | S75175 | 14 | |
| TRAILER, FLAT BED, HEMAT, M989 | T45465 | 10 | |
| TRACKED & WHEELED COMBAT SYSTEMS | | | |
| RECOVERY VEHICLE, MEDIUM, FULL-TRACKED, M88A1 | R50681 | 28 | |
| WATER EQUIPMENT | | | |
| DISTRIBUTOR, WATER TANK TYPE, 6000 GL | D28318 | 18 | |

USAR

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 2006 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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008.

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---|---------------------|---------------------|---------------------|---------|
| MODIFICATION OF AIRCRAFT | | | | |
| UTILITY/CARGO AIRPLANE MODS | 2,220,000 | | | |
| AIRBORNE AVIONICS | | 2,238,000 | 3,682,000 | |
| GATM ROLLUP | 1,939,000 | 3,896,000 | | |
| WEAPONS AND OTHER COMBAT VEHICLES | | | | |
| 5.56 CARBINE M4 | 2,974,000 | | | |
| TACTICAL AND SUPPORT VEHICLES | | | | |
| HI MOB MULTI-PURP WHLD VEH (HMMWV) | 13,832,000 | 4,886,000 | 3,385,000 | |
| FAMILY OF MEDIUM TACTICAL VEH (FMTV) | 48,000 | 1,513,000 | 2,590,000 | |
| FIRE TRUCKS & ASSOCIATED FIREFIGHTING EQUIP | 2,293,000 | | | |
| FAMILY OF HEAVY TACTICAL VEHICLES (FHTV) | 2,772,000 | 2,882,000 | 2,438,000 | |
| COMMUNICATIONS AND ELECTRONICS EQUIPMENT | | | | |
| NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE) | 44,000 | 150,000 | | |
| MEDICAL COMM FOR CBT CASUALTY CARE (MC4) | 2,037,000 | 979,000 | 226,000 | |
| OTHER SUPPORT EQUIPMENT | | | | |
| TACTICAL BRIDGING | 3,680,000 | 29,421,000 | | |
| TACTICAL BRIDGE, FLOAT-RIBBON | 4,846,000 | 3,277,000 | 5,171,000 | |
| LAUNDRIES, SHOWERS AND LATRINES | 666,000 | | | |
| ITEMS LESS THAN \$5.0M (ENG SPT) | 18,000 | | | |
| COMBAT SUPPORT MEDICAL | 14,000 | 14,000 | 5,532,000 | |
| GENERATORS AND ASSOCIATED EQUIP | | 211,000 | 297,000 | |
| ALL TERRAIN LIFTING ARMY SYSTEM | 361,000 | | 3,697,000 | |
| TOTAL | \$37,744,000 | \$49,467,000 | \$27,018,000 | |

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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008. All values are costs in dollars.

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|--|--------------------|---------------------|---------------------|---------|
| UPARMORED HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) | 3,582,140 | | | |
| TOPHANDLERS (20 AND 40 FT) | 840,000 | | | |
| REFRIGERATED CONTAINER SYSTEM | 3,080,000 | | | |
| HIGH MOBILITY TRAILERS | 1,511,760 | | | |
| YARD TRACTOR M878A2 | 930,000 | | | |
| FAMILY OF LIGHT MEDIUM TACTICAL VEHICLES (LMTV) | | 6,804,000 | | |
| FAMILY OF MEDIUM TACTICAL VEHICLES (MTV) | | 7,016,009 | | |
| ROUGH TERRAIN CARGO HANDLER (RTCH) | | 4,950,000 | | |
| PHOENIX TERMINAL | | 4,000,000 | | |
| NIGHT VISION IMAGE INTENSIFICATION SYSTEMS | | 1,789,635 | | |
| C4E DATA PACKAGES | | 4,885,656 | | |
| NEAR VERTICAL INCIDENCE SKYWAVE ANTENNA FOR IHFR | | 424,800 | | |
| MOVEMENT TRACKING SYSTEM (MTS) | | 2,424,000 | 2,520,000 | |
| M4 CARBINE RIFLE | | 1,815,000 | 1,149,300 | |
| TRUCK TRACTOR LINE HAUL M915A3 | | 10,557,000 | 2,480,000 | |
| SEMITRAILER BREAKBULK 22.5 TON, M871A3 | | | 2,772,000 | |
| LASER MARKSMANSHIP TRAINING SYSTEM | | | 1,000,000 | |
| HANDHELD STANDOFF MINE DETECTION SYSTEM, AN/PSS-14 | | | 3,920,000 | |
| SQUAD AUTOMATIC WEAPON, M249 | | | 4,574,400 | |
| COMMAND LAUNCH UNIT, JAVELIN | | | 4,332,762 | |
| HIGH FREQUENCY RADIOS | | | 6,768,000 | |
| NIGHT VISION DEVICES | | | 2,426,738 | |
| MULTI-BAND SUPER HIGH FREQUENCY TERMINAL | | | 4,400,000 | |
| GENERATOR SET 10KW, 60HZ, MEP803A | | | 630,000 | |
| DEFENSE ADVANCED GLOBAL POSITIONING SYSTEM RECEIVER | | | 2,872,800 | |
| TOTAL | \$9,943,900 | \$44,666,100 | \$39,846,000 | |

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 Active 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 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|--|-----------|-------------|-------------|-------------|---------|
| ROTARY WING AIRCRAFT | | | | | |
| HELICOPTER, ATTACK AH-64A (APACHE) | H28647 | 11 | | | |
| HELICOPTER, UTILITY UH-60L/Q (BLACK HAWK) | H32361 | 1 | | | |
| BRIDGE & VESSEL EQUIPMENT | | | | | |
| LOGISTIC SUPPORT VESSEL | V00426 | 2 | | | |
| INTERIOR BAY BRIDGE, FLOATING | K97376 | 41 | | 20 | |
| RAMP BAY, FLOATING BRIDGE | R10527 | 16 | | 5 | |
| RAMP LOADING VEHICLE | R11154 | 1 | | | |
| TRANSPORTER, FLOATING BRIDGE | X23277 | | 1 | | |
| BRIDGE, FIXED MEDIUM GIRDER, 100FT | C22811 | 2 | | | |
| CHEMICAL DEFENSIVE EQUIPMENT | | | | | |
| ALARM, CHEMICAL AGENT, AUTOMATIC, M8A1 | A32355 | 16 | | | |
| MONITOR, CHEMICAL AGENT | C05701 | 8 | | | |
| COLLECTIVE PROTECTION EQUIPMENT, NBC, M20 | C79000 | 42 | 2 | | |
| DECONTAMINATING APPARATUS, POWER DRIVEN, LIGHTWEIGHT | D82404 | 71 | 42 | | |
| MASK, PROTECTIVE, COMBAT VEHICLE, M42 | M18526 | 4 | 2 | | |
| MASK, CHEMICAL-BIOLOGICAL, M40 | M12418 | 4,307 | 1,347 | 30 | |
| MASK, CBR PROTECTIVE FIELD, M17A1 | M11895 | | 9 | 252 | |
| RADIAC SET, AN/PDR-75 | R30925 | 48 | | | |
| RADIAC SET, AN/UDR-13 | R31061 | 344 | 1 | | |
| RADIAC METER, IM-93A/UD | Q20935 | 5 | 1 | 14 | |
| SMOKE GENERATOR, M56 | G58151 | 48 | | | |
| COMMUNICATIONS EQUIPMENT | | | | | |
| DATA TRANSFER DEVICE, AN/CYZ-10 | D78555 | 295 | 22 | | |
| DIGITAL FAX SET, LIGHTWEIGHT, AN/UXC-10 | Z26923 | 12 | | 2 | |
| RADIO SET, AN/GRC-193A | H35404 | 127 | 18 | 25 | |
| RADIO SET, AN/GRC-213 | R30895 | 39 | 8 | 1 | |
| RADIO SET, AN/PRC-104A | R55200 | 139 | 16 | | |
| RADIO SET, AN/VRC-90A (SINGGARS) | R67908 | 6 | 31 | | |
| RADIO SET, AN/VRC-91A (SINGGARS) | R68010 | 19 | | | |
| RADIO SET, AN/VRC-92A (SINGGARS) | R45407 | 16 | 13 | | |
| RADIO SET, AN/VRC-87A (SINGGARS) | R67160 | 1 | | 2 | |
| RADIO SET, AN/VRC-88A (SINGGARS) | R67194 | 35 | 1 | | |
| RADIO SET, AN/VRC-89A (SINGGARS) | R44863 | 113 | 4 | 4 | |

USAR

Table 5

Projected Equipment Transfer/Withdrawal Quantities

| Nomenclature | Equip No. | FY 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|---|------------------|--------------------|--------------------|--------------------|----------------|
| RADIO TERMINAL SET, AN/TRC-170 (V)3 | R93035 | | 2 | | |
| SPEECH SECURITY EQUIPMENT, TSEC/KY-57 | S01373 | 1 | 1 | | |
| SPEECH SECURITY EQUIPMENT, TSEC/KY-58 | S01441 | | 1 | | |
| TERMINAL, RADIO-TELEPHONE MOBILE SUBSCRIBER, AN/VRC-97 | T55957 | 98 | | 4 | |
| FACSIMILE, LIGHTWEIGHT DIGITAL, AN/UXC-7 | L67964 | 530 | | 2 | |
| ELECTRONIC TRANSFER KEYING DEVICE, KYK-13/TSEC | E98103 | 65 | 8 | | |
| DIGITAL DATA GENERATOR, SG-1139/G | D37041 | 7 | | | |
| NET CONTROL DEVICE, KYX-15/TSEC | N02758 | 3 | | | |
| SPECTRUM ANALYZER, AN/USM-489(V)1 | S01416 | 6 | 14 | 9 | |
| CONSTRUCTION EQUIPMENT | | | | | |
| CRANE, WHEEL MOUNTED, HYDRAULIC, 25 TON, ALL TERRAIN, AT422T | C36586 | 2 | | | |
| CRANE-SHOVEL, CRAWLER MOUNTED, 50 TON | F40474 | 3 | | | |
| ROLLER, PNEUMATIC, SELF-PROPELLED, CCE | S11793 | 5 | | | |
| SCRAPER, EARTH MOVING, SELF-PROPELLED, CCE | S56246 | 1 | | | |
| TRACTOR, WHEELED, EXCAVATOR & FRONT LOADER | T34437 | 29 | | 2 | |
| ELECTRICAL GENERATION | | | | | |
| GENERATOR SET, TRAILER MOUNTED, PU-798 | G42170 | 69 | 20 | | |
| GENERATOR SET, MEP-002A | J35813 | 69 | | | |
| GENERATOR SET, MEP-003A | J35825 | 1 | | | |
| GENERATOR SET, MEP-805A | G74575 | 25 | 10 | 7 | |
| GENERATOR SET, MEP-802A | G11966 | 344 | | | |
| GENERATOR SET, MEP-803A | G74711 | 29 | 2 | 1 | |
| GENERATOR SET, MEP-804A | G12170 | 25 | 21 | | |
| GENERATOR SET, MEP-016A | J45699 | 2 | | 3 | |
| GENERATOR SET, TRAILER MOUNTED, PU-803 | G35851 | 1 | 41 | | |
| GENERATOR SET, TRAILER MOUNTED, PU-802 | G53778 | 35 | 25 | | |
| GENERATOR SET, TRAILER MOUNTED, PU-805 | G78306 | 1 | 1 | | |
| POWER PLANT, AN/MJQ-35 | P28083 | 1 | | | |
| POWER PLANT, AN/MJQ-41 | P42194 | 2 | | | |
| POWER PLANT, AN/NJQ-37 | P42262 | 3 | | | |
| POWER SUPPLY, PP-6224/U | P40750 | 5 | 2 | 1 | |
| MEDICAL EQUIPMENT | | | | | |
| COMBAT AUTOMATED SERVICE SUPPORT-MEDICAL (CASS-M) COMPUTER SYSTEM | C18514 | 8 | 1 | | |
| DEFIBRILLATOR MONITOR RECORDER | D86072 | 4 | | | |
| OPERATING AND TREATMENT UNIT, FIELD DENTAL | P19377 | 6 | | | |
| OSCILLOSCPE, AN/USM-488 | P30693 | 1 | 1 | | |
| TRUCK, AMBULANCE, M996 (HMMWV) | T38707 | 3 | 2 | | |
| OTHER PROCUREMENT | | | | | |

USAR

Table 5

Projected Equipment Transfer/Withdrawal Quantities

| Nomenclature | Equip No. | FY 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|--|-----------|-------------|-------------|-------------|---------|
| MELIOS PVS-6 EYE SAFE LASER OBSERVATION | M74849 | 20 | 8 | | |
| NIGHT SIGHT, TOW II ANTI-TANK SYSTEM, AN/VAS UAS-12 | N04982 | 5 | | | |
| NIGHT VISION SIGHT, AN/UAS-11(V)1 | N05050 | 3 | | | |
| NIGHT VISION DEVICE, AN/PVS-4 WMG (WEAPON) | N04732 | 391 | 28 | | |
| NIGHT VISION GOGGLES, AN/PVS-7B | N05482 | 1,041 | 458 | 355 | |
| NIGHT VISION GOGGLES, AN/PVS-5 | N04456 | 907 | | 276 | |
| NIGHT VISION SIGHT-TRACKER, INFRARED, AN/TAS-5 (DRAGON) | N23721 | 2 | | | |
| VIEWER INFRARED, AN/PAS-7 | Y03104 | 7 | | | |
| NAVIGATION SYSTEM, PSN-11 | N95862 | 2,154 | 18 | | |
| CLEANER, STEAM PRESSURE JET, TRAILER MOUNTED | C32887 | 37 | | | |
| CONTAINER ASSEMBLY, REFRIGERATED, W/9K BTU REF UNIT | C84541 | 67 | 11 | | |
| FOOD SANITATION CENTER | S33399 | 141 | | 19 | |
| MINE DETECTING SET MINE, AN/PSS-11 | G02341 | 15 | | | |
| PRINTING PLANT, SPECIAL WARFARE, TRANSPORTABLE, LIGHT WT | P61665 | 2 | | | |
| SHELTER, TACTICAL EXPANDABLE | S01359 | 1 | | | |
| PETROLEUM EQUIPMENT | | | | | |
| FUEL SYSTEM SUPPLY POINT | J04717 | 1 | | | |
| FORWARD AREA REFUELING EQUIPMENT (FARE) | H94824 | 2 | | | |
| LABORATORY, PETROLEUM SEMITRAILER MOUNTED | L33800 | 1 | | | |
| PUMP, CENTRIFUGE, 125 GPM | P92030 | 8 | 7 | | |
| TANK ASSEMBLY, FABRIC COLLAPSIBLE, 10000 GAL PETROLEUM | V12552 | 1 | | | |
| TESTING KIT, AVIATION FUEL CONTAMINATION | T05741 | 11 | | | |
| REPAIR EQUIPMENT | | | | | |
| SHOP EQUIPMENT, AUTO MAINTENANCE & REPAIR | T25756 | 2 | | | |
| SHOP EQUIPMENT, MAINTENANCE, DAVEY MODEL CMU-5 | T10138 | | 5 | 4 | |
| TEST SET, RADIO, AN/GRM-114 | T87468 | 6 | 2 | | |
| WELDING SHOP, TRAILER MOUNTED | W48391 | 19 | 2 | | |
| TACTICAL VEHICLES | | | | | |
| TRUCK, UTILITY, M998 (HMMWV) | T61494 | 219 | 12 | | |
| TRUCK, UTILITY, M1037 (HMMWV) | T07543 | 1 | | | |
| TRUCK, UTILITY, M1038 (HMMWV) | T61562 | 14 | | | |
| TRUCK, UTILITY, M1097 (HMMWV) | T07679 | 240 | 171 | 132 | |
| TRUCK, CARGO, LMTV, M1078 | T60081 | 39 | 5 | | |
| TRUCK, CARGO, LMTV, M1078, WITH WINCH | T60149 | 28 | | 2 | |
| TRUCK, CARGO, LMTV, M1081 | T41995 | 16 | | | |
| TRUCK, VAN, LMTV, M1079 | T93484 | 13 | 31 | | |

USAR

Table 5

Projected Equipment Transfer/Withdrawal Quantities

| Nomenclature | Equip No. | FY 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|--|-----------|-------------|-------------|-------------|---------|
| TRUCK, CARGO, MTV, M1083 | T61908 | 46 | | | |
| TRUCK, CARGO, MTV, M1085 | T61704 | 2 | | | |
| TRUCK DUMP, MTV, M1090 | T64911 | 21 | 11 | | |
| TRUCK, TRACTOR, MTV, M1088 | T61239 | 70 | 4 | | |
| TRUCK, WRECKER, MTV, M1089 | T94709 | 22 | 4 | | |
| TRUCK, WRECKER, M948E1 (HEMTT) | T63093 | 6 | | 4 | |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T87243 | 10 | | | |
| TRUCK, TANKER, FUEL, 2500G (HEMTT) | T58161 | 2 | | | |
| TRUCK, TRACTOR, M878 | T60353 | 3 | | | |
| TRUCK, TRACTOR, LINE HAUL, M915 | T61103 | 56 | 83 | 45 | |
| TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916 | T91656 | 2 | | | |
| TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M911 | T61035 | 6 | | | |
| TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1075 | T40999 | 26 | | | |
| CARGO BED, DEMOUNTABLE, PLS, M1077A1 | B83002 | 29 | | 21 | |
| TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076 | T93761 | 79 | 1 | 32 | |
| TRUCK, FORKLIFT, ALL TERRAIN LIFTER, ARMY SYSTEM (ATLAS) | T73347 | 4 | | | |
| TRUCK, FORKLIFT, ROUGH TERRAIN | T48944 | 1 | | | |
| TRUCK, FORKLIFT, ROUGH TERRAIN | T49255 | 2 | | 2 | |
| SEMITRAILER VAN, REPAIR PARTS STORAGE | S74832 | 9 | | | |
| SEMITRAILER, FUEL TANK, M131A5C | S72983 | 18 | | | |
| SEMITRAILER, BREAKBULK/CONTAINER TRANSPORTER, M871 | S70027 | 50 | 4 | | |
| SEMITRAILER, FUEL TANK, M967 | S10059 | 148 | | | |
| SEMITRAILER, FUEL TANK, M969 | S73372 | 2 | | | |
| TRAILER, CARGO, 3/4 TON, M101 | W95537 | 7 | 1 | 8 | |
| TRAILER, FLAT BED, HEMAT, M989 | T45465 | 3 | | | |
| TRACKED & WHEELED COMBAT SYSTEMS | | | | | |
| RECOVERY VEHICLE, MEDIUM, FULL-TRACKED, M88A1 | R50681 | 2 | | | |
| WATER EQUIPMENT | | | | | |
| DISTRIBUTOR, WATER TANK TYPE, 6000 GL | D28318 | 1 | | | |
| HYPOCHLORINATION UNIT, WATER PURIFICATION, A506 | K60988 | | | 2 | |
| TANK, FABRIC COLLAPSIBLE, WATER, 3000 GAL | T19033 | 3 | | | |
| TANK, LIQUID DISPENSING UNIT, TRAILER MOUNTED | V19950 | 24 | | | |
| WEAPONS | | | | | |
| MACHINE GUN, 5.56MM, M249 | M09009 | 173 | | 12 | |
| MACHINE GUN, 7.62MM, M240B | M92841 | 265 | 4 | | |
| MACHINE GUN, GRENADE, 40MM, MK19 MODIII | M92362 | 193 | | | |

USAR

Table 5

Projected Equipment Transfer/Withdrawal Quantities

| Nomenclature | Equip No. | FY 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|----------------------|------------------|--------------------|--------------------|--------------------|----------------|
| RIFLE, 5.56MM, M16A2 | R95035 | 174 | 129 | 13 | |
| RIFLE, 5.56MM, M16A4 | R97175 | 5 | 434 | | |
| CARBINE, 5.56MM, M4 | R97234 | 1,334 | 1 | 131 | |

USAR

Table 6

FY 2002 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2002 with actual procurements and transfers. FY 2002 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 2004. Procurement and NGREA columns reflect cost values in dollars.

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|---|-----------|--------------------------------|--------|----------------------------|------------|---------------------|--------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| ALARM CM AGENT, AUTOMATIC, M8A1 | | 855 | 855 | | | | |
| SINGGARS VARIOUS MODELS | | 2,853 | 2,853 | | | | |
| NIGHT VISION GOGGLES AN/PVS5 | | 600 | 600 | | | | |
| 5 TON TRACTORS, M931/M932 | | 298 | 298 | | | | |
| 5 TON CARGO, M923A1 | | 212 | 212 | | | | |
| HMMWV M1025/M1026 | | 470 | 470 | | | | |
| RIFLE, M16A2 | | 1,796 | 1,796 | | | | |
| MACHINE GUN 7.62MM M60 | | 54 | 54 | | | | |
| MACHINE GUN GRENADE MK19 | | 7 | 7 | | | | |
| MACHINE GUN 50CAL M2 | | 64 | 64 | | | | |
| PISTOL 9MM | | 7 | 7 | | | | |
| BAYONET | | 108 | 108 | | | | |
| UTILITY/CARGO AIRPLANE MODS | | | | 6,000,000 | 6,000,000 | | |
| JAVELIN (AAWS-M) SYSTEM SUMMARY | | | | 2,600,000 | 1,975,000 | | |
| ARMOR MACHINE GUN, 7.62MM M240 SERIES | | | | 1,500,000 | 1,517,000 | | |
| FAMILY OF MEDIUM TACTICAL VEH (FMTV) | | | | 38,200,000 | 38,237,000 | | |
| FIRETRUCKS & ASSOCIATED FIREFIGHTING EQUIPMEN | | | | 2,500,000 | 2,512,000 | | |
| ACUS MOD PROGRAM | | | | 8,800,000 | 8,800,000 | | |
| COMMS-ELEC EQUIP FIELDING | | | | 100,000 | 68,000 | | |
| FORCE XXI BATTLE CMD BRIGADE & BELOW (FBCB2) | | | | 600,000 | 550,000 | | |
| LOGTECH | | | | 800,000 | 819,000 | | |
| STAMIS TACTICAL COMPUTERS (STACOMP) | | | | 8,600,000 | 8,597,000 | | |
| AUTOMATED DATA PROCESSING EQUIP | | | | 2,300,000 | 2,121,000 | | |
| RESERVE COMPONENT AUTOMATION SYS (RCAS) | | | | 33,600,000 | 33,204,000 | | |

USAR

Table 6

FY 2002 Planned vs Actual Procurements and Transfers

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|--|-----------|--------------------------------|--------|----------------------------|----------------------|----------------------|----------------------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| SMOKE & OBSCURANT FAMILY: SOF (NON AAO ITEM) | | | | 11,500,000 | 11,533,000 | | |
| LAUNDRIES, SHOWERS AND LATRINES | | | | 13,200,000 | 13,224,000 | | |
| LIGHTWEIGHT MAINTENANCE ENCLOSURE (LME) | | | | 500,000 | 544,000 | | |
| FIELD FEEDING AND REFRIGERATION | | | | 1,000,000 | 1,028,000 | | |
| DISTRIBUTION SYSTEMS, PETROLEUM & WATER | | | | 6,300,000 | 9,005,000 | | |
| ASSAULT HOSELINE SYSTEM | | | | 3,200,000 | 0 | | |
| WATER PURIFICATION SYSTEMS | | | | 8,100,000 | 2,307,000 | | |
| COMBAT SUPPORT MEDICAL | | | | 2,900,000 | 2,896,000 | | |
| LOADERS | | | | 10,200,000 | 1,791,000 | | |
| HYDRAULIC EXCAVATOR | | | | 3,500,000 | 0 | | |
| CRANES | | | | 1,800,000 | 0 | | |
| GENERATORS AND ASSOCIATED EQUIP | | | | 1,300,000 | 1,292,000 | | |
| ALL TERRAIN LIFTING ARMY SYSTEM | | | | 7,800,000 | 7,750,000 | | |
| INTEGRATED FAMILY OF TEST EQUIPMENT (IFTE) | | | | 3,600,000 | 3,564,000 | | |
| TEST EQUIPMENT MODERNIZATION (TEMOD) | | | | 1,100,000 | 1,095,000 | | |
| UH-60L BLACKHAWK HELICOPTER | | | | | | 86,761,333 | 86,024,333 |
| LASER-GUIDED WEAPON SIMULATION | | | | | | 5,761,333 | 5,522,667 |
| HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) | | | | | | 1,226,000 | 0 |
| M871A3 SEMI-TRAILER 22.5 TON | | | | | | 1,612,000 | 3,162,000 |
| HIGH MOBILITY TRAILER REUTILIZATION | | | | | | 3,585,000 | 3,585,000 |
| FORWARD AREA REFUELING EQUIPMENT (FARE) | | | | | | 490,000 | 0 |
| ENGINEER INFLATABLE BOAT | | | | | | 1,667,500 | 1,368,500 |
| ENGINE OUTBOARD MOTORS | | | | | | 116,780 | 116,780 |
| FUEL SYSTEM SUPPLY POINT (FSSP) 60K GALLON | | | | | | 1,064,054 | 1,767,720 |
| TOTAL | | | | \$181,600,000 | \$160,429,000 | \$102,284,000 | \$101,547,000 |

USAR

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 2006 Qty | Deployable? | |
|---|---------------------------|--|---------------------------------|----------------|-------------|----|
| | | | | | Yes | No |
| AIRPLANE, CARGO, C-12 | A30062 | AIRPLANE CARGO TRANSPORT: C-12D | AA1355 | 19 | X | |
| ALARM CHEM DET M22 | A33020 | ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK M8A1 | A32355 | 4,231 | X | |
| ATEC CRANE | F43429 | CRANE: WHEEL MOUNTED HYDRAULIC 25 TON ALL TERRAIN AT422T | C36586 | 3 | X | |
| CARRIER,COMMAND POST M577A1 | D11538 | CARRIER ARMORED COMMAND POST: FULL TRACKED | C11158 | 2 | X | |
| CRANE,WHEEL MOUNTED,20T | F39378 | CRANE TRUCK MOUNTED: HYD 25 TON CAT (CCE) | F43429 | 20 | X | |
| GENERATOR SET,DSL ENG, SKID MTD,3KW, 60HZ, AC, 120/208 | G54041 | GEN ST DSL ENG: 5KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL | J35813 | 9 | X | |
| INFANTRY FIGHTING VEHICLE M2A0 (BRADLEY) | J81750 | CARRIER PERSONNEL FULL TRACKED: ARMORED (RISE) | C18234 | 2 | X | |
| MACHINE GUN,7.62MM 240B | M92841 | MACHINE GUN 5.56 MILLIMETER: M249 | M09009 | 30 | X | |
| MASK,PROTECTIVE,COMBAT VEHICLE M42 | M18526 | MASK CHEMICAL BIOLOGICAL: M40 | M12418 | 364 | | X |
| MELIOS PVS-6 EYE SAFE LASER OBSERVATION | M74849 | LASER INFRARED OBSERVATION SET: AN/GVS-5 | L40063 | 5 | X | |
| NAVIGATION SYSTEM, PSN-11 | N95862 | OTHER NIGHT VISION DEVICES | 70236L | 50 | X | |
| NIGHT VISION DEVICE, AN/PVS-4 WMG | N04732 | OTHER NIGHT VISION DEVICES | 04596N | 15 | X | |
| NIGHT VISION GOGGLES AN/PVS-7B | N05482 | OTHER NIGHT VISION DEVICES | 04732N | 6,774 | X | |
| NIGHT VISION SIGHT,CREW SERV WPN AN/TVS-5 | N04596 | OTHER NIGHT VISION DEVICES | 04596N | 634 | X | |
| RADIO SET AN/PRC-112 | R82903 | RADIO SET: AN/PRC-90 | Q38335 | 123 | | X |
| RADIO SET AN/VRC-119A (SINGGARS) | R83005 | RADIO SET: AN/GRC-160 | Q34308 | 89 | | X |
| RADIO SET AN/VRC-87A (SINGGARS) | R67160 | RADIO SET: AN/PRC-119A | R83005 | 9 | | X |
| RADIO SET AN/VRC-88A (SINGGARS) | R67194 | RADIO SET: AN/GRC-160 | Q34308 | 72 | | X |
| RADIO SET AN/VRC-89A | R44863 | RADIO SET: AN/VRC-46 | Q53001 | 92 | | X |
| RADIO SET AN/VRC-90A (SINGGARS) | R67908 | RADIO SET: AN/GRC-106 | Q32756 | 485 | | X |
| RADIO SET AN/VRC-91A (SINGGARS) | R68010 | RADIO SET: AN/PRC-119A | R83005 | 36 | | X |

USAR

Table 7

Major Item of Equipment Substitution List

| Required Item Nomenclature | Reqd Item Equip No. | Substitute Item Nomenclature | Substitute Item Equip No. | FY 2006 Qty | Deployable? | |
|---|---------------------|--|---------------------------|-------------|-------------|----|
| | | | | | Yes | No |
| RADIO SET AN/VRC-92A (SINGARS) | R45407 | RADIO SET: AN/VRC-46 | Q53001 | 51 | | X |
| RECOVERY VEHICLE,FT,MDM M88A1 | R50681 | RECOVERY VEHICLE FULL TRACKED: HEAVY M88A2 | R50885 | 1 | X | |
| RIFLE,5.56 MM M16A2 | R95035 | RIFLE,5.56 MM M16A1 | | 7,599 | | X |
| SEMITRAILER 5000 GAL POL | S73372 | SEMITRAILER TANK: 5000 GAL BULK HAUL SELF-LOAD/UNLOAD | S10059 | 12 | X | |
| SEMITRAILER,22-1/2 TON M871 | S70027 | SEMITRAILER FLATBED: BREAKBULK CONTAINER TRANSPORTER 34T | S70159 | 129 | X | |
| TACTICAL FIRE TRUCK | H56391 | FIRE TRUCK | T53621 | 3 | X | |
| TRACTOR WHLD EXCAVATOR | T34437 | LOADER SCOOP TYPE: DSL 2-1/2CU YD HINGE FRME | L76556 | 8 | X | |
| TRACTOR,FT,LS,DED,MED | W83529 | TRACTOR FULL TRCKD LOW SPD: DSL MED DBP W/BULDOZ | W76816 | 3 | X | |
| TRACTOR,FULL TRACKED,LOW SPEED | W76816 | TRACTOR FULL TRCKD LOW SPD: DSL MED DBP W/BULDOZ | W83529 | 21 | X | |
| TRAILER,PALLETIZED LOAD SYSTEM (PLS) | T93761 | SEMITRAILER LOW BED: 40 TON 6 WHEEL W/E | S70594 | 1 | X | |
| TRANSPORTER,PALLETIZED LOAD SYSTEM (PLS) | T40999 | TRUCK CARGO: HEAVY PLS TRANSPORTER 15 TON 10X10 | T41067 | 93 | X | |
| TRK 5 TON TRACTOR, FMTV M1088 | T61239 | TRUCK TRACTOR: 5 TON 6X6 W/E | X59326 | 1,776 | X | |
| TRUCK 5 TON WRECKER FMTV M1089 | T94709 | TRUCK WRECKER: 5 TON 6X6 | X63299 | 147 | X | |
| TRUCK CARGO LMTV M1079 W/E | T93484 | TRUCK WRECKER: 5 TON 6X6 | X63299 | 86 | X | |
| TRUCK CARGO MTV LWB M1085 | T61704 | TRUCK CARGO: 2-1/2 TON 6X6 XLWB | X40420 | 5 | X | |
| TRUCK CARGO MTV M1084 W/MHE | T41203 | TRUCK CARGO: DROP SIDE 5 TON 6X6 | X40931 | 3 | X | |
| TRUCK UTILITY CARGO/TROOP 1 1/4 TON M1038 | T61562 | TRUCK CARGO: TACTICAL 5/4 TON 4X4 | T59346 | 215 | | X |
| TRUCK, 2 1/2 TON M35A2 | X40146 | TRUCK CARGO: 2-1/2 TON 6X6 W/E | X40009 | 26 | X | |
| TRUCK, CARGO, MTV W/W M1083 | T41135 | TRUCK CARGO: 2-1/2 TON 6X6 W/E | X40009 | 220 | X | |
| TRUCK, TRACTOR M915 | T61103 | TRUCK TRACTOR: MET 8X6 75000 GVW W/W C/S | T61171 | 1 | X | |
| TRUCK, UP-ARMORED HMMWV, M1114 | T92446 | TRUCK UTILITY: ARMT CARRIER ARMD 1-1/4 TON 4X4 W/E (HMMWV) | T92242 | 379 | X | |
| TRUCK, UTILITY, 1-1/4 TON, M1113 | T61630 | TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV) | T61494 | 28 | X | |
| TRUCK,CARGO,4X4,LMTV M1078 | T60081 | TRUCK CARGO: 2-1/2 TON 6X6 W/E | X40009 | 1,282 | X | |
| TRUCK,CARGO,5T,DROP SIDE WW | X40931 | TRUCK CARGO: DROP SIDE 5 TON 6X6 W/E | X40794 | 19 | X | |

USAR

Table 7

Major Item of Equipment Substitution List

| Required Item Nomenclature | Reqd Item Equip No. | Substitute Item Nomenclature | Substitute Item Equip No. | FY 2006 Qty | Deployable? | |
|---|---------------------------|---|---------------------------------|----------------|-------------|----|
| | | | | | Yes | No |
| TRUCK,CARGO,MTV W/E M1083 | T61908 | TRUCK CARGO: 2-1/2 TON 6X6 W/E | X40009 | 1,259 | X | |
| TRUCK,DUMP,20T,12 CY M917 | X44403 | TRUCK DUMP: 5 TON 6X6 W/E | X43708 | 38 | X | |
| TRUCK,DUMP,5T 6X6 WW WE | X43845 | TRUCK DUMP: 5 TON 6X6 W/E | X43708 | 31 | X | |
| TRUCK,LIFT,FORK,10K,VARIABLE REACH (ATLAS) | T73347 | TRUCK LIFT FORK: DED 6000 LB VARIABLE REACH RT AMMO HDLG | T48944 | 223 | X | |
| TRUCK,M985,CARGO,W/MED CR (HEMTT) | T39586 | TRUCK CARGO: DROP SIDE 5 TON 6X6 | X40794 | 27 | X | |
| TRUCK,TANKER,FUEL,2500G (HEMTT) | T87243 | TANK AND PUMP UNIT LIQUID DISPENSING TRUCKMOUNTING: | T58161 | 117 | X | |
| TRUCK,TRACTOR,LET M916 | T91656 | TRUCK DUMP: 5 TON 6X6 W/E | X43708 | 195 | X | |
| TRUCK,UTILITY,1-1/4 TON,M1025,ARM (HMMWV) | T92242 | TRUCK UTILITY: ARMT CARRIER ARMD 1-1/4 TON 4X4 W/E W/W (HMMWV) | T92310 | 12 | X | |
| TRUCK,UTILITY,1-1/4 TON,M998,WE (HMMWV) | T61494 | TRUCK AMBULANCE: 4 LITTER ARMD 4X4 W/E (HMMWV) | T05028 | 2,712 | | X |
| TRUCK,WRECKER,M948E1,8X8 (HEMTT) | T63093 | TRUCK WRECKER: 5 TON 6X6 | X63299 | 23 | X | |
| VIBRATOR ROLLER | S12916 | ROLLER MOTORIZED: VIBRATORY ROLLER TYPE II | R11127 | 56 | X | |

Significant Major Item Shortages

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

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/Justification |
|----|---|-------------|---------------|-----------|---------------------|---|
| 1 | LIGHT MEDIUM TACTICAL VEHICLE (LMTV) 2.5 TON TRUCK (multi-LIN) | 4,512 | 3,677 | 152,934 | 562,338,318 | Critical shortages in CS/CSS units. |
| 2 | MEDIUM TACTICAL VEHICLES (MTV) 5 TON TRUCK (multi-LIN) | 8,784 | 8,487 | 183,000 | 1,553,121,000 | Critical shortages in CS/CSS units. |
| 3 | MULTI-BAND SUPER HIGH FREQUENCY (SHF) TERMINAL (PHOENIX) (LIN TBD) | 50 | 50 | 3,000,000 | 150,000,000 | Required for the Integrated Signal Theater Bde. Provides inter-theater and intra-theater range extension support. |
| 4 | HIGH FREQUENCY (HF) RADIO (LIN TBD) | 1,750 | 1,532 | 42,514 | 65,131,448 | Critical shortages in CS/CSS units. |
| 5 | TRUCK CARGO PLS 10X10 M1075 (T40999) | 929 | 304 | 289,000 | 87,856,000 | Critical shortages in CS/CSS units. |
| 5a | PLS TRAILERS (T93761) | 1,484 | 769 | 55,000 | 42,295,000 | Critical shortages in CS/CSS units. |
| 6 | HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV) (multi-LIN) | 13,919 | 2,337 | 75,000 | 175,275,000 | Critical shortages in CS/CSS units. |
| 6a | HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV) UP-ARMORED M1114 (T92446) | 738 | 738 | 179,000 | 132,102,000 | Critical shortages in CS units. |
| 7 | TRUCK TRACTOR LINE HAUL M915A3 (T61103) | 2,445 | 1,731 | 135,000 | 233,685,000 | Critical shortages in CS/CSS units. |
| 8 | HEMTT LOAD HANDLING SYSTEM (LHS) (T96496) | 44 | 44 | 226,000 | 9,944,000 | Fills required equipment shortages in the Improved Cargo Handling Operations and Med. Supply Companies. |
| 9 | TACTICAL FIRE FIGHTING TRUCK (TFFT) (H56391) | 72 | 54 | 600,000 | 32,400,000 | Critical shortages in CS/CSS units. |
| 10 | MOVEMENT TRACKING SYSTEM (MTS) (C18278/C78851) | 10,573 | 10,573 | 12,000 | 126,876,000 | Fills critical shortages for CS/CSS units required to maintain real-time in-transit visibility and management of mobile assets worldwide. |

Chapter 3 United States Marine Corps Reserve

I. Marine Corps Overview

A. Overall Marine Corps Planning Guidance



Reserve Marines from 24th Marine Regiment in OIF-II

The objectives of the National Military Strategy (NMS) of the United States are to win the War on Terrorism, enhance our ability to fight as a joint force, and transform the Armed Forces “in stride.” Executing the NMS requires a force able to generate decisive effects in any contingency and sustain multiple, overlapping operations. The force must have the capabilities necessary to create and preserve an enduring peace. This strategy requires a joint force that is rapidly deployable anywhere on the globe and capable of sustained, high-intensity operations until the objectives of the nation are met. The United States Marine Corps has demonstrated its ability to successfully execute this mission during Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and the Global War on Terrorism (GWOT). The Marine Corps remains ready, relevant, and fully capable to protect U.S. power abroad in the face of the ever-evolving challenges of the world.

Reserve, has played, and continues to play, a critical role in defending those goals. This past year, the Marine Corps continued to answer the nation’s call and was engaged in operations in Afghanistan, the Arabian Gulf, the Horn of Africa, Liberia, the Georgian Republic, Colombia, Guantanamo Bay, and the Philippines.

The Marine Corps dedication and drive to keep the United States safe and secure against terrorism and our enemies has continued as a critical element of America’s military by bridging the gap between the light-Special Operations Forces and the heavyweight capability of the Army. Highlighting the expeditionary mindset of the Navy-Marine Corps team, our combined arms forces successfully operated in desert, urban, swamp, and rural environments while effectively conducting combat, peacekeeping, and humanitarian operations—at times simultaneously. Flexibility and adaptability are key characteristics of an expeditionary force, and they are critical advantages that the Navy-Marine Corps team must seek to optimize—particularly in this time of global uncertainty.

The NMS’s main goals are to protect the United States, prevent conflict and surprise attack and prevail against adversaries who threaten our homeland, deployed forces, allies, and friends. The Marine Corps, both Active and



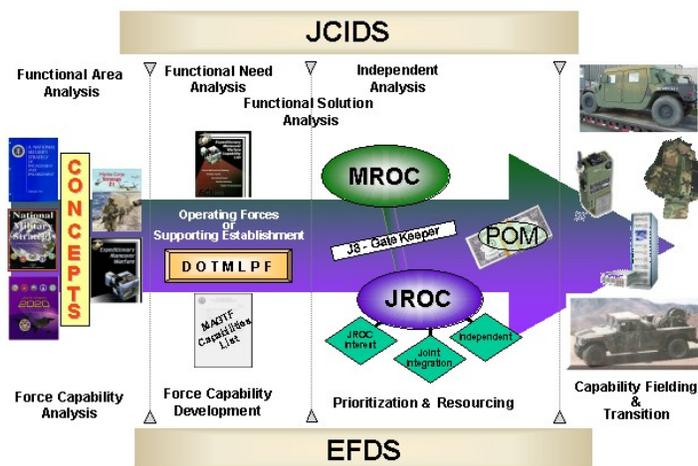
Reserve Marine on watch in Guantanamo Bay Cuba

As the last few years have demonstrated, the Marine Corps Reserve is a full partner in our Total Force. Reserve units participated in all aspects of the war in Iraq, providing air and ground combat power, and combat service support, as well as a large number of individual augmentees to Marine and joint staffs. Mobilized Marine Reserve infantry battalions have also served as ready reaction forces, “on call” to support the Federal Emergency Management Agency’s role in homeland security, as well as the Joint Forces Command and the U.S. Northern Command. When called, the Marine Corps Reserve is ready to augment and reinforce. Our Reserve Marines are a vital and critical element of our Total Force. The training, leadership, and quality of life of our Reserve Component remain significant Marine Corps priorities.

As it has done since 1916, the Marine Corps Reserve has shown its allegiance and reliability to the United States and its allies time and time again. With the National Military Strategy clear, the Navy-Marine Corps team has shown that their goals are to protect the United States, prevent conflict and surprise attack, and prevail against adversaries who threaten our homeland, deployed forces, allies and friends. Such a strong and willing demand to protect our nation falls strongly on the hands of many throughout the Total Force who have proved their competence, readiness, and shown their enthusiastic attitude towards our nation’s military interests.

B. Marine Corps Equipping Policy

The Expeditionary Force Development System (EFDS) is a single integrated system of dynamic processes and functions, producing and sustaining integrated capabilities, which meet the needs of the Marine Corps and the combatant commanders. EFDS is designed to facilitate the development and realization of military operational concepts. It is a streamlined and integrated



system that covers all phases of concept development to the acquisition of necessary equipment and weapons systems. The Expeditionary Force Development System proved to be of great value to our forces engaged in combat operations and is proving to be a helpful means of ensuring that the Marine Corps quickly profits from recent operational experiences in the development of new capabilities. Once identified, these capabilities are entered into the EFDS, which then validates, prioritizes, resources, implements and transitions the requirements throughout

the force to achieve the desired capability. The EFDS produces integrated capabilities based on fundamental concepts, which are supported by interdependent processes for development of Doctrine, Organization, Training, Materiel, Leadership and Education, People and Facilities (DOTMLPF).

From the EFDS, the Marine Corps develops a single Approved Acquisition Objective (AAO) for each item of equipment. The AAO includes equipment modernization plans and addresses all initial issue quantities and planned sustainability requirements for both the Active

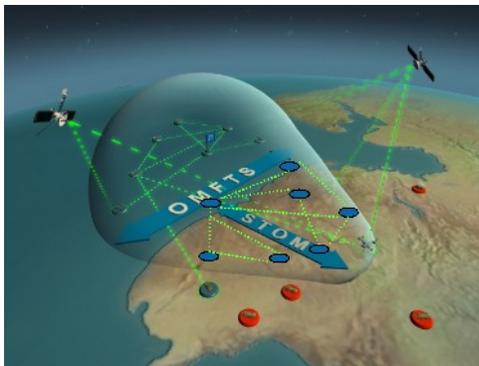
Component (AC) and Reserve Component (RC). There are three types of appropriations the RC utilizes for procurement of ground and aviation equipment and aircraft: Procurement Marine Corps (PMC), Aircraft Procurement Navy (APN), and National Guard and Reserve Equipment Appropriation (NGREA). PMC is the primary source of funding for ground equipment, and APN is the primary source of funding for aviation equipment. NGREA funding, added by Congress, is not part of the formal budgeting process, and has been used historically to fund a significant portion of Reserve ground and aviation equipment requirements.

C. Marine Corps Plan to Fill Mobilization Shortages in the RC

The total wartime equipment requirement for Marine Forces Reserve (MARFORRES) is called the Table of Organization and Equipment (T/O&E). For MARFORRES, the T/O&E consists of two parts: a Training Allowance (T/A) and In-Stores assets. The T/A is the equipment MARFORRES units maintain at their training sites. The amount of T/A each unit has is determined by training requirements, space limitations, and staffing levels at the unit training sites. The balance of the MARFORRES equipment requirements is referred to as the In-Stores assets. These are held at the two Marine Corps Logistics Bases (MARCORLOGBASES), located at Albany, GA, and Barstow, CA.

Upon mobilization, MARFORRES ground equipment shortfalls will be augmented with Remain Behind Equipment (RBE) left by AC units deploying to locations with pre-positioned assets. MARFORRES units may also benefit from pre-positioned assets contingent on the Operational Plan being executed. Hence, when MARFORRES units mobilize and integrate into the gaining Marine Air-Ground Task Force (MAGTF), RBE or pre-positioned equipment, or both, will serve to mitigate equipment shortfalls. However, the toll of ongoing operations on both RBE and pre-positioned assets will affect the ability to fill RC shortfalls in the future.

D. Current Marine Corps Initiatives Affecting RC Equipment



Family of Marine Corps Concepts

In the near-term, the Marine Corps top priorities are to maintain a high state of readiness and to provide capable forces that meet the demanding needs of the Unified Combatant Commanders in order to prosecute the GWOT in support of the Nation. For the long-term, the Marine Corps and Navy are committed to developing a Seabasing capability that will provide a critical joint competency for assuring access and projecting power that will greatly improve the security of the United States. This marked increase in warfighting capability will be apparent as new systems are introduced, such as the MV-22 Osprey, the Expeditionary Fighting Vehicle, the Joint Strike Fighter, and the Lightweight 155mm howitzer into both the Active and Reserve forces.

E. Marine Corps Plan to Achieve Full Compatibility Between AC and RC

It is Marine Corps policy that new weapon systems and equipment will be horizontally integrated into the Marine Corps Reserve to ensure the highest degree of interoperability with

active forces. Therefore, new or modified equipment will be fielded to Marine Reserve organizations concurrent with the active duty counterparts to which they are tasked to augment or reinforce. In consideration of ongoing operations, however, priority for distribution of new and combat serviceable equipment has been given to active duty units that are deployed or scheduled to deploy. Continued emphasis on modernization and equipment upgrades is necessary to ensure the Marine Corps Reserve retains its warfighting capabilities in support of the Total Force.

F. Other Marine Corps Specific Issues

1. Reserve Intelligence Support Battalion

The establishment of a Reserve Intelligence Support Battalion (ISB) will enhance command and control of RC intelligence assets while simultaneously establishing additional RC intelligence structure and capabilities. This initiative places Reserve Marine intelligence detachments at Joint Reserve Intelligence Centers (JRICs) throughout the continental United States, providing enhanced “reach back” through JRIC connectivity. Additionally, the ISB will enhance the capability to provide task-organized, all-source intelligence detachments to augment forward-deployed MAGTFs. Establishment of the ISB is pending finalization of Reserve force structure.

2. 4th FSSG as Marine Logistics Command (MLC)

4th Force Service Support Group (FSSG) is currently postured to respond to the Marine Corps operational logistics requirements that have surfaced as a result of recent Marine Corps involvement in contingencies. This emerging operational logistics management mission is the key to the Marine Corps future success in unlocking and leveraging advantages for the warfighter in the joint logistics environment. Currently, the 4th FSSG MLC trains to execute operational logistics for US Marine Forces, Korea in coordination with Combined Marine Forces Command, an approach that is applicable to other theaters. As MLC, 4th FSSG links the strategic with the tactical, but has the ability to interact in all three arenas. It assists Marine forces and their resourcing with flow into theater, it sustains them, and assists in their redeployment. Through the ready employment of the Early Entry Module, and in concert with the initial enabling actions of other commands assigned to Operation Plans (OPLANS) such as 3rd Materiel Readiness Battalion (MRB), 3rd FSSG (serving as MLR-4), the 4th FSSG as



4th FSSG offloading materiel

MLC represents a distinctive contribution to both Component and Marine Corps-stated requirements. Although a full leverage of Wartime Host Nation Support for many of the common-commercial equipment requirements is planned, there are some anticipated, yet unvalidated increases to the Training Allowance including Heavy Equipment Transport vehicles for 6th Motor Transport Battalion and Materiel Handling Equipment (MHE) for Landing Support and Supply Battalions under review.

II. Marine Corps Reserve (USMCR) Overview

A. Current Status of the USMCR

1. General Overview

Over the last few years, the Marine Corps Reserve has shown its importance to the Marine Corps and to the security of the United States, both at home and in foreign lands. The Marine Corps has completed 27,389 Reserve activations, in response to both internal and joint operational requirements. Marine Force Reserve has maximized the use of Individual Ready Reserve volunteers, 4,570 have been activated to meet these requirements, primarily in the areas of staff augmentation, such as linguists, intelligence specialists, and for force protection requirements.

Marine Corps Reserve units maintain high levels of pre-mobilization readiness. Reserve Units consistently train to a high readiness standard. Ninety-nine percent of Selected Marine Corps Reserve (SMCR) Marines called up for duty reported for mobilization and less than one percent requested a deferment, delay, or exemption. At the onset of Operation Iraqi Freedom, when speed was essential, the Marine Corps Reserve executed a rapid and efficient mobilization with units averaging six days from notification to being deployment-ready, and 32 days from receipt of a deployment order to arrival in theater. Judicious employment of Reserve Marines remains a top priority of the Marine Corps to ensure the Marine Corps Reserve maintains the capability to augment and reinforce the AC. Our Reserve units and individuals are combat ready and have rapidly integrated into active forces commands demonstrating the effectiveness of the Marine Corps Total Force.

From immediate support on September 11, 2001, to combat operations in Afghanistan in 2002 and Iraq in 2003, the Marine Corps Reserve has demonstrated its ability to rapidly mobilize combat ready Marines to augment and reinforce the AC. In support of Operation NOBLE EAGLE and OEF, 4,463 Reserve Marines were on active duty in March 2002. Just over a year later 21,316 Reserve Marines were on active duty in May 2003 to support OIF, representing 52 percent of the SMCR. Marine Corps Reserve units and individuals were ready and rapidly integrated into gaining force commands, fighting along side their AC counterparts and making a strong, visible difference with the nation's military goals.



3d Civil Affairs Group Reserve Marines in Iraq

2. Status of Equipment

Ongoing operations in the war on terror have greatly increased the operational tempo of Reserve forces. In addition, realistic and pertinent training of Reserve units has taken an increasing toll on equipment and resources. Faced with the rising age of legacy equipment, parts

obsolescence, and higher equipment failure rates, the Marine Corps is faced with increasing manpower and financial investments for operations and maintenance, leaving insufficient funds for new equipment procurement. A long-range vision for funding legacy system upgrades will not only result in better operational readiness, but will also be a more responsible allocation of the Nation's resources.

a. Equipment On-hand

The equipment the RC maintains on-hand (T/A) is reviewed annually and assigned to Reserve training centers based on the quantity and type of equipment each center can adequately maintain and store. Table 1 provides specific information on the total Marine Corps Reserve equipment inventories, including both the T/A and In-Stores Assets, and required equipment numbers. In some instances, the equipment on-hand reflects material that is Not Ready For Issue (NRFI) due to lack of maintenance funding.

b. Average Age of Major Items of Equipment

Table 2 provides the average age of selected major items of equipment. Overall, the average age of aviation assets has increased since last year as expected.

c. Compatibility of Current AC/RC Equipment

Reserve units participating in operations in Afghanistan, Iraq, and other locations in the GWOT are continuing to experience critical incompatibility issues between AC/RC communications with a direct impact on effective command and control. Similarly, lack of enhanced night vision capabilities for the Marine Reserve Ground Combat Element units forced a redeployment of AC assets, resulting in decreased capability throughout the entire warfighting organization.

Tactical communications equipment within the Marine Reserve often lacks the capability to interoperate with the AC. Additionally, several units lack current communications technology, especially at the intra-squad and small tactical unit level, and experience severe degradation of command and control when operating with Active forces. FY 2004 and FY 2005 NGREA funded the purchase of tactical radios that mitigated most of the existing command and control capability deficiencies in small tactical and specialized units. While some communications capability gaps still exist, the Marine Corps Reserve is well on its way to C4 equality with the active component.

Marine Corps Reserve helicopters, seeing increasing demand, require Aircraft Survivability Equipment (ASE) in order to operate with forces in a high threat environment. Additionally, the KC-130T Avionics Modernization Program is required for Reserve aircraft in order to comply with new and emerging worldwide airspace requirements to ensure that the aircraft can operate in the joint environment.

d. Maintenance Issues/Programs

The maintenance of equipment remains one of the top priorities for MARFORRES. 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. This section briefly reviews some programs and initiatives that help maintain and improve the materiel readiness of the systems in the RC.

- **Depot Maintenance:** The Marine Corps Depot Maintenance Program enhances equipment readiness for both the AC and RC. The RC continues to be proactive in articulating their depot maintenance requirements through the annual Marine Corps Depot Maintenance Process. However, the repairs of many In-Stores assets are currently unfunded and may impact future contingencies if these assets are not returned to usable status.
- **Intermediate Maintenance Initiatives:** MARFORRES continues to exercise better business practices through competitive outsourcing of intermediate maintenance requirements. For example, faster turn-around times and increased readiness has resulted from outsourcing diesel engine remanufactures to UNICOR in Beaumont, Texas. Additionally, MARFORRES is actively seeking alternate power sources which will provide more reliable power, reducing power spikes and wear and tear on radio equipment from frequent battery changes. This initiative will increase communications reliability and extend equipment life.
- **New Equipment Fielding:** As described elsewhere, new equipment fielding has a positive impact on the maintenance readiness of Reserve equipment. For example, replacement of the F-5E aircraft with F-5N aircraft significantly reduces the maintenance burden at an overall cost savings. Similarly, replacement of aging tactical communications equipment is often more cost effective and maintenance-efficient than maintaining legacy radios, many of which are no longer manufactured and contain obsolete components.
- **Service Life Extension Programs (SLEPs):** Introduction of SLEPs into the lifecycle of an item of equipment reduces long-term maintenance costs and significantly contributes to upgrading capability as well as sustaining and improving readiness. The Marine Corps currently is engaged in SLEPs of construction equipment, Amphibious Assault Vehicles (AAVs), and Light Armored Vehicles (LAVs).

e. Modernization Programs and Shortfalls

As previously described, shortfalls in targeting equipment, tactical communications, and aircraft survivability equipment represent the highest priorities for the Marine Corps Reserve.

- **Initial Issue:** The Marine Corps Reserve's top priority continues to be the readiness and outfitting of the warfighter on the ground. The RC has accumulated over \$30 million in initial issue individual and unit equipment shortages. These items are not fully budgeted in the Future Years Defense Program (FYDP) to reach the program acquisition objective. These shortfalls must be filled to support training, maintain readiness and facilitate interoperability. The new individual equipment also represents an improvement in Force Protection, combat



*Outer
Tactical
Vest*

effectiveness, and quality of life for the individual Marine due to the superior nature of the new equipment. The types of individual equipment being procured under this initiative include but are not limited to: family of body armor, cold and extreme cold weather clothing, new load bearing system (multi-mission combat packs with self-contained hydration), laser eye protection, light weight helmet, improved sun/wind goggles, improved entrenching tool, improved gloves, and other individual equipment being developed. While procurement of these items is an Operations and Maintenance expense, the total initial acquisition quantity has not yet been satisfied. The procurement of initial quantities of these items would be greatly facilitated if allowed to use any additional funding through specific identification as an “Item of Special Interest” within the Defense Appropriation and/or Authorization bills.

- **Night Vision and Targeting Equipment:** Systems such as the AN/PVS-17 Miniature Night Sight, the AN/PEQ-1B Ground Laser Target Designator, and the AN/PAS-13 Thermal Weapon Sight provide a distinct warfighting advantage for the Marine infantryman and those Marines required to conduct call for fire missions in theater. These systems allow for detection, tracking, and targeting of enemy positions for both small arms and precision guided munitions at extended ranges, greatly increasing the survivability of the Marine.



AN/PAS-13 Thermal Weapon Sight

- **Tactical Communications:** One of the biggest challenges facing Marine Reserve forces in ongoing operations is the ability to effectively communicate within a squad, convoy, patrol, or other independent unit. Modern communications systems, including the AN/PRC-148 Handheld Radio, the AN/PRC-150 High Frequency Radio, and the AN/PRC-117F Multiband Radio, provide secure, interoperable communications within and between tactical units, as well as satellite communications capabilities for remotely operating units, such as the Civil Affairs Groups and the Air and Naval Gunfire Liaison Companies resident in the Marine Corps Reserve.



AN/PRC-150 HF Radio

- **Long Haul Communications:** In order to effectively conduct Operational Logistics Command and Control, the Marine Logistics Command (MLC) must possess the equipment and technical proficiency to communicate at all levels simultaneously to include the multiple Joint, Combined, Civilian and Strategic agencies that contribute support to the Component. Currently, Communications Company, H&S Battalion, with augmentation from 6th Communications Battalion is responsible for providing this capability to the MLC, in addition to the tactical communication requirements. As the MLC mission is refined and T/O&Es are created, increases in



Lightweight Multiband Satellite Terminal

SHF microwave, high frequency and satellite communications equipment allowances are anticipated. Additional switching equipment and computer assets will also be necessary.

- **Aircraft Survivability:** Aircraft operating in hostile environments are subject to surface-to-air threats from a host of man-portable weapons. ASE, comprising radar warning, infrared warning, and flare and chaff countermeasures systems, protects the aircraft and aircrew from both MANPAD and air-to-air threats. Additionally, there is an emerging requirement for the AH-1W Turned Exhaust, which will not only decrease the helicopter's infrared signature, but is also expected to decrease engine exhaust heat on tail boom structures.



*HMLA-775 AH-1W
SuperCobra
operating in Iraq*

- **F-5 Tiger II Aircraft:** Fourth Marine Aircraft Wing (MAW) has received two of 12 F-5N's to replace aging F-5E aircraft over



F-5 Tiger II

the next few years. The F-5E is a single seat, dual-engine, supersonic, land-based fighter. It is designed for a service life of 4000 flight hours, 4000 landings, and 5000 gear extension/retraction cycles, given a severe usage spectrum, such as the USN/USMC adversary mission. The Marine Corps is replacing its F-5E aircraft on a one-for-one basis with F-5N aircraft re-purchased from the

government of Switzerland. On average, the USN/USMC F-5E aircraft have 7000 flight hours compared to the Swiss aircraft that average 2500 flight hours. Some future minor modifications will be required to ensure the Marine Corps aircraft remain standardized with the Navy Reserve.

- **Light Armored Vehicles (LAVs):** The 4th Light Armored Reconnaissance Battalion (4th LAR Bn) LAVs were used extensively when the battalion deployed and attached to 1st Marine Division and assigned as the Quick Reaction Force (QRF), during security force missions during OIF-I, Phase III combat operations, and Phase IV Security And Stability Operations (SASO). Continued extensive use of existing LAVs for upcoming OIF rotations will continue to degrade their readiness and pose challenges in maintaining high mission capable ratings. Acquisition of LAV simulators with FY 2004 NGREA funding will only partially offset the readiness challenges by keeping LAV crews at or near their "combat capable" Combat Readiness Percentage (CRP) rating.



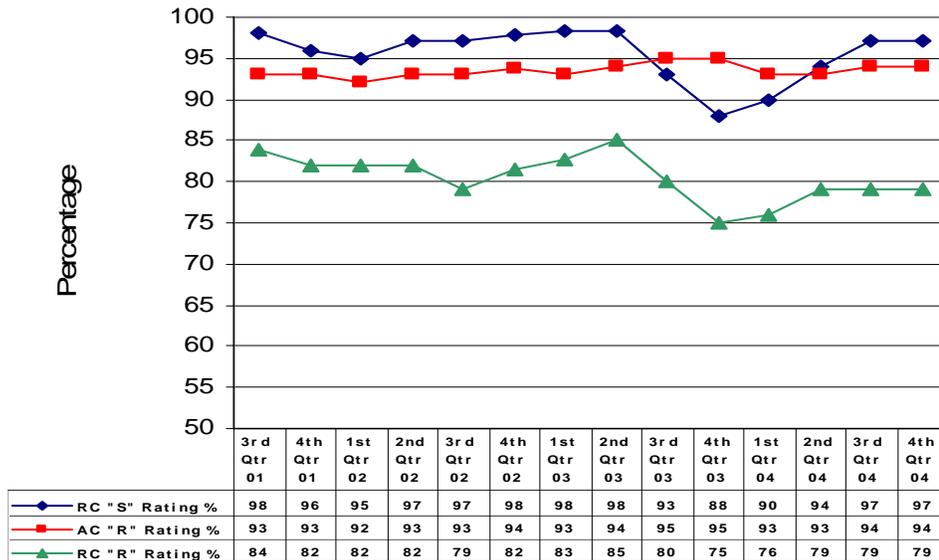
Light Armored Vehicle

f. Overall Equipment Readiness

The general state of readiness of USMCR ground equipment, as represented in the graph below, is good, but well below that of AC. RC equipment consists of the T/A, located at the Reserve Training Centers and In-Stores assets held at MARCORLOGBASES. In order to better describe the state and readiness of the equipment, two variables are used. The Supply Equipment On-Hand, or “S” rating, is the percentage of total on-hand and In-Stores equipment as compared to the total number authorized in the T/O&E. The Equipment Operational Capability, or “R” rating, is the total percentage of equipment on-hand or In-Stores that is mission capable. The represented lower equipment readiness is due to a combination of the age of legacy equipment, impact of past funding shortfalls, and lower priority of funding for maintenance. However, increased focus in preparation for OIF support has shown slight gains as demonstrated in the graph. It is getting more difficult and costly to maintain these systems at the desired levels of operational readiness. The Marine Corps Reserve is prepared to augment the AC quickly and effectively as it demonstrated during OEF and OIF. However, these equipment issues must be rectified in order to maintain the desired level of Total Force readiness and interoperability.

USMCR GROUND EQUIPMENT READINESS

**Total Equipment Requirement
(T/A + In-Stores)**



B. Changes Since Last NGRER

In support of the GWOT, over 30,000 Reserve Marines have been mobilized. These Marines span the entire range from Private to General, covering all manner of duties in support of the AC. As of 10 September 2004, over 11,000 Reserve personnel remain on active duty, including both USMCR Civil Affairs Groups, both USMCR light attack helicopter (HMLA) squadrons, three infantry battalions, numerous combat service support units, and a myriad of other units and personnel.

As part of the ongoing initiative to integrate Naval Tactical Aviation (TacAir), the Marine Corps Reserve decommissioned one F/A-18 squadron, VMFA-321 located at the Naval Air Facility Washington DC. The personnel structure was reallocated to support other missions and fill critical billets, while the aircraft were redistributed within the Department of Navy, or stricken from the inventory, depending on the overall age and condition of the aircraft.

In order to ensure the most capable aircraft and equipment were provided to our forward deployed forces engaged in the GWOT, it was necessary to transfer helicopters and equipment between the RC and the AC. For this purpose, 18 AH-1W attack helicopters, nine UH-1N utility helicopters, and six CH-53E heavy lift helicopters were swapped between the AC and RC. This swap ensured that both the AC and RC are able to continue training and maintain their warfighting capability. At the end of OIF III, all aircraft and equipment will be returned to their original component.

C. Future Years Program (FY 2006–FY 2008)

1. FY 2008 Equipment Requirements

The USMCR has numerous unfunded equipment priorities that affect all elements of the MAGTF. Fielding of new or upgraded ground equipment and aviation modernization remain the top priorities. Additional funding for modernization and equipment shortages is necessary to maintain mission capable status and to ensure the RC is a force multiplier upon activation. RC equipment deficiencies are listed in Table 1.

2. Anticipated New Equipment Procurements

MV-22 Osprey: The Osprey is a tilt-rotor, advanced technology, Vertical/Short Takeoff and Landing (V/STOL), multi-purpose tactical aircraft being developed to replace the current fleet of CH-46E and CH-53D aircraft. This aircraft will have the capability to participate in amphibious and land assault, raids/operations, as well as medium cargo lift, and tactical recovery of aircraft and personnel. The Osprey 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. One of Marine Force Reserve's long-term goals is to accelerate the fielding of the MV-22 Osprey to the RC.



Expeditionary Fighting Vehicle



MV-22 Osprey

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 the enemy's strengths while exploiting its weaknesses. The EFV remains the number one ground acquisition program of the Marine Corps.

High Mobility Artillery Rocket System (HIMARS): HIMARS is a C-130 transportable, wheeled, indirect fire system capable of delivering all rockets and missiles in the current and future Multiple Launch Rocket System Family of Munitions (MFOM). HIMARS extends the range of available fire support from 30 KM to 60+ KM. The Marine Corps plans to establish an interim capability in the second quarter of FY 2005 and a target Initial Operational Capability (IOC) scheduled for FY 2007. Current plans are to field two battalions in the 14th Marine Regiment with 18 launchers each.



High Mobility Artillery Rocket System



LW 155 Howitzer

Lightweight 155mm (LW 155) Howitzer: The LW 155 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 designed to replace. The LW 155 will meet increased operational thresholds in lethality, survivability, mobility, deployability, and sustainability required to support maneuver warfare.

3. Anticipated Transfers from AC to RC

There are no anticipated transfers from the AC to the USMCR. Reference Table 5.

4. Anticipated Withdrawals from RC Inventory

Aging F-5E aircraft are being removed from the inventory and replaced by newer F-5N aircraft purchased from the government of Switzerland. Reference Table 5.

5. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2008

Initial Issue equipment, including Lightweight helmets, Small Arms Protective Insert (SAPI) plates, Outer Tactical Vests (OTVs), and other personal protective gear, remains the top priority and is critical to maintaining the operational readiness and mission effectiveness of Marine Corps Reserve personnel. The total deficiency for these items exceeds \$30M, however, since these items may not be purchased with Procurement funds (NGREA), the procurement of these items must compete for scarce Operations and Maintenance dollars. Tactical

communications and night vision gear also present other crucial shortfalls, with several organizational units critically deficient in Enhanced Position Location Reporting System (EPLRS) radios, multi-band communications systems, and night vision equipment. Reference Table 8.

D. Summary/Conclusions

The Marine Corps Reserve is ready, willing and able to answer the Nation's call to duty in the GWOT, as has been so well demonstrated by the mobilization and integration of Reserves into the AC. Our greatest asset is our outstanding young men and women in uniform, and it is critical that they receive and are able to maintain the equipment necessary to complete their mission. The Marine Corps and its Reserve is a model for Total Force integration and expeditionary capability. However, we can only forge ahead to meet the high expectations of the American public with continued emphasis on equipment modernization. Maintenance of legacy equipment adds unnecessary increased expenses at a time when better interoperability and integration is needed with the AC. The Marine Corps Reserve is an integral part of the Marine Corps Total Force and will continue to balance the available resources to best support the mission of the Total Force.

USMCR

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 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| AIRCRAFT | | | | | | | |
| AIRCRAFT,HELICOPTER, UTILITY, UH-1N | UH-1N | 6,356,000 | 20 | 20 | 20 | 20 | 20 |
| AIRCRAFT,HELICOPTER, CARGO, CH-53E | CH-53E | 34,871,000 | 21 | 21 | 21 | 21 | 21 |
| AIRCRAFT,HELICOPTER, ATTACK, AH-1W | AH-1W | 17,560,000 | 36 | 36 | 36 | 36 | 36 |
| AIRCRAFT,HELICOPTER, CARGO, CH-46E | CH-46E | 13,363,000 | 26 | 26 | 26 | 26 | 26 |
| AIRCRAFT, REFUELING/CARGO, KC-130T | KC-130T | 41,774,000 | 28 | 28 | 28 | 28 | 28 |
| AIRCRAFT, UTILITY CARGO, UC-12B | UC-12B | 4,131,000 | 3 | 3 | 3 | 3 | 3 |
| AIRCRAFT,FIGHTER/ATTACK,F/A-18A | F/A-18A | 48,544,000 | 36 | 36 | 36 | 36 | 36 |
| AIRCRAFT, FIGHTER, F-5E | F-5E | 9,684,000 | 6 | 2 | 0 | 0 | 0 |
| AIRCRAFT, FIGHTER, F-5F | F-5F | 13,807,000 | 1 | 1 | 1 | 1 | 1 |
| AIRCRAFT, FIGHTER, F-5N | F-5N | 10,431,000 | 6 | 10 | 12 | 12 | 12 |
| AIRCRAFT, UTILITY CARGO, UC-35C/D | UC-35C/D | 7,397,000 | 4 | 4 | 4 | 4 | 4 |
| COMMUNICATIONS, OTHER | | | | | | | |
| AIRBORNE MOBILE DIRECT AIR SUPT CNTRL | A0010 | 684,949 | 2 | 2 | 2 | 2 | 2 |
| FIRE SUPPORT C&C SYS (FSCCS) AN/UYK-102 (V)1 | A0011 | 70,000 | 127 | 127 | 127 | 127 | 167 |
| MULTI-SOURCE CORRELATIONS SYS AN/TYQ-101 | A0021 | 950,000 | 1 | 1 | 1 | 1 | 1 |
| COMMUNICATIONS PLATFORM, AIR DEFENSE | A0025 | 470,456 | 3 | 3 | 3 | 3 | 6 |
| AUTO TELEPHONE AN/TTC-42(V) | A0248 | 917,671 | 10 | 10 | 10 | 10 | 10 |
| DECODER GROUP, AN/UPA-60(V)2 | A0465 | 29,837 | 21 | 21 | 21 | 21 | 21 |
| SATELLITE COMM TERMINAL, AN/TSC-96A | A0655 | 425,000 | 0 | 0 | 0 | 0 | 3 |
| COMM CENTRAL, AIR SUPPORT SYS (CASC) AN/TSQ-207 | A0821 | 540,000 | 2 | 2 | 2 | 2 | 6 |
| INTEL OPS (IOS-INTEL) SERVER, AN/UYQ91(V)2 | A0873 | 72,800 | 10 | 10 | 10 | 10 | 10 |
| INTERROGATOR SET, AN/UPX-27 | A0881 | 14,000 | 5 | 5 | 5 | 5 | 18 |
| TACTICAL DEFENSE ALERT, RADAR SET | A0891 | 245,000 | 6 | 6 | 6 | 6 | 6 |
| MANPACK SATELLITE COMMUNICATIONS TERMINAL | A0918 | 48,000 | 79 | 79 | 79 | 79 | 98 |
| QUICK REACTION SATELLITE ANTENNA | A1310 | 225,000 | 2 | 2 | 2 | 2 | 3 |
| RADAR SET, FIREFINDER, AN/TPQ-36(V)5 | A1440 | 6,500,000 | 4 | 4 | 4 | 4 | 4 |
| RADAR SET, LTWT AIR TRAFFIC CONTROL, AN/TPS-63B | A1500 | 524,000 | 6 | 6 | 6 | 6 | 6 |
| RADAR SET, LW3D, AN/TPS-59(V)(3) | A1503 | 26,500,000 | 2 | 2 | 2 | 2 | 2 |
| RADIO SET, AN/GRC-193B (V) | A1795 | 32,880 | 52 | 52 | 52 | 52 | 73 |
| RADIO SET, AN/GRC-171B | A1818 | 41,999 | 86 | 86 | 86 | 86 | 104 |
| RADIO SET, AN/MRC-138B(V) | A1935 | 66,809 | 193 | 193 | 193 | 193 | 253 |
| RADIO SET, AN/MRC.142B | A1954 | 289,603 | 1 | 1 | 1 | 1 | 1 |
| RADIO TERMINAL SET, AN/MRC-142 | A1955 | 218,193 | 49 | 49 | 49 | 49 | 59 |

USMCR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| RADIO SET, AN/MRC-145 | A1957 | 43,896 | 301 | 301 | 301 | 301 | 374 |
| RADIO SET, MANPACK, AN/PRC-150, HF | A2042 | 17,100 | 71 | 71 | 71 | 71 | 71 |
| RADIO SET, AN/PRC-104 B(V) | A2065 | 17,000 | 595 | 595 | 595 | 595 | 595 |
| RADIO SET, UHF, AN/PRC-113(V)3 | A2069 | 8,529 | 52 | 52 | 52 | 52 | 344 |
| RADIO SET, MANPACK, AN/PRC-119A | A2070 | 10,117 | 1,350 | 1,350 | 1,350 | 1,350 | 1,577 |
| RADIO SET, VEHICULAR, AN/VRC-88D | A2074 | 11,475 | 354 | 354 | 354 | 354 | 479 |
| RADIO SET, VEHICULAR, AN/VRC-89D | A2075 | 18,155 | 46 | 46 | 46 | 46 | 46 |
| RADIO SET, VEHICULAR, AN/VRC-90D | A2076 | 12,000 | 14 | 14 | 14 | 14 | 14 |
| RADIO SET, VEHICULAR, AN/VRC-91D | A2077 | 18,680 | 59 | 59 | 59 | 59 | 60 |
| RADIO SET, VEHICULAR, AN/VRC-92D | A2078 | 20,920 | 44 | 44 | 44 | 44 | 44 |
| RADIO SET, MANPACK, AN/PRC-119F | A2079 | 4,422 | 591 | 591 | 591 | 591 | 656 |
| RADIO SET, VEHICULAR, AN/VRC-83(V)2 | A2164 | 18,360 | 105 | 105 | 105 | 105 | 150 |
| RADIO SET, VEHICULAR, AN/VRC-88A | A2167 | 12,519 | 388 | 388 | 388 | 388 | 528 |
| RADIO SET, VEHICULAR, AN/VRC-89A | A2168 | 16,609 | 87 | 87 | 87 | 87 | 87 |
| RADIO SET, VEHICULAR, AN/VRC-90A | A2169 | 9,886 | 51 | 51 | 51 | 51 | 144 |
| RADIO TERMINAL, DIGITAL TROPOSCATTER | A2179 | 10,000 | 22 | 22 | 22 | 22 | 24 |
| SWITCHBOARD, TELEPHONE, SB-3614(V)/TT | A2505 | 46,696 | 61 | 61 | 61 | 61 | 74 |
| SWITCHING UNIT, TELEPHONE, AUTOMATIC, SB-3865 | A2508 | 228,535 | 57 | 57 | 57 | 57 | 66 |
| TACTICAL AIR OPERATIONS MODULE (TAOM) | A2525 | 4,926,240 | 7 | 7 | 7 | 7 | 9 |
| TACTICAL (GATEWAY) DATA NETWORK | A2535 | 428,507 | 5 | 5 | 5 | 5 | 6 |
| FIRE SUPPORT, MOBILE TDS AN/GYK-47(V)6 | A2542 | 71,050 | 49 | 49 | 49 | 49 | 72 |
| FIRE SUPPORT, MOBILE TDS AN/GYK-47(V)7 | A2545 | 56,670 | 73 | 73 | 73 | 73 | 107 |
| INTERFACE SYSTEM, COMMUNICATIONS | A3270 | 401,649 | 3 | 3 | 3 | 3 | 7 |
| ENGINEER & OTHER EQUIPMENT | | | | | | | |
| AIR CONDITIONER, MCS HORIZONTAL, 60HZ 9,000 BTU | B0001 | 4,126 | 18 | 18 | 18 | 18 | 48 |
| AIR CONDITIONER, MCS HORIZONTAL, 60HZ 18,000 BT | B0002 | 5,356 | 46 | 46 | 46 | 46 | 70 |
| AIR CONDITIONER, MCS VERTICAL, 60,000 BTU | B0007 | 11,000 | 36 | 36 | 36 | 36 | 36 |
| AIR CONDITIONER, MCS, SKID MOUNTED | B0011 | 3,998 | 18 | 18 | 18 | 18 | 61 |
| AIR CONDITIONER, VERTICAL, 60/400HZ, 18,000 BTU | B0012 | 5,600 | 217 | 217 | 217 | 217 | 256 |
| BOAT, BRIDGE ERECTION, USCSBMK2 | B0114 | 170,000 | 6 | 6 | 6 | 6 | 48 |
| BRIDGE ERECTION SET -MGB- | B0120 | 640,000 | 7 | 7 | 7 | 7 | 8 |
| BRIDGE, MEDIUM GIRDER, DRY GAP | B0152 | 1,200,000 | 4 | 4 | 4 | 4 | 12 |
| CONTAINER HANDLER, ROUGH TERRAIN, 50,000 LB | B0391 | 263,880 | 3 | 3 | 3 | 3 | 11 |
| CRANE, HIGH SPEED, HIGH MOB, W/PILE DRIVER CAP | B0443 | 230,000 | 14 | 14 | 14 | 14 | 28 |
| CRANE, ROUGH TERRAIN, HYDRAULIC LIGHT | B0446 | 85,000 | 51 | 51 | 51 | 51 | 51 |
| FUEL DISP. SYS TACTICAL AIRFIELD FIRESTONE | B0675 | 386,481 | 1 | 1 | 1 | 1 | 8 |
| GENERATOR SET, 3 KW, 60 HZ, SKID-MOUNTED | B0730 | 5,050 | 283 | 283 | 283 | 283 | 297 |
| GENERATOR SET, SKID-MTD, TACT QUIET, 10 KW 60 H | B0891 | 12,100 | 202 | 202 | 202 | 202 | 329 |

USMCR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| GENERATOR SET, SKID-MTD, TACT QUIET, 10 KW 400 | B0921 | 16,894 | 28 | 28 | 28 | 28 | 28 |
| GENERATOR SET, SKID-MTD, TACT QUIET, 30 KW 60 H | B0953 | 25,156 | 245 | 245 | 245 | 245 | 245 |
| GENERATOR SET, SKID-MTD, TACT QUIET, 30 KW 400 | B0971 | 26,208 | 8 | 8 | 8 | 8 | 8 |
| GENERATOR SET, SKID-MTD, TACT QUIET, 60 KW 400 | B1016 | 28,414 | 24 | 24 | 24 | 24 | 24 |
| GENERATOR SET, SKID-MTD, TACT QUIET, 60 KW 60 H | B1021 | 28,908 | 166 | 166 | 166 | 166 | 166 |
| GRADER, ROAD, MOTORIZED | B1082 | 190,000 | 20 | 20 | 20 | 20 | 20 |
| HELICOPTER EXPEDIENT REFUELING SYSTEM | B1135 | 112,049 | 3 | 3 | 3 | 3 | 7 |
| LIGHTWEIGHT DECONTAMINATING SYSTEM | B1291 | 16,283 | 53 | 53 | 53 | 53 | 258 |
| LINE CHARGE LAUNCH KIT, TRAILER MOUNTED | B1298 | 3,945 | 16 | 16 | 16 | 16 | 50 |
| PUMP MODULE, FUEL (SIXCON) | B1580 | 41,000 | 42 | 42 | 42 | 42 | 129 |
| SCRAPER-TRACTOR, WHEELED | B1922 | 257,000 | 9 | 9 | 9 | 9 | 18 |
| STORAGE TANK MODULE, FUEL (SIXCON) | B2085 | 10,100 | 121 | 121 | 121 | 121 | 385 |
| TRACTOR, FULL TRACKED, W/ANGLE BLADE | B2460 | 95,000 | 29 | 29 | 29 | 29 | 29 |
| TRACTOR, MEDIUM, FULL TRACKED, D7G CATERP | B2462 | 192,500 | 29 | 29 | 29 | 29 | 54 |
| TRACTOR, ALL WHEEL DRIVE W/ATTACHMENTS | B2482 | 129,000 | 11 | 11 | 11 | 11 | 25 |
| TRUCK, FORKLIFT, EXTENDABLE BOOM | B2561 | 96,146 | 61 | 61 | 61 | 61 | 87 |
| TRUCK, FORKLIFT, ROUGH TERRAIN, 4,000 LB | B2566 | 43,250 | 76 | 76 | 76 | 76 | 99 |
| TRACTOR, ROUGH TERRAIN, ARTICULATED STEER | B2567 | 180,000 | 61 | 61 | 61 | 61 | 104 |
| WATER PURIFICATION UNIT - REVERSE OSMOSIS | B2604 | 262,000 | 45 | 45 | 45 | 45 | 63 |
| TACTICAL VEHICLES | | | | | | | |
| TRUCK, 7-TON CARGO 6x6 MTRV | D0198 | 141,022 | 558 | 558 | 558 | 558 | 728 |
| POWER UNIT, FRONT, 12 1/2 TON, 4X4 | D0209 | 187,000 | 124 | 124 | 124 | 124 | 302 |
| SEMI-TRAILER, REFUELER, 5,000 GAL, 4-WHEEL | D0210 | 176,000 | 9 | 9 | 9 | 9 | 9 |
| TRUCK, AVIATION REFUELER CAPACITY | D0215 | 98,064 | 6 | 6 | 6 | 6 | 50 |
| SEMI-TRAILER, LOWBED, 40 TON | D0235 | 46,902 | 36 | 36 | 36 | 36 | 54 |
| TRLR, POWERED, 22 1/2 T, CONTAINER HAULER, 4X4 | D0876 | 72,837 | 61 | 61 | 61 | 61 | 233 |
| TRAILER, POWERED, WRECKER/RECOVERY, 4X4 | D0877 | 205,342 | 18 | 18 | 18 | 18 | 21 |
| TRLR, 5TH-WHL 4X4, SEMI-TRLR ADAPTER | D0878 | 88,801 | 29 | 29 | 29 | 29 | 56 |
| TRLR, 20 TON 4X4 CARGO W/CRANE | D0879 | 134,794 | 44 | 44 | 44 | 44 | 65 |
| TRAILER, TANK, WATER, 400 GAL, 1 1/2 TON 2-WHL | D0880 | 12,955 | 209 | 209 | 209 | 209 | 270 |
| TRAILER, RIBBON BRIDGE | D0881 | 123,759 | 17 | 17 | 17 | 17 | 95 |
| TRUCK, AMB, 4 LITTER ARMD, 1 1/4 TON HMMWV | D1001 | 107,323 | 94 | 94 | 94 | 94 | 94 |
| TRUCK, AMB, 2 LITTER, SOFT TOP, 1 1/4 TON HMMWV | D1002 | 61,520 | 50 | 50 | 50 | 50 | 50 |

USMCR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| TRUCK, CARGO, 5 TON, 6X6, W/O WINCH | D1059 | 155,000 | 194 | 194 | 0 | 0 | 0 |
| TRK CARGO, 5T EXTRA LONG WHL BASE, W/WINCH | D1061 | 157,000 | 49 | 49 | 0 | 0 | 0 |
| 7-TON LONG BED TRUCK (MTVR) MK27 | D1062 | 145,186 | 53 | 53 | 53 | 53 | 91 |
| TRK AIRCRAFT CRASH & STRUCTURE FIRE FIGHTING | D1064 | 240,000 | 9 | 9 | 9 | 9 | 18 |
| TRK DUMP M817/M929/M930 | D1072 | 185,000 | 45 | 45 | 0 | 0 | 0 |
| TRK, TOW CARRIER, W/SA, 1 1/4T, W/EQUIP, HMMWV | D1125 | 73,729 | 196 | 196 | 196 | 196 | 196 |
| TRUCK, TRACTOR, 5 TON, 6X6, W/O WINCH | D1134 | 160,000 | 9 | 9 | 0 | 0 | 0 |
| TRK, UTIL, CARGO, 5/4 T W/EQUIP HMMWV | D1158 | 58,018 | 1,798 | 1,798 | 1,798 | 1,798 | 1,801 |
| TRK, UTIL, ARMT CARR, W/SA 1 1/4T W/EQUIP HMMWV | D1159 | 72,113 | 331 | 331 | 331 | 331 | 331 |
| TRUCK, UTILITY, SHELTER CARRIER, W/OW, 1 1/4T | D1180 | 50,778 | 35 | 35 | 35 | 35 | 38 |
| TRUCK, WRECKER, 5 TON, 6X6 | D1212 | 280,000 | 52 | 52 | 0 | 0 | 0 |
| LAV, ANTI-TANK, LAV-AT | E0942 | 1,352,000 | 16 | 16 | 16 | 16 | 16 |
| LAV, COMMAND AND CONTROL, LAV-C2 | E0946 | 868,000 | 8 | 8 | 8 | 8 | 8 |
| LAV, LIGHT ASSAULT, 25MM, LAV-25 | E0947 | 906,000 | 60 | 60 | 60 | 60 | 60 |
| LAV, LOGISTICS, LAV-L | E0948 | 825,000 | 16 | 16 | 16 | 16 | 16 |
| LAV, MORTAR, LAV-M | E0949 | 1,918,000 | 8 | 8 | 8 | 8 | 8 |
| LAV, MAINT/RECOVERY, LAV-R | E0950 | 488,972 | 6 | 6 | 6 | 6 | 6 |
| TRACKED COMBAT VEHICLES | | | | | | | |
| BRIDGE, SCISSOR F/ AVLB | E0149 | 155,863 | 12 | 12 | 12 | 12 | 12 |
| BRIDGE, ARMORED VEHICLE LAUNCHED | E0150 | 592,545 | 8 | 8 | 8 | 8 | 8 |
| ASSAULT AMPHIBIOUS VEHICLE, COMMAND | E0796 | 2,000,000 | 10 | 10 | 10 | 10 | 10 |
| ASSAULT AMPHIBIOUS VEHICLE, PERSONNEL | E0846 | 2,000,000 | 103 | 103 | 103 | 103 | 103 |
| ASSAULT AMPHIBIOUS VEHICLE, RECOVERY | E0856 | 1,159,043 | 8 | 8 | 8 | 8 | 8 |
| RECOVERY VEHICLE FT HEAVY, W/EQUIP M88A2 | E1378 | 2,590,000 | 9 | 9 | 9 | 9 | 11 |
| TANK, COMBAT, FT, 120MM GUN, M1A1 | E1888 | 4,300,000 | 57 | 57 | 57 | 57 | 64 |
| WEAPONS | | | | | | | |
| CIRCLE, AIMING, M2A2 | E0180 | 2,612 | 143 | 143 | 143 | 143 | 143 |
| COMMAND LAUNCH UNIT, JAVELIN, M98A1 | E0207 | 125,000 | 56 | 56 | 56 | 56 | 72 |
| DATA DISPLAY GROUP, OD144(V) | E0277 | 9,776 | 101 | 101 | 101 | 101 | 101 |
| EQUIPMENT SET, NIGHT VISION, AN/UAS-12A/C | E0330 | 54,000 | 186 | 186 | 186 | 186 | 216 |
| HOWITZER, MEDIUM, TOWED, 155MM | E0665 | 750,000 | 84 | 84 | 84 | 84 | 84 |
| INTERROGATOR SET, PROGRAMMER (STINGER) | E0726 | 19,121 | 18 | 18 | 18 | 18 | 18 |
| INTERROGATOR SET, IFF (STINGER) | E0727 | 18,115 | 180 | 180 | 180 | 180 | 180 |
| LAUNCHER, ASSAULT ROCKET, 83MM (SMAW) | E0915 | 10,299 | 205 | 205 | 205 | 205 | 234 |
| LAUNCHER, TUBULAR, F/GM TOW WEAPON SYSTEM | E0935 | 73,536 | 203 | 203 | 203 | 203 | 214 |
| MACHINE GUN, CAL .50, BROWNING, HB FLEXIBLE | E0980 | 14,002 | 515 | 515 | 515 | 515 | 523 |
| MACHINE GUN, MEDIUM, 7.62MM, GROUND VERSION | E0989 | 8,000 | 835 | 835 | 835 | 835 | 835 |

USMCR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|------------------|--------------------------|------------------------------|------------------------------|------------------------------|----------------------------|----------------------------|
| MACHINE GUN, 40MM | E0994 | 14,581 | 491 | 491 | 491 | 491 | 512 |
| METEOROLOGICAL STATION GROUP | E1035 | 520,000 | 5 | 5 | 5 | 5 | 5 |
| MULE, AN/PAQ-3 | E1045 | 500,032 | 91 | 91 | 91 | 91 | 124 |
| MORTAR, 60MM, M224 | E1065 | 10,658 | 81 | 81 | 81 | 81 | 81 |
| MORTAR, 81MM, M252 | E1095 | 24,717 | 80 | 80 | 80 | 80 | 80 |
| MUZZLE VELOCITY SYSTEM (M94) | E1145 | 14,500 | 30 | 30 | 30 | 30 | 30 |
| NIGHT VISION SIGHT, CREW SERVED WEAPON | E1159 | 24,900 | 411 | 411 | 411 | 411 | 430 |
| POSITION AZIMUTH DETERMINATION SYS(PADS) | E1210 | 417,826 | 19 | 19 | 19 | 19 | 21 |
| RIFLE, SNIPER, 7.62MM, W/O EQUIPMENT | E1460 | 3,114 | 66 | 66 | 66 | 66 | 111 |
| RIFLE, SNIPER, SEMI-AUTO, CAL .50, REPEATER | E1475 | 6,405 | 34 | 34 | 34 | 34 | 36 |
| PEDESTAL MOUNTED STINGER (AVENGER) | E1836 | 1,059,000 | 36 | 36 | 36 | 36 | 36 |
| RECEIVER, INFRARED, AN/PAS-18 | E1837 | 24,068 | 89 | 89 | 89 | 89 | 109 |
| TEST EQUIPMENT | | | | | | | |
| TEST SET, MISSILE GUIDANCE | E1911 | 20,366 | 25 | 25 | 25 | 25 | 36 |
| FIELD TEST SET, TOW, AN/TSM-140B | E1912 | 393,562 | 19 | 19 | 19 | 19 | 36 |
| TEST SET, NIGHT VISION | E1947 | 27,000 | 1 | 1 | 1 | 1 | 5 |

USMCR

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 2005.

| Nomenclature | Equip No. | Average Age | Remarks |
|---|-----------|-------------|--|
| AIRCRAFT, HELICOPTER, UTILITY, UH-1N | UH-1N | 33 | |
| AIRCRAFT, HELICOPTER, CARGO, CH-53E | CH-53E | 16 | |
| AIRCRAFT, HELICOPTER, ATTACK, AH-1W | AH-1W | 11 | |
| AIRCRAFT, HELICOPTER, CARGO, CH-46E | CH-46E | 37 | |
| AIRCRAFT, REFUELING/CARGO, KC-130T | KC-130T | 18 | |
| AIRCRAFT, UTILITY CARGO, UC-12B | UC-12B | 23 | |
| AIRCRAFT, FIGHTER/ATTACK, F/A-18A | F/A-18A | 20 | |
| AIRCRAFT, FIGHTER, F-5E | F-5E | 31 | Being replaced by F-5N. Approximately 7000 flight hours per airframe. |
| AIRCRAFT, FIGHTER, F-5F | F-5F | 28 | |
| AIRCRAFT, FIGHTER, F-5N | F-5N | 28 | Replacing F-5E. Approximately 2500 flight hours per airframe. |
| AIRCRAFT, UTILITY CARGO, UC-35C/D | UC-35C/D | 6 | |
| RADIO SET MRC-138B | A1935 | 24 | |
| RADIO TERMINAL AN/TRC-170 | A2179 | 13 | |
| CRANE MOUNTED TRUCK | B0443 | 17 | |
| WATER PURIFICATION UNIT - REVERSE OSMOSIS | B2604 | 20 | Being replaced with the EROWPU |
| AIRCRAFT REFUELER | D0215 | 22 | 2/3 of equipment will be 29 yrs old. Remaining 1/3 will be 10 yrs old by 2004. |
| TRUCK, LVS | D0209 | 19 | |
| TRUCK, 5TON | D1059 | 22 | Being replaced with the Medium Tactical Vehicle (MTVR) |
| TRUCK, HMMWV | D1158 | 13 | Being replaced with the HMMWVA2 |
| HOWITZER, MEDIUM, TOWED 155MM | E0665 | 21 | Being replaced with the Lightweight 155MM Howitzer (LW155) |
| ASSAULT AMPHIBIOUS VEHICLE, PERSONNEL | E0846 | 31 | Being replaced with the AAV, RAMRS program will help improve fleet reliability (FY99-02), Last Service Life Extension Program (SLEP) occurred between 1982-1986. New SLEP scheduled for FY06-17. |
| LAV, LIGHT ASSAULT VEHICLE, 25MM | E0947 | 18 | SLEP scheduled to occur between FY04-07 |
| TANK, COMBAT, 120MM | E1888 | 15 | |

USMCR

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 2006 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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008.

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---|----------------------|----------------------|---------------------|---------|
| WEAPONS AND COMBAT VEHICLES | | | | |
| AAV7A1 PIP | 769,000 | 949,000 | 2,279,000 | |
| LAV PIP | 11,792,000 | | | |
| M1A1 FIREPOWER ENHANCEMENTS | 14,151,000 | | | |
| 155MM LIGHTWEIGHT TOWED HOWITZER | 33,887,000 | 17,195,000 | | |
| HIGH MOBILITY ARTILLERY ROCKET SYSTEM | 138,724,000 | 195,606,000 | 5,486,000 | |
| MODIFICATION KITS | 3,361,000 | 2,848,000 | 407,000 | |
| WEAPONS ENHANCEMENT PROGRAM | 616,000 | 622,000 | 635,000 | |
| COMMUNICATIONS AND ELECTRONICS EQUIPMENT | | | | |
| REPAIR AND TEST EQUIPMENT | | 2,208,000 | 2,341,000 | |
| MODIFICATION KITS | 261,000 | 263,000 | 266,000 | |
| ITEMS UNDER \$5 MILLION (COMM & ELEC) | 686,000 | 699,000 | 736,000 | |
| AIR OPERATIONS C2 SYSTEMS | 494,000 | 581,000 | 1,703,000 | |
| INTELLIGENCE SUPPORT EQUIPMENT | | 207,000 | | |
| NIGHT VISION EQUIPMENT | 14,807,000 | 1,381,000 | | |
| COMMAND POST SYSTEMS | 1,199,000 | 1,901,000 | 444,000 | |
| COMM SWITCHING & CONTROL SYSTEMS | 168,000 | 173,000 | 180,000 | |
| SUPPORT VEHICLES | | | | |
| OTHER SUPPORT - ITEMS LESS THAN \$5 MILLION | 178,000 | 182,000 | 183,000 | |
| ENGINEER AND OTHER EQUIPMENT | | | | |
| ENVIRONMENTAL CONTROL EQUIP ASSORT | 1,370,000 | 1,712,000 | 1,054,000 | |
| BULK LIQUID EQUIPMENT | 12,515,000 | 22,431,000 | 99,000 | |
| TACTICAL FUEL SYSTEMS | 766,000 | 783,000 | 799,000 | |
| POWER EQUIPMENT ASSORTED | 1,676,000 | 1,741,000 | 1,126,000 | |
| AMPHIBIOUS SUPPORT EQUIPMENT | 117,000 | 7,117,000 | 7,137,000 | |
| MATERIAL HANDLING EQUIP | 5,274,000 | 6,858,000 | 5,764,000 | |
| FIELD MEDICAL EQUIPMENT | | 1,201,000 | | |
| TRAINING DEVICES | 4,861,000 | 7,131,000 | 3,128,000 | |
| CONTAINER FAMILY | 551,000 | 561,000 | 580,000 | |
| FAMILY OF CONSTRUCTION EQUIPMENT | 3,651,000 | 1,404,000 | 1,243,000 | |
| OTHER SUPPORT - ITEMS LESS THAN \$5 MILLION | 111,000 | 113,000 | 116,000 | |
| TOTAL | \$251,985,000 | \$275,867,000 | \$35,706,000 | |

USMCR

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008. All values are costs in dollars.

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|---|-----------|-----------|-----------|------------------------------------|
| RESERVE AUTOMATED SUPPORT SYSTEM (RASS) | 900,000 | 650,450 | | Common End User Computer Equipment |
| CH-46 HELICOPTER LIGHT WEIGHT SEATS | | | 650,000 | |
| CH-53E HELICOPTER NIGHT VISION SYSTEMS (HNVS) B KITS | | | 2,200,000 | |
| EMBARKATION QUADCON/RACKS/INSERTS | 708,000 | | | |
| EMBARKATION MOBILIZATION BOXES | 513,900 | 990,000 | 550,000 | |
| EMBARKATION ENABLERS | | | 447,720 | |
| EMBARKATION PALLETIZED CONTAINERS (PALCON) | 578,000 | | | |
| PALLETIZED CONTAINERS (PALCON) | | | 254,320 | |
| KC-130T NIGHT VISION LIGHTING KIT | 862,000 | 550,000 | | |
| KC-130T COCKPIT ARMOR/LOX BOTTLE ARMOR PLATING | 1,740,000 | | | |
| KC-130T OIL COOLER AUGMENTATION/AIRCRAFT RETROFIT | 2,000,000 | | | |
| AN/PRC-148 HANDHELD RADIO | 814,000 | | 320,000 | |
| AN/PRC-150C HIGH FREQUENCY MANPACK RADIO | 400,000 | 2,250,000 | 1,152,000 | |
| AN/PRC-150C HIGH FREQUENCY MANPACK RADIO REMOTE KITS | | | 320,000 | |
| AN/VRC-103 RADIO VEHICLE MOUNTS | | | 400,000 | |
| VDC-400/500 MODEMS AND IP ROUTING BRIDGES | 168,000 | | | |
| ALTERNATIVE POWER SOURCE PACKAGE | 1,018,000 | 1,411,350 | | |
| TACLANE KG-175 ALTERNATE POWER EQUIPMENT | 242,000 | | | |
| AIRCRAFT INDIVIDUAL MATERIEL READINESS LIST EQUIPMENT | | 2,053,616 | | |
| AN/PVS-17B MINIATURE NIGHT SIGHT | | 4,666,500 | 270,360 | |
| AN/PVS-17C MINIATURE NIGHT SIGHT | | 1,813,500 | 282,660 | |
| KC-130T ARC-210 SATCOM RADIO | | 1,480,000 | 140,000 | |
| KC-130T ELECTRONIC FLIGHT INSTRUMENT | | 700,000 | | |
| AH-1W ELECTRONIC WARFARE SUITE (AFC 230) | | 7,830,000 | | |
| AH-1W AIRCRAFT SURVIVABILITY EQUIPMENT | | | 1,280,000 | |
| AN/PRC-117 SATCOM RADIO | | 1,120,000 | 3,927,000 | |

USMCR

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|---|---------|-----------|-----------|---------|
| TRUSTED SYSTEMS SECURITY CONTAINER | | 910,000 | | |
| COMBAT VEHICLE TRAINING SYSTEM | | 4,154,436 | | |
| RT-1523B AN/PRC-119F | | 268,080 | | |
| AN/PAS-13 THERMAL WEAPON SIGHT | | 5,952,108 | 1,700,000 | |
| DIGITAL COMBAT OPERATIONS CENTER CAPABILITY | | 1,159,200 | | |
| DIGITAL COMBAT OPERATIONS CENTER POWER SUPPORT | | | 1,800,000 | |
| MARINE LOGISTICS OPERATIONS CENTER POWER SUPPORT | | | 600,000 | |
| SMART-T AN/TSC-154 | | 1,600,000 | | |
| EPLRS RADIOS (AN/VSQ-2C) | | 300,000 | | |
| EPLRS SUPPORT PACKAGE | | | 237,671 | |
| SECURE IRIDIUM SATELLITE PHONES | | 96,000 | | |
| NON-LETHAL WEAPONS KIT - LARGE | | 353,400 | | |
| NON-LETHAL WEAPONS KIT - SMALL | | 123,600 | | |
| AUTOMOTIVE BATTERY MAINTENANCE PACKAGE | | 792,860 | | |
| DATA COMMUNICATIONS NETWORK TOOLBOX | | | 84,000 | |
| COMPUTER DATA TRANSFER, AN/CYZ-10 | | | 4,814 | |
| MCRISP | | | 2,157,506 | |
| XTS-5000 DIGITAL PORTABLE RADIO EQUIPMENT | | | 1,080,000 | |
| COUNTERINTELLIGENCE HUMINT EQUIPMENT SUITE (CIHEP) | | | 253,944 | |
| MARINE LOGISTICS COMMAND SUPPORT PACKAGE | | | 1,752,995 | |
| INTEGRATED INTRA-SQUAD RADIO (IISR) | | | 259,301 | |
| GLTD II TARGET LASER DESIGNATOR II (AN/PEQ-1B) | | | 2,281,136 | |
| TA-31F ADVANCED COMBAT OPTICAL GUNSIGHT (ACOG) 4X32 RIFLE SCOPE | | | 1,140,000 | |
| MARINE EXPEDITIONARY POWER DISTRIBUTION SYSTEM | | | 200,000 | |
| DEFENSE ADVANCED GPS RECEIVER | | | 129,600 | |
| VIIGP LONG RANGE THERMAL IMAGER, SOPHIE | | | 833,500 | |
| AN/GRC-239 TROPO SATELLITE SUPPORT RADIO (TSSR) | | | 1,116,000 | |
| VIPER LCH-41 | | | 19,434 | |
| STOMP II MEDICAL KIT PACK | | | 437,444 | |
| LINK 16 MANAGEMENT SYSTEM (LMS-16) | | | 762,695 | |
| 6TH COMMUNICATION BATTALION PACKAGE | | | 206,140 | |

USMCR

Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|--|--------------------|---------------------|---------------------|---------|
| INDOOR SIMULATED MARKSMANSHIP TRAINER - ENHANCED | | | 2,600,000 | |
| LSA ADAPTOR | | | 1,053,978 | |
| DEHUMIDIFICATION SYSTEM | | | 64,730 | |
| INTELLIGENCE OPERATIONS SYSTEM V2 | | | 218,400 | |
| VIRTUAL COMBAT CONVOY TRAINER | | | 5,300,000 | |
| AIR RESCUE FIRE FIGHTING (ARFF) EQUIPMENT | | | 725,712 | |
| MTVR - TRAINING SIMULATOR | | | 350,000 | |
| PROMINA 400/800 | | | 282,940 | |
| 1993 NGREA KC-130 CANCELLED ACCOUNT BILL | | 3,441,000 | | |
| TOTAL | \$9,943,900 | \$44,666,100 | \$39,846,000 | |

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 Active 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 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|-------------------------|------------------|--------------------|--------------------|--------------------|-------------------------------|
| AIRCRAFT, FIGHTER, F-5E | F-5E | -4 | -2 | | Replaced by F-5N aircraft |
| AIRCRAFT, FIGHTER, F-5N | F-5N | 4 | 2 | | Replacement for F-5E aircraft |

USMCR

Table 6

FY 2002 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2002 with actual procurements and transfers. FY 2002 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 2004. Procurement and NGREA columns reflect cost values in dollars.

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|---|-----------|--------------------------------|--------|----------------------------|------------|---------------------|--------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| UC-35C CESSNA CITATION | UC-35C | 1 | 1 | | | | |
| C-20G GULFSTREAM IV | C-20G | 1 | 1 | | | | |
| AAV7A1 PIP | | | | 11,100,000 | 10,915,000 | | |
| IMPROVED RECOVERY VEHICLE (IRV) | | | | 6,300,000 | 4,302,000 | | |
| MODIFICATION KITS (TRKD VEH) | | | | 600,000 | 1,054,000 | | |
| MOD KITS (ARTILLERY) | | | | 400,000 | 370,000 | | |
| MARINE ENHANCEMENT PROGRAM | | | | 300,000 | 331,000 | | |
| PREDATOR (SRAW) | | | | 200,000 | 0 | | |
| GENERAL PURPOSE ELECTRONIC TEST EQUIP. | | | | 1,300,000 | 988,000 | | |
| MOD KITS (INTEL) | | | | 300,000 | 250,000 | | |
| GENERAL PRUPOSE MECHANICAL TMDE | | | | 800,000 | 730,000 | | |
| ITEMS UNDER \$5 MILLION (COMM & ELEC) | | | | 1,000,000 | 227,000 | | |
| COMMAND POST SYSTEMS | | | | 400,000 | 2,234,000 | | |
| RADIO SYSTEMS | | | | 38,700,000 | 1,587,000 | | |
| MOD KITS MAGTF C41 | | | | 1,100,000 | 1,107,000 | | |
| AIR OPERATIONS C2 SYSTEMS | | | | 700,000 | 651,000 | | |
| INTELLIGENCE C2 SYSTEMS | | | | 200,000 | 198,000 | | |
| MEDIUM TACTICAL VEHICLE REPLACEMENT | | | | | 4,520,000 | | |
| SUPPORT VEHICLES - ITEMS LESS THAN \$5 MILLION | | | | 200,000 | 182,000 | | |
| ENVIRONMENTAL CONTROL EQUIP ASSORT | | | | 300,000 | 660,000 | | |
| BULK LIQUID EQUIPMENT | | | | 800,000 | 241,000 | | |
| TACTICAL FUEL SYSTEMS | | | | 400,000 | 402,000 | | |
| POWER EQUIPMENT ASSORTED | | | | 800,000 | 750,000 | | |
| AMPHIBIOUS RAID EQUIPMENT | | | | | 114,000 | | |
| MATERIAL HANDLING EQUIP | | | | 3,500,000 | 0 | | |
| FIELD MEDICAL EQUIPMENT | | | | 500,000 | 1,564,000 | | |
| TRAINING DEVICES | | | | 4,900,000 | 4,740,000 | | |
| CONTAINER FAMILY | | | | 1,200,000 | 577,000 | | |

USMCR

Table 6

FY 2002 Planned vs Actual Procurements and Transfers

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|--|-----------|--------------------------------|--------|----------------------------|---------------------|---------------------|--------------------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| FAMILY OF CONSTRUCTION EQUIPMENT | | | | 1,500,000 | 1,450,000 | | |
| ENGINEER AND OTHER EQUIPMENT - ITEMS LESS THAN \$5 MILLION | | | | 200,000 | 116,000 | | |
| CH-53 HELICOPTER NIGHT VISION SYSTEM B KITS | | | | | | 1,815,000 | 1,815,000 |
| KC-130T CNS/ATM FM IMMUNITY RECEIVER | | | | | | 250,000 | 250,000 |
| COMMERCIAL EMBARKATION MOBILIZATION BOX (ARB0) | | | | | | 833,400 | 833,000 |
| EMBARKATION MOBILIZATION QUAD CONTAINERS (QUADCON) | | | | | | 1,766,200 | 1,766,000 |
| RIGID HULL INFLATABLE BOAT (RHIB) | | | | | | 300,000 | 265,000 |
| TOTAL | | | | \$77,700,000 | \$40,260,000 | \$4,964,600 | \$4,929,000 |

USMCR

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 2006 Qty | Deployable? | |
|-------------------------------|------------------------|---------------------------------|------------------------------|----------------|-------------|----|
| | | | | | Yes | No |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Service Does Not Use Substitution To Satisfy
Major Item Equipment Requirements**

USMCR

Table 8

Significant Major Item Shortages

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

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/ Justification |
|-----------|---|--------------------|----------------------|------------------|----------------------------|---------------------------------|
| 1 | Initial Issue (e.g. APECS, E-tool, APES, ILBE, LW Helmet, OTV, SAPI, Gas Mask) ** | Various | Various | Various | 35,096,050 | OIF III/GWOT |
| 2 | AH-1W Aircraft Survivability Equipment | 38 | 10 | 320,000 | 3,200,000 | OIF III/GWOT |
| 3 | EPLRS | 50 | 32 | 36,110 | 1,155,520 | OIF III/GWOT |
| 4 | AN/PRC-148 Handheld Radio | 175 | 135 | 8,000 | 1,080,000 | OIF III/GWOT |
| 5 | AN/PRC-150(C) | 83 | 57 | 24,000 | 1,368,000 | OIF III/GWOT |
| 6 | AN/PVS-17B | 1,653 | 556 | 4,506 | 2,505,336 | OIF III/GWOT |
| 7 | AN/PVS-17C | 618 | 195 | 4,711 | 918,645 | OIF III/GWOT |
| 8 | DDS Servers | 98 | 15 | 210,000 | 3,150,000 | OIF III/GWOT |
| 9 | AN/PAS-13 | 729 | 271 | 17,000 | 4,607,000 | OIF III/GWOT |
| 10 | CH-53E HNVS B Kits | 21 | 4 | 550,000 | 2,200,000 | OIF III/GWOT |

** These Initial Issue items are Operations and Maintenance funded items.

Chapter 4 United States Naval Reserve

I. Navy Overview

A. Overview of Navy Planning Guidance

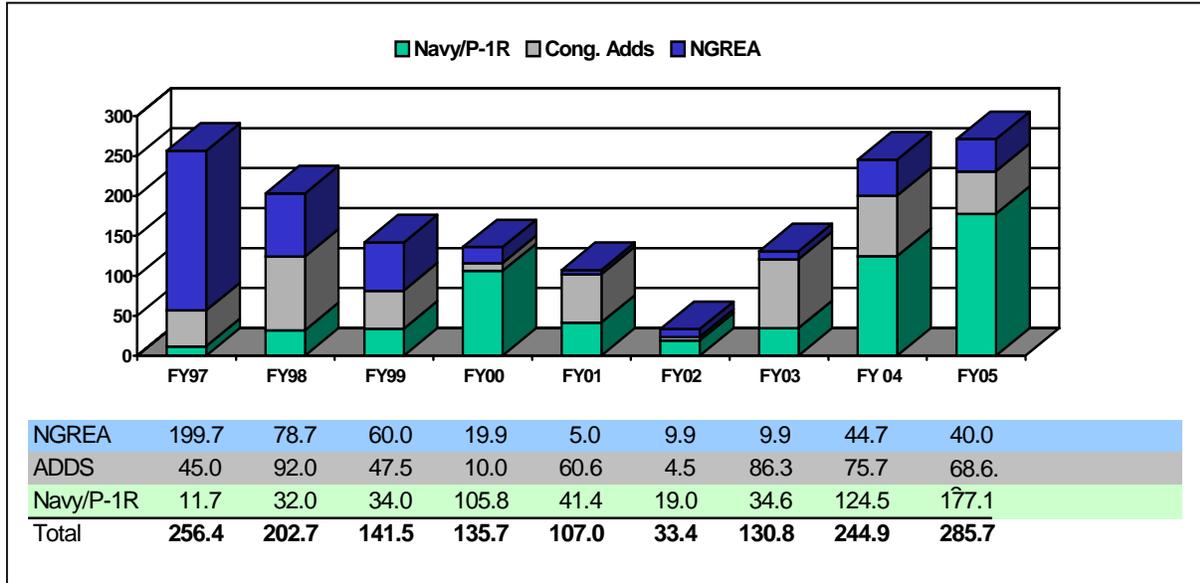
The Naval Services exist to fight and win the nation's wars, to influence events and advance U.S. interests globally. Naval forces support these objectives by the projection of power from the sea, sea control and maritime supremacy, strategic deterrence, strategic sealift, and forward naval presence. Sea Power 21, the Navy's vision for the future, revolves around four pillars: "Sea Strike," projecting offensive capability; "Sea Shield," projecting defensive capability; "Sea Basing," projecting sovereignty, and "ForceNet," integrating the power of warriors, sensors, weapons, and platforms into a networked combat force. Naval strategy identifies the need for the integration of the AC and RC into a seamless and cohesive Total Force capable of meeting all operational requirements in peacetime and in war. As defined by Title 10, U.S.C., the mission of the RC is to provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency and at such other times as the national security may require.

B. Navy Equipping Policy

Navy policy is that 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 and test equipment, will be given to units scheduled to be deployed/employed first. Equipment priorities for RC units are established using the same methodology as AC units that have the same mobilization mission or deployment requirements.

The Navy's overriding goal is to establish and maintain a seamless and fully integrated Total Force. Navy Resource Sponsors, as part of the Navy's resource allocation process, identify RC requirements for new equipment. Funding for equipping the RC is provided via the Department of the Navy's President's Budget (PRESBUD) request, direct Congressional adds to the PRESBUD, and NGREA funding. Chart 1 provides an overview of funding provided to the RC via all three sources for FY 1997 through FY 2005; Chart 2 lists Congressional additions provided in the last three fiscal years to support RC equipment requirements; Table 3 identifies the amount of procurement funding programmed in support of the RC for FY 2006 through FY 2008; and Table 4 identifies equipment procured with FY 2003 through FY 2005 NGREA funding.

*CHART 1 Navy RC Procurement Funding Sources
(in million dollars)*



*CHART 2 Congressional Adds to Navy Procurement Programs For Reserve Equipment
(in million dollars)*

| Source | Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|--------------|---|-------------|-------------|-------------|---|
| APN | C-40A Aircraft | 63.0 | | | C-40A aircraft to replace DC-9 aircraft |
| APN | C-130T Computer Based Training | 4.3 | | | Develop C-130T aircraft maintenance computer based training |
| APN | C-37 Aircraft | | 55.0 | 53.3 | Aircraft procurement |
| OPN | Littoral Surveillance System/Joint Fires Network Unit | 14.0 | 20.7 | | 2 nd LSS and other equipment for the Distributed Common Ground Station |
| OPN | IT Continuity of Operations | 1.8 | | | Infrastructure upgrade |
| OPN | Mobile Inshore Undersea Warfare Systems | 3.2 | | | Upgrade MIUW systems |
| OPN | Construction and Maintenance Equipment | | | 5.5 | Modernization and replenishment |
| OPN | Tactical Vehicles | | | 3.0 | Modernization and replenishment |
| OPN | Training Support Equipment | | | 6.8 | Laser Marksmanship Training System (LMTS) |
| Total | | 86.3 | 75.7 | 68.6 | |

C. Navy Plan to Fill Mobilization Requirements

Major Operation Plans (OPLAN) and Contingency Plans require RC units to deploy as an integrated piece of the Navy war-fighting plan. Equipment requirements are identified by Navy Component Commanders and prioritized by the CNO. Requirements are identified, considered, and approved during the resource allocation process by Navy Component Commanders and cognizant Resource Sponsors.

Required equipment is either maintained at the RC activity as both a training and mobilization asset; or it is stored at major CONUS embarkation locations as War Reserve Materiel Stock (WRMS), pre-positioned overseas or afloat, or deferred from procurement. WRMS equipment is released, shipped, and used by both AC and RC components as dictated by OPLAN requirements.

D. Current Navy Initiatives Affecting Naval Reserve Equipment

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

- Modernization and replenishment of the Naval Coastal Warfare (NCW) boats and Civil Engineering Support Equipment (CESE). Procurement of this equipment is essential to replace assets depleted during OIF and ensure readiness for future operations. PRESBUD 2005 provided for the procurement of 15–34' SEA-ARK patrol craft for NCW units. This funding provided replacement craft for the 27' boat as well as providing additional craft to support the increase in Inshore Boat Units and associated craft (from 2 to 6 boats each). NCW is also striving to make major upgrades to their CESE (trucks and generator sets) Table of Allowance (TOA) with over \$5M in FY 2005 NGREA funding.
- Development and execution of the Naval Construction Force (NCF) plan to modernize and recapitalize equipment TOAs, including tactical vehicles, construction/maintenance equipment and other expeditionary camp material and equipment for the integrated active and reserve component. Lessons learned from Operation Desert Storm identified serious problems with over-reliance on commercial vice tactical vehicles, wide diversities in type/model of truck chassis, and excessive aging due to inadequate procurement budgets. Development of an accredited budget model of the NCF program has identified minimum budget levels to sustain a ready force with equipment age less than a 20-year average and allowed a credible argument for capabilities-based budget decisions. In PRESBUD 2005, over \$36M is allocated for equipment procurement for the force, which is close to modeled funding levels required to maintain readiness at a CNO-approved risk level. CNO has supported \$40M in FY 2006 and similar inflation-adjusted levels in the FYDP to sustain the recapitalization and modernization of NCF equipment. The NCF equipment program will be reinforced for FY 2005 with additional funding from Congress for the purchase of construction maintenance equipment, as well as \$9.6M of NGREA funds for the procurement of HMMWVs and 5-ton tactical trucks (Medium Tactical Vehicle Replacement (MTVRs)). This assistance is key to filling equipment gaps and replacing substandard commercial equipment with adequate

tactical gear, thereby accelerating the outfitting of Reserve units most affected by historically low procurement budgets over the past 10 years. This equipment will also be used to train Reserve Seabees at Readiness Support Sites.

- Modernization and replacement of the Naval Expeditionary Logistics Support Force (NAVELSF) equipment TOA in order to improve current readiness and to ensure successful and safe cargo handling operations are conducted. NAVELSF equipment (Civil Engineering Support Equipment, Material Handling Equipment, and Communications Gear) held by units and in War Reserve Material Stock is serviceable, but requires modernization. Since FY 2002, nearly \$8.75M in NGREA was given to NAVELSF (in addition to the \$2.5M that was provided through the PRESBUD) to upgrade their TOA and purchase Crane Training Systems (crane simulators).
- Replacement of the aging DC-9 and C-9B aircraft. Director of Air Warfare (N78) letter dated 20 March 97 initiated the C-9 aircraft replacement program with the objective of replacing all 27 aging DC-9/C-9B transport aircraft with the C-40A aircraft at a rate of three per year. To date, 13 C-40A aircraft have been funded or are programmed through a combination of NGREA, Congressional Adds and PRESBUD as follows:

CHART 3 RC C-40A Funding

| FY | Qty | Funding Source |
|------|-----|----------------|
| 1997 | 2 | NGREA |
| 1998 | 1 | NGREA |
| 1999 | 1 | NGREA |
| 2000 | 1 | PRESBUD |
| 2001 | 1 | CONG ADD |
| 2002 | 0 | |
| 2003 | 1 | CONG ADD |
| 2004 | 1 | PRESBUD |
| 2005 | 1 | PRESBUD |
| 2006 | 0 | PRESBUD |
| 2007 | 1 | PRESBUD |
| 2008 | 1 | PRESBUD |
| 2009 | 2 | PRESBUD |

The eighth C-40A aircraft, which was purchased in PRESBUD 2004, is expected to be delivered in the second quarter of FY 2005.

- Replacement of the VP-3 aircraft. Director, Air Warfare (N88) letter dated 26 April 00 initiated the VP-3 aircraft replacement program. The C-37 program procurement goal is five aircraft. The first aircraft was delivered in FY 2002. Congress added funding for one C-37 in the FY 2004 Appropriation Bill. Funding for three remaining C-37 aircraft is in the FYDP-2 C-37s in 2005 (includes one Congressional Add) and 1 in 2009. These aircraft will deliver in FY 2006 (2) and 2010, respectively.

- Upgrade of the E-2C navigation system. The RC Airborne Early Warning squadrons are undergoing a transition from the E-2C Group 0 to the fleet common E-2C Group II. This will significantly upgrade the capability of the RC and allow the active service to divest of the Group 0 airframe and support. With the disestablishment of VAW-78 in FY 2005, this transition will have a long-term impact on VAW-77, undergoing a concurrent PAA increase from four to six aircraft. Associated with this transition, the RC desires to upgrade these 6 E-2C Group II aircraft with the fleet standard navigational upgrade modification. This upgrade will enhance the reliability and supportability of the navigation system, resulting in reduced AVDLR and IMA costs and increased sortie completion rates. The navigation upgrade is currently unfunded.
- Upgrade 30 RC F/A-18A fighter aircraft to the A+ configuration to achieve compatibility with fleet F/A-18Cs in all aspects of the precision strike mission via Engineering Change Proposal (ECP) 560. The Naval Reserve currently possesses 30 ECP-560 kits and 22 aircraft have received the modification.
- Equip 30 RC F/A-18A+ aircraft with Block 2 upgrade which includes radar, electronic and system upgrades. This upgrade will improve fleet interoperability and combat capability. This program is currently unfunded.
- Procure six F/A-18A+ CATM Captive Carry Assets to allow RC crews to train for employment of JSOW in combat. This procurement will enhance mobilization readiness by decreasing time to train. FY 2005 NGREA funded two units.
- Procure 27 Advance Targeting Forward-Looking Infrared (AT-FLIR) kits for three RC F/A-18 squadrons to improve the detection, tracking and targeting for precision-guided munitions, achieving compatibility and relevancy with active forces and allowing RC F/A-18 aircrews to train on equipment currently in use in the AC today. The availability of the AT-FLIR will greatly reduce the time required to train in the event of mobilization. Three AT-FLIR kits were procured with FY 2004 NGREA.
- Replace 20 Navy and 12 Marine Corps F-5 aircraft with Swiss F-5 aircraft. The plan to purchase Swiss aircraft replaces the previous plan to repair the stressed airframes of the F-5s that are approaching fatigue life expenditure. In FY 2002 and FY 2003, five aircraft were purchased, all of which have been received. Eight F-5s are being procured using FY 2004 NGREA funding and four more were funded with FY 2005 NGREA. The remainder of the F-5 aircraft procurement is programmed across the FYDP.



VFC-12 F/A-18A

- Upgrade 40 F-5N aircraft with safety of flight upgrades including anti-skid brakes, heads-up display, night vision capability, radar altimeter and improved instrumentation. The block upgrade will enhance readiness and sortie completion rate while reducing risk in all weather operations. FY 2005 NGREA funded \$8M to upgrade four aircraft.
- Upgrade 19 Navy and 28 Marine Corps KC-130/C-130T transport aircraft with improved avionics to make them compliant with Federal Aviation Authority and International Civil Aviation Office communication, navigation and surveillance (CNS) requirements in support of global Air Traffic Management. These upgrades will allow the Navy Reserve's C-130T aircraft to operate in all global airspace. The C-130T upgrade is fully funded in the FYDP; engineering and design began in FY 2003, and the first aircraft are expected to be modified in FY 2007.
- Upgrade six SH-60 aircraft with improved Communication/Navigation equipment that is mission essential for counter narcotics operations and is required to facilitate interoperability with Joint Inter-Agency Task Force agencies in the USSOUTHCOM Area of Operations. The RC currently operates six SH-60Bs. Of those six, currently only two are equipped with a VHF capable radio and a Global Positioning System. The remaining four aircraft will receive this upgrade using FY 2004 NGREA funding.
- The Navy's Helicopter Concept of Operations plan is in major revision. The long-term goal is to replace all Navy helicopters with MH-60S and MH-60R type/model/series aircraft. To recapitalize the RC helicopter program will require 16 MH-60S and 8 MH-60R aircraft. To date, 8 MH-60S aircraft have been funded for the RC. The RC's most immediate helicopter priority is to replace eight aging UH-3H aircraft with MH-60S aircraft. This replacement will start in FY 2006 with the delivery of the first four MH-60S aircraft to the RC.

E. Navy Plan to Achieve Full Compatibility Between AC and RC

The Navy will continue to manage Total Force equipment inventories to provide the most capable systems to meet mission requirements and minimize the effects of equipment shortfalls and incompatibility. The Navy stresses interoperability as part of the Total Force concept and makes no distinction between the AC and the RC. Equipment acquisition, upgrade programs, and equipment redistribution from the AC have reduced problems in the areas of RC equipment compatibility and capability with both active and joint forces

Sea Enterprise, part of CNO Adm. Vern Clark's "Seapower 21" vision, seeks to improve organizational alignment, refine requirements, and reinvest savings to buy needed platforms and systems. In light of the GWOT and the CNO's vision for the future (Sea Power 21), the AC and RC have been directed to implement ways to build a future Navy Reserve that is seamlessly blended into Sea Power 21, and is fully integrated with and operationally relevant to the active Naval forces.

The goal of the Navy is to transform the Navy Reserve so that it is fully integrated with the active force. Working groups have been developing actionable end states in five separate areas; organizational structure, personnel management, readiness & training, hardware, and

resources and funding. The redesign implementation plan is evolutionary in nature and will be pursued with Congressional concurrence. The targeted areas for improvement include: the AC establishing requirements for readiness and training of the RC; the AC developing, implementing and funding training of the RC; consolidation of AC and RC equipment where feasible; simplification of the funding processes; and validation of RC requirements by the AC to provide required capabilities.

As a part of this transformation, the Navy has initiated a plan to fully integrate the RC air force with the AC air force. This plan integrates and merges some RC squadrons across the FYDP while establishing Fleet Readiness Units (FRU). This integration aligns RC aviation assets and personnel in the helicopter and fixed-wing communities with the AC to increase aircraft commonality, enhance operations support and develop increased warfare capability while fostering a closer integration with AC missions and requirements. This initiative will result in a fully integrated Naval air force and achieve the optimum mix of equipment for the total force.

II. Navy Reserve (USNR) Overview

A. Current Status of the USNR

1. General Overview

The Navy's overriding goal is to establish and maintain a seamless and fully integrated Total Force. Navy policy is that 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. With ongoing integration efforts, equipment requirements will be determined by the AC, thereby enhancing equipment compatibility with AC.

The RC consists of hardware units and augmentation units. Equipment availability has a direct impact on unit training, unit readiness, and the ability to perform assigned missions, particularly in hardware-centric units. Systems Commands, i.e., Naval Supply Systems Command, Naval Facilities Engineering Command, Naval Air Systems Command, and Naval Sea Systems Command, act as project managers to establish equipment allowances for designated RC hardware units to support operational requirements.

RC hardware units currently consist of 24 ships and 185 aircraft, as well as 19 NCF, 14 NAVELSF, 44 NCW and 4 Explosive Ordnance Disposal (EOD) units. All RC ships, NCW, NCF, NAVELSF and EOD units are under the operational control of Fleet Forces Command and RC aircraft squadrons are under the operational control of Commander, Naval Reserve Force.

a. Navy Reserve Aviation

The Naval Air Reserve consists of four air wings: Commander, Reserve Patrol Wing (CRPW); Commander, Carrier Air Wing Reserve Twenty (CVWR-20); Commander, Helicopter Wing Reserve (CHWR); and Commander, Fleet Logistics Support Wing (CFLSW). The RC possesses 100 percent of the Navy's organic medium and heavy airlift and adversary training capability, 33 percent of the Navy's maritime patrol squadron capability, 12 percent of the Navy's rotary wing capability and 9 percent of the carrier air wing capability.

i. Fleet Air Logistics



C-40 Aircraft transporting NAVELSF personnel to theater

The RC provides all of the Navy's organic intra-theater medium and heavy airlift capability. This airlift provides direct logistics support for Fleet Commanders worldwide and airlift support to all military departments within the CONUS. The RC's Fleet Logistics Support Wing consists of 14 squadrons operating C-40, C-9, C-20, C-37, and C-130 aircraft. The RC's C-9 aircraft average over 30 years in age and require substantial avionics upgrades and engine replacement to meet globally mandated noise abatement and navigation requirements. A significant airlift recapitalization was initiated in FY 1997 when \$120M was

provided through NGREA for procurement of two C-40A aircraft to replace the aging C-9 fleet. Five more C-40As were procured in the period FY 1998 to FY 2004 utilizing funding from NGREA, Congressional Adds, or the PRESBUD. To date, six C-40As have been accepted by the RC and are being operated by VR-59 at Naval Air Station Joint Reserve Base, Fort Worth, TX, and VR-58 at Naval Air Station, Jacksonville, FL. A seventh aircraft was recently delivered in November 2004. Another two C-40As are programmed through FY 2007. FY 2004 funding also supported the installation of avionics upgrades to all 18 NR C-130T cargo planes. This upgrade will make the aircraft compliant with CNS requirements to fly in all global airspace. Additionally, Congress has added \$55M to the FY 2004 PRESBUD for procurement of one C-37 for the RC.



*P-3C Orion
Surveillance Aircraft*

ii. Reserve Maritime Patrol Aviation

The RC currently provides 33 percent of the Navy's Maritime Patrol squadrons, primarily providing counter narcotics operations and anti-submarine warfare exercises support. The RC has six P-3 Squadrons, three with an aircraft allowance of six and three with an aircraft allowance of four. All RC P-3 squadrons report to a single Patrol Wing Commander. As of 01 Oct 04, three of the squadrons will report to a numbered active component Patrol and Reconnaissance Wing. Of the 27 P-3 aircraft required by the geographic Unified Commanders to be forward deployed, one is provided by the RC. In FY 2003, the RC completed the installation of eight P-3 Update III modification kits procured with NGREA funding, bringing to 14 the number of RC P-3C aircraft in an update III configuration. Additionally, the RC received four state-of-the-art AIP P-3 aircraft, with two more aircraft presently undergoing modification to AIP. It is imperative that Reserve combat aircrews are trained and operate in the Fleet's frontline mission aircraft. An AIP capable Reserve force is essential to the MPRA community's ability to satisfy Fleet Response Plan requirements and keeps the RC in lockstep with the AC in progression to MMA. Effective 18 September 2004, VP-64 was re-designated VR-64 transitioning from the P-3 to the C-130T aircraft. This transition alleviated some of the airframe fatigue issues with the P-3 and increased the Navy's logistics capability. Program Review for FY 2005 includes a Program Change Proposal that fosters a closer integration with the AC mission and requirements. Active/Reserve Integration will significantly re-shape the Maritime Patrol and Reconnaissance community. This is an ongoing effort that has yet to be finalized.

iii. Reserve Helicopter Wing

The RC provides five helicopter squadrons to the Navy's rotary wing fleet. In addition, the RC provides personnel and equipment (seven MH-53E helicopters) in support of two composite (RC and AC) Airborne Mine Countermeasures (AMCM)



HCS HH-60 Aircraft Conducting OIF Operations

squadrons. This represents 12 percent of the Navy's total helicopter inventory, as well as all of the Navy's Helicopter Combat Support Special Squadrons and 35 percent of the AMCM assets. The squadrons perform a variety of critical missions including search and rescue, logistics support, anti-submarine warfare, AMCM and counter narcotics operations. The RC helicopter inventory consists of the HH-60H, SH-60B, SH-60F, UH-3H and MH-53E aircraft. During OIF, HCS-4 and HCS-5 were partially mobilized and deployed to Kuwait and Iraq, participating in the support of special operations ground forces missions in urban and rural areas, supporting psychological operations, and helping with medical and casualty evacuations. The RC squadrons are also significantly involved with counter narcotics operations. In FY 2004, all six SH-60B aircraft were equipped with VHF and GPS equipment utilizing NGREA funding. This upgrade facilitated interoperability with Joint Inter-Agency Task Force agencies in the USSOUTHCOM Area of Operations. Additionally, the SH-60B squadron will be equipped with four Forward-Looking Infrared (FLIR) kits dramatically increasing the mission effectiveness by enabling critical night vision capability during counter narcotics operations.

iv. Reserve Carrier Airwing

The RC provides one of the Navy's eleven Carrier Air Wings. The wing (CVWR-20) is comprised of seven squadrons, (3) F/A-18A/B, (1) EA-6B, (2) E-2C, and (1) F-5E/F. As a result of PRESBUD 2004, VAW-78 will disestablish in Spring/Summer 2005. During FY 2004, CVWR-20 participated in Exercise COPE THUNDER, flying as the red force against USAF assets. During OIF, CVWR-20's Strike Fighter Squadron VFA-201 embarked aboard USS THEODORE ROOSEVELT in direct support of OIF. In addition to CVWR-20's operational requirements, its



CVWR-20 Aircraft in El Centro

squadrons are engaged in vast amounts of peacetime operations support to the AC. CVWR-20 provides nearly all of the Navy's adversary mission capability, and 100 percent of the Navy E-2C counter-narcotic flight support, while participating regularly in fleet exercises.

b. Navy Surface Reserve Force

i. Navy Reserve Force (NRF) Ships

The RC consists of twenty-four ships, homeported throughout the United States. RC ships regularly deploy to support the Navy's operational requirements, relieving the operational tempo of AC ships. These ships continue to be a vital part of the Navy,



USS CURTS (FFG 38)

participating in numerous fleet operations and exercises such as Standing Naval Forces Atlantic (SNFL), UNITAS, RIMPAC, CARAT, KERNAL BLITZ, COBRA GOLD and counter-narcotic operations in the Caribbean and the Pacific. FFGs were deployed in support of OEF and NOBLE EAGLE. These ships are significant fleet assets as well as important training platforms for Navy Reservists.

The RC surface combatant force consists of nine OLIVER HAZARD PERRY class frigates (FFG). In FY 2003, the RC received three (SH-60B capable) FFGs replacing three older ships and in FY 2004, one additional SH-60B capable FFG was transferred from the AC.

The RC comprises approximately 60 percent of the Navy's surface ship mine warfare capabilities. The total number of RC Mine Warfare ships is 15: ten Mine Hunter Coastal (MHC) and five Mine Counter Measure (MCM) ships. All are home-ported in Ingleside, TX. Active/Reserve Integration is continuing to re-shape the Navy Surface Reserve Force.



USS OSPREY

ii. Naval Coastal Warfare (NCW)

The NCW organization consists of 8 NCW Squadrons (with deployable C4I detachments), 20 Mobile Inshore Undersea Warfare (MIUW) units, 16 Inshore Boat Units (IBU). NCW units provide surface and sub-surface surveillance of coastal areas including ports, harbors, and the seaward approaches, operational command and control of those assets, and surface interdiction capability to support force protection operations required by Combat Commanders. NCW units provide all of the Navy's capability for shallow water and very shallow water surveillance and detection of surface craft, subsurface craft, and swimmer threats.



NCW Radar Sonar Surveillance Center

MIUW units will fully upgrade all of 22 Radar Sonar Surveillance Center suites to V(4) mod 2 configuration over the next three years. This new configuration will enhance NCW capabilities, improve readiness, and lessen the training requirements to man the system. NCW will continue to make improvements to these systems, seeking to develop and field newer, lighter, and more expeditionary systems, capable of providing increased capability for force protection. As systems and components become more compact, NCW will take advantage of these technological advances to introduce lighter, more portable systems into the NCW inventory. Following the terrorist attack on the USS COLE,

several NCW units were recalled to active duty to provide in-theater force protection in the U.S. Central Command area of responsibility. Since the September 11th attack, the demand for NCW units has increased dramatically. Immediately after the attack, over one-third of the 4,000 person NCW force was mobilized and deployed to provide force protection and coastal surveillance in support of Naval Commanders throughout the world. The AC, realizing the importance of the NCW units' missions and functions, started the process to stand up AC units with similar capabilities. From FY 1997 through FY 2003, over \$162M of Other Procurement, Navy (OPN), Congressional Adds, and NGREA funding was provided to NCW to upgrade its equipment and capabilities. Starting with a budget of \$77M in FY 2004, NCW became a program of record, with \$467M programmed over the FYDP.

During OIF, the NCW Reserve forces were again recalled to active duty and deployed to Kuwait and Iraq, providing anti-terrorism and force protection assets for U.S. and coalition maritime forces in the Arabian Gulf. During the war, three units were significantly involved in protecting the Port of Ash Shuaybah; providing security for Mohammad Al Ahmad Kuwait Naval Base; providing both seaward and landward security operations for the off-load of the largest amphibious force assembled since the Inchon landing during the Korean War; participating in a NCW mission in Umm Qasr during the major combat operations phase of the war; providing protection of the Iraqi gas and oil platforms; constantly coordinating with the Navy explosive ordnance disposal units, U.S. Coast Guard port security units, Kuwaiti Coast Guard and Navy ships, as well as U.S. Army troops, National Guard units, Marines, Naval Special Warfare units, Kuwaiti Ministers of Interior and Defense and civilian port authorities. The NCW force protection mission in Kuwait is expected to continue for the foreseeable future.



NCW Reserve Forces providing Force Protection in Kuwait

iii. Naval Construction Force (NCF)



Seabees construct aircraft parking apron during OIF

The Reserve Component of NCF provides 66 percent of the Navy's combat construction capabilities in support of Unified and Navy Component Commander operational requirements. The Active and Reserve Components are an integrated force, with like units having the same operational chain of command, mission, readiness standards, and equipment. OPLAN support is provided by a mix of active and reserve units, with the most ready units being married up with the most ready equipment sets in theater.



Purple Heart recipients from NMCB-4

Under the operational control of FIRST Naval Construction Division, the reserve portion of the NCF consists of four Naval Construction Regiments (NCR), twelve Naval Mobile Construction Battalions (NMCB), two Construction Battalion Maintenance Units (CBMU), and one Naval Construction Force Support Unit (NCFSU).

In order to improve the balance between early and late flowing units to support existing OPLANs, the two RC CBMUs will move to the AC in FY06. This allows rapid deployment to support USMC headquarters base camps, elimination of 17 smaller, specialized active duty Construction Battalion Units (CBUs), assumption of the mission to support Navy Expeditionary Medical Units (formerly Fleet Hospitals), and provision of a greater capability to respond to CBRNE incidents within the United States.

Immediately following the September 11th attack, over 700 personnel from Reserve NCF units were mobilized and deployed to Camp Rhino and Kandahar Airport in Afghanistan and to other locations throughout the world to perform construction and force protection projects. During OIF, nearly 1800 reserve Seabees were recalled from 17 different units for direct in-theater operations in the CENTCOM Area of Responsibility (AOR). Current operations in Iraq employ 575 reserve personnel on six-month rotations to provide base camp support to USMC security forces, as well as to provide a robust construction capability to repair Iraqi infrastructure. This represents half of the NCF presence in the CENTCOM AOR, and based on current planning assumptions, will ultimately require mobilization of every reserve NCF unit to fill rotational support operations through the end of FY 2006. Reserves are critical to ensuring Navy mission support in the most dangerous sector of the Iraqi theater as well as world-wide forward presence missions are achieved in concert with the Global War on Terrorism.

The reserve units of the NCF have equipment shortfalls in their deployment TOA pack-ups held in WRMS. Equipment shortfalls include tactical vehicles, other civil engineering support equipment, and communications gear. Significant funding increases beginning in FY 2003 (\$13M in FY 2003, \$51M in FY 2004, and \$36M in FY 2005) have placed the NCF on track to eliminate these shortfalls over the next 10 years. Additionally, funding was provided from FY 2004 NAREA to procure two mobile firearms training simulators to maintain mission-critical skills in small arms handling. These investments in the NCF have been returned in full by the exceptional ability of the Reserve Seabees to rapidly mobilize, quickly refresh their military skills during the post-mobilization training phase, and then deploy into a hostile theater at the same readiness levels as their active counterparts. There is no distinction between active and reserve. The investment in readiness has worked.

iv. Naval Expeditionary Logistics Force (NAVELSF)

NAVELSF units constitute more than 90 percent of the Navy's expeditionary logistics support capabilities. NAVELSF units provide a wide range of logistics capabilities, including ship loading and discharge, operating air cargo terminals and freight forwarding terminals, warehouse operations and mobile mail centers. In addition, cargo handlers maintain their skills during peacetime by carrying out Fleet Hospital Support Program ship offloads and backloads, and by providing operational support to Naval logistics commanders in the European, Pacific and Central Command AORs. They also have augmented the Navy's active duty cargo handlers during Maritime Preposition Force operations and exercises.

Immediately following the September 11th attack, over 60 personnel from NAVELSF units were mobilized and deployed to Bahrain in direct support of OEF/ONE. These personnel augmented Commander, Task Force 53, and performed cargo handling and air terminal operations in support of afloat and ashore operating units in the Arabian Gulf region. This requirement for 36 personnel was on a continuous basis and concluded in July 2003. In support of OEF



Training Army personnel in Fuel Operations during OIF II



Operating an Army Rough Terrain Container Handler (RTCH) in Kuwait

and OIF, NAVELSF provided 385 personnel for Forward Logistics Site support to offload Maritime pre-positioned ships, contracted ships, and charter ships in the EUCCOM, CENTCOM, and PACOM AORs. NAVELSF's most recent operational commitment has been their involvement in joint operations with the Army and Marine Corps in support of the Global War on Terror. To date, NAVELSF has deployed approximately 1,000 personnel of their 3,200 Force to the CENTCOM AOR in direct support of OIF II. These efforts are scheduled to continue into OIF III beginning calendar year 2005.

NAVELSF equipment (Civil Engineering Support Equipment, Material Handling Equipment, and Communications Gear) held by units and in WRMS is serviceable, but requires modernization. During FY 2001, a total of \$8.75M in NAREA was given to NAVELSF to upgrade their TOA and purchase Crane Training Systems (crane simulators). Still, less than 20 percent of the NAVELSF TOA requirement is funded. Because of the equipment shortage, current NAVELSF missions in the CENTCOM AOR are being conducted with Army remain-behind equipment, thus degrading the readiness of Army transportation units that have redeployed. Additionally, the NAVELSF TOA shortfalls impact the readiness to support OPLANS that require the majority of the force to deploy and conduct simultaneous cargo handling missions.

v. Explosive Ordnance Disposal (EOD)

Under the operational control of COMPACFLT and COMLANTFLT, reserve EOD forces comprise four of the ten EOD Mobile Units in the Navy. EOD units provide combat ready forces to: eliminate ordnance hazards; clear harbors and approaches of obstacles; and salvage/recover ships, aircraft and weapons lost or damaged in peacetime or combat in support of the National Military Strategy.

2. Status of Equipment

a. Equipment On-hand

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

b. Average Age of Major Items of Equipment

As in the AC, the RC possesses equipment requiring replacement and modernization. *Table 2* provides the average age of major equipment in the RC inventory. Of particular concern are the UH-3H aircraft (43 years old), the DC-9 aircraft (35 years old), the F-5E aircraft (30 years old), the C-9B aircraft (30 years old), and the EA-6B aircraft (29 years old). Additionally, significant amounts of the NCW, NCF, NAVELSF, and EOD TOA equipment, CESE and MHE is over-aged. As mentioned previously in this report, much of this equipment is in the process of being upgraded or replaced.

c. Compatibility of Current Equipment with the AC

Achieving equipment compatibility with the AC is one of the Navy's priorities and is reflected in the CNO's unfunded equipment priority list (see *Table 8*). Navy procurement and upgrade programs as well as congressionally added funding have improved equipment capability/compatibility for the RC.

For the NCF, NCW, NAVELSF, and EOD Units, sustainability and interoperability with other services/units with whom they operate remain challenging issues. Significant funding increases beginning in FY 2003 and across the FYDP have moved these organizations toward reducing these shortfalls. Congressional adjustments and NGREA funding has also been used significantly to reduce these deficiencies.

d. Maintenance Issues

The RC shares the same readiness and maintenance challenges as the AC. Since FY 2000, the CNO placed an even higher focus on maintenance funding by making current readiness a top priority for the Navy. This focus resulted in an improved maintenance funding profile for the RC.

e. Modernization Programs and Shortfalls

The Navy has a considerable list of unfunded equipment replacement and modernization requirements. Each year, the CNO develops an unfunded equipment requirement list and

forwards it for resourcing consideration. The CNO's highest priority unfunded equipment requirements are contained in *Table 8*.

B. Changes Since Last NGRER

The significant changes that have occurred since the last NGRER have been described in Section I, paragraph D of this document.

C. Future Years Program (FY 2006–FY 2008)

1. FY 2008 Equipment Requirements

Table 1 provides projected FY 2008 major equipment inventories and requirements.

2. Anticipated New Equipment Procurements

Major equipment anticipated to be procured for the RC include one C-40A, two C-37A and four F-5 aircraft in FY 2005, one C-40A aircraft, one C-37A aircraft, and ten F-5 aircraft in FY 2006 and one C-40A aircraft in FY 2007. Additionally, a significant amount of funding is being provided to NCW, NCF and NAVELSF to procure ground equipment as previously presented in this document.

3. Anticipated Transfers from AC to RC

Table 5 provides anticipated major equipment transfers from the AC to the RC.

4. Anticipated Withdrawals from RC

Table 5 provides major equipment to be decommissioned within the RC.

5. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2008

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

D. Summary/Conclusions

As the Navy strives to seamlessly integrate the RC with the AC into a cohesive Total Force capable of meeting all operational requirements in peacetime and in war, RC equipment requirements will continue to be addressed through a combination of new equipment procurement, redistribution from the AC, modernization of equipment held in the RC inventory, and aviation unit integration.

The RC, as well as the AC, continues to face the problem of procurement requirements exceeding resources available. The top equipment priorities for the RC are procurement of the procurement of CESE and MHE equipment for RC NCW, NCF and NAVELSF units; upgrade of the F/A-18A aircraft and procurement of the F-5, C-40A and MH-60S aircraft. As in the past, the Navy will continue to balance resources to best equip the AC and the RC to support mission requirements.

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 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| AIRCRAFT | | | | | | | |
| AIRCRAFT,TRANSPORT (SKYTRAIN) | C-9B | 27,507,000 | 15 | 15 | 15 | 15 | 15 |
| AIRCRAFT,TRANSPORT (SKYTRAIN) | DC-9 | 18,136,000 | 4 | 3 | 2 | 0 | 0 |
| AIRCRAFT,TRANSPORT (BOEING 737-700) | C-40A | 67,800,000 | 8 | 9 | 9 | 10 | 17 |
| AIRCRAFT,TRANSPORT (HERCULES) | C-130T | 34,514,000 | 20 | 20 | 20 | 20 | 20 |
| AIRCRAFT,TRANSPORT (GULFSTREAM) | C-20D | 31,595,000 | 2 | 2 | 2 | 2 | 2 |
| AIRCRAFT,TRANSPORT (GULFSTREAM) | C-20G | 38,559,000 | 4 | 4 | 4 | 4 | 4 |
| AIRCRAFT,TRANSPORT (GULFSTREAM) | C-37A | 48,500,000 | 1 | 0 | 0 | 0 | 0 |
| AIRCRAFT, TRANSPORT (GULFSTREAM) | C-37B | 53,331,000 | 1 | 4 | 4 | 4 | 4 |
| AIRCRAFT,TRANSPORT (KINGAIR) | UC-12B | 3,509,000 | 4 | 4 | 4 | 4 | 4 |
| AIRCRAFT,PATROL,P-3C (ORION) | P-3C | 57,305,000 | 21 | 18 | 18 | 18 | 18 |
| AIRCRAFT,EARLY WARNING (HAWKEYE) | E-2C | 79,333,000 | 6 | 6 | 6 | 6 | 6 |
| AIRCRAFT,EARLY WARNING (PROWLER) | EA-6B | 64,143,000 | 4 | 4 | 4 | 4 | 4 |
| AIRCRAFT,FIGHTER/ATTACK, F/A-18A (HORNET) | F/A-18A | 43,296,000 | 32 | 32 | 30 | 30 | 30 |
| AIRCRAFT,FIGHTER/ATTACK, F/A-18B (HORNET) | F/A-18B | 43,296,000 | 2 | 0 | 0 | 0 | 0 |
| AIRCRAFT,FIGHTER, F-5F (FREEDOM FIGHTER) | F-5F | 11,834,000 | 3 | 3 | 3 | 3 | 3 |
| AIRCRAFT,FIGHTER, F-5F (FREEDOM FIGHTER) | F-5N | 1,000,000 | 18 | 28 | 28 | 28 | 28 |
| HELICOPTER,COMBAT (SEAHAWK) | MH-60S | 23,000,000 | 0 | 4 | 8 | 8 | 8 |
| HELICOPTER,COMBAT SAR (SEAHAWK) | HH-60H | 18,835,000 | 16 | 16 | 16 | 16 | 16 |
| HELICOPTER,COMBAT,SAR (SEAHAWK) | UH-3H | 9,673,000 | 8 | 4 | 0 | 0 | 0 |
| HELICOPTER,MINEWAR, (SEA DRAGON) | MH-53E | 32,409,000 | 6 | 6 | 6 | 6 | 8 |
| HELICOPTER,ASW,FRIGATE (SEAHAWK) | SH-60B | 28,122,000 | 6 | 6 | 6 | 6 | 6 |
| HELICOPTER,ASW,CARRIER (SEAHAWK) | SH-60F | 20,166,000 | 6 | 6 | 6 | 6 | 6 |
| SHIPS | | | | | | | |
| FRIGATE,GUIDED MISSILE (PERRY CLASS) FLIGHT III | FFG | 322,887,952 | 9 | 9 | 9 | 9 | 9 |
| SHIP,MINE COUNTERMEASURES (AVENGER CLASS) | MCM | 154,193,429 | 5 | 5 | 5 | 5 | 5 |
| SHIP,MINE HUNTER,COASTAL (OSPREY CLASS) | MHC | 150,528,605 | 10 | 10 | 10 | 10 | 10 |

USNR

Table 1

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---|------------------|--------------------------|------------------------------|------------------------------|------------------------------|----------------------------|----------------------------|
| NAVAL COASTAL WARFARE FORCES | | | | | | | |
| MIUW SURVEILLANCE SYSTEM | RSSC/MSP | 2,600,000 | 22 | 20 | 20 | 20 | 20 |
| BOAT, INSHORE (NCW) | IBU | 500,000 | 16 | 16 | 16 | 16 | 16 |
| LITTORAL SURVEILLANCE SYSTEM | LSS/DCGS | 26,000,000 | 1 | 2 | 2 | 2 | 2 |
| MOBILE ASHORE SUPPORT TERMINAL | MAST | 3,200,000 | 8 | 6 | 6 | 6 | 6 |
| RESERVE NAVAL CONSTRUCTION FORCES | | | | | | | |
| NAVAL CONSTRUCTION REGIMENT TOA | NCR | 2,800,000 | 4 | 4 | 4 | 4 | 4 |
| CONSTRUCTION BATTALION MAINTENANCE UNIT TOA | CBMU | 12,300,000 | 2 | 0 | 0 | 0 | 0 |
| NAVAL CONSTRUCTION FORCE SUPPORT UNIT TOA | NCFSU | 57,800,000 | 1 | 1 | 1 | 1 | 1 |
| NAVAL MOBILE CONSTRUCTION BATTALION TOA | NMCB | 44,200,000 | 12 | 12 | 12 | 12 | 12 |
| RESERVE NAVAL EXPLOSIVE ORDNANCE DISPOSAL FORCES | | | | | | | |
| NAVAL RESERVE FORCE EOD MOBILE UNITS TOA | NRFMU | 3,734,197 | 4 | 4 | 4 | 4 | 4 |
| NAVAL EXPEDITIONARY LOGISTICS SUPPORT FORCES | | | | | | | |
| MATERIAL HANDLING EQUIPMENT ITEMS | NAVELSF-MHE | 16,622,500 | 1 | 1 | 1 | 1 | 1 |
| CIVIL ENGINEERING SUPPORT EQUIPMENT ITEMS | NAVELSF-CESE | 6,609,900 | 1 | 1 | 1 | 1 | 1 |

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 2005.

| Nomenclature | Equip No. | Average Age | Remarks |
|---|-----------|-------------|---|
| AIRCRAFT | | | |
| AIRCRAFT,TRANSPORT (SKYTRAIN) | C-9B | 30 | |
| AIRCRAFT,TRANSPORT (SKYTRAIN) | DC-9 | 35 | The last DC-9 will be retired in FY 2008 upon receipt of the eleventh C-40A |
| AIRCRAFT,TRANSPORT (BOEING 737-700) | C-40A | 5 | |
| AIRCRAFT,TRANSPORT (HERCULES) | C-130T | 11 | |
| AIRCRAFT,TRANSPORT (GULFSTREAM) | C-20D | 18 | |
| AIRCRAFT,TRANSPORT (GULFSTREAM) | C-20G | 11 | |
| AIRCRAFT,TRANSPORT (KINGAIR) | UC-12B | 25 | |
| AIRCRAFT,TRANSPORT (GULFSTREAM) | C-37A | 3 | |
| AIRCRAFT,TRANSPORT (GULFSTREAM) | C-37B | 3 | |
| AIRCRAFT,PATROL,P-3C (ORION) | P-3C | 25 | Although the age of the aircraft has not changed, the FLE has improved due to the withdrawal of the higher FLE aircraft from the inventory. |
| AIRCRAFT,EARLY WARNING (HAWKEYE) | E-2C | 19 | The average age has decreased since last year due to the withdrawal of the older aircraft from the inventory. |
| AIRCRAFT,EARLY WARNING (PROWLER) | EA-6B | 29 | |
| AIRCRAFT,FIGHTER/ATTACK,F/A-18A (HORNET) | F/A-18A | 20 | Includes F/A-18A and F/A-18B aircraft. |
| AIRCRAFT,FIGHTER,F-5 (FREEDOM FIGHTER) | F-5E/N | 22 | The average age has decreased since last year due to the addition of the newer Swiss F-5N aircraft into our inventory. |
| HELICOPTER,COMBAT SEARCH/RESCUE (SEAHAWK) | HH-60H | 14 | |
| HELICOPTER,COMBAT,SAR | UH-3H | 43 | The first four MH-60S replacement aircraft will be received in FY 2006. |
| HELICOPTER,MINESWAR,MH-53E (SUPER STALLION) | MH-53E | 11 | |
| HELICOPTER,ASW, (SEAHAWK) | SH-60F | 15 | |
| HELICOPTER,ASW, (SEAHAWK) | SH-60B | 21 | |
| SHIPS | | | |
| FRIGATE,GUIDED MISSILE (PERRY CLASS) FLIGHT III | FFG | 24 | |
| SHIP,MINE COUNTERMEASURES (AVENGER CLASS) | MCM | 16 | |
| SHIP,MINE HUNTER,COASTAL (OSPREY CLASS) | MHC | 10 | |

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 2006 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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008.

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|--|----------------------|----------------------|----------------------|---------|
| AIRLIFT AIRCRAFT | | | | |
| C-40A | 10,312,000 | 82,683,000 | 160,414,000 | |
| MODIFICATION OF AIRCRAFT | | | | |
| ADVERSARY | 5,013,000 | 2,630,000 | | |
| H-46 SERIES | 251,000 | | | |
| H-53 SERIES | 6,936,000 | 7,106,000 | 7,252,000 | |
| C-130 SERIES | 20,153,000 | 32,143,000 | 27,459,000 | |
| CARGO/TRANSPORT A/C SERIES | 15,114,000 | 30,239,000 | 20,706,000 | |
| SHIPS SUPPORT EQUIPMENT | | | | |
| DIVING AND SALVAGE EQUIPMENT | 98,000 | 91,000 | 84,000 | |
| STANDARD BOATS | 3,933,000 | 1,584,000 | 1,031,000 | |
| CIVIL ENGINEERING SUPPORT EQUIPMENT | | | | |
| GENERAL PURPOSE TRUCKS | | | 39,000 | |
| CONSTRUCTION & MAINTENANCE EQUIP | 169,000 | 293,000 | 683,000 | |
| FIRE FIGHTING EQUIPMENT | 412,000 | 634,000 | 303,000 | |
| TACTICAL VEHICLES | 10,341,000 | 10,562,000 | 12,356,000 | |
| ITEMS UNDER \$5 MILLION | 1,109,000 | 670,000 | 623,000 | |
| MATERIALS HANDLING EQUIPMENT | 1,331,000 | 1,360,000 | 1,403,000 | |
| PERSONNEL AND COMMAND SUPPORT EQUIPMENT | | | | |
| C4ISR EQUIPMENT | 26,319,000 | 7,848,000 | 7,859,000 | |
| TOTAL | \$101,491,000 | \$177,843,000 | \$240,212,000 | |

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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008. All values are costs in dollars.

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|--|--------------------|---------------------|---------------------|---------|
| F/A-18 ECP-560R1 KITS | | 6,000,000 | | |
| F/A-18A AT-FLIR UPGRADE | | 7,800,000 | | |
| F/A-18A AIRCRAFT EQUIPMENT | | | 13,713,320 | |
| F-5 AIRCRAFT PROCUREMENT | | 8,640,000 | 8,000,000 | |
| C-9B TRAINER | | 9,000,000 | | |
| C-130T ARMOR UPGRADE | 350,000 | | | |
| EA-6B 89A UPGRADE | 5,000,000 | | | |
| E-2C NAVIGATION SYSTEM UPGRADE | | 600,000 | | |
| SH-60B FORWARD LOOKING INFRARED KITS | | 2,600,000 | | |
| SH-60B COMMUNICATION/NAVIGATION UPGRADE | | 1,400,000 | | |
| NAVAL CONSTRUCTION FORCE - FIREARMS TRAINING SIMULATORS | | 600,000 | | |
| NAVAL CONSTRUCTION FORCE - TACTICAL VEHICLES | | | 9,570,000 | |
| NAVAL COASTAL WARFARE EQUIPMENT | | 2,114,000 | 5,657,680 | Note 1 |
| NAVAL EXPEDITIONARY LOGISTICS SUPPORT FORCE (NAVELSF) TOA EQUIPMENT | 1,688,900 | 4,545,100 | 1,505,000 | Note 1 |
| MOBILE DIVING SALVAGE UNIT TOA EQUIPMENT | | 722,000 | | Note 1 |
| CONTINUITY OF OPERATIONS EQUIPMENT | 1,450,000 | | | |
| CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL MEDICAL SUPPLIES | 1,455,000 | | | |
| DISTRIBUTED COMMON GROUND STATION EQUIPMENT | | | 1,400,000 | |
| REIMBURSEMENT TO THE U.S. TREASURY FUND | | 645,000 | | Note 2 |
| TOTAL | \$9,943,900 | \$44,666,100 | \$39,846,000 | |

Note 1: Used for procurement of Civil Engineering Support Equipment, Material Handling Equipment and Communication Equipment to support unit wartime Table of Allowance requirements.

Note 2: Reimbursement to the U.S. Treasury Judgment Fund for a \$2,100,000 judgment against a prior-year C-9 procurement contract.

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 Active 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 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|---|-----------|-------------|-------------|-------------|---|
| Aircraft, Transport (Skytrain) | DC-9 | -1 | | -1 | Replaced by C-40A aircraft as they are received. |
| Aircraft, Patrol | P-3C | -3 | | | |
| Aircraft, Fighter/Attack (Hornet) | F/A-18A | | -2 | | |
| Aircraft, Fighter/Attack (Hornet) | F/A-18B | -2 | | | |
| Helicopter, Combat, SAR (Seahawk) | UH-3H | -4 | -4 | | Replaced by MH-60S aircraft as they are received. |
| Aircraft, Transport (Gulfstream) | C-37A | -1 | | | |
| NCW MIUW Surveillance System | RSSC/MSP | -2 | | | Transferring to the AC. |
| NCW Mobile Ashore Support Terminal | MAST | -2 | | | Transferring to the AC. |
| NCF Construction Battalion Maintenance Unit TOA | CBMU | -2 | | | Transferring to the AC. |

FY 2002 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2002 with actual procurements and transfers. FY 2002 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 2004. Procurement and NGREA columns reflect cost values in dollars.

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|---|-----------|--------------------------------|--------|----------------------------|---------------------|---------------------|--------------------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| AIRCRAFT, TRANSPORT (SKYTRAIN) | DC-9 | -1 | -1 | | | | |
| HELICOPTER, ASW, FRIGATE (SEAHAWK) | SH-60B | 3 | 3 | | | | |
| FRIGATE, GUIDED MISSILE (PERRY CLASS) FLT I | FFG | -2 | -2 | | | | |
| FRIGATE, GUIDED MISSILE (PERRY CLASS) FLT III | FFG | 2 | 2 | | | | |
| F-18 SERIES - MODIFICATIONS | | | | 11,700,000 | 11,705,000 | | |
| H-46 SERIES - MODIFICATIONS | | | | 200,000 | 217,000 | | |
| C-130 SERIES - MODIFICATIONS | | | | 2,000,000 | 1,945,000 | | |
| CARGO/TRANSPORT A/C SERIES - MODIFICATIONS | | | | 1,300,000 | 1,335,000 | | |
| ADVERSARY | | | | | 9,582,000 | | |
| DIVING AND SALVAGE EQUIPMENT | | | | 100,000 | 118,000 | | |
| ASW PATROL SQUADRONS - SONOBUOYS | | | | 3,500,000 | 3,436,000 | | |
| GENERAL PURPOSE TRUCKS | | | | 7,000 | 0 | | |
| CONSTRUCTION & MAINTENANCE EQUIPMENT | | | | 2,000 | 0 | | |
| FIRE FIGHTING EQUIPMENT | | | | 800,000 | 635,000 | | |
| CIVIL ENGINEERING SUPPORT EQUIPMENT - ITEMS UNDER \$5 MILLION | | | | 200,000 | 233,000 | | |
| MATERIALS HANDLING EQUIPMENT | | | | 200,000 | 237,000 | | |
| MOBILE SENSOR PLATFORM | | | | 4,000,000 | 1,972,000 | | |
| INFORMATION TECHNOLOGY INFRASTRUCTURE MODERNIZATION | | | | | | 2,060,000 | 2,060,000 |
| NAVAL EXPEDITIONARY LOGISTICS SUPPORT FORCE | | | | | | 1,091,000 | 1,106,600 |
| F/A-18A UPGRADES (ECP-560) | | | | | | 1,200,000 | 1,424,000 |
| C-9/DC-9 FIRE SUPPRESSION SYSTEM | | | | | | 3,400,000 | 3,328,000 |
| SH-60B FORWARD LOOKING INFRARED (FLIR) | | | | | | 1,700,000 | 1,476,000 |
| LASER MARKSMANSHIP TRAINING SYSTEM (BEAMHIT) | | | | | | 480,000 | 464,400 |
| TOTAL | | | | \$24,009,000 | \$31,415,000 | \$9,931,000 | \$9,859,000 |

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 2006 Qty | Deployable? | |
|----------------------------|---------------------|------------------------------|---------------------------|-------------|-------------|----|
| | | | | | Yes | No |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Service Does Not Use Substitution To Satisfy Major Item Equipment Requirements

Significant Major Item Shortages

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

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/Justification |
|----|---|-------------|---------------|------------|---------------------|--|
| 1 | NCW Trucks and Table of Allowance Equipment | Various | Various | Various | 8,300,000 | Replacement of over-aged and unreliable tactical vehicles and CESE is needed to improve operational support of OEF and OIF. |
| 2 | F/A-18 AT-FLIR | 27 | 20 | 2,600,000 | 52,000,000 | This third generation FLIR is required to match AC precision strike capability. |
| 3 | F/A-18 A+ Block 2 Modification | 24 | 24 | 5,300,000 | 127,200,000 | Legacy F/A-18 aircraft require radar upgrades for future fleet compatibility and sustainability. Combat capability degraded without upgrades. |
| 4 | F/A-18 A+ CATM/Captive Carry Assets | 4 | 2 | 650,000 | 1,300,000 | Training assets for employment of JSOW for the NR is needed to decrease mobilization processing time |
| 5 | F/A-18 Armament Equipment | Various | Various | Various | 6,100,000 | These assets are needed for mobilization training for aircrew and maintenance personnel. Critical mobilization surge capability and timeliness are directly related to the availability of this equipment. |
| 6 | E2C Navigation Upgrade | 6 | 6 | 2,600,000 | 15,600,000 | All NR E-2C Group II aircraft need to be updated with current E-2 production navigation equipment. |
| 7 | C-40A | 27 | 14 | 78,000,000 | 1,092,000,000 | Navy C-9 fleet requires 1:1 replacement with the C-40A aircraft in lieu of extensive modernization. |
| 8 | NCF Tactical Vehicles and Support Equipment | Various | Various | Various | 22,400,000 | Replacement of aged tactical vehicles, CESE and communications equipment is needed to improve operational support of OEF, OIF and Homeland Defense. |
| 9 | NAVELSF Comm Equipment, CESE and MHE | Various | Various | Various | 11,500,000 | Communications equipment, CESE and MHE are needed to improve operational support of OIF. |

USNR

Table 8

Significant Major Item Shortages

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/Justification |
|----|--------------|-------------|---------------|------------|---------------------|---|
| 10 | MH-60S | 16 | 8 | 33,000,000 | 264,000,000 | The acceleration of the procurement of MH-60S aircraft (with armed helo combat SAR, and OAMCM capability) from outside the FYDP to FY08 would make the RC compatible with the AC for Helo Operations. |

Chapter 5 United States Air Reserve Components

I. United States Air Force Overview

A. Overall Air Force Planning Guidance

To achieve the United States National Security Objectives, the Joint Chiefs of Staff developed a broad strategy, documented in the *Joint Vision 2020*. Based on the joint strategies laid out in *Joint Vision 2020*, the Air Force (AF) developed its guidance in *America's Air Force Vision 2020* to prescribe an understanding of what air and space power mean to the nation. This vision reiterates the Total Force commitment of "Active, Guard, Reserve...seamless in providing aerospace power." The Air Reserve Component (ARC), comprised of Air National Guard (ANG) and Air Force Reserve (AFR) units, supports this "Total Force" policy. The roles and missions of the ARC are mirror images of the Active Air Force. Since August 1998, to provide better integration of forces and as a response to changing world security, the AF has created 10 Air Expeditionary Forces (AEFs) to organizationally link geographically separated units and provide predictability for deployment and rotations. These 10 AEFs rotate into alert and deployed positions on a consistent cycle: each operational unit is "in the bucket" for 120 days every 20 months. ARC units are integrated across the board as part of each AEF, operating from AF installations and ready to fight and provide airlift, air refueling, and combat support elements on very short notice.

The AEF construct provides a full spectrum of capabilities that can be tailored to meet the requirements of the geographic Combatant Commanders (CC). The Global War On Terrorism has provided a very effective endorsement of the Air Force philosophy, commitment of resources, and quality of support provided to its Reserve Components. Not only were personnel and equipment ready for immediate mobilization and deployment; much of the early response and activity post 9-11 was provided by volunteers.

The following table provides a brief synopsis highlighting contributions by the ARC to the AF Total Force Team while supporting contingency and peacetime operations in FY 2004:

Air Force Reserve Component Provides

| | |
|---|------|
| Weather Reconnaissance | 100% |
| DOD Airborne Fire Fighting Support to the U.S. Forest Service | 100% |
| Aerial Spraying | 100% |
| Strategic Interceptor Force | 100% |
| Air Control and Warning | 100% |
| Joint STARS * | 100% |
| Aeromedical Evacuation | 90% |
| Tactical Airlift | 58% |
| Air Refueling Tankers | 54% |
| Strategic Airlift | 58% |
| Personnel Recovery | 50% |

| | |
|------------------|-----|
| Combat Fighters | 39% |
| Bombers | 8% |
| Space Operations | 8% |

* Blended ANG/AF Wing structure.

B. Air Force Equipping Policy

The National Defense Authorization Act for FY 2000 directed the services to “conduct a comprehensive examination... of the national defense strategy, force structure, force modernization plans, infrastructure, budget plan, and other elements of the defense program and policies of the United States...” This examination is known as the Quadrennial Defense Review (QDR). The QDR has shifted the basic model for defense planning from threat-based to capabilities-based. The QDR will be accomplished every four years and project capability requirements 20 years into the future. The results of the QDR lay the foundation for the USAF equipping policy.

The ARC can be equipped in several ways:

- The Air Force plans, programs, and budgets for the procurement, transfer and modification of ARC weapon systems through the Air Force Corporate Structure.
- Congress authorizes and appropriates funding for the Air Force to fulfill specific ARC requirements.
- A single year procurement appropriation authorized by Congress for the National Guard & Reserve Equipment Appropriation (NGREA) (Appropriation 0350).
- Congressional adds to the Active component’s account for Reserve component equipment.

C. Service Plan to Fill Modernization Shortages in the ARC

Effective modernization of ARC assets is the key to remaining a relevant and capable combat ready force. With the onset of the Persian Gulf War in 1991, and because of ensuing force reductions throughout the 1990s, the United States military has become increasingly dependent on the Reserve Components to conduct operational and support missions around the globe. The events of September 11, 2001 validated the Air Force’s Total Force policy. The ARC is working shoulder-to-shoulder with the active component to win the Global War on Terrorism (GWOT). No longer a force held in reserve, the ARC now shares the tip of the spear. The Air Force recognizes this fact and has made significant improvement in modernizing and equipping the Reserve and Guard on par with the Active component. While this is true, the reality of fiscal constraints still results in shortfalls in ARC modernization and equipage. The Air Force has charged the lead commands with keeping the ARC a relevant and capable fighting force. Success in meeting ARC modernization goals depends on robust interaction with the lead commands and in keeping Congressional budgeting authorities informed of ARC requirements. There are no major issues affecting the full mobilization of the ARC.

D. Current Service Initiatives Affecting RC Equipment

To ensure that the ARC remains a relevant and capable part of the Total Force, the Air Force has committed to modernizing the ARC. There are a number of modifications and modernization efforts underway that will resolve reliability, maintainability, and capability issues for the ARC, several of which are highlighted below. Comprehensive reviews of ARC modernization initiatives can be found at <https://airguard.ang.af.mil/aq/> for the ANG and at <http://www.afrcrequirements.wpafb.af.mil/> for the Air Force Reserve. The following are some of the Air Force modernization initiatives that affect the ARC.

1. C-5 Galaxy

a. Avionics Modernization Program (AMP)

This is a modification consisting of two major efforts. First, it replaces unreliable/unsupported engine/flight instruments and flight system components. Second, it installs Global Air Traffic Management (GATM) and Secretary of Defense-directed navigation/safety modifications for the Terrain Awareness and Warning System (TAWS) and Traffic Alert and Collision Avoidance System (TCAS).

b. Reliability Enhancement Re-engining Program (RERP)

This program improves reliability, maintainability, and availability while increasing Mission Capability rates above 75 percent. RERP replaces the TF-39 powerplant with the General Electric (CF6-80C2). The proposed new engine meets Stage III noise/emissions standards while improving payload capability and time-to-climb criteria to meet GATM airspace requirements. Reliability enhancements include upgrades or replacement of: APU's; electrical, hydraulic, fuel, fire suppression, pressurization/air conditioning systems, landing gear, and airframe.

2. F-16 Fighting Falcon

a. Falcon STAR

Increased involvement in operations such as Operations SOUTHERN WATCH, NOBLE EAGLE, and ENDURING FREEDOM has required employment of the F-16 fleet beyond the intended operational spectrum for which the aircraft was developed. As such, the purpose of the Falcon STAR (Structural Augmentation Roadmap) 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. This program is distinct from previous F-16 structures improvement programs that have been identified through the Aircraft Structural Integrity Program (ASIP) as the weapon system has aged and operational use has evolved.

b. Towed Decoys

Towed decoys protect fighters from radio frequency (RF) guided missiles. The ALE-50 RF towed decoy is currently fielded on F-16 Block 40/50. Air Combat Command (ACC) has

funded a software integration of the standard F-16 ALE 50 pylons into the F-16 Block 30 aircraft and fielding has begun. ACC is funding pylons for the entire F-16 Block 25-52 fleet to support training and deployment requirements.

3. A-10 Thunderbolt II

a. Precision Engagement

Precision Engagement (PE) 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 tasking such as Airborne Forward Air Controller, Close Air Support, Combat Search and Rescue, and Air Interdiction. The aircraft computer, cockpit displays, and weapons delivery capability is outdated and contributes 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.

4. F-15 Eagle

a. Fighter Data Link (FDL)

The FDL program is the key to future effective combat employment for the F-15. The need to tie together off-board and on-board sensors and to synthesize the resulting data into a clear picture of the entire engagement is essential to the F-15 pilot operating under the Combat Identification (CID) Rules of Engagement found in every theater of operation. “First look-first shoot” tactics are valid for both the F-15 and F-22 and require a robust CID capability. Operational tests and exercises consistently provide clear evidence that the FDL increases the kill ratio for the F-15 many times over the current capability, ensuring the F-15’s lethality well into the 21st century.

b. Night Vision Imaging System (NVIS)

The NVIS Lighting Program modifies F-15 interior and exterior lighting to be compatible with the operational use of Night Vision Goggles (NVG). With this modified lighting, F-15s will be able to operate in the full range of air-to-air mission scenarios. The NVIS cockpit lighting provides NVG compatible lighting external to the instruments and controls in the cockpit. The exterior lighting includes a covert lighting mode and filtering to make the normal aircraft lights NVG friendly.

5. KC-135 Stratotanker

a. Global Air Traffic Management (GATM) Modification

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 - Avionics Modernization Program (AMP)

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

b. Phase II - Structural, Engines, and Environmental Improvements

Phase II is designed to bring all older C-130 variants to the same basic aircraft systems configuration to increase reliability, maintainability and supportability, and performance. Phase II will complement the standardization effort of Phase I. All older C-130s will be equipped with the systems now present on C-130H aircraft. The upgrades would provide T56-A-15 engines, an increased capacity flight deck air-conditioner, auxiliary power units, and improved hydraulics.

7. C-26 Aircraft

a. Forward Looking Infra-Red (FLIR)

The C-26 Westinghouse WF-360 FLIR camera was replaced with a Westcam “Skyball”. This program is now complete. The upgrade also included a sensor controller operating system upgrade, touch screen technology, emergency battery backup, Wulfsburg AM/FM/HF/VHF/UHF radios, and fire detection/suppression for the FLIR pod.

b. Electro-Optical Photographic Cameras

A program is under way to augment the “wet film” capability of the C-26 with a digital camera. This technology will allow digital pictures to be taken and printed onboard the C-26, thus saving days of wet film processing time and allowing law enforcement agents to leave the aircraft with hard copies of imagery data.

8. HC-130 Aircraft

a. Rescue System Upgrades

A low-cost NVIS Compatible Lighting System modification is in the contract phase for the Combat Air Force rescue fleet. A Personnel Locator System will be installed on 210th Rescue Squadron, Kulis, AK, and 129th Rescue Wing, Moffet, CA, aircraft. This system will give rescuers bearing, range, and authentication information on downed aircrew equipped with the PRC-112 survival radio.

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

Although the ARC generally has older equipment, the Air Force, through the Total Force policy, continues to modernize ARC assets. These modernization efforts allow the ARC to

remain relevant and combat ready on par with the Active component. The following sections address, in detail, the ARC's modernization programs.

II. Air National Guard (ANG) Overview

A. Current Status of ANG

1. General Overview.

The mission of the ANG, first and foremost, is to be prepared as a member of this nation's Total Force military team to fight and win. We demonstrated our preparedness and ability to fulfill this mission by responding to the President's call to arms during OPERATION ENDURING FREEDOM (OEF) and OPERATION IRAQI FREEDOM (OIF). The ANG participation in OIF was significant. ANG provided 33 percent of AF aircraft (fighter, airlift, tanker, rescue, and Joint Surveillance Target Attack Radar System (JSTARS)). ANG A-10s flew the most combat sorties of any platform. The ANG built three stand-alone bases from the ground up. ANG Security Forces provided a portion of the initial Air Base Ground Defense for these bases. The Army received 50 percent of its weather support from the ANG. Additionally, the ANG provided 55 percent of deployed combat communication capability. The ANG is a front line fighting force capable of fulfilling any assigned mission. To ensure that the combat capability of our personnel and equipment is second to none, we aggressively pursue aircraft modernization and sustainment programs to ensure all ANG aircraft meet or exceed equivalent combat capability and mission requirements and relevance in the AEF. Filling its obligations in the AEF - while maintaining a high state of readiness for global commitment - is the ANG's number one priority. Our equipping philosophy continues to center around fulfilling the war-fighting Combatant Commanders' requirements via the Combat Quadrangle (CQ). The tenets of this quadrangle include Precision Attack, 24-hour Operations, Data Link/Combat ID, and Enhanced Survivability. Targeting pods continue to remain a very high priority. To achieve its required precision strike capability, the ANG F-16 and A-10 fleet currently need an additional 100-advanced targeting pods. Of this requirement, 70 advanced targeting pods have been funded over the FYDP. The remaining 30-pod requirement is currently not funded.

Today, the ANG is comprised of 106,578 men and women with over 1,360 aircraft in 88 flying wings (94 squadrons) and 169 independent mission support units. In FY2004, in defense and protection of our nation and its allies, the ANG has flown 121,110 hours or 44,891 sorties. Since 9/11, there have been 38,064 ANG personnel mobilized. At the height of activation, approximately thirty-four percent of all deployed Security Forces were ANG personnel. Guard units are located at 168 civilian and 92 military installations in 54 states and territories. The ANG stands head and shoulders above other countries' reserve air components in its war-fighting capability, professionalism, and technical competence. Few active air forces in the world, in fact, can match the ability of the ANG in the breadth and scope of its missions.

The total investment fly-away cost of the aircraft fleet alone exceeds \$38 billion. The current ANG contribution to the Total Force encompasses 24 percent of the rescue assets, 43 percent of the tankers, 45 percent of the theater airlift capability, 11 percent of the strategic lift, 32 percent of the general purpose fighters, 7 percent of the operational support aircraft capability, 26 percent of the tactical air support mission, 100 percent of

the JSTARS aircraft (45 percent of the aircrews and mission crews), 100 percent of the counter narcotics aircraft capability, and 100 percent of the continental air defense.

The success of the AEF depends on the vital contributions of the Total Force- AF, AFR, and ANG forces. In particular, the predictability and stability of the 20-month AEF cycle allows the ANG to participate at a greater rate than before. While support of OPERATION NOBLE EAGLE (ONE), OEF, and OIF placed greater demand on the Active, Reserve, and Guard, the ANG commitment to the AEF stabilized at pre-ONE/OEF/OIF levels.

Indeed, during AEF Cycle 4 from June 2003 through August 2004, ANG fighter units deployed in or directly supported every AEF. ANG contributions to the Total Force were also robust during AEF Cycle 3, which ended in May 2003. ANG fighter units participated in eight of the ten AEF elements. Thirty-one of 39 (79 percent) ANG fighter/bomber units participated in Cycle 2. Likewise, airlift and tanker units continued their high rate of participation with 23 of 28 (82 percent) ANG airlift and rescue units and 100 percent of the ANG tanker units participating in Cycle 2. Additionally, partially mobilized ARC personnel are deployed to fill critical AF shortages both overseas and CONUS, in areas such as security forces, communications, transportation, civil engineering and intelligence. The Theater Airborne Reconnaissance System (TARS) completed its first deployment to support operations in Iraq with the 127FW/107FS, Selfridge ANGB, MI. TARS imagery was judged far superior to imagery available from other platforms and more quickly available to users. The 107FS supported Army, Marine Corps and SOF units as well as tasking from the CAOC. The system will require funding to improve its logistics status, update technical orders and acquire additional pods to sustain operations in theater and train crews until the P3I capabilities are fielded.

Rapid technology changes have significantly affected our defense capability. In order to stay effective and relevant, the ANG must continue to integrate new technologies into our legacy and new weapon systems, while leveraging innovative acquisition strategies. To accomplish this task, we identify, test, evaluate, and acquire combat enhancements for ANG aircraft and equipment at the ANG/Air Force Reserve Test Center (AATC), Tucson International Airport (IAP), AZ. The ANG modernization goal is to seamless synergy with the AF, leveraging existing AF and joint programs whenever possible. Staff integration at the Major Command (MAJCOM) level, ANG/AFR/AF partnerships in a myriad number of programs, and the seamless interoperability at the unit level ensure the Air National Guard the highest state of readiness.

Training Transformation (T2) is a key component of the Secretary of Defense's Force Transformation initiative. For the USAF and the Air Guard, Distributed Mission Operations (DMO) is the T2 enabler. The ultimate end state of T2: no individual, no unit, no staff would ever deploy into combat without first having experienced the rigors and the stress of combat, to include their joint responsibilities, in a robust and realistic virtual training environment. The Air Guard has a robust DMO program across many weapons systems and platforms managed at the ANG Headquarters by the Directorate of Air and Space Operations.

Finally, the AF recognizes that organizational change is necessary to institutionalize transformations in technology and concepts. With decreasing force structure and increasing OPTEMPO, the AF relies more heavily on the Guard and Reserve. In order to further integrate Active, Guard and Reserve forces into one seamless force, the AF unveiled *Future Total Force*. The *Future Total Force* program is a transformational initiative aimed at more efficiently utilizing AF resources from the Active, Guard, and Reserve components to maximize capability. This concept, initiated with the JSTARS mission, is an effort to meld the best of what the ANG and the AF can offer.

2. Status of Equipment

The following paragraphs synopsize the Major Items of Equipment (MIE) within the ANG and the ongoing efforts to upgrade and modernize the force. *Table 1* contains a major item inventory for all ANG aircraft for fiscal years 2002 through 2008. *Table 2* lists the average ages of ANG aircraft. Compatibility between the current equipment in the ANG and the AC is discussed in further detail in paragraph (c), maintenance issues in paragraph (d) and modernization programs and shortfalls in paragraph (e) by specific weapons system.

a. Equipment On-hand

i. Fighter/Attack/Bomber Aircraft

a) F-16 A/B/C/D Fighter Aircraft

The ANG has over one third of all of Combat AF (CAF) F-16 aircraft in 27 squadrons. These aircraft range from the older F-16A/B model to the more capable F-16C/D, Block 52.

Block 25/30/32: The majority of ANG F-16 aircraft are within the Block 25/30/32 Mission Design Series (MDS). These aircraft received the Embedded Global Positioning System Ring Laser Gyro Inertial Navigation Unit, Countermeasures Management System (CMS), Night Vision Imaging System (NVIS), and Tactical Data Link as part of the trend-setting Combat Upgrade Plan Integration Details (CUPID) Program. Further integration efforts such as Advanced Targeting Pods (TGP), Color Multi-functional Displays (CMFDS), Inertially Aided Munitions (IAMS), Advanced Interrogator Friend or Foe (AIFF), and modified Situational Awareness Data Link (SADL) Antennas to extend data link range will dramatically improve ANG F-16 aircraft capabilities. The ANG has supported increased funding in the FY 2005 budget for the Color Multifunction Displays, which will significantly improve the Block 25/30/32 ability to display increased tactical data. Sniper XR TGPs are scheduled to begin deliveries in FY 05 that will augment the current inventory of Litening Advanced Technology (AT) third generation TGPs. This gives Block 25/30/32



the PGM combat capability required by theater combatant commanders. The ongoing Falcon Structural Augmentation Roadmap (Falcon STAR) modifications were funded in FY 2004 for a production start and are required for the airframe to support the increased demands of AEFs and precision attack requirements. The Block 25/30/32 fleet is now capable of employing GPS-aided munitions such as the Joint Direct Attack Munition (JDAM). The Enhanced Position Location Radio System (EPLRS)/Situation Awareness Data Link (SADL) provides digital linkage among flight members and C2 nodes. A major hardware and software upgrade to the SADL radio is planned over the next year that will significantly improve the processing speed and volume to include improved interoperability with ground forces.

Block 42: The Block 42 aircraft are equipped with GPS navigation capability and until recently, primarily employed the low altitude Navigation and Targeting Infrared for Night (LANTIRN) targeting pods (precision strike). The Common Configuration Improvement Program (CCIP) began fielding Link 16 data link, color displays, AIM-9X capability and a variety of other programs in Block 42 aircraft during FY 2005. As an interim Link 16 capability, the ANG funded the AF standard Improved Data Modem and NVIS with NGREA along with funds from the AF. The standard Inertial Navigation Unit was replaced with the Ring Laser Gyro in FY 2002. Finally, the Block 40/42 Operational Requirements Document identifies a need for an “increased performance engine that provides a 20 percent to 30 percent thrust increase along with improved reliability and maintainability.” The carriage of both LANTIRN pods and munitions significantly degrades the aircraft performance with the current F-100-PW220 engines. The ANG requires 63 F-100-PW-229 engines for these aircraft, 25 of which have been funded. Installation of these engines in ANG Block 42 aircraft will dramatically increase combat capability and performance. The Block 40/42s are programmed to receive the Multi-Functional Information Distribution System (MIDS) Low Volume Terminal (LVT-1) data link to provide full connectivity to the Link 16 networks now in place worldwide in all contingencies to include Operation NOBLE EAGLE, OIF, and OEF. Programmed improvements will keep ANG aircraft fully capable of meeting AEF requirements.

Block 52: The Block 52 fleet began receiving CCIP (including NVIS) in FY 2001. The ANG has reached Final Operational Capacity (FOC) with the HARM Targeting System (HTS). The Block 52s are receiving the MIDS LVT-1 data link to provide full connectivity to the Link 16 networks now in place worldwide in all contingencies to include Operation NOBLE EAGLE, OEF, and OIF. These are crucial combat capabilities in high demand by all war-fighting commanders.

b) A/OA-10 Attack Aircraft

The venerable A/OA-10 is most noted for its Close Air Support (CAS) mission. Other missions include Combat Search and Rescue (CSAR) and Forward Air Controller, Airborne (FAC-A). This aircraft is capable of operating from austere locations and is capable of carrying a wide array of munitions. The six ANG A-10 squadrons account for 37.5 percent of the CAF combat coded inventory, the largest combat fleet in the CAF. All A-10 units are currently equipped with NVG and NVG compatible lighting for 24-hour operations. The A-10 is scheduled to be equipped with a new fire control computer, cockpit displays, and aircraft software to allow the aircraft to support a tactical data link, laser-guided munitions, Joint Direct Attack Munitions (JDAM), and a targeting pod. This program, called Precision Engagement, will be a multi-year program, with spirals for future capability. As funds become available, the program will include a spiral upgrade to provide increased mission capability and greater effectiveness on the battlefield. Funding for this program is a combination of AF and NAREA dollars. Other improvements to the A/OA-10 include the Countermeasure Sets (CMS) program for enhanced aircraft survivability and the Lightweight Airborne Recovery System (LARS), which will give range and more accurate bearing to downed aircrews equipped with the PRC-112b and Combat Survivor Evader Locator (CSEL) survival radio, greatly enhancing the A-10 Combat Search and Rescue (CSAR) mission.



The A/OA-10 has documented serious thrust deficiencies in its medium altitude operational environment. Tasking in recent conflicts has migrated from low altitude (the design criteria of the aircraft) to medium altitude. In order to meet the tasks of war-fighting units, CCs in the AOR have to reduce fuel loads, schedule take-off times for early morning hours and, at times, reduced aircraft munitions loads to decrease gross weights to support aircraft operation limits in high-density altitude environments. For the last six years, the ANG/AFR Weapons and Tactics Conference placed engines as their number one priority for the A-10. Future viability as a full force team player is dependent on adequate thrust and maneuverability in a maximum gross weight configuration. Efforts are now underway to upgrade its TF-B4100A engines.

c) F-15 A/B/C/D Air Superiority Fighter Aircraft

The ANG has all of the CAF F-15 A/B combat coded fleet in six squadrons. While the ANG has a predominantly A/B fleet, the 173rd Fighter Wing (FW), Kingsley Field, OR, differs with a combination of B, C and D model aircraft. The A/B model aircraft are tasked for the Air Superiority and Continental United States (CONUS) Air Defense missions and take part in the AEF rotation while the 173rd is tasked as a Flying Training Unit (FTU). All combat coded and training ANG F-15 aircraft are



equipped with the MIDS Fighter Data Link (FDL). This upgrade gives ANG F-15 aircraft state-of-the-art situational awareness capability and common employment capability with the AF F-15 fleet. All units are currently equipped with NVGs and have fielded a temporary NVIS cockpit lighting modification. This modification is currently being modified with a permanent solution that will be completed at the unit level by January 2005. Several combat enhancements are in the works for the F-15. The Bottom Launcher (BOL) Countermeasures Dispenser infrared (IR) was installed and will give the aircraft added protection from potential IR missile threats. Current focus is on upgrading the F-15's ability for enhanced Combat Identification and Congressionally mandated Mode 5 and S capability through procurement of an Air-to-Air Interrogator (AAI) and an Identification Friend or Foe (IFF) system. Other programs include upgrading the current unsustainable cockpit recording system with an Interim 8mm Recording System that will allow the recording of 3 channels of video versus the 2 that the F-15 currently records. Future programs in the works include Joint Helmet Mounted Cueing System (JHMCS) and a Digital Radar Warning Receiver (RWR).

The current plan for the initial flow of F-15Cs from Langley AFB, VA to the 131st FW, St. Louis, MO, in late FY04 and during FY05, and because of the F/A-22 Raptor conversion, was officially approved. The F-15 distribution and draw down plan has been in coordination for years and continues to be fluid based on the F/A-22 delivery schedule and final F/A-22 procurement. The 131st FW A-models will flow to either the Aerospace Maintenance and Regeneration Center (AMARC) or to other ANG F-15 units. These will be additional attrition reserve aircraft to aid in maintaining Air Sovereignty Alert commitments while still flying a full continuation training (CT) schedule. The end state will be 6 ANG F-15C combat coded units of 15 PAA and all F-15A models retired. However, until that state is reached, some A-models will serve as attrition reserve (A/R) until they are taken to AMARC.

ii. Air Refueling Aircraft

a) KC-135E/R Air Refueling Tanker Aircraft

The ANG's air refueling tanker force represents 45 percent of the total force's refueling aircraft in 23 squadrons. Tankers extend the range of airlift and combat aircraft by enabling these planes to be refueled in flight. The AMC, on behalf of the ANG, is working GATM upgrade programs for the KC-135 fleet. Currently the AF is evaluating a possible lease arrangement for a replacement tanker aircraft. If the AF leases or buys replacement tankers, the ANG plans to receive KC-135Rs from the AMC tanker force structure and retire KC-135Es. The desired end-state of the ANG KC-135 force structure is a common fleet of KC-135R aircraft. Currently in the planning stages is a design to accelerate the cascade of 48 KC-135R models to the ARC to replace 61 KC-135E models. Other upgrades being considered is the Airborne Broadcast Intelligence (ABI)/Combat Track II Data Link System for our



KC-135

KC-135Rs. This system will allow aircrew to see a complete picture of air and ground threats while allowing two-way text and imagery messaging to aircrews during deployment, redeployment and actual operations.

iii. Airlift Aircraft

a) C-5A Strategic Airlift Aircraft

The ANG's C-5As at the 105th AW, Stewart ANB, NY, comprise over 10 percent of the entire C-5 airlift fleet. Currently, the 164th Memphis, TN is converting to the C-5A and the 167th at Martinsburg planning a FY07 conversion. The reliability of the C-5A model continues to be a concern. Two major modification programs, now in work or soon to be implemented, significantly improve the C-5A/B's reliability, maintainability, and availability. These programs include the Reliability Enhancement and Re-Engining Program (RERP) and the Avionics Modernization Program (AMP). AMP is planned for all C-5 aircraft, although not fully funded. Modifications should be complete in the FY 05-07 timeframe, depending on funding. RERP is also planned for all 112 aircraft, but C-5A model modifications do not begin until 2011. If AMC gets approval for its 222 engine buy initiative for C-17s, all C-5A models will be retired, and the ANG will accept AMP and RERP B-models.



b) C-17

The C-17 is the new core airlifter, replacing the retiring C-141. The C-17 provides strategic delivery of cargo, passengers, and patients via airland and airdrop from the CONUS direct to main operating bases or forward operating locations. The 172nd AW in Jackson, MS is the only ANG unit currently flying C-17s. The Air Force is the lead organization overseeing the modernization of the airframe.



c) C-130E/H Theater Airlift Aircraft

The ANG comprises 43 percent of the C-130 tactical airlift capability of the MAF. The ANG C-130E/H fleet is dispersed across 25 units or roughly one-third of ANG flying units. The ANG is working with Congress and AMC to obtain upgrades such as the Low Power Color Radar (APN-241), and Large Aircraft Infrared Countermeasures (LAIRCM) upgrades for our fleet. The ANG anticipates the purchase of 3 APN 241 Radars with NGREA funds received in FY04.



We are also fully engaged with the C-130 Avionic Modernization Program (AMP) along with AMC, AFR, and AFSOC. The AMP modernization effort will configure all combat delivery C-130 aircraft to a common avionics configuration. In FY 2004, the C-130 community began a planned fleet reduction of five aircraft per year until reduction goals are met. This plan is still subject to further modification.

d) C-130J Theater Airlift Aircraft

The ANG owns, among four wings, 58 percent of the C-130J tactical airlift fleet. There are currently eleven C-130Js on contract for the ANG; four for the 143rd AW, RI ANG; four for the 146th AW, Channel Islands, CA; and three EC-130Js for the 193rd Special Operations Wing (SOW), PA ANG. All of these are CC-130Js, an extended version of the C-130J that can carry two



additional pallets or 46 more troops. The three aircraft on contract for the 193rd SOW at Harrisburg will be delivered to AFR in exchange for the early transfer of three AFR C-130Js to the 193rd. There are currently eight additional CC-130Js, fielded at two airlift units; four at the 143rd AW, RI ANG, and four at the 146th AW, Channel Islands, CA. The 193rd SOW currently owns five of the short version of the C-130J. Eight more of the shorter aircraft are stationed in Baltimore at the 135AG, MD ANG.

iv. Intelligence, Surveillance and Reconnaissance (ISR); Information Operations (IO); and Space

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

The JSTARS is a B-707 airframe with fuselage mounted X-band radar capable of locating, classifying and tracking ground targets day or night and in all weather conditions. A joint Army-AF program, JSTARS supports the Joint Warfighter's C4ISR constellation by detecting and tracking ground movements at ranges of more than 150 miles (250 km). The Ground Moving Target Indicator (GMTI) capability makes JSTARS a



highly coveted asset in the current combat theaters for Enduring Freedom and Iraqi Freedom. As ISR technologies advance, JSTARS will remain a relevant platform to joint warfare well beyond 2020. In 2005, the 17th and final production E-8C aircraft will join the 116th Air Control Wing (ACW), Robins AFB, GA. The 116th ACW is a "blended" wing comprising active duty and ANG personnel and serves as a template for future force structures. A low density, high demand platform, JSTARS operates at a very high OPSTEMPO meeting mission requirements worldwide. Several modernization programs, to include the Global Air Traffic Management (GATM) cockpit upgrade, engine upgrade and the advanced radar modes, are under way to ensure JSTARS remains relevant, reliable and ready.

b) EC-130E Electronic Warfare Aircraft

This psychological operations aircraft is in the process of converting to the new EC-130J model. This conversion transfers the EC-130E Special Mission Equipment to the new EC-130J Commando Solo mission. Currently, three basic “Super J” and two fully equipped “Commando Solo” aircraft have been delivered; three more are on contract for the 193rd SOW, PA ANG. The contract for transfer of the Special Mission Equipment was awarded in September 2000.



c) SENIOR SCOUT

SENIOR SCOUT is an airborne tactical signals intelligence (SIGINT) collection system designed to provide near-real-time SIGINT across the spectrum of conflict. The centerpiece of the SENIOR SCOUT system is a palletized shelter containing collection, processing, and communications equipment that is uploaded into a modified C-130 aircraft (Super E or H1/2).



The total system is comprised of the equipped shelter, antennas, and associated aircraft modification kits. Rapidly deployable and low profile, SENIOR SCOUT provides a timely, tailored, worldwide SIGINT collection capability to satisfy national, theater, and special operations requirements. SENIOR SCOUT systems are operated and maintained by the 169th Intelligence Squadron of the Utah ANG. Both ANG and active AF C-130s carry SENIOR SCOUT. The SENIOR SCOUT program, including system modernization, is funded through FY 2011. Joint Tactical Information Distribution System (JTIDS), special signals enhancements and other improvements, Manual Electronic Intelligence capability, Network Centric Cooperative Targeting, Demand Assigned Multiple Access, and Common Data Link (CDL) enhancements are planned for the out years.



d) SCATHE VIEW

SCATHE VIEW is the program for a quick reaction roll-on/roll-off imagery capability flown on modified C-130E/H aircraft. Within the ANG, the SCATHE VIEW mission equipment is operated by the 152nd Intelligence Squadron and carried on modified 152AW C-130s. The Nevada ANG has eight modified C-130H2 aircraft and three SCATHE VIEW turret systems (balls). The SCATHE VIEW system consists of a modified C-130 aircraft with an externally attached turret



providing Forward Looking Infra-Red (FLIR) and daylight color TV in wide, medium, and narrow fields of view, as well as a spotter scope, and a laser range finder. The aircraft carries a roll-on/roll-off, full-pallet 2-man Airborne Sensor Control Station (ASCS), comprised of FLIR controls; dual monitors; software providing the capability to capture, display, compress, send, and receive digital imagery, and a Situational Awareness Display System (SADS) with UHF SATCOM digital and voice communications. Two airborne imagery analysts operate the ASCS for onboard exploitation and real-time voice reporting, with line-of-sight full motion video dissemination via a ROVER system, to forces on the ground as well as to a deployable ground receiver station.

During its initial deployment to Iraq, SCATHE VIEW was credited with finding vehicle-borne improvised explosive device, a weapons cache, and saving the lives of ground forces under mortar attack by providing essential intelligence to a quick response force. The ANG is pursuing system modernization and upgrades to provide direct digital data and full motion or mosaic still imagery to the Combined Air Operations Center, deployable ground stations, and hand-held receivers carried by ground forces within its mission area. These improvements will allow SCATHE VIEW to better perform theater ISR missions, provide tailored imagery support to ground forces, and enable improved execution of urban close air support operations.

e) F-16 Theater Airborne Reconnaissance System (TARS)

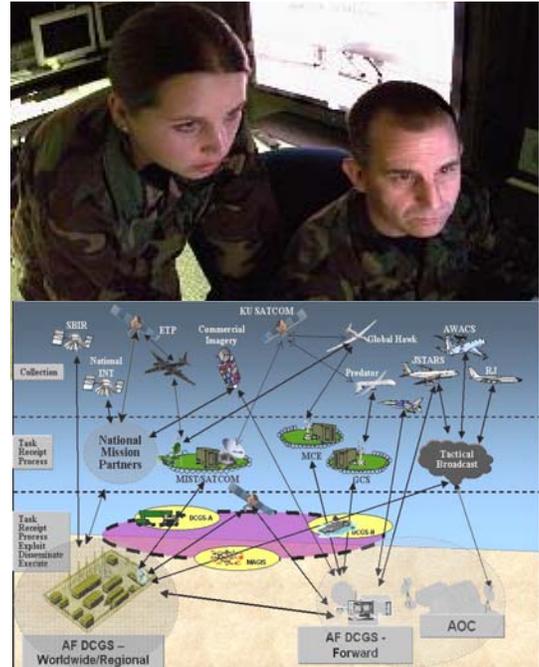
This digital electro-optical system is the only AF high-speed penetrating reconnaissance asset. As such, TARS is capable of performing both strike and reconnaissance as demonstrated in its 2004 deployment to Iraq. In its current configuration of one forward oblique, Electro-Optical (EO) framing sensor and a medium altitude, line scanning EO sensor, it is capable of covering 2,880 nm/hr. The 192 FW, Richmond, VA and 127FW, Selfridge ANGB, MI currently employ the system. The 127 FW employed the TARS pod extensively during Operation IRAQI FREEDOM (OIF) to support close air support (CAS), counter-Improvised Explosive Device (IED) operations, bomb damage assessment (BDA), special operations activities, and pre-strike reconnaissance. They validated the concept of using TARS in conjunction with the LITENING precision targeting pod to perform highly effective “armed reconnaissance.”



In the 2004 127 FW deployment to Kirkuk, Iraq, TARS was employed daily on tasked CAS missions. 127 FW reconnaissance tasking rose to over 110 imagery targets per day, increasing the Combined/Joint Forces Air Component Commander (C/JFACC) collection capability by 40 percent without diminishing the 127 FW capacity to put bombs on targets. TARS provided imagery critical to successful SOF operations. This proven capability of responsive reconnaissance and strike adds a new flexibility in employment for the C/JFACC. A real-time data link and all-weather, day and night SAR capability is currently being tested and evaluated for future effects based capabilities consideration.

f) The AF Distributed Common Ground System (DCGS-AF)

DCGS-AF is a family of systems providing distributed reachback, multi-site, multi-intelligence collection and processing operations servicing data from U-2, Unmanned Aerial Vehicles (UAVs), TARS, Eagle Vision and other ISR systems. It is part of the dynamic network structure of the U.S. intelligence community and is a key component of theater air operations planning and execution. The ANG is a full participant in signal and imagery processing, exploitation and dissemination (TPED) operations. ANG DCGS intelligence (117IS AL ANG, 123 IS AR ANG, 152 IS NV ANG, 169 IS UT ANG), contribute to the global enterprise and perform ISR missions.



The ANG is in the process of standing up two additional DCGS squadrons: the 161 IS, McConnell AFB, KS, and the 234 IS, Beale AFB, CA. The 161 IS will be similar to the 117, 123 and 152 IS in that it will have its own equipment and facilities. The 234 IS will be collocated with an active duty DCGS at Beale AFB and use the same equipment as its sister active duty squadron. Plans to expand the ANG portion of the DCGS-AF enterprise include robusting the Signals groundstation operations at the 169th Intelligence Squadron, Salt Lake City, UT; creating a Measurement and Signature Intelligence (MASINT) Distributive Exploitation Element under the Ohio ANG at the National Air and Space Intelligence Center, Wright-Patterson AFB, OH; and establishing a Virginia ANG unit at Langley AFB and a Hawaii ANG unit at Hickam AFB.

During major combat operations in Operation IRAQI FREEDOM, the 152 IS NV ANG accomplished all RQ-4 Global Hawk TPED for U.S. Central Command (USCENTCOM). In the current Global War on Terror, all ANG DCGS squadrons are participating in daily missions. DCGS-AF is an ever expanding and dynamic responsibility for the ANG as the AF and DoD provide network-centric intelligence solutions through the DCGS dynamic to the warfighter.

g) Information Operations

The ANG continues to aggressively expand its efforts in the Information Operations (IO) arena with the creation of several specialized units. The Washington ANG activated the 262d Information Warfare Aggressor Squadron (IWAS) to support the Air Force Information Warfare Center (AFIWC). In October 2004, the unit came out of conversion. The Kansas ANG is in the process



of standing up a similar unit at McConnell AFB to support AFIWC's multi-disciplinary vulnerability assessments. In Maryland, the ANG is teaming with the National Security Agency (NSA) to activate the 175th Information Operations Squadron (IOS) to conduct SIGINT support to IO and defensive IO. The Vermont ANG/IO is supporting the 39th Information Operations Squadron (39IOS), the Air Force's IO schoolhouse, by developing and deploying on-site and distance learning IO curricula. Rhode Island ANG's 102d Information Warfare Squadron (102IWS) is in conversion. They provide support to the DoD and regional Computer Emergency Response Teams (CERT) under the Defense Information Systems Agency (DISA). The Delaware ANG has created a detachment and is providing workday support to the Information Operations Technology Center (IOTC) at Fort Meade. They are exploring support to AFIWC's Detachment 1, 318th Information Operations Group (318IOG). Utah ANG's 101st Information Warfare Flight (101IWF) was officially activated in July and is in conversion. The 101 IWF provides reach back IW planning and execution capabilities to the Air Operations Center at Headquarters, 1st Air Force. The DC ANG provides the ANG component to DISA's Joint Web Risk Assessment Cell (JWRAC). The JWRAC reviews web content across the ".mil" domain analyzing the potential for compromises of OPSEC critical information. The Texas ANG is teamed with AFIWC to enhance its Tactics, Techniques, and Procedures as well as IO test capability to meet critical IO requirements. The 193d Special Operations Wing, PA ANG, continues to perform the COMMANDO SOLO psychological operations broadcasting mission with its EC-130 aircraft. Numerous states have expressed interest in being actively involved in new IO mission areas, and the number of ANG IO force structure initiatives is expected to continue growing by leaps and bounds. Because of the unique and dynamic nature of this mission area, ANG units activated to support IO requirements will require extensive, state-of-the-art computer, networking and telecommunications systems and equipment, with a higher than normal technology refresh rate.

h) Space

The ANG's role within AF Space Command (AFSPC) continues to grow. Six space units are currently activated or going through conversion. The 137th Space Warning Squadron (SWS), located in Greeley, CO, provides immediate, worldwide missile warning and space launch detection to NORAD, unified commanders, theater CCs, the Joint Chiefs of Staff, and the President and Secretary of Defense. To accomplish this, the unit employs the AF's only survivable, mobile satellite communications ground system linked to Defense Support Program (DSP) satellites. This unit is fully operational. The 137 SWS converted in FY 2003 from Defense Satellite Communications System to Military, Strategic and Tactical Relay (MILSTAR) and will undergo another conversion from DSP to Space Based Infrared Radar System in the FY 2009-2010 timeframe. The 148th Space Operations Squadron (SOPS) located at Vandenberg AFB, CA, operates the MILSTAR Operations



Center and the nation's top priority communication system. This unit provides 24/7/365 day continuous satellite command and control of the up to six MILSTAR satellites. MILSTAR delivers the full range of secure, survivable, strategic, and tactical communication across the entire conflict spectrum. The 153rd Command and Control Squadron (CACS), located at F.E. Warren AFB in Cheyenne, WY, is a Mobile Consolidated Command Center (MCCC). The unit provides a mobile, survivable, and endurable C4ISR capability to the commander of U.S. Northern Command (USNORTHCOM). The 153 CACS maintains the equipment of the MCCC and is deployable in support of national military objectives. Conversion was completed in December 2002. The 213 SWS, located at Clear AFS, AK, provides tactical warning and attack assessments of ballistic missile attacks against North America and space surveillance capabilities using phased-array radars. AFSPC will maintain ownership of the facilities; however, all but two personnel on site will be in the ANG. The unit is currently in conversion and will complete it in FY 07. The 114th Space Launch Flight, located at Patrick AFB, FL, provides launch support to the Eastern Launch Range. They are responsible for the status and assignment of all fixed-range instrumentation assets. The 114th may be chosen to operate the Ballistic Missile Range Safety Technology (BMRST) mobile range system and will expand to a squadron level. The 119 CACS, located in Knoxville, TN, augments U.S. Strategic Command's (USSTRATCOM) Space Operations Center by providing exercise, training, and other Command and Control capabilities.

v. Special Airlift Mission Aircraft

a) LC-130 Polar Airlift Aircraft

Ski-equipped aircraft support airlift operations to cold weather areas where other airlift aircraft cannot operate. The 109th AW, NY ANG, has 14 C-130 aircraft. Ten are LC-130 ski equipped and four are standard wheeled C-130s. Four of the LC-130s are owned by the National



Science Foundation and operated by the 109th. The LC-130 aircraft have the unique ability to operate from unimproved, deep field, open snow areas using Jet Assisted Take-Off (JATO) solid fuel rocket motors for additional thrust. Since the old JATO inventory is nearly exhausted, a requirement for new replacement JATO motors, which meet current environmental and safety regulations, has been approved. Development will begin this year with deliveries expected in time to meet their 07/08 season requirements. Another requirement that is being pursued is radar to detect hidden crevasses under the snow. This capability would protect the aircraft from a repeat of an incident where an aircraft was stranded and extensive rescue effort was required to save the aircraft.

b) C-38A Special Airlift Aircraft

The C-38 Gulfstream G-100 business jet was chosen to replace four C-21 aircraft. The first two C-38 aircraft were delivered to the 201st Airlift Squadron, DC ANG, Andrews AFB, MD, in the third quarter of FY 1998. With only two aircraft available, the squadron is not at full mission capability; as a result, it is difficult to ensure consistent airlift support. Two more C-38s are needed to bring the unit to full mission capability and ensure effective use of the aircraft.



c) C-22 Special Airlift Aircraft

The last of the Air national Guard C-22s was retired in 2004 and replaced with the C-40C.

d) C-40C Special Airlift Aircraft

The C-40 (military designation for the 737 Boeing Business Jets) replaced the C-22 and now fulfills the requirements for the 40- to 70-passenger jets with long-range capability for worldwide transportation of AF, DoD senior officials, foreign dignitaries, and legislative and executive branch members. The ANG currently leases and operates three fully modified C-40 aircraft. The first fully modified and militarized aircraft was delivered in August 2004. Two other aircraft, delivered at the beginning of the contract two years ago, are in a commercial configuration that requires updates to bring them into military requirements. Updates should be complete by December 2005. Also, in order to ensure effective flight operations one additional C-40C (the fourth) aircraft is required.



e) C-21 Special Airlift Aircraft

The ANG operates two C-21 aircraft at the 200th Airlift Squadron, Peterson AFB, CO. These aircraft transport high-level DoD personnel to various CONUS locations. All maintenance and upgrades are managed by the Oklahoma City Air Logistics Center and the aircraft are maintained as part of the AF's C-21 fleet. An additional two aircraft are desired to improve flight operations at the unit.



f) C-26B Counter Drug Aircraft

The role of the C-26 is expanding to address other real world ISR applications. Last year three aircraft were retrofitted to meet OCONUS tasking requirements. The modifications included



secure SATCOM, AAR-47 MAWS, ALE-47 flare dispenser, level III ballistic protection, KY-58, and Mode 4. As the role of the C-26 expands we anticipate that future additional modifications may be required. Also, the ANG is continuing to explore the practicality of installing a streaming video downlink that would enable near instantaneous transmission of data to personal and law enforcement agencies based on the ground.

vi. Rescue Aircraft

a) HH-60G Helicopter

Air National Guard Helicopters have completed major upgrades to our Chaff/Flare dispense capability. FY05 will bring an external gun mount system to the HH-60, which will free up critically needed cabin space. The ANG will install low profile combat fuel tanks on all ANG HH-60's during FY05. This



modification will provide increased range and sufficient cabin space for two litter patients. An interim defensive armament upgrade will also be fielded in FY05. The ANG will continue to pursue the FN M3M .50 cal as a high rate of fire defensive weapon. FY05 will bring an upgraded AN/ARS-6 V12 survivor locator radio the HH-60. This much needed capability brings the capability to precisely locate all survival radios. Additionally, it brings the capability to interrogate and locate the new standard in emergency beacons on 406 MHz. The ANG HH-60 continues to pursue the new tactical threat receiver, which brings critical threat information to the cockpit. Finally, the HH-60 requires the immediate installation of a tactical data link.

b) HC/MC-130 Aircraft

The AAQ-36 Forward Looking Infrared (FLIR) installation is complete on all ANG HC-130's. AAQ-24 Large Aircraft IR Countermeasures (LAIRCM) Equipment will be installed during FY05 on ANG HC-130's. LAIRCM uses multi-band lasers to decoy the incoming IR missiles. Currently, ANG MC-130Ps operate at risk with electrical generators not capable of sustaining required power in the event of a failed motor. However, the ANG will be installing larger more capable generators on all ANG MC-130P's during FY05. The ANG equipped all HC/MC-130's with Blue Force Trackers during FY04. In order to remain combat effective, critical shortfalls in both tactical data link, and an upgraded AN/ARS-6 V12 survivor locator radio must be addressed. Additionally Universal Aerial Refueling Receptacle Slipway (UARRSI) remains unfunded.



vii. Air Control Systems

a) AN/MPN-26 Mobile Approach Control System (MACS)

MACS is a mobile radar approach control system that will support the United States Defense Planning Guidance requirement for US military forces to be highly mobile and capable of rapid response on a global basis. The AN/MPN-14 presently being used by the ANG was fielded in 1968. Modification took place in 1980, but spare parts have become obsolete to repair failing equipment. The AF has begun an acquisition effort to replace the current radar (AN/MPN-14K).

b) Modular Control System (MCS)

MCS provides deployable tactical command and control for the Joint Force Air Component Commander. This ground-based system works in coordination with the airborne elements to include Airborne Warning and Control System (AWCS) and JSTARS to provide command and control of our AF's. The system consists of TYQ-23 Operations modules and TPS-75 Tactical Radar. Both are 1980's systems that need modernization to meet new threats to deployed forces. A program, the Battle Control System - Mobile, (BSC-M), is in initial development to replace the MCS. Battle Control System-Fixed (BCS-F) will be fielded in FY06 to replace and also the aging North American Air Defense Command (NORAD) Air Defense System, the FYQ93.



c) Air Support Operations Center/Tactical Air Control Party (ASOC/TACP)

ASOC's and TACPs are the most forward-deployed elements of the Air Force Ground Theater Air Control System. These units deploy in direct support of Army combat units, providing planning expertise as the Joint Forces Air Component Commander's (JFACC's) liaison. TACPs also provide final control of air power assets, in particular, Close Air Support (CAS). ASOC's use a variety of communications equipment to provide connectivity throughout the theater and have recently been fielded with the TSQ-209 system with TBMCS functionality. TACPs rely mainly on the MRC-144 Communications system which consists of a HMMWV based GRC-206 pallet and man-portable radios. TACPs are currently in the midst of a CAF-wide modernization program, which has begun with the introduction of the PRC-117F multi-band, multi-mode radio, providing the first Satellite communications capability for ANG TACPs and the MK-7 Laser Range Finder, which provides mensurated coordinates for such weapons as the JDAM.

viii. Other Aircraft Systems

a) Modular Airborne Fire Fighting System (MAFFS)

The ANG (three C-130 squadrons) is an active participant with the United States Departments of Agriculture and Interior fighting wildfires that threaten our forest resources. MAFFS, the current system, is a roll-on/roll-off platform that carries 3000 gallons of retardant used in fighting forest fires. The retardant is discharged on unburned forest to slow the spread of the fire. MAFFS is over 30 years old and is reaching the end of its operational life. Congress appropriated \$16M for replacement of this system. The ANG Requirements Division (ANG/XOR) and the US Forest Service are currently procuring a second generation system dubbed “MAFFS II.” This “state-of-the-art” system will provide increased capability for fighting wild land fires while retaining the C-130 primary airlift mission. The contract was awarded in November 2000 with delivery of the first production model scheduled for July 2005. A total of eight AFFS units will be purchased.



MAFFs

b. Average Age of MIE

Overall, the average age of aircraft MIE within the ANG is about 23 years. However, the E-8C airframe has an average in-service age of over 34 years. All of the prior year flying hours were consumed in heavy use commercial aircraft with varying standards of maintenance due to ownership by commercial airlines outside the United States. The P-4 fire fighting vehicles (30+ years) and air control radars (45+ years) on-hand are even older. A complete list of the age of ANG aircraft is located in ANG *Table 2*.

c. Compatibility of Current Equipment with AC: Compatibility problems exist between ANG and AC equipment in the following areas

i. F-16A/B (Block 10/15)

The components of these aircraft are no longer compatible with the AC’s newer aircraft and require special logistical support. These ANG F-16s also lack precision attack capability and electronic warfare compatibility with AC capabilities. Additionally, Congress mandated that no funds be obligated to modify aircraft not equipped with GPS after FY 2005. The ANG uses F-16A/Bs to support Foreign Military Sales (FMS) training of foreign pilots. No funds are available for a GPS modification, and since ANG expects to continue the FMS training program for the foreseeable future, continued modification of these aging aircraft is in jeopardy.

ii. F-15A/B

The radar on the ANG F-15A/Bs is the APG-63 V(0), the original radar for the F-15. The AC fleet is being upgraded to the V(1) and V(2) versions. The upgrades address maintenance and reliability issues, supportability issues, and adds significant performance enhancements. The ANG aircraft suffer an ever-increasing challenge to keep the older radars operating, even with lesser capability. The F-15A/B aircraft are equipped with the F-100-PW-100 turbofan engine, the earliest production configuration engine, which has become difficult to maintain and support. The electronic countermeasures (ECM) capabilities of the A/B are clearly inferior to the C/D models. The ALR-56A slow processing capability, decreasing mean time between failures (MTBF), and parts obsolescence significantly affects a situational awareness cockpit input in the air-to-air arena. The AC will receive the JHMCS for high off-bore sight targeting of the AIM-9X, critical to the within-visual-range arena, in the near future. The ANG A/B models are not scheduled to receive the JHMCS. The AC fleet has new flight simulators with full system visuals and the latest aircraft modifications. The ANG has the older, less effective Full-Mission-Trainers. The 173rd FW, Kingsley Field, Oregon, F-15 RTU will receive high-fidelity full system visual simulators during FY05. The ANG has demonstrated its desire to increase their combat effectiveness by pioneering and investing in several subsystems for the AC up to a full operational test and evaluation. The systems include the BOL, an advanced IFF/AAI, and new recorders. As the F/A-22 fields, all ANG F-15 A/Bs will be replaced with F-15 C/Ds cascaded from the active AF with the capabilities detailed above.

iii. KC-135E

The engines on the KC-135E models are becoming less reliable and maintainable and do not provide the improved performance found in the KC-135R model. The inferior aircraft performance restricts refueling off-loads and potential usable runways for the ANG E models versus the active duty R models. Current plans call for cascading 48 KC-135R models from the AC to the ARC in FY04 through FY06. Thirty-two will go to the ANG and the remainder (16) will go to the AFR. At the same time, 61 KC-135E models will be retired, and the savings used in part to fund an engine strut replacement program for the remaining E-models. By FY04, the ANG is scheduled to have 78 KC-135E and 126 KC-135R aircraft.

iv. C-130E/H

The T56-A-7B engines on the C-130E models are becoming less reliable and maintainable and do not provide the improved performance found in the T56-A-15 engines of the C-130H model. The improved T56-A-15 engine provides the aircraft with improved hot day performance, increased range capacity and payloads, improved safety margin, improved fuel consumption, and better high altitude capability. Current plans call for phasing out C-130E models until there are only two squadrons. If plans were to change, resulting in the retirement of all C-130E models, the converted engines can fill the spare pool of the C-130H models.

d. Maintenance Issues

i. F-16 A/B

The F-16A/B series fighters are no longer considered combat deployable and system age is significantly affecting supportability and mission readiness. Only one combat-coded F-16A unit exists and it will be upgraded to the F-16C as soon as aircraft become available. Three Block 42 F-16 units maintain LANTIRN precision targeting capability only by sharing one unit's complement of LANTIRN pods and support equipment. These units are now capable of carrying Litening targeting pods as well. The lack of the requisite support equipment and full complement of LANTIRN pods impacts the overall deployment ready status of precision targeting assets.

ii. JSTARS

The JSTARS aircraft still have original TF-33 engines, making sustainment an expensive challenge in the years to come. The anticipated exponential increase in cost to support the TF-33 is a major driver behind the effort to replace the engines. Replacing the engines will provide added operational capability to include higher orbits, fuel efficiency, less dependence on refueling tankers, and more safety margins during critical phases of flight. Other future aircraft maintenance issues include GATM, completion of the fuel cell tank sealing, the fuel quantity indicator system replacement, the fuel boost pump replacements, and continued aggressive corrosion control. As a result of increased effort and funding, the increased production from three to five aircraft at the Programmed Depot Maintenance facility will be completed in 2005 increasing aircraft availability in the combat ready and training units.

iii. MPN-14K

The MPN-14K radars are well beyond their planned service life, having long passed their point of economical sustainment, and now experiencing excessive downtime and unacceptably low rates of operational availability. Although some upgrades have been made to the more than 45-year old equipment, currently there are no spare parts available with which to replace failing equipment.

e. Modernization Programs and Shortfalls

The ANG's modernization program revolves around the CQ and the requirements for a robust and capable force. *Table 8* highlights the ANG's current top ten Unfunded Priority List. Greater detail on specific programs is provided below:

i. F-16/A-10 Targeting Pods

Aircraft capabilities are greatly reduced without targeting pods and the ANG cannot fulfill Combatant Commanders need for precision tasking. The pod that is ultimately acquired must possess exceptional standoff capability outside of most surface-to-air threats, 3rd Generation FLIR, Laser Spot Track (LST), and superior capability for targeting J-Series weapons as well as emerging technology insertions. The pod will maintain a high Fully Mission Capable rate and support AF two-level maintenance.

ii. C-130 LAIRCM

Allows Combat Delivery aircraft to survive in an environment of increasing threat complexity and lethality. The system uses a laser beam to defeat shoulder fired infrared missiles, and does not rely on hazardous and politically sensitive expendables, which highlight the aircraft to additional threats. AMC has funded LAIRCM for eight active duty aircraft but has not funded any systems for ANG aircraft. ANG C-130J aircraft are tentatively slated to receive LAIRCM through an AMC funded block upgrade (Blk 7.0) around FY 09.



iii. JSTARS Re-engining

Replaces current engines to provide additional range, time-on-station, improves fuel economy, shortens required runway length, and reduces skyrocketing engine repair costs.

iv. KC-135 ABI/Combat Track II Data Link

This system allows aircrews to see a complete battlefield air and ground threat picture and allows two-way text and imagery messaging to aircrews during deployment, redeployment, and combat operations.

v. A-10 Engine Upgrade

Currently underpowered, the A-10 engine upgrade will provide increased thrust resulting in enhanced combat effectiveness and survivability. Efforts are underway to replace the engine fan and some “hot section” components. This upgrade will improve the efficiency of aircraft operations.

vi. F-16-229 Re-engining

ANG Block 42 F-16 aircraft are equipped with Pratt & Whitney-220 engines that are underpowered. Current engine thrust performance limitations (25,000 lbs thrust) have resulted in ANG pilots performing combat operations at an increased risk. Equipping these aircraft with the more powerful -229 engine (approximately 29,100 lbs thrust) significantly increases aircraft performance profiles/mission parameters, thus enabling our pilots to employ enhanced tactics with maximum effectiveness when engaging in combat operations. Similarly, this engine allows ANG Block 42 aircraft a measure of mission parity with all other Block 40 F-16s enabling it to perform all missions (to include LANTIRN) at a comparable level.



vii. F-15-220E Engine Kits

ANG F-15 aircraft are equipped with Pratt & Whitney -100 engines. This early year production, basic design engine is outdated and experiencing more operational limitations due to engine age. The engine retrofit kit (220E engine kit) developed to modify these 20+ year old engines, brings them to a level more comparable with current production engines. Reduced maintainability requirements coupled with increases in reliability and safety rates afforded by this kit modification directly correspond to improved aircraft performance and increased combat readiness.



viii. F-16C Color Displays

Enables use of SADL in F-16 aircraft. New display unit increases aircraft processing capability, increases pilot situational awareness and increases combat survivability and lethality.

ix. F-15 AAI/IFF

Provides improved onboard ability to positively identify aircraft as friendly or hostile. Lack of a capable and/or robust electronic identification capability severely degrades the combat capability and survivability of the aircraft in both Homeland Air Defense and contingency operations. By end of fiscal year 2005, the current AAI system will be unsupportable.

x. F-16 Advanced Identification Friend/Foe (AIFF)

AIFF provides the F-16 Block 25/30/32/40 fleet with an essential ability to identify friendly aircraft when employing beyond visual range weapons while avoiding friendly-fire disasters—critical for homeland defense and deployed operations. This interrogator capability allows the F-16 to meet rules of engagement restrictions for the employment of the Advanced Medium Range Air-to-Air Missile (AMRAAM) and fulfills the requirements of the F-16 Common Configuration Implementation Program (CCIP).

f. Overall Equipment Readiness

i. Aircraft

Although ANG weapon systems are often older and aircraft are maintained in a mission-ready, deployable condition. This is due to the excellent maintenance professionals in the ANG. However, because of capability shortfalls with legacy weapon systems, some Combatant Commanders hesitate to utilize these aircraft in their areas of

responsibility due to a perceived lack of capability. This perception is primarily due to a lack of precision weapons engagement capability. Thus, modernization of legacy aircraft is a priority for the ANG.

ii. Flight and Mission Simulators

The availability and fidelity of simulators in the Air Guard varies significantly from platform to platform. It will require a significant investment of resources over the next five years to fully equip all units with the capability to train in a fully immersive virtual environment for full mission rehearsal.

iii. Other Equipment

Air traffic control and approach control facilities, while still functioning, are generations behind the state-of-the-art in their design. In addition, again due to the age of the equipment, the logistics tail for some equipment is now inadequate, awkward, overly expensive or non-existent. The Air Defense System is estimated to be unsupportable by FY 2009.

g. Other Equipment Specific Issues

i. New Missions

Several new missions have been assigned to the ANG in recent years while others have been expanded.

a) Fighters

F-15C pilot training for ANG and AC pilots is currently being conducted at the 173rd FW, Kingsley Field, OR. This mission will continue to grow as the active AF transitions to the F-22. F-16 pilot training for the ANG, AC and allied air forces has been conducted at the 162nd FW, Tucson IAP, AZ, for many years. In FY 2004 the unit began training in F-16 Block 60 aircraft. The ANG has now added two additional FTUs at the 149th FW, Kelly Field, TX, and the 178th FW, Springfield, OH. This mission will continue to grow as the AF begins fielding the F-35. The ANG now has a total of four fighter FTUs comprising some six squadrons and one transport FTU, the 189th AW with one C-130E airlift squadron.

b) Space

The ANG's role within AF Space Command (AFSPC) is in the process of significant growth. Six space units are currently activated or going through transition.

The 137th Space Warning Squadron (SWS), located in Greeley, CO, provides immediate, worldwide missile warning and space launch detection to NORAD, unified commanders, theater CCs, the Joint Chiefs of Staff, and the President and Secretary of Defense. To accomplish this, the unit employs the AF's only survivable, mobile satellite communications ground system linked to Defense Support Program (DSP) satellites. This unit is fully operational. The unit converted in FY 2003 from Defense Satellite

Communications System to Military, Strategic and Tactical Relay (MILSTAR) and will undergo another conversion from DSP to Space Based Infrared Radar System in the

FY 2009-2010 timeframe. Sixty percent of the unit's 284 personnel are full-time. The 148th Space Operations Squadron (SOPS) located at Vandenberg AFB, CA, operates the Milstar Operations Center and the nation's top priority communication system. This unit provides 24/7 continuous satellite command and control of the up to six Milstar satellites. Milstar delivers full range of secure, survivable, strategic, and tactical communication across the entire conflict spectrum. Nearly 60 percent of the unit's assigned strength of 53 is full-time. The 153rd Command and Control Squadron (CACS), located at FE Warren AFB in Cheyenne, WY, is a Mobile Consolidated Command Center (MCCC). The 153 CACS maintains the equipment of the MCCC and is deployable in support of national military objectives. Conversion was completed in December, 2002. More than 50 percent of the unit's assigned strength of 165 is full-time. The 213 SWS, located at Clear AFS, AK, provides tactical warning and attack assessments of ballistic missile attacks against North America as well as provides space surveillance capabilities using phased-array radars. AFSPC will maintain ownership of the facilities and is funding the billets, however all but two personnel on site will belong to the ANG. This unit's manpower is included in the FY 2004 Program Objective Memorandum and will transition over a 5-year period. Ninety percent of their assigned 94 personnel will be full-time. The 114th Space Launch Flight, located at Patrick AFB, FL, provides launch support to the Eastern Launch Range. In the future the 114th may be chosen to operate the Ballistic Missile Range Safety Technology (BMRST) mobile range system and become a full squadron. The 119 CACS, located in Knoxville, TN, augments USSTRATCOM's Space Operations Center by providing exercise, training, and other Command and Control capabilities.

c) Command and Control

The ANG is also expanded into the command and control arena due to the newly assigned JSTARS weapon system. This is a long-range, air-to-ground surveillance system designed to locate, classify and track ground targets in all weather conditions. While flying in friendly airspace, the joint Army-Air Force program can look deep behind hostile borders to detect and track ground movements in both forward and rear areas. It has a range of more than 150 miles (250 km). These capabilities made JSTARS effective in Operations OEF and OIF. Current forecasts are for long-term end strength of 19 JSTARS aircraft; however, this is beyond the FYDP and therefore planning is for 17 aircraft only.

d) Information

The ANG continues to aggressively expand its efforts in the Information Operations (IO) and Information Warfare (IW) arena with the creation of several specialized units. The Washington ANG activated the 262d Information Warfare Aggressor Squadron (IWAS) to support the Air Force Information Warfare Center (AFIWC). In October 2004, the unit is expected to come out of conversion. The Kansas ANG is in the process of standing up a similar unit at McConnell AFB to support AFIWC's multi-disciplinary vulnerability assessments. In Maryland, the ANG is teaming

with the National Security Agency (NSA) to activate the 175th Information Operations Squadron (IOS) to conduct SIGINT support to IO and defensive IO. The VTANG/IO is supporting the 39 IOS, the Air Force's IO schoolhouse, by developing and deploying on-site and distance learning IO curricula. Rhode Island's 102d Information Warfare Squadron (IWS) is in conversion. They provide support to the DoD and regional Computer Emergency Response Teams (CERT) under the Defense Information Systems Agency (DISA). The Delaware ANG has created a detachment and is providing workday support to the Information Operations Technology Center (IOTC) at Fort Meade. They are exploring support to AFIWC's Detachment 1, 23 IOS. Utah's 101 IWF was officially activated in July and are starting their conversion at the end of September. The 101 IWF provides reach back IW planning and execution capabilities to the Air Operations Center at Headquarters, First Air Force. The DC ANG provides the ANG component to DISA's Joint Web Risk Assessment Cell (JWRAC). The JWRAC reviews web content across the ".mil" domain analyzing the potential for compromises of OPSEC critical information. The Texas ANG teamed with AFIWC to enhance its ability to meet critical IW requirements. The requirements include test and evaluation, tactics and targeting, and dedicated network operations support to the IW Aggressor function. The 193d Special Operations Wing, PA ANG, continues to perform the COMMANDO SOLO psychological operations broadcasting mission with its EC-130 aircraft. Numerous states have expressed interest in being actively involved in new IW mission areas, and the number of ANG IO force structure initiatives is expected to continue growing by leaps and bounds. Because of the unique and dynamic nature of this mission area, ANG units activated to support IO/IW requirements will require extensive, state-of-the-art computer, networking and telecommunications systems and equipment, with a higher than normal technology refresh rate.

e) Homeland Defense

Although primarily manned by the ARNG, WMD Civil Support Teams (CST) are augmented by ANG personnel as part of the Homeland Defense mission. Thirty-two WMD CSTs have been established in 31 states to deploy rapidly to assist a local incident commander in determining the nature and extent of an attack or incident; provide expert technical advice on WMD response operations; and help identify and support the arrival of follow-on state and federal military response assets. Another 23 teams were authorized by Congress in FY 2003, bringing the total number of WMD CSTs to 55. Of the 23 new teams, 12 will be established by the end of FY 2004 and the remaining 11 will be established by FY 2007. Each team consists of 22 highly skilled, full-time members of the Army and Air National Guard.

f) Training

The FL ANG established an Associate Unit at Tyndall AFB, FL, to provide flight instructors for Air Education and Training Command's F-15C/D FTU, designated Detachment 1, Southeast Air Defense Sector. This is the only associate unit in the ANG.

g) Simulation

The ANG requires the development and deployment of a comprehensive and contiguous synthetic battlespace generation simulation. This future mission growth requirement will enable the ANG to train its war-fighters in threatening environments they are expected to face both today, and in the future. As such, sufficient funds are needed to procure the range infrastructure necessary to deploy the Force Operational Readiness and Combat Effectiveness Simulation to each of the ANG's Combat Readiness Training Centers. The required range infrastructure improvements, estimated at \$2M, will enable these ANG training assets to expand the battle sphere with inclusion of active data link radios and a constructive battlespace that includes all aspects of the joint environment into which ANG war-fighters must be prepared to deploy and employ. This deployment effort works in harmony with the AF Distributed Mission Training (DMT) initiative to distribute enhanced training to the war-fighter at home station.

ii. Electronic Warfare

Near term priorities include integrating electronic warfare systems for increase aircraft survivability, increasing situational awareness with digital radar warning receivers, providing a Destruction of Enemy Air Defenses capability to legacy fighters, fielding infrared countermeasures (IRCM) and sustaining existing electronic warfare equipment.

a) Integrating Electronic Warfare Systems

The F-16 and A-10 aircraft have both been outfitted with the ALQ-213 Countermeasures Management systems which interfaces to and manages the aircraft's entire EW suite. This includes the chaff/flare countermeasures, the ALR-69 radar warning receiver, the ALQ-131/184 electronic attack pods and ALE-50 towed decoys. With the fielding of new software in FY 2005, the ALQ-213 will be equipped with the ability to automatically manage these electronic warfare systems. Especially in a single seat fighter, this upgrade will reduce pilot workload, increase aircraft survivability and increases overall mission effectiveness. Future efforts include adding more sophisticated communication with the electronic attack systems like the ALQ-131 1553 data bus modification and providing rangeless electronic warfare training. These upgrades will continue to reduce pilot workload, optimize overall electronic warfare system response and increase aircraft survivability.



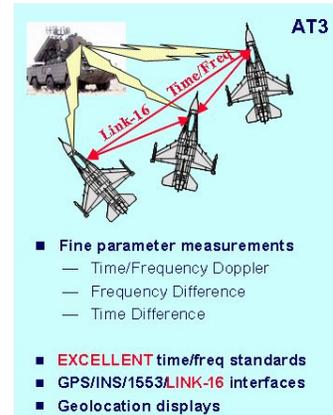
b) Digital Radar Warning Receiver (RWR)

The Special Mission C-130 and F-16 are leading the way in equipping legacy aircraft with the latest in RWR technology—the ALR-69A digital radar warning receiver (RWR). The Air National Guard and Air Force Reserve Test Center (AATC) in Tucson Arizona is participating in the operational testing of the ALR-69A for the F-16. With the addition of digital receiver technology into legacy aircraft, pilots will have more accurate threat information for countering and avoiding threat systems. The ALR-69A will lay the

foundation for all future legacy aircraft RWR updates such as the C-130, F-15s and A-10's.

c) Destruction of Enemy Air Defenses

After the addition of digital radar warning receiver into legacy aircraft through programs like the ALR-69A, the next planned step is to precisely locate, target and destroy radar threat systems. As an extension of the ALR-69A operational testing, AATC is conducting the operational demonstration of the Advanced Tactical Targeting Technology (AT3) program. This program, started at DARPA and now transitioned to Air Combat Command, will use the multiple aircraft equipped with the ALR-69A, a tactical data link, and unique algorithms to precisely locate threat systems. The goal of AT3 is to locate the threat accurately enough to use precision weapons such as JDAM to destroy the threat. This net-centric, transformational program will be first demonstrated on the F-16 Block 30 aircraft and will lay a foundation for other legacy aircraft upgrades.



d) Infrared Countermeasures

Across the spectrum of operations, missions and aircraft, infrared countermeasures has increased in operational priority and, hence in US Air Force investment. Whether on the F-16 where we have maintain our dispensers by upgrading the PIDS-3 to a Mil-Std-1760 precision weapons carriage capability, the F-15 where we have invested in the BOL covert IRCM dispenser, the airlift community where we are investing in laser based IRCM, all aircraft are addressing this important capability to counter manpads and IR guided threat missile systems.



e) Sustainment of Current Electronic Warfare Equipment

As important to aircraft survivability as modernization is the sustainment of existing electronic warfare equipment. Sustainment efforts such processor upgrades, un-supportable parts replacement and continued software upgrades are on-going for the ALQ-131/184 electronic attack pods, the F-15 BOL countermeasures dispenser, the legacy ALR-69 radar warning, ALQ-213 Countermeasures Management System, ALE-47 Countermeasure Dispenser, AAR-47 Missile Warning Receivers and numerous other electronic warfare systems. These upgrades are critical for keeping the Air National Guard capabilities in these aircraft current and relevant to evolving threats and missions.



iii. Distributed Mission Operations and Simulation

The ANG established a Program Management Office (PMO) to coordinate, under ANG/XO guidance, all projects and programs related to Distributed Mission Operations (DMO). Within this office, there are two primary areas of focus. The first deals with command level programs that support multi-platform missions and DMO in general. The key element for this effort is the Distributed Training Operations Center (DTOC) located

at the 132nd FW in Des Moines, IA (ANG/XO OL-DTOC). The DTOC is responsible for all network management, event control, scenario development, unit DMO scheduling, remote maintenance, remote instruction, and realistic threat insertion for all ANG and Air Force Reserve Command DMO assets as well as many active duty units. In addition, the DTOC manages the network system of systems called ARCNET. ARCNET is a mixed bag of networking solutions designed to meet the unique requirements of the Air Reserve Component. The Mission Training Engineering Center (MTEC), collocated with the AF Research Laboratory (AFRL) in Mesa AZ as a sub operating location of the DTOC, was established in FY 2003 to coordinate technology programs with AFRL and to act as the engineering focal point for the ARC for leading edge technology innovations and transitions. The ANG is currently funding several Advanced Technology Demonstrations as engineering proof of concepts to validate new technology applications. The MTEC is also responsible for coordinating with other research organizations to deploy the Multi Level Security (MLS) solution. MLS is a major technical hurdle for implementing DMO among platforms with different level of security.

The second focal area for the DMO PMO is the acquisition and modernization of training devices at the unit level. Currently, there are many different types of training devices in the Air Guard inventory with differing levels of fidelity and capability. The Air Guard, as a major User Command, is responsible for maintenance and concurrency of the simulators provided by the Lead Commands. Unfortunately, limited resources has prevented the deployment of sufficient devices to meet established training requirements. Within a limited budget environment, the Air Guard, in cooperation with other commands where feasible, leverages technology and existing legacy hardware into significant training capability. Several examples are detailed below.



In FY 2001, the ANG also initiated an ambitious program to modernize the flight training simulators possessed by F-16, A-10 and F-15 units. Recognizing a need for an advanced trainer, the ANG elected to use multiple acquisition and business strategies to mitigate risk and expedite deployment. The overarching requirement is to deploy low-cost, high fidelity, flight simulators that are fully capable of DMO and completely interoperable with the devices being fielded by ACC and other major commands. DMO capable devices will not only be able to train combat ready aircrews in individual skills, but also in team training in a multi-aircraft environment linked locally or, via long haul networking, to other units. By employing common components in hardware and software, where advantageous, the ANG hopes to achieve economy of scale savings in acquisition and life cycle support. The ANG/AFR/ACC Enterprise Product Team (EPT), using an Intra Governmental Solution (IGS) which partners government, industry, and research centers, uses innovative technology developments to provide a new level of technology in aircrew



training. The first A-10 Full Mission Trainers (FMT) fielded by the EPT to CAF A-10 units were delivered in FY 2001. Production continues with a final requirement for 19 additional devices. The goal is two FMTs at each ANG and AFR units as well as all active duty squadrons. The first two F-15C FMT+ devices were purchased in FY 2003 from Boeing for planned delivery in FY 2004 to the 173rd FW at Kingsley Field, OR. Two additional devices will be transferred from ACC to the Air Guard in FY 2005 and upgraded by the ANG to full DMO capability. The 173rd is the F-15 Flying Training Unit for the ANG. In cooperation with ACC and the AFR, the ANG, supported by Congressional funding, is developing plans to establish, by FY 2006, at least three Regional Training Centers (RTC) for F-16 Block 30 training. Each RTC would encompass a two- to four-ship of simulators capable of local and long-haul DMO. The eventual goal is to have at least a single device at every F-16 unit connected through ARCNET.

The E-8C JSTARS training system needs to be part of the DMO environment to integrate the ISR missions into the training scenarios. The JSTARS Program Office (JPO) is procuring a second Weapon System Trainer (WST), completing two full systems capable of all front end training events. The second Mission Crew Trainer (MCT) requires approximately \$35M to ensure the facility is secured at the required classification levels and is also capable of DMO. The X-



band radar products complete a vital link between the weapon and the target sets. Rehearsing and exercising this capability is vital to ensure the combatant commanders are well trained at the application of the JSTARS products and the subsequent targeting decisions. As an Low Density/High Demand (LD/HD) platform, JSTARS personnel are frequently deployed to most of the current theaters of operation. A DMO capability allows a reach-back training capability vital to keeping the crews current while in theater. DMO also reduces the need for the combat coded aircraft to get training completed. The JSTARS Program has validated requirements for two Navigator Training Systems (NTS) and is currently working to place them on contract to construction at the JPO. This will provide dynamic Navigator training and further improve crew coordination training with the WST device. Continued future aircraft modifications will challenge the simulator configuration to remain compatible with the aircraft.

Air Guard KC-135 flight crews have access to several crew trainers but there is no boom operator device capable of fully immersive DMO training. In cooperation with the Southwest Research Institute (SwRI), the Air Guard has defined a requirement for a high fidelity, yet low cost, squadron-level simulator that would fit in a standard operations building. Also in cooperation with SwRI, the Air Guard has plan to acquire squadron-level Crew Resource Management (CRM) trainers for the C-130 and KC-135 to supplement existing, full scale simulators at limited locations. Plans are underway to bring the Air Guard's first C-17 unit into DMO in FY 2005.

In cooperation with ACC/DOY, the ANG is exploring options to provide all of the Air Battle Management units with DMO-capable devices. JTAGS (Joint Tactical Air Ground Simulator) is one solution that supports the entire spectrum of C2 requirements

and processes. Joint Tactical Air Control (JTAC) simulator system is being developed at the AFRL at Mesa, AZ as a doomsday device to train tactical air controllers and special tactics Battlefield Airmen.

B. Changes Since Last NGRER

There are several significant programmatic changes since the last report. A few new programs have been added. New missions have been included, but the underlying equipping philosophy of the ANG has not changed.

Due to limited precision attack capability, the ANG's participation in subsequent combat operations was reduced. One approach to fix this problem is an aggressive effort to equip ANG Block 30 F-16s with precision targeting pods. There are currently 64 Litening II pods in service with a total end-state requirement of 238 ANG pods. Recently, the Advanced Targeting Pod (ATP) was selected as the total force approach to modernize the CAF.

The FY 2003 NGRER addressed the need for fielding upgraded and modernized flight simulators with DMT capability at Interim Regional Training Centers and the expanding cooperative role with the AFR.

This year's NGRER addresses the ANG's ongoing initiatives to expand its role in Space and Information Operations Warfare.

C. Future Years Program (FY 2006–FY 2008)

1. FY 2006 Equipment Requirements

a. Air National Guard Medical Service Transformation–Dual Mission Concepts That Support Both the Warfight and Home Based, Deployed Forward and Homeland Defense

The Expeditionary Medical Support (EMEDS) system provides highly mobile, integrated and multifunctional medical response capabilities. They are the lightest, leanest and most rapidly deployable medical platforms available to the Air National Guard today.

The EMEDS system is capable of simultaneously providing expeditionary Combat Support to the warfight for Air and Space Expeditionary Force (AEF) missions and Homeland Defense emergency response capabilities to the States and the Air National Guard Wings. ONE SYSTEM–TWO MISSIONS!



EMEDS

The United States Central Command has validated that the Expeditionary Medical Support System is a perfect fit for the Chief of Staff, US Air Force Global Strike Task Force and Concept of Operations. It is currently being utilized in Iraq to provide medical support to the combatant commanders and all services. The modular “building block” capability of EMEDS provides an advanced technology and an essential, tailored medical capability in a small forward footprint expandable to meet situational needs.

The National Guard Chemical, Biological, Radiological, Nuclear and High-Yield Explosives (CBRNE) Enhanced Response Force Packages have been mission tasked to deploy, on order, to a CBRNE incident to support both Department of Defense installations and civil authorities in conducting consequence management operations. The time of response for this capability has been determined to be between 4-72 hours. This timeframe is the perceived gap between local and federal response times. EMEDS will serve as a medical reach back capability for the



BNBC ASSM

National Guard (both Army and Air); will ultimately ensure a seamless medical response between the local-state-federal agencies; and will provide support to the Civil Support Teams. To date, Small Portable Expeditionary Aeromedical Rapid Response (SPEARRR) packages, which comprise the initial components of the EMEDS packages, have been sent to thirteen states. Numerous State emergency plans cite Emergency Departments, Operating Rooms and medical bed expansion as serious constraints/shortfalls in effectively managing a CBRNE incident. EMEDS will most definitely be able to provide the ability to triage, treat and stage patients until civilian sources are capable of absorbing patients into the civilian healthcare system.

Weapons of Mass Destruction (WMD) 1st Response capabilities are required by the Chemical, Biological Defense Program and Presidential Decision Memorandum 99-1. They provide for the procurement, operation, maintenance, and sustainment for Counter - Chemical, Biological, Radioactive, Nuclear, and high-yield explosives (C-CBRNE) detection, identification, casualty prevention and modernization. The Quadrennial Defense Review addresses the CBRNE threat as one of its 6 critical operational goals of transformation. The Air Force Transformation Flight Plan states, “If CBRNE attacks reach the fixed operating sites, forces must be organized, trained, and equipped to continue mission critical operations in a complex, but manageable environment.” This decreases the threat to Air National Guard sortie generation rates under elevated terrorism conditions and enables medical personnel to perform counter CBRNE emergency response medical operations, to preserve life and reduce injuries. These capabilities are utilized for both Homeland Defense and AEF missions. Initial equipment, supplies, and training have been purchased for 78 units. ONE SYSTEM–TWO MISSIONS!



REEVES DECON UNIT

In the future, we plan to place at least one EMEDS in each FEMA region and complete the packages and training for the WMD 1st Response mission at each unit in

each state not collocated with an active duty or reserve unit. This will ensure our units, states, and regions have the aforementioned capabilities.

Both the EMEDS and WMD 1st Response capabilities support the war-fighting Combatant Commanders' tenet, Enhanced Survivability, of the Combat Quadrangle. The Air National Guard Medical Service seeks \$9M to purchase three EMEDS plus 25 platforms to support the National Guard Bureau's CBRNE Enhanced Response Force (CERPF) mission and \$27K annually for sustainment. For the WMD 1st response capability \$25M is requested to purchase the initial equipment, supplies, and training with \$12M annually thereafter to complete the initial packages and for sustainment.

The Air National Guard Medical Service (ANGMS) will continue to transform to support the warfight, support homeland defense, and meet both federal and state requirements. This will be accomplished through the efficient, effective, and economical use of resources by developing dual tasked missions. ONE SYSTEM - TWO MISSIONS!

b. ANG F-16 Fleet

The ANG F-16 fleet expects continued modernization in FY 2006 and beyond. Enhancements include digital video recorders, the Joint Helmet Mounted Cueing Systems (JHMCS), ALR-69A PLAID and advanced simulators. Structural modifications will remain an issue as we fly our jets well beyond the initially designed lifetime.

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 include the needs of the ANG) as required to meet planned total force employment plans. The Congress, in their annual budget appropriation, may also direct additional ANG equipment procurements through NGREA.

- Anticipated additions include additional C-40C replacement aircraft for the retiring C-22s. Other ANG procurements are expected to include completion of the installation of the FDL and the purchase of an advanced IFF/AAI system for F-15s.
- One new CC-130J aircraft was fielded at the 143rd AW, Quonset Point, RI, and two new CC-130J were fielded at the 146th AW, Channel Islands, CA.
- For the F-16, 79 Litening II targeting pods are in service and additional funds are needed to purchase the ATP. In concert with the AC, ATP procurement will round out the 160 pod ANG requirement. When upgraded with GPS, CMS, NVIS, and SADL under the CUPID program, these aircraft will be as capable as any other F-16 in the USAF inventory. Additional unfunded modernization programs include the HUD AEU, Advanced IFF, Color displays, Mil Std 1760 wiring, and the JHMCS. Upgrade of TARS with a minimum of one EO and one SAR-equipped pod together with solid-state recorders and high capacity ABIT data links, and one ground station with ABIT data link will allow the Air Force to evaluate the capability of this

system to support a real-time targeting environment. Evaluation of the capabilities of the two new pods is anticipated to be done during Roving Sands 05.

- The ANG anticipates procuring two (2) additional JSTARS platforms to meet mission needs. Additional aircraft to complete the fleet of 17 aircraft will be procured as additional funding is appropriated.

3. Anticipated Transfers from Active Component (AC) to Reserve Component (RC)

The F-15C/D is expected to begin transition from the AC to the ANG combat-coded squadrons starting in FY 2005 and extending into FY 2013. The current plan for the initial flow of F-15Cs from Langley AFB, VA to the 131 FW, St. Louis, MO, in late FY04 and during FY05 as a result of the F/A-22 Raptor conversion has been officially approved. The F-15 distribution and draw down plan has been in coordination for years and continues to be fluid based on the F/A-22 delivery schedule and final F/A-22 procurement. The 131 FW A-models will flow to either the Aerospace Maintenance and Regeneration Center (AMARC) or to other ANG F-15 units. These will be additional attrition reserve aircraft to aid in maintaining Air Sovereignty Alert commitments while still flying a full continuation training (CT) schedule. The end state will be 6 ANG F-15C combat coded units of 15 PAA and all F-15A models retired. However, until that state is reached, some A-models will serve as attrition reserve (A/R) until they are taken to AMARC. Two AC F-16C Block 30 squadrons-worth of aircraft began transfer to ANG units during FY 2003. This in turn began the transfer of the remaining combat coded F-16A/B aircraft to FMS training or retirement. Additional KC-135R models may be transferred to replace older D/E aircraft.

4. Anticipated Withdrawals from RC Inventory

Due to aircraft age and cost to address GATM requirements for worldwide operations, the three C-22s assigned to the 201st AS, DC ANG, at Andrews AFB were retired. Three C-40Cs were provided as replacement aircraft. An additional aircraft to complete the fleet will be procured as additional funding is appropriated. Older C-130E/Hs will be retired from the RC inventory as newer C-130Js are acquired.

5. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2008

The most significant challenge to ANG readiness is that of equipment. The ANG has the oldest aircraft in the AF inventory. Modernization of the fleet to attain equivalent capability and meet the war-fighting Combatant Commander's tasking is critical to a robust and lethal Total Force. Additional details are provided in the following paragraphs.

- The A/OA-10 PE Program will replace the armament control panel/inter-station control unit with a digital control mechanism and a MIL STD1760 bus interface which will allow targeting pod employment of precision guided munitions. In addition, the A/OA-10 cockpit will contain color multi-function

displays, a tactical data link, and a Hands-On-Throttle-And-Stick to minimize the pilot's concentration focused within the cockpit.

- The location of the current antenna installations for the ALR-69 RWR on A-10 and F-16 aircraft provide late warnings of modern air-to-air and surface-to-air threats. Modifications to correct this sensitivity problem have been developed but only partially funded for 274 out of 444 F-16 Block 25/30/42s. One hundred-seventy (170) ANG F-16s still require this change, and 102 ANG A-10s must be modernized.
- The JHMCS is a state of the art capability to cue and verify cueing of off-bore sight sensors and weapons, including radar, navigation system, and both current and next generation short range missiles. The helmet provides capability for weapons employment to achieve first look, first shot advantage in the air-to-air within visual range combat arena, and provides radar weapon symbology and visual cues of target location. The system will be compatible with F-15 and F-16 aircraft and will ensure the viability of ANG aircraft for the future.
- The ANG Block 42 F-16 aircraft requires new engines for increased thrust to better perform multiple combat missions. The simultaneous carriage of both LANTIRN pods and munitions significantly degrades performance of the aircraft with the F-100-PW-200E. A total of 63 new engines, 21 of which have been funded, are required for the ANG's F-16 Block 42 fleet.
- Fielding of the FDL opens many new opportunities for improving the capabilities of the F-15. Effective training of pilots in the use of those expanded capabilities is essential to optimize the F-15's employment. An F-15 Advanced Video Tape Recording is needed to fully capture the expanded training mission data now derived from addition of the FDL. One hundred and twenty six ANG F-15s require this capability.
- The BOL countermeasure dispenser modification for ANG F-15s allows MJU-52 covert countermeasure carriage to provide the aircraft exceptional preemptive and reactive protection from infrared guided missile systems. One hundred-eight ANG F-15 aircraft have received this BOL dispenser. Improvements are required to enhance the simple F-15 BOL pilot controls.
- ANG F-15 aircraft require continued engine modification to PW-220E engines. This engine modification enhances overall aircraft operational performance and increases mission capability. A total of 283 engine kit modifications, 87 of which have been funded, are required to complete the ANG's F-15 fleet.
- HC-130 CSAR aircraft need a FLIR to provide the ability to see through smoke, light fog and rain, permitting crews to operate under the worst of conditions. Ten ANG aircraft require this capability. The modification contract was awarded in August 2002 and was completed FY 2004.
- The Situational Awareness Data Link (SADL) provides an all-weather, low-cost data link using off-the-shelf Enhanced Position Location Reporting System (EPLRS) radios and provides a major improvement in preventing

fratricide during combat operations. In FY 04, the ANG began to take delivery of the Value ECP hardware upgrade kit to enhance the SADL's ability to exchange J-Series messages through a gateway to and from a Link 16 network. Two gateways are being fielded to provide this interoperability. The Command and Reporting Center (CRC) will upgrade its Joint Module (JM) to include the Joint Range Extension Equipment Package (JTEP). The JTEP subcomponents include the Joint Range Extension capability to allow increased range of the Link 16 network. The Transparent Multi-Platform Gateway (TMPG) is embedded in the JTEP to allow two-way translation between the Link 16 network and the SADL network. Upon completion of the upgrade, the JTEP provides a ground based gateway capability. The Roll-on Beyond-Line-of-Sight Enhancement is a palletized collection of radios designed to provide an airborne gateway capability on any aircraft on which a pallet is compatible. The Smart Tanker program calls for modifying 40 KC-135s and buying 20 pallets for use across the CAF. Tactical data links are needed for 95 ANG HH-60s, and 25 HC-130s. The ANG needs equivalent connectivity to the tactical data link networks across the mission areas to ensure relevancy in the modern battlefields and airspace. The ANG will continue to leverage any Air Force and Joint programs necessary to obtain this combat capability. ANG ranges require 15 SADLs to provide aircrew training.

- NVGs provide C-130 aircrews with situational awareness, turn point, landing and drop zone identification, formation positioning and deconfliction, and integration in nighttime battlespace. NVGs are a CC requirement for 24-hour operations. Ten ANG C-130 units do not have NVGs and the required support equipment. Four hundred sets are required.
- To support the optimized capability of NVGs, a fully NVIS compatible cockpit is required. While most of the newer C-130 aircraft are NVIS compatible, the ANG's C-130E and 104 C-130H2 aircraft are not. The C-130 Avionics Modernization Program (AMP) will provide all C-130 E/H aircraft with a NVIS compatible cockpit.
- International airspace management reduced VHF radio channel spacing to create additional frequencies for voice communications between air traffic control and aircraft. This change affects all aircraft operating at altitudes above 24,500 feet. The ANG's C-5s, C-17s, and their 15 JSTARS aircraft routinely operate in this high altitude environment and must have the 8.33 MHz channel spacing VHF radios.
- Tactical Digital Information Link-J (TADIL-J)/North Atlantic Treaty Organization Link-16 is the primary tactical data link for joint military operations. Most tactical command and control units and fighter aircraft have some TADIL-J capability. As further installations continue, any system not equipped to pass J Series messages will be irrelevant to future joint operations. Of particular note is the current J Series message shortfall found at the air defense sectors. The ANG continues to request NORAD and 1st AF address this shortfall. ANG ranges must have access to TADIL-J to provide aircrew training.

- The HC-130 Integrated Countermeasures System merges inputs from the Missile Warning System, Countermeasures Dispensing System, and RWRs to simplify operations, relieve reliance on a human interface, and defeat threats to the aircraft. The ANG requires the upgrade of 13 HC-130 aircraft.
- C-130Js are replacing aging C-130 aircraft currently in use by the ANG. Eleven new CC-130J aircraft are under contract: four to the 143rd AW, Quonset Point, RI, and four to the 146th AW, Channel Islands, CA. Currently, there is a mixed unit of four CC-130Js and four C-130Es at the 143rd, and at the 146th. The C-130Es require replacement with CC-130Js to simplify maintenance, training, logistics support, and manpower. The 135AG has received its total PAA of eight C-130J aircraft.
- In a congressionally-directed program, aging EC-130Es are being replaced with new EC-130Js, with the current mission equipment suite being moved from the old aircraft to the new models. Five aircraft have been delivered to the 193rd SOW, Harrisburg, PA. Three additional aircraft are on contract to complete the unit's conversion and prevent leaving the unit with a mixed fleet of E and J model aircraft.
- The 15 JSTARS aircraft still have their original engines, leaving the aircraft underpowered and unable to operate at altitudes required for the mission. Current planning involves a lease or buy approach utilizing the Pratt and Whitney JT8D-219 engine.
- The HH-60 is particularly vulnerable to shoulder fired missiles because of the low altitudes and relatively low airspeeds at which it routinely conducts its missions. The HH-60 SPS provides a limited capability now and is currently being fielded. The ANG requires a total of 18 HH-60s to be equipped with SPS. Two of three ANG squadrons were completed during FY 2003. We are continuing developmental work on a frequency selective radar warning receiver. The third squadron will be finished in FY 2004.
- Two additional C-38A aircraft are required to complete the fleet of four aircraft at Andrews AFB, MD. These ANG aircraft support Congressional, Executive Branch, DoD, AF and ANG travel missions worldwide. The additional aircraft are required to fulfill the numerous small load taskings received, and take advantage of scheduling, training, and aircraft reserve efficiencies that four aircraft provide over two.
- The AN/MPN-14K radar, presently being used by the ANG, attained its IOC in the 1950s, and although there have been some upgrades to the MPN-14K through the years, there are currently no spare parts remaining to replace failing equipment. Efforts to implement a replacement program have been slow and as yet not fully successful.
- Fire vehicle replacements are a continuing problem for the ANG. With fire protection requirements at all our 88 flying units and concurrent responsibility on 44 civilian airfields, it is imperative that all fire departments have dependable response vehicles. At most locations the fire trucks and rescue vehicles have exceeded their expected life by many years. Vehicles are failing

at an increasing rate with little hope of replacements in the near term. The total cost to replace the 170 fire trucks would be in excess of \$60 M. A budget line of \$15 M per year would provide replacement and sustainment of the ANG fire fleet. The current budget, however, includes less than \$2 M per year. In addition to putting our aircrews and aircraft at risk, we may soon routinely violate Federal Aviation Administration prescribed requirements at civilian airports where we are contractually obligated to provide such service.



- ANG TACPs are currently receiving a new HMMWV, the M-1097, to upgrade a 66 vehicle fleet, all of which are replacement eligible. Recent combat experience has revealed the force protection shortcomings of the M-1097. Battalion level TACPs require the M-1145 Up-Armored HMMWV to provide adequate protection for personnel and equipment when moving forward to positions from which to control CAS missions. The M-1145 provides protection from a range of small arms (up to 12.7mm), fragmentation effects and mines. The M-1145 costs \$173K each, approximately \$100K more than the currently programmed M-1097. An additional \$11.4M is needed to provide these urgently needed vehicles. Anything less exposes ANG personnel to unnecessary risk to themselves and the Army personnel they are deployed to support. It also subjects ANG TACPs to the risks of irrelevancy where they will be non-deployable because of the lethality of the modern battlefield.
- The ANG operates the Regional Equipment Operators Training Site at Fort Indiantown Gap, PA, on behalf of the total force. This site provides hands-on training for heavy equipment operators (bulldozers, graders, excavators, front end loaders, etc.). This equipment is critical to the engineering bed-down capability, but is too expensive to maintain at each unit for training purposes. This school is the only AF location that can provide the wartime skills training our forces need. The current equipment at the school is well beyond its economic life and is in dire need of replacement. It is a very low priority within ANG and AF budget lines and the \$12M requirement is not currently funded. The lack of new equipment may require the school to terminate courses and leave the AF with no viable training alternative for these wartime skills.
- Prior to September 11, 2001, there was a renewed emphasis on NBC programs. The policy decision to put all personnel in a mobility status drives a large bill for chemical suits and protective equipment. The current budget shortfall for the ANG in this program is roughly \$60M. New policy with regard to homeland defense in a post September 11th world will create even more equipment requirements for protection of facilities and personnel. While the specific concept of operations has not been determined and there is no budget line for the requirements yet, this is an area of concern that will require priority funding in the near future.

- The ANG Security Forces Directorate (ANG/XOF) has been championing the needs of the nearly 7,000 Security Forces members who have been battling in the War on Terrorism since 9/11. ANG Security Forces have been deployed forward supporting Operation Enduring Freedom and Nobel Eagle in unprecedented numbers. While at the same time, forced to increase overall security and force protection at their home-station locations. These increases at home-station have caused the biggest strain on available manpower and resources. To adequately protect Air National Guard Installations the Security Forces career field require 5,294 full-time personnel, currently we only have 2,483 authorizations, less than half the requirement, which forces commanders to accept significant risk to resources and personnel. ANG/XOF has put forth several options to reduce this exposure. Option one requires an increase of \$141M be added to the current O&M security account. This option would allow units to hire additional State and/or contract security guards. Option two would add an additional 2,811 AGR authorizations at a cost of \$216M. Option three would add the same 2,811 authorizations but funded as military technicians at a cost of \$261M. In an effort to increase effectiveness active duty AF purchased several off-the-shelf technologies including ground based radar systems, explosive detection systems, vehicle barriers, and SmartGate systems. While these systems have potential advantages they still require additional funding to fully integrate them into the overall security programs at ANG installations. Having adequate properly equipped emergency response vehicles also continues to be a major problem at ANG installations. Security Forces are continually given vehicles ill suited and ill equipped for the mission required. To correct this deficiency ANG/XOF requires approximately \$20M dollars to update and equip their vehicle fleet.
- The ANG Transportation section (ANG/LGT) requires \$8.5M to replace our aging HMMWVs. The ANG is authorized 413 HMMWVs with only 400 assigned of which 138 need to be replaced. With limited funding for replacement vehicles AF-wide, the ANG is not expected to reach its authorized total throughout the FYDP, and the fleet will continue to age due to obsolescence.
- \$16.5 M is needed to replace 40 aging 25K Loaders. The ANG has 52 (25K) Material Handling Loaders authorized with 52 on-hand. The average age of our 25K Loaders is 17 years. The ANG received four of the new Halvorsen Next Generation Small Loaders in FY 2002 for the Combat Readiness Training Center. With limited funding it will be some time before the ANG can replace and modernize its fleet of 25K Loaders.
- The ANG Medical Service requires \$59.5M to purchase 17 CP- EMEDS +25 non-WRM assemblages, one each to be provided to the ten Federal Emergency Medical Agency (FEMA) regions. One additional assemblage will be placed in each “*high risk*” FEMA region (6 total), and one is required as a mobile training set. These teams and assemblages are capable of responding in support of either a State or Federal response. Each EMEDS +25 costs \$3.5M.
- The ANG Medical Service requires \$1M to purchase ten BNBC assemblages to provide materiel to support ten BNBC Defense Teams (FFGL1). These

teams are capable of responding in support of either a State or Federal response and can complement and expand the capability of the existing NGB CSTs. Each BNBC assemblage costs \$100K.

- The ANG requires \$3.4 M to purchase 20 Patient Decontamination assemblages. These assets provide required materiel to support 20 Patient Decontamination Teams (FFGLB). Each FEMA Region has ANG personnel already trained to provide two FFGLB equivalent capabilities, but lacks available equipment. These assemblages will support consequence management of WMD events through expansion of local patient decontamination capability and support to aeromedical evacuation of contaminated casualties. These teams are capable of responding in support of either a State or Federal response. Each assemblage costs \$170K.

6. Other Comments

The ANG has successfully leveraged relatively small amounts of NGREA funds into significant enhancements in combat capability by employing innovative modernization business practices. Low cost, high pay-off programs have benefited not only the ANG, but the AC and AFR as well. By streamlining the acquisition and RDT&E processes, the ANG has provided the aircrew with more capable systems faster, and at a lower cost. Discretionary NGREA procurement funds have provided dramatic combat capability enhancements for the war-fighter.

While basically ready for low intensity or limited conflicts, lack of full CQ capability throughout the ANG fighter fleet will limit full participation in theater CC directed combat operations. In addition, lack of GATM compliance will significantly impact future mobility operations worldwide.

The ANG expects that EC/CC-130J aircraft procurement will continue to be directed at a low rate through FY 2008, eventually replacing ANG C-130Es. The 172nd AW is slated to receive six C-17 aircraft with the first delivery in May 2004.

Table 8 highlights the ANG's major item unfunded requirements identified within the CQ. The list is compiled from mission priorities established through a formal process that identifies requirements at the unit level and translates that need into a total package. ANG and AFR Unit Weapons and Tactics Officers jointly conduct a conference each fall to assess the current state of modernization efforts and establish a priority ranking of programs by weapon system. The ANG Air and Space Operations Directorate (ANG/XO), Requirements Division (ANG/XOR) is responsible for developing this priority list, in coordination with other MAJCOMs, Air Staff, Joint Staff, OSD, and the Congress, to ensure that all of the ANG requirements identified in the FYDP are addressed in the funding process. Modernization requirements not included in the President's Budget Estimate Submission are identified as unfunded priorities. *Table 8* reflects the ANG's best estimate of the critical priorities that are not likely to receive funding.

D. Summary/Conclusions

The ANG currently bases its needs on requirements necessary to meet Combatant Commander and AEF guidelines for fighting and Combat Support forces. These requirements are embodied in the CQ, which calls for a 24-hour operational capability, survivability in a high threat environment, a combat identification capability, and a precision attack capability. ANG's logistics and ground support elements are considered early in the acquisition process, and all its efforts are targeted at remaining well trained, prepared to react, and ready to respond to any contingency at home or anywhere in the world.

Equal in importance to capability is accessibility of the ANG. Recent events have highlighted the ANG's ability to respond to any short notice tasking, anywhere in the world, with fully combat trained professionals equipped with aging, but capable weapon systems.

The overarching objective of the ANG, as part of the Total Force, is to optimize and supplement active component lead command modernization funding, when necessary; to field equivalent and relevant capabilities in each of the major weapons systems; and to streamline the infrastructure and simplify the deployment requirements to make the interchange and interoperability of units more flexible. The AF budgeting and planning process must be structured to project an equipping and funding philosophy reflecting this future of the Total Force.

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 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|---------------------------|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| AIR REFUELING | | | | | | | |
| AIR REFUELING, KC-135D/E | KC-135D/E | \$17,700,000 | 64 | 56 | 56 | 56 | 56 |
| AIR REFUELING, KC-135R | KC-135R | \$17,700,000 | 135 | 143 | 143 | 143 | 143 |
| AIR SUPPORT | | | | | | | |
| AIR SPT, OA-10A | OA-010A | \$10,700,000 | 18 | 18 | 18 | 18 | 18 |
| AIRLIFT | | | | | | | |
| AIRLIFT, C-130E | C-130E | \$12,400,000 | 42 | 29 | 25 | 24 | 24 |
| AIRLIFT, C-130H | C-130H | \$29,200,000 | 139 | 131 | 128 | 128 | 128 |
| AIRLIFT, C-130J | C-130J | \$64,000,000 | 17 | 20 | 23 | 24 | 24 |
| AIRLIFT, C-17A | C-017A | \$219,200,000 | 8 | 8 | 8 | 8 | 8 |
| AIRLIFT, C-5A | C-005A | \$119,300,000 | 16 | 16 | 27 | 30 | 30 |
| AIRLIFT, LC-130H | LC-130H | \$33,100,000 | 10 | 10 | 10 | 10 | 10 |
| ELECTRONIC WARFARE | | | | | | | |
| EL WARFARE, E-8C | E-008C | \$251,500,000 | 14 | 14 | 14 | 14 | 14 |
| EL WARFARE, EC-130E | EC-130E | \$28,000,000 | 2 | 2 | 2 | 2 | 2 |
| EL WARFARE, EC-130J | EC-130J | \$64,000,000 | 3 | 2 | 2 | 3 | 3 |
| FIGHTER | | | | | | | |
| FIGHTER, A-10A | A-010A | \$10,700,000 | 72 | 72 | 72 | 72 | 72 |
| FIGHTER, F-15A | F-015A | \$29,000,000 | 62 | 41 | 26 | 24 | 24 |
| FIGHTER, F-15B | F-015B | \$29,000,000 | 13 | 11 | 10 | 6 | 6 |
| FIGHTER, F-15C | F-015C | \$31,000,000 | 26 | 49 | 62 | 74 | 74 |
| FIGHTER, F-15D | F-015D | \$31,000,000 | 4 | 4 | 7 | 10 | 10 |
| FIGHTER, F-16A | F-016A | \$15,200,000 | 38 | 38 | 38 | 38 | 38 |
| FIGHTER, F-16B | F-016B | \$15,200,000 | 11 | 11 | 11 | 11 | 11 |
| FIGHTER, F-16C | F-016C | \$19,500,000 | 376 | 376 | 376 | 376 | 376 |
| FIGHTER, F-16D | F-016D | \$19,500,000 | 33 | 33 | 33 | 33 | 33 |

Consolidated Major Item Inventory and Requirements

| Nomenclature | Equip No. | FY 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|----------------------------|------------------|--------------------------|------------------------------|------------------------------|------------------------------|----------------------------|----------------------------|
| OPERATIONAL SUPPORT | | | | | | | |
| OPS SPT, C-21A | C-021A | \$3,400,000 | 2 | 2 | 2 | 2 | 2 |
| OPS SPT, C-26B | C-026B | \$4,500,000 | 11 | 11 | 11 | 11 | 11 |
| OPS SPT, C-38A | C-038A | \$17,800,000 | 2 | 2 | 2 | 2 | 2 |
| RESCUE | | | | | | | |
| RESCUE, HC-130N/P | HC-130N/P | \$19,100,000 | 7 | 7 | 7 | 7 | 7 |
| RESCUE, HH-60G | HH-060G | \$14,100,000 | 15 | 15 | 15 | 15 | 15 |
| RESCUE, MC-130P | MC-130P | \$75,000,000 | 4 | 4 | 4 | 4 | 4 |

ANG

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 2006.

| Nomenclature | Equip No. | Average Age | Remarks |
|---------------------------|-----------|-------------|---------|
| AIR REFUELING | | | |
| AIR REFUELING, KC-135E | KC-135E | 47 | |
| AIR REFUELING, KC-135R | KC-135R | 44 | |
| AIR REFUELING, KC-135D | KC-135D | 40 | |
| AIR SUPPORT | | | |
| AIR SPT, OA-10A | OA-010A | 25 | |
| AIRLIFT | | | |
| AIRLIFT, C-130E | C-130E | 42 | |
| AIRLIFT, C-130H | C-130H | 17 | |
| AIRLIFT, C-130J | C-130J | 5 | |
| AIRLIFT, C-17A | C-017A | 2 | |
| AIRLIFT, C-5A | C-005A | 34 | |
| AIRLIFT, LC-130H | LC-130H | 14 | |
| ELECTRONIC WARFARE | | | |
| EL WARFARE, E8-C | E-008C | 5 | |
| EL WARFARE, EC-130E | EC-130E | 42 | |
| EL WARFARE, EC-130J | EC-130J | 6 | |
| FIGHTER | | | |
| FIGHTER, A-10A | A-010A | 25 | |
| FIGHTER, F-15A | F-015A | 28 | |
| FIGHTER, F-15B | F-015B | 28 | |
| FIGHTER, F-15C | F-015C | 24 | |
| FIGHTER, F-15D | F-015D | 26 | |
| FIGHTER, F-16A | F-016A | 22 | |
| FIGHTER, F-16B | F-016B | 22 | |
| FIGHTER, F-16C | F-016C | 18 | |
| FIGHTER, F-16D | F-016D | 16 | |

ANG

Table 2

Average Age of Equipment

| Nomenclature | Equip No. | Average Age | Remarks |
|----------------------------|------------------|--------------------|----------------|
| OPERATIONAL SUPPORT | | | |
| OPS SPT, C-21A | C-021A | 18 | |
| OPS SPT, C-26B | C-026B | 11 | |
| OPS SPT, C-38A | C-38A | 8 | |
| RESCUE | | | |
| RESCUE, HC-130N | HC-130N | 12 | |
| RESCUE, HC-130P | HC-130P | 39 | |
| RESCUE, HH-60G | HH-060G | 15 | |
| RESCUE, MC-130P | MC-130P | 39 | |

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 2006 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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008.

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---|-------------|------------|-------------|---------|
| MODIFICATION OF INSERVICE AIRCRAFT | | | | |
| A-10 | 14,278,000 | 21,300,000 | 19,600,000 | |
| F-15 | 2,300,000 | 2,100,000 | 2,700,000 | |
| F-16 | 112,600,000 | 97,100,000 | 96,900,000 | |
| C-5 | 10,700,000 | 23,100,000 | 53,700,000 | |
| C-17A | 7,000,000 | 7,700,000 | 12,500,000 | |
| C-130 | 40,277,000 | 55,850,000 | 106,601,000 | |
| C-130J MODS | 2,000,000 | 13,300,000 | 13,500,000 | |
| C-135 | 37,500,000 | 34,500,000 | 33,700,000 | |
| E-8 | 15,506,000 | 12,558,000 | 44,865,000 | |
| H-60 | 11,100,000 | 3,200,000 | 6,400,000 | |
| AIRCRAFT SUPPORT EQUIPMENT AND FACILITIES | | | | |
| COMMON SUPPORT EQUIPMENT | 26,498,000 | 25,474,000 | 21,590,000 | |
| OTHER PRODUCTION CHARGES | 1,403,000 | 1,423,000 | 1,443,000 | |
| VEHICULAR EQUIPMENT | | | | |
| PASSENGER CARRYING VEHICLES | 2,661,000 | 2,640,000 | 2,754,000 | |
| MEDIUM TACTICAL VEHICLE | 1,458,000 | 1,783,000 | 2,343,000 | |
| HIGH MOBILITY VEHICLE (MYP) | 760,000 | 929,000 | 1,294,000 | |
| HMMWV, ARMORED | 326,000 | 168,000 | 170,000 | |
| RUNWAY SNOW REMOVAL & CLEANING | 7,026,000 | 10,594,000 | 8,698,000 | |
| BASE MAINTENANCE SUPPORT - ITEMS LESS THAN \$5.0M (VEH) | 556,000 | 3,098,000 | 3,991,000 | |
| ELECTRONICS AND TELECOMMUNICATIONS EQUIP | | | | |
| TRAFFIC CONTROL/LANDING | 8,100,000 | 3,300,000 | | |
| NATIONAL AIRSPACE SYSTEM | 8,132,000 | 2,592,000 | 4,309,000 | |
| THEATER AIR CONTROL SYS IMPROVEMENT | 18,129,000 | 18,348,000 | 18,624,000 | |
| WEATHER OBSERVATION FORECAST | 3,914,000 | | | |
| AF GLOBAL COMMAND & CONTROL SYS | 525,000 | 525,000 | 650,000 | |
| COMBAT TRAINING RANGES | 1,700,000 | 1,700,000 | 1,700,000 | |
| GCSS-AF FOS | 2,018,000 | 2,018,000 | | |
| BASE INFO INFRASTRUCTURE | 8,676,000 | 3,582,000 | 5,586,000 | |
| NAVSTAR GPS SPACE | 1,900,000 | 160,000 | | |
| TACTICAL C-E EQUIPMENT | 44,000,000 | 20,000,000 | 28,000,000 | |

ANG

Table 3

Service Procurement Program - Reserve (P-1R)

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---|----------------------|----------------------|----------------------|---------|
| BASE COMM INFRASTRUCTURE | 30,469,000 | 31,217,000 | 31,827,000 | |
| OTHER BASE MAINTENANCE AND SUPPORT EQUIP | | | | |
| NIGHT VISION GOGGLES | 406,000 | 273,000 | 1,257,000 | |
| MECHANIZED MATERIAL HANDLING EQUIPMENT | 921,000 | 944,000 | 4,156,000 | |
| BASE SUPPORT EQUIPMENT - ITEMS LESS THAN \$5.0M | 4,825,000 | 6,002,000 | 6,244,000 | |
| TOTAL | \$427,664,000 | \$407,478,000 | \$535,102,000 | |

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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008. All values are costs in dollars.

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|--|------------|------------|------------|---------|
| PRECISION STRIKE | | | | |
| PRECISION STRIKE (TARGETING PODS, LITENING II TARGETING POD UPGRADES, AIM-9X CATMS & APN-241 COLOR RADAR) | 12,000,000 | | | |
| TARGETING PODS | | 33,600,000 | 15,000,000 | |
| F-15 JOINT HELMET MOUNTED CUEING SYSTEM | | 4,000,000 | 5,000,000 | |
| C-130 APN-241 COLOR RADAR | | 1,800,000 | | |
| DATA LINK/COMBAT ID | | | | |
| DATA LINK COMBAT ID (COLOR DISPLAYS FOR F-16, AAI/IFF, VHF/UHF, DATA LINKS & 8.33 RADIO TCAS RVSM J-VOICE FOR JSTAR) | 6,000,000 | | | |
| F-15 AIR-TO-AIR IDENTIFICATION/FRIEND OR FOE | | 4,176,000 | | |
| F-16 AIR-TO-AIR IDENTIFICATION/FRIEND OR FOE | | 10,000,000 | | |
| F-16 COLOR DISPLAYS | | 17,334,550 | 6,985,300 | |
| F-16/A-10 ROVER DATA LINKS FOR LITENING AT | | | 4,200,000 | |
| A-10 SMART COLOR DISPLAY | | | 4,500,000 | |
| KC-135 ABI/COMBAT TRACK II SYSTEMS | | | 4,800,000 | |
| ENHANCED SURVIVABILITY | | | | |
| ENHANCED SURVIVABILITY (M3M MACHINE GUN FOR HH-60, ALR-69 RADAR WARNING SYSTEM, PIDS-U & COMET PODS) | 8,000,000 | | | |
| C-130 LARGE AIRCRAFT INFRA-RED COUNTERMEASURES | | 10,000,000 | 15,000,000 | |
| HC-130 LARGE AIRCRAFT INFRA-RED COUNTERMEASURES | | | 17,400,000 | |
| HH-60 CONCORD THREAT RECEIVERS | | 1,998,000 | | |
| PJ/CRO PATIENT SIMULATOR | | 1,000,000 | | |
| F-16 BLK 42 229 ENGINES | | 7,300,000 | | |
| F-15 220E ENGINE KITS (LINE ITEM SPECIFIED) | | 20,000,000 | | |
| F-16 ALR-69 ANTENNA OPTIMIZATION | | 2,400,000 | | |
| A-10 FULL MISSION TRAINER SIMULATOR | | 2,500,000 | | |
| F-16 EPLRS ANTENNAS | | | 5,380,000 | |
| TAC-P KITS | | | 4,830,000 | |
| HH-60 200 GALLON FUEL TANKS | | | 2,800,000 | |

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|---|---------------------|----------------------|---------------------|----------------|
| C-130J ARMOR KITS | | | 768,000 | |
| F-15 BOL LOADERS | | | 280,000 | |
| DTOC/DMT FUNDING | | | 3,068,700 | |
| F-16 PIDSU ENHANCED WEAPONS PYLONS WITH SUPPORT EQUIPMENT | | | 1,800,000 | |
| F-16 ALQ 131 1553 DATA BUS CARDS | | | 1,100,000 | |
| 24-HOUR OPERATIONS | | | | |
| 24 HOUR OPERATIONS (AUX FUEL TANKS FOR HH-60, NVIS, UARRS & PNVG) | 3,831,700 | | | |
| NIGHT VISION GOGGLES | | 3,001,050 | 1,000,000 | |
| ENHANCED NIGHT VISION GOGGLES | | | 720,000 | |
| TOTAL | \$29,831,700 | \$119,109,600 | \$94,632,000 | |

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 Active 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 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|---------------------------|-----------|-------------|-------------|-------------|---------|
| AIR REFUELING | | | | | |
| AIR REFUELING, KC-135D/E | KC-135D/E | -8 | | | |
| AIR REFUELING, KC-135R | KC-135R | 8 | | | |
| AIRLIFT | | | | | |
| AIRLIFT, C-130E | C-130E | -13 | -4 | -1 | |
| AIRLIFT, C-130H | C-130H | -8 | -3 | | |
| AIRLIFT, C-130J | C-130J | 3 | 3 | 1 | |
| AIRLIFT, C-5A | C-005A | | 11 | 3 | |
| ELECTRONIC WARFARE | | | | | |
| EL WARFARE, EC-130J | EC-130J | -1 | | 1 | |
| FIGHTER | | | | | |
| FIGHTER, F-15A | F-015A | -21 | -15 | -2 | |
| FIGHTER, F-15B | F-015B | -2 | -1 | -4 | |
| FIGHTER, F-15C | F-015C | 23 | 13 | 12 | |
| FIGHTER, F-15D | F-015D | | 3 | 3 | |

FY 2002 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2002 with actual procurements and transfers. FY 2002 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 2004. Procurement and NGRER columns reflect cost values in dollars.

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$) | | FY 2002 NGRER (\$) | |
|--|-----------|--------------------------------|--------|---------------------------|------------|--------------------|--------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| ANG had no planned transfers or withdrawals indicated in the FY 2002 NGRER | | | | | | | |
| B-1B | | | | 12,800,000 | 0 | | |
| A-10 | | | | 3,200,000 | 3,800,000 | | |
| F-15 | | | | 300,000 | 3,500,000 | | |
| F-16 | | | | 89,500,000 | 38,100,000 | | |
| C-5 | | | | 9,900,000 | 1,700,000 | | |
| C-21 | | | | 2,100,000 | 0 | | |
| C-130 | | | | 24,200,000 | 13,800,000 | | |
| C-135 | | | | 71,400,000 | 60,900,000 | | |
| DARP | | | | 12,200,000 | 23,000,000 | | |
| H-60 | | | | 4,500,000 | 4,600,000 | | |
| OTHER AIRCRAFT | | | | 4,600,000 | 900,000 | | |
| COMMON SUPPORT EQUIPMENT - OTHER PRODUCTION CHARGES | | | | 39,600,000 | 7,856,000 | | |
| BUSES | | | | 600,000 | 643,000 | | |
| TRUCK MULTI-STOP 1 TON 4X2 | | | | 900,000 | 911,000 | | |
| HIGH MOBILITY VEHICLE (MYP) | | | | 1,000,000 | 545,000 | | |
| CARGO & UTILITY VEHICLES - ITEMS LESS THAN \$5,000,000 | | | | 8,500,000 | 3,952,000 | | |
| TRACTOR, TOW, FLIGHTLINE | | | | 800,000 | 820,000 | | |
| TRUCK HYDRANT FUEL | | | | 0 | 756,000 | | |
| SPECIAL PURPOSE VEHICLES - ITEMS LESS THAN \$5,000,000 | | | | 1,500,000 | 1,205,000 | | |
| FIRE FIGHTING EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 500,000 | 477,000 | | |
| TRUCK, F/L 10,000 LB | | | | 1,600,000 | 1,574,000 | | |
| TUNNER LOADER | | | | 0 | 3,048,000 | | |
| MATERIALS HANDLING EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 1,100,000 | 1,097,000 | | |

FY 2002 Planned vs Actual Procurements and Transfers

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$) | | FY 2002 NGREA (\$) | |
|---|-----------|--------------------------------|--------|---------------------------|------------|--------------------|-------------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| TRUCK, DUMP | | | | 700,000 | 0 | | |
| RUNWAY SNOW REMOV AND CLEANING | | | | 3,400,000 | 3,356,000 | | |
| BASE MAINTENANCE SUPPORT - ITEMS LESS THAN \$5,000,000 | | | | 4,300,000 | 4,295,000 | | |
| INTELLIGENCE COMM EQUIPMENT | | | | 1,000,000 | 962,000 | | |
| NATIONAL AIRSPACE SYSTEM | | | | 8,500,000 | 7,122,000 | | |
| THEATER AIR CONTROL SYS IMPROVEMENT | | | | 1,900,000 | 12,400,000 | | |
| WEATHER OBSERV/FORCAST | | | | 1,600,000 | 1,140,000 | | |
| AF GLOBAL COMMAND & CONTROL SYS | | | | 500,000 | 575,000 | | |
| COMBAT TRAINING RANGES | | | | 3,400,000 | 3,405,000 | | |
| BASE LEVEL DATA AUTO PROGRAM | | | | 1,200,000 | 1,170,000 | | |
| THEATER BATTLE MGT C2 SYS | | | | 1,500,000 | 1,500,000 | | |
| DEFENSE MESSAGE SYSTEM (DMS) | | | | 1,100,000 | 1,125,000 | | |
| NAVSTAR GPS SPACE | | | | 500,000 | 0 | | |
| TACTICAL C-E EQUIPMENT | | | | 20,000,000 | 20,000,000 | | |
| BASE COMM INFRASTRUCTURE | | | | 24,300,000 | 24,305,000 | | |
| ORGANIZATION AND BASE - ITEMS LESS THAN \$5,000,000 | | | | 1,500,000 | 1,508,000 | | |
| BASE/ALC CALIBRATION PACKAGE | | | | 500,000 | 610,000 | | |
| TEST EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 1,600,000 | 1,224,000 | | |
| NIGHT VISION GOGGLES | | | | 700,000 | 633,000 | | |
| PERSONAL SAFETY AND RESCUE EQUIP - ITEMS LESS THAN \$5,000,000 | | | | 900,000 | 2,028,000 | | |
| MECHANIZED MATERIAL HANDLING | | | | 1,000,000 | 1,295,000 | | |
| DEPOT PLANT & MATERIAL HANDLING EQ - ITEMS LESS THAN \$5,000,000 | | | | 1,100,000 | 3,633,000 | | |
| FLOODLIGHTS | | | | 800,000 | 1,267,000 | | |
| ELECTRICAL EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 700,000 | 1,608,000 | | |
| PHOTOGRAPHIC EQUIPMENT | | | | 500,000 | 350,000 | | |
| AIR CONDITIONERS | | | | 800,000 | 563,000 | | |
| BASE SUPPORT EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 3,100,000 | 4,632,000 | | |
| C-130J AIRCRAFT | | | | | | 218,202,854 | 216,167,854 |
| P-19 CRASH TRUCK | | | | | | 3,475,674 | 3,475,674 |

FY 2002 Planned vs Actual Procurements and Transfers

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NAREA (\$s) | |
|-------------------------------|-----------|--------------------------------|--------|----------------------------|----------------------|----------------------|----------------------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| F-15 E-KIT UPGRADES | | | | | | 19,860,998 | 19,860,998 |
| F-16 BLOCK 42 ENGINE UPGRADES | | | | | | 30,983,158 | 30,983,158 |
| PRECISION STRIKE | | | | | | 3,000,000 | 3,000,000 |
| ENHANCED SURVIVABILITY | | | | | | 3,000,000 | 3,000,000 |
| DATA LINK/COMBAT ID | | | | | | 3,500,000 | 3,500,000 |
| 24 HOUR OPERATIONS | | | | | | 430,000 | 430,000 |
| TOTAL | | | | \$377,900,000 | \$273,890,000 | \$282,452,684 | \$280,417,684 |

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 2006 Qty | Deployable? | |
|----------------------------|---------------------|------------------------------|---------------------------|-------------|-------------|----|
| | | | | | Yes | No |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Service Does Not Use Substitution To Satisfy Major Item Equipment Requirements

Significant Major Item Shortages

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

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/Justification |
|----|--|-------------|---------------|-----------|---------------------|---|
| 1 | F-16/A-10 TARGETING PODS | 232 | 30 | 1,300,000 | 39,000,000 | Provides precision targeting capability for the F-16 with an external pod (includes AF FYDP purchase of 70 pods). |
| 2 | C-130 LAIRCM | 152 | 152 | 3,500,000 | 532,000,000 | Allows combat delivery aircraft to survive in an environment of increasing threat complexity and lethality. |
| 3 | JSTARS RE-ENGINE | 80 | 80 | 8,312,500 | 665,000,000 | Replaces current engines to provide additional range, time-on-station, improves fuel economy, shortens required runway length, and reduces skyrocketing engine repair costs. |
| 4 | KC-135 ABI/Combart Trk II Data Link | 111 | 111 | 100,000 | 11,100,000 | System allows aircrews to see a complete battlefield air and ground threat picture and allows two-way text and imagery messaging to aircrews during deployment, redeployment, and combat operations. |
| 5 | A-10 RE-ENGINE | 102 | 102 | 3,617,000 | 389,658,000 | Currently underpowered, the A-10 engine replacement will provide increased thrust resulting in enhanced combat effectiveness and survivability. |
| 6 | F-16 BLK 42 229 ENGINE | 63 | 36 | 4,700,000 | 169,200,000 | Replaces the PW-220 engine with the -229 to provide increased thrust. Carriage of external pods with the underpowered -220 reduces combat effectiveness. |
| 7 | F-15 220E Engine Kits | 283 | 187 | 1,740,000 | 325,380,000 | Replaces the PW-100 engine with the -220 to provide increased thrust, reduced maintenance, and increased time between inspection intervals. |
| 8 | F-16C COLOR DISPLAYS | 383 | 40 | 89,000 | 3,560,000 | Enables use of SADL in F-16 aircraft. New display unit increases aircraft processing capability, pilot situational awareness and combat survivability and lethality. |
| 9 | F-15 AAI/IFF | 139 | 139 | 195,000 | 27,105,000 | Provides improved onboard ability to positively identify aircraft as friendly or hostile. Meets Congressional mandate by FY08. |
| 10 | F-16 ADVANCED IDENTIFY FRIEND/FOE (AIFF) | 331 | 268 | 400,000 | 107,200,000 | AIFF provides the F-16 Block/25/30/32 fleet with an essential ability to identify friendly aircraft when employing beyond visual range weapons while avoiding friendly-fire disasters--critical for homeland defense and deployed operations. |

III. Air Force Reserve Command (AFR) Overview

A. Current Status of the AFR

1. General Overview

a. Mission

AFR supports the Air Force (AF) mission to defend the United States through control and exploitation of air and space by providing global reach and global power. The Air Force integrates reserve components into every aspect of the air and space continuum as a joint and expeditionary force. As an integral part of each of the 10 Air Expeditionary Forces (AEFs), AFR provides up to 20 percent of the airpower capability for every contingency around the globe on a day-to-day basis.

b. Resources

AFR has 37 flying wings equipped with their own aircraft and seven associate units that share aircraft with Active Component (AC) units. Three space operations squadrons share satellite control missions with AC units; one squadron shares the missile early warning mission; three squadrons are integrated into Air and Space Operations Center (AOC) operations; two squadrons provides Warfare Center test and aggressor forces; and one squadron provides the only AF presence in the weather satellite control mission. More than 700 IMAs provide “cradle-to-grave” support across the spectrum of national security space missions. Additionally, there are more than 620 mission support units in AFR, 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. AFR has over 410 assigned aircraft comprised of the F-16, A/OA-10, C-5A/B, C-17, C-141, C/MC/WC/HC-130E/H/J/N/P, KC-135E/R, B-52H and HH-60G. These units, aircraft, crews and support personnel stand ready for assignment to the Air Combat Command (ACC), Air Education and Training Command (AETC), Air Mobility Command (AMC), Air Force Space Command (AFSPC), National Reconnaissance Office (NRO), Air Force Special Operations Command (AFSOC), as well as unified commands upon mobilization.

2. Status of Equipment

a. Equipment On-hand

i. Fighter Aircraft

a) F-16 “Fighting Falcon”

The F-16 is a highly maneuverable fighter designed to provide multi-role capability for today’s complex battlefield environment. This aircraft is primarily used for missions in offensive counter-air (air-to-air and air-to-ground), air interdiction, suppression of enemy air defense, close air support, and air strike control. AFR has



F-16 “Fight Falcon”

70 F-16C/D aircraft consisting of block 25, 30, and 32 airframes assigned to Naval Air Station (NAS), Joint Reserve Base, Ft Worth, TX; Hill AFB, UT; Homestead ARS, FL; and Luke AFB, AZ. These aircraft represent five percent of the overall Air Force F-16 inventory. Recent modifications include precision guided munitions capability, Situational Awareness Data Link (SADL), electronic warfare receiver antenna relocation, and precision weapons compatible pylon upgrade. In addition, these aircraft are equipped with a fully night-vision-compatible lighting system to include internal and external lighting and covert flares. The major modification identified by the Air Force for the F-16 fleet is to update the newest F-16s with a color display and processor. This will overcome the limitations in displaying real time mission information imposed by monochromatic displays in the cockpit.

b) A/OA-10 “Thunderbolt II”

The A-10 aircraft is primarily used in close air support and forward air control (FAC) missions. The OA-10 is the FAC version of the A-10. There are 51 O/A-10 aircraft assigned to AFR, located at Whiteman AFB, MO; Barksdale AFB, LA; and New Orleans Naval Air Station Joint Reserve Base, LA. AFR has upgraded their A-100 to accommodate the Litening advanced targeting pod and precision-guided weapons. Tactical datalink is also a high priority, immediate need that is being pursued as an interim solution ahead of the ACC-funded Precision Engagement (PE) program.



A/OA-10 “Thunderbolt II”

ii. Bomber Aircraft

a) B-52H “Stratofortress”

The B-52H mission is to perform strategic attack, air interdiction, offensive counter air, air-to-surface, suppression of enemy air defenses, mine-laying, and joint maritime operations.



B-52H “Stratofortress”

Nine B-52H aircraft are assigned to AFR at Barksdale AFB, Louisiana. This unit is tasked to employ unguided gravity conventional munitions, Conventional Air Launched Cruise Missiles, the precision Global Positioning Systems (GPS) - guided Joint Direct Attack Munition (JDAM), and the Wind Corrected Munitions Dispenser (WCMD). Enhancements to the AFR B-52 fleet, which are currently under consideration are: (1) Visual clearance of the target area in support of other conventional munitions employment; (2) Self-designation of targets, eliminating the current

need for support aircraft to accomplish this role; (3) Target coordinate updates to JDAM and WCMD, improving accuracy; and (4) Bomb Damage Assessment of targets.

iii. Airlift Aircraft

a) C-141C “Starlifter,” Strategic Airlift

The C-141C is used for long-range airlift. AFR has 20 C-141C aircraft assigned to Wright-Patterson AFB, OH and March ARB, CA. The AF’s current plan is to retire the fleet by the end of FY 2006.



C-141C “Starlifter”

b) C-5 “Galaxy,” Strategic Airlift

The C-5A is a long range, heavy-lift aircraft. The AFR has 32 aircraft assigned to Westover Air Reserve Base (ARB), MA, and



C-5 “Galaxy”

Lackland AFB, TX. The steady decrease in reliability and increase in annual maintenance costs of the C-5A are a significant concern. Two major modification programs, the C-5 Avionics Modernization Program (AMP) and the Reliability Enhancement and Re-engining Program (RERP), are underway for the C-5 fleet. The RERP depends upon successful completion of AMP. The RERP will reduce the need for engine removals, decrease noise and emissions, and increase the fleet’s climb and payload capability. Future consideration will be given to the C-5 Malfunction Detection, Analysis, and Recording System (MADARS) and C-5 Emergency DC Power Generator Upgrades. The

MADARS upgrade replaces obsolete and unsupportable MADARS II components, while the DC power upgrade will resolve a DC power shortfall of 15 amps that will potentially grow to 25 amps with the enhancements planned in the C-5 AMP modification.

c) C-130 “Hercules”, Theater Airlift

The C-130 aircraft is used to support the tactical airlift mission. Its speed, range, load-carrying characteristics and capability to operate into difficult terrain conditions make it an invaluable and versatile aircraft, able to land and deliver its cargo on unimproved landing strips. Other missions involve aeromedical evacuation and special air support operations. Additionally, Reserve C-130H aircraft support two civil missions: fire fighting and aerial spraying. The AFR has 98 C-130 aircraft, including the E, H, and J models assigned to 12 different Reserve units. Long-term modernization includes the Avionics Modernization Program (AMP) to the “E” and “H” models. This effort will convert the entire C-130E & H fleet to a standard configuration called the C-130 “X.” Major X-model changes would include a glass cockpit (avionics modernization), more powerful engines (Dash 15), and an Auxiliary Power Unit.



C-130 “Hercules”

iv. Special Mission Aircraft

a) WC-130 “Hurricane Hunter”

There are 10 WC-130H and 10 WC-130J (Hurricane Hunter) aircraft operating with the 53rd Weather Reconnaissance Squadron (WRS) at Keesler AFB, MS. These aircraft are specially modified to penetrate hurricanes and typhoons while collecting and transmitting data to special ground stations. The aircraft carries meteorologists and other weather specialists who track and forecast the movement of these severe storms. The 53 WRS is scheduled to replace all of the “H” models with “J” models once the WC-130J is weather certified.



WC-130 “Hurricane Hunter”



MC-130E “Combat Talon I”

b) MC-130E “Combat Talon I”

AFR owns 14 MC-130E Combat Talon I aircraft assigned to the 919th Special Operations Wing at Duke Field, FL. This is AFR’s only “reverse-associate” unit, where active duty aircrews fly Combat Talon I missions on the AFR aircraft. The MC-130E is equipped for night and adverse weather, low-level, and deep-penetration tactical missions. Additionally, these aircraft conduct aerial refueling of special operations helicopters.

c) HC-130 Hercules “King”

AFR has 7 HC-130N/P aircraft located at Patrick AFB. The HC-130N/P is configured to support the Combat Search and Rescue (CSAR) mission in conjunction with providing air refueling to helicopters.



HC-130 Hercules “King”

d) HH-60G “Pave Hawk”



HH-60G

HH-60G AFR has a total of 15 HH-60G helicopters located at Davis Monthan AFB, AZ and Patrick AFB, FL. These helicopters are the heart of combat rescue.

e) C-9A "Nightingale"

AFR has three C-9As located at Scott AFB, IL. These aircraft were originally procured for and designated as Aeromedical Evacuation resources, and the 932nd AW was initially Associated with the active duty's 375th Aeromedical Evacuation Wing. With the scheduled retirement of the C-9As, Congress directed the reassignment of three aircraft to the Reserve wing, the establishment of unit-equipped organization, adjustments in the unit mission to focus on VIP/SAM missions, and the procurement of three C-40C aircraft. First delivery of a C-40 is slated for FY07 and the C-9As must be retired, so interim assignments of three C-9Cs are projected.



C-9A "Nightingale"

v. Aerial Refueling Aircraft

a) KC-135 "Stratotanker"



KC-135 "Stratotanker"

The Stratotanker is the military version of the Boeing 707 transport. The KC-135E and KC-135R aircraft carry approximately 200,000 pounds maximum transfer fuel load. While the KC-135 is primarily tasked with aerial refueling, it is also used to airlift cargo and personnel. The KC-135E has an approximate range of 1,200 miles with 150,000 pounds of transfer fuel, and the KC-135R has an approximate range of 1,500 miles with 150,000 pounds of transfer fuel. Approximate ferry range is up to 11,000 miles. AFR has 76 KC-135E/R aircraft assigned to Selfridge Air National Guard Base (ANGB), MI; Beale AFB, CA; Grissom ARB, IN; Seymour-Johnson AFB, NC; March ARB, CA; Tinker AFB, OK; Portland IAP, OR; and Andrews AFB, MD. AFR is scheduled to finish

replacing KC-135E models with 8 KC-135R models that will be transferred by the end of FY05. Reserve squadrons equipped with KC-135 aircraft provide about 13 percent of the AF's KC-135 aerial refueling capability.

b. Average Age of Current Equipment: See *Table 2*.

c. Compatibility of Current Equipment with AC

AFR equipment is compatible to support all applicable AF missions. The only equipment that might be considered a substitution is the 10 WC-130H aircraft at Keesler AFB, MS. The unit was programmed to have all 10 WC-130J models delivered by the end of FY 2001, however, MIL SPEC delivery from the manufacturer has been delayed. The WC-130J aircraft are fully

assembled but are awaiting equipment modifications to meet acceptance specifications. The unit will continue to operate the older WC-130H until that time.

With the help of specific Congressional funding, AFR has been able to keep the AFR equipment mission compatible. Some of the completed upgrades include:

- 1 C-130J aircraft procurement
- F-16 Digital Video Recorders (DVRs)
- C-130H3 Simulator conversion (ULT)
- F-16 Targeting Pod Upgrades/Procurement
- F-16 ALR-69 Antenna Modification Kits
- F-16 PIDS Universal Upgrade Modification
- 10 WC-130J Aircraft
- Digital Dewpoint Hygrometer.

The next essential modification efforts for AFR will be:

- C-130/HC-130 Large Aircraft Infrared Countermeasures (LAIRCM)
- C-130H2 APN 241 Radar
- C-5 Airlift Defensive System
- B-52 Targeting Pod Procurement
- A-10 Targeting Pod Procurement
- HH-60G 200 Gallon Fuel Tank
- C-130H High Pressure Spray System
- 3 C-130J Aircraft for 815th ALS
- F-16 Data link upgrade.

d. Maintenance Issues

i. C/WC-130J Funding & Sustainment

Interim Contractor Support (ICS) for hardware and software is not fully funded. There are low levels of spares on aircraft parts used for ICS. Also, funding is required for Field Service Representative until testing of C/WC-130J is complete. Intermediate Maintenance funding for C/WC-130J propellers is also needed. Mission Impact: Mission Capable rates negatively impacted, reducing aircraft availability.

ii. TF-39 Engine on C-5 Aircraft

TF-39 engines cost an average of \$2M per overhaul. This cost consumes a disproportionate amount of limited funding resources. The AFR C-5A fleet comprises seven percent of AFR total aircraft and less than nine percent of the installed engines. However the TF-

39 overhaul accounts for over 58 percent of AFR engine overhaul budget across the FYDP (\$640.7M). Mission Impact: With appropriate funding, no adverse impact.

iii. A-10 Wing Station 23 Inspection

Three AFR A-10 aircraft are scheduled for FY 2004; inspections will take place during 2nd Quarter of FY 2004. Thus far, a 20 percent failure rate has been noted. (An inspection failure requires wing change.) Mission Impact: Mission Capable rates negatively impacted; aircraft availability is reduced.

iv. C-141 Sustainment During Drawdown

Remaining C-141 fleet is being phased out. During this period, enroute (aircraft deployed off station) maintenance and recovery support are key concerns.

v. KC-135E TF33P102 Engine Overhaul Cost Increases

The Air Force is the only service with KC-135E aircraft. Depot Purchased Equipment Maintenance (DPEM) engine funding is a concern. Mission Impact: With appropriate funding, no impact.

vi. Maintenance Support Information Technology Modernization

Recent Air Force requirements have been levied upon all Major Commands requiring implementation of new maintenance support information technologies sooner than current POM funding satisfies. New information technologies include: Electronic Maintenance Operation Center (EMOC), Tool Accountability System (TAS) and Wireless RF LAN infrastructure. (Note: deployment of Digital Technical Orders being delivered ahead of schedule, accelerating need for funding of laptops on flight line. Air Force electronic technical order distribution/management system is also a concern. JCALS is a good idea, as is ETIMS, however, funding to obtain these new technologies has been a continuous issue. The impact could be significant with respect to aircraft maintenance—all newer weapons systems are coming with electronic technical orders. With an increasing dependence on technology, we need to make a commitment to a single solution. AFR cannot afford otherwise if it is to remain compatible with the AC.

e. Modernization Programs and Shortfalls

Congress initiated NGREA funding in December 1981 to address RC readiness issues. Public laws and legislative language directed that this equipment appropriation be intended to overcome shortfalls in the readiness, combat capability, and modernization issues of Reserve forces. The following are shortfalls categorized by major weapon systems.

i. Fighter Aircraft

a) F-16

One of the main limitations of AFR F-16 aircraft is the need for new display processors to fully maximize the pilots' situational awareness. With FY04 NGREA funds AFR is upgrading

the display processor with Commercial-Off-the-Shelf (COTS) technology. AFR F-16s are also being modified to improve the threat warning accuracy with a modification to the antenna location for the ALR-69 radar-warning receiver system.

b) A-10 and OA-10

In conjunction with ANG, AFR conducted an Operational Utility Evaluation (OUE) to determine feasibility of incorporating precision attack capability on the weapon system. Results of that study led to the installation of a temporary modification that allows for use of the LITENING Targeting Pod, thus providing precision attack capability until the permanent Precision Engagement modification is fielded on our aircraft. AFR and ANG are also modifying our aircraft to connect the Electronic warfare suite to the aircraft 1553 avionics bus, thus allowing semi automatic operation of defensive measures. We are also installing fire suppressant foam in our Sergeant Fletcher external fuel tanks in order to increase loiter time and/or the aircraft's effective range.

ii. Bomber Aircraft - B-52H

A major modification requirement is to provide a data link or situational awareness system to support the extended B-52 mission timeline. The battlefield can be expected to change significantly during a lengthy (8-10 hours or more) B-52 mission. A system is needed to provide the crew with a moving map display that includes enemy surface and air threats in addition to friendly aircraft locations. The display system would also be used to provide the aircrew with target-set updates during flight. Another necessary modification is the integration for targeting pods to provide precision strike and battle damage assessment capability. It could instantly provide accurate targeting data as well as provide war planners with campaign mission results.

iii. Airlift/Special Missions Aircraft

c) C-141

The C-141 is scheduled to retire in FY 2006. Follow-on replacement missions include the C-5, C-17, and KC-135.

d) HH-60G and HC-130 - Personnel Recovery (PR)

PR is a requirement for most military contingency operations. For example, the 920th Rescue Wing (RQW) Pave Hawk helicopters and HC-130 Hercules aircraft are in constant demand. The wing's crews are trained for day or night operations and low-level and over-water missions. They require night vision devices to enhance their rescue operations. In addition to its combat missions in Operation IRAQI FREEDOM, the 920 RQW routinely supports civilian search and rescue requirements in the coastal waters of the U.S. beyond the range of the United States Coast Guard. It also provides support to: Aerospace Expeditionary Force (AEF) requirements; NASA Space Shuttle mission rescue support; launch support at Cape Canaveral, FL; and drug enforcement agencies in counter-drug operations.

Lead command responsibility for modernization of the Personnel Recovery Total Force capabilities transferred from ACC to AFSOC in the first quarter of FY 2004. The rescue

airframes AFSOC acquired in this transfer are not considered SOF unique assets, and therefore do not fall under USSOCOM's Major Program Force (MPF) 11. As a result, modifications to the Rescue force will have to be made by lead command AFSOC with MPF 4 money. Although an initiative has begun to seek a replacement for HH-60 helicopter, no plans exist to fund a replacement for the aging HC-130 Tanker aircraft. Most of these airframes are approaching 40 years of service. AFR was able to use NGREA funds to modernize some of the combat rescue assets and maintain the capability to support the AF in numerous contingency operations as well as AEF rotations. A major modernization requirement for the HC-130 fleet is the addition of the Large Aircraft Infrared Countermeasures (LAIRCM) systems for protection against the increasing IR missile threat worldwide.

e) C-130

Necessary upgrades include the continued modernization of C-130H with Night Vision Compatible Aircraft Lighting Systems, APN-241 navigation ground map radar, and Large Aircraft Infrared Counter Measures (LAIRCM). Additionally, a high pressure spray system for the Aerial Spray mission and a Stepped Frequency Microwave Radiometer (SFMR) system for the Weather Reconnaissance mission are needed enhancements to improve aircrew survivability and weapon system reliability.

iv. Aerial Refueling Operations - KC-135

Due to fleet age, corrosion, and maintenance costs, the KC-135E fleet is experiencing significant reliability and sustainability problems and is in need of a configuration upgrade. For example, the current engine system (engines/start carts, etc.) does not meet noise and environmental requirements of the Clean Air Act. Corrosion damage is driving bills for which the AF has not budgeted. Engines are twice as expensive to overhaul and required ten times more often than R-models. There are 8 AFR KC-135E aircraft remaining and the conversion is scheduled for FY 2005.

f. Overall Equipment Readiness

Presently, AFR weapons systems maintain equipment readiness on par with the Active Air Force except where limited by modernization restrictions. Readiness is achieved with 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

A significant change in the AFR mission areas has been the reduction of AFR CSAR assets as a result of the programmed transfer of five HC-130s and eight HH-60Gs to the Active Air Force completed during FY 2004. The CSAR mission was replaced with an air-refueling wing consisting of 8 KC-135s. This is seen in *Table 1* and *Table 5*. At the time of publication of this report there were several changes in near-term acquisition plans for the AF that will include changes for AFR equipment types and quantities. This includes the possibility of a Commercial-off-the-shelf (COTS) tanker aircraft, which might result in a trickle down of KC-135R aircraft. These changes have not yet been approved, and therefore have not been included.

C. Future Years Program (FY 2006–FY 2008)

1. FY 2006 Equipment Requirements

The following are unfunded, priority, major equipment requirements that were validated by the AFR Requirements Review Board. AFR continues to pursue AF and OSD support to provide funding necessary to meet these equipment needs.

a. C-17 Aircraft

AFR's first unit-equipped C-17 squadron (Eight PAA) stands up at March ARB starting FY05 with completion in FY 2006. Consideration should be given to insure LAIRCM systems are installed on these aircraft.

b. C-130J Aircraft

Three additional aircraft are required to complete 815 ALS, Keesler AFB, MS, conversion to J model C-130s.

c. C-130H2/H3 LAIRCM

Current fielded defensive systems do not effectively protect the aircraft from current and future IR threats. The AN/AAQ-24 LAIRCM System uses a laser beam to defeat the missile and does not rely on hazardous and politically sensitive expendables, which highlight the aircraft to addition threat. AFR C-130 aircraft operate worldwide in support of AEF deployed US forces and various contingencies, ranging from low to medium threat levels. LAIRCM is top priority for AFR and AMC aircraft.

d. C-130H2 High Pressure Spray System

The Air Force Reserve is tasked with the aerial application of insecticides to control medically important mosquitoes and biting flies in order to protect troops from arthropod-borne disease (DODI 4150.7). Current field system does not meet EPA droplet size resulting in unfavorable environmental effects to "non target species". This requirement is congressionally directed.

e. C-130H2 APN 241 Radar

Current fielded APN 59 Radar is out of production and does not meet mission reliability, maintainability, and supportability requirements. Cost to maintain an antiquated system until AMP modernization occurs for these units is cost prohibitive.

f. F-16 Helmet Mounted Cueing System (HMCS)

HMCS will provide F-16 pilots an integrated capability by combining data from the multi-functional displays, instrumentation, and other on-board avionics. It will significantly improve Air-to-Air and Air to Ground mission effectiveness by providing Heads-Up Display information and spatial cueing directly onto an aircrew helmet visor.

g. C-5 Airlift Defensive System

AFR C-5A aircraft currently have no defensive systems installed on the aircraft. This severely limits the utilization of these aircraft to only non-threat environments. To make these aircraft truly viable worldwide, installation of defensive systems including flare/chaff dispensers, Radar Warning Receivers (RWR), and eventually LAIRCM is required.

2. Funded New Equipment Procurements

AFR received approximately \$45 million in NAREA funds for FY 2004. The following equipment procurement efforts were selected as the most critical to pursue within the total authorized amount:

- F-16 Litening Pod Upgrade Modification
- F-16 Litening AT Pod Procurement
- F-16 Display Processor
- APN 241 Radar Replacement for C-130E/H
- Command Post Console Upgrade
- Dobbins ARB Telephone Switch Upgrade/Expansion
- Anti-Terrorism/Force Protection (AT/FP) Equipment
- Security Forces Night Vision & Sighting Modernization

3. Anticipated Transfers and Withdrawals from AC to RC

Over the FYDP, AFR anticipates the replacement of C-141C aircraft with C-5 and C-17. Additionally, AFR's aging KC-135E aircraft will be replaced with newer KC-135R models in FY 2005.

4. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2008, and the Effects on Overall Equipment Readiness

AFR can mobilize forces to support nearly every contingency worldwide, including domestic humanitarian relief missions. There has been no impact on readiness attributable to these mobilizations. All of the selective Reserve units are fully capable of meeting their required response time. This impressive capability has been proven, and represents the RC model of seamless integration into gaining Major Commands' operational employment. AFR forces are fully integrated into the Global Reach laydown. With the establishment of the 10 AEFs, all AFR combat support forces will be continually integrated with AC forces in meeting the overall operational employment requirements in contingencies in all theaters of operations.

AFR combat readiness and mobilization are regularly evaluated in accordance with the AF Inspection system. Operational Readiness Inspections (ORI) are accomplished by gaining major commands every four years. The inspection systems measure a unit's ability to mobilize and deploy, as well as its combat readiness. Medical units (previously evaluated repeatedly by the AF Inspection Agency) are now included in ORIs to ensure they are ready to meet their

wartime taskings. AFR units are measured against the same standards and criteria required of an AC unit.

D. Summary/Conclusions

AFR continues to advocate its modernization needs to the AC and Congress. Through the hard work and dedication of AFR men and women, Reserve personnel participate in real-time contingencies as a critical partner on the AF team. To ensure a sharp and ready edge, AFR plans, programs, and facilitates its equipment requirements within the AF process. AFR requirements are presented, analyzed, and advocated under the same process used by the AF. In addition, AFR utilizes its internal Requirements Review process to further prioritize, validate, and source below the line and unfunded requirements. It engages in vigorous modernization efforts to provide the capability required to meet the war fighters' needs.

Since September 11, 2001 AFR has faced many new challenges. Foremost among these is the challenge of maintaining a steady state operations tempo. While this is possible in the short term, long term effects will include reduced manning, retention levels, and a decrease in mission capable rates for AFR aircraft. AFR continues to work hand in hand with the AC to surmount these challenges and remain a viable part of the Total Force.

AFR steadfastly upholds the core values of: "Integrity First, Service Before Self, and Excellence In All We Do" as its operating standard.

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 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|------------------------|-----------|-------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| AIR REFUELING | | | | | | | |
| AIR REFUELING, KC-135E | KC-135E | \$44,000,000 | 8 | 0 | 0 | 0 | 0 |
| AIR REFUELING, KC-135R | KC-135R | \$17,700,000 | 64 | 72 | 72 | 72 | 72 |
| AIR SUPPORT | | | | | | | |
| AIR SUPPORT, OA-10A | OA-010A | \$10,700,000 | 7 | 7 | 7 | 7 | 7 |
| SPECIAL OPS, MC-130E | MC-130E | \$72,300,000 | 12 | 12 | 12 | 12 | 12 |
| WEATHER WC-130J | WC-130J | \$75,500,000 | 10 | 10 | 10 | 10 | 10 |
| AIRLIFT | | | | | | | |
| AIRLIFT, C-130E | C-130E | \$12,400,000 | 10 | 8 | 8 | 8 | 8 |
| AIRLIFT, C-130H | C-130H | \$29,200,000 | 73 | 73 | 72 | 71 | 71 |
| AIRLIFT, C-130J | C-130J | \$64,000,000 | 4 | 6 | 7 | 8 | 8 |
| AIRLIFT, C-141C | C-141C | \$47,180,000 | 8 | 8 | 0 | 0 | 0 |
| AIRLIFT, C-17A | C-17A | \$219,200,000 | 0 | 2 | 8 | 8 | 8 |
| AIRLIFT, C-5A | C-5A | \$119,300,000 | 28 | 30 | 35 | 24 | 24 |
| AIRLIFT, C-5B | C-5B | \$156,800,000 | 0 | 0 | 0 | 8 | 14 |
| BOMBERS | | | | | | | |
| BOMBERS, B-52H | B-52H | \$55,400,000 | 8 | 8 | 8 | 8 | 8 |
| FIGHTERS | | | | | | | |
| FIGHTER, A-10A | A-010A | \$10,700,000 | 38 | 38 | 38 | 38 | 38 |
| FIGHTER, F-16C | F-16C | \$19,500,000 | 53 | 53 | 53 | 53 | 53 |
| FIGHTER, F-16D | F-16D | \$19,500,000 | 7 | 7 | 7 | 7 | 7 |
| RESCUE | | | | | | | |
| RESCUE, HC-130N | HC-130N | \$19,100,000 | 1 | 1 | 1 | 1 | 1 |
| RESCUE, HC-130P | HC-130P | \$19,100,000 | 4 | 4 | 4 | 4 | 4 |
| RESCUE, HH-60G | HH-60G | \$17,600,000 | 13 | 13 | 13 | 13 | 13 |

AFR

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 2005.

| Nomenclature | Equip No. | Average Age | Remarks |
|------------------------|-----------|-------------|------------------------------------|
| AIR REFUELING | | | |
| AIR REFUELING, KC-135E | KC-135E | 45 | Phase out of remaining A/C in 2005 |
| AIR REFUELING, KC-135R | KC-135R | 45 | |
| AIR SUPPORT | | | |
| AIR SUPPORT, OA-10A | OA-010A | 24 | |
| SPECIAL OPS, MC-130E | MC-130E | 40 | |
| WEATHER, WC-130J | WC-130J | 4 | |
| AIRLIFT | | | |
| AIRLIFT, C-130E | C-130E | 41 | |
| AIRLIFT, C-130H | C-130H | 15 | |
| AIRLIFT, C-130J | C-130J | 6 | |
| AIRLIFT, C-141C | C-141C | 38 | |
| AIRLIFT, C-5A | C-5A | 34 | |
| BOMBERS | | | |
| BOMBER, B-52H | B-52H | 43 | |
| FIGHTERS | | | |
| FIGHTER, A-10 | A-10 | 25 | |
| FIGHTER, F-16C | F-16C | 17 | |
| FIGHTER, F-16D | F-16D | 19 | |
| RESCUE | | | |
| RESCUE, HC-130N | HC-130N | 36 | |
| RESCUE, HC-130P | HC-130P | 39 | |
| RESCUE, HH-60G | HH-60G | 16 | |

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 2006 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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008.

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---|------------|------------|-------------|---------|
| MODIFICATION OF INSERVICE AIRCRAFT | | | | |
| B-52 | 14,500,000 | 11,700,000 | 20,400,000 | |
| A-10 | 7,700,000 | 11,500,000 | 10,600,000 | |
| F-16 | 17,200,000 | 14,900,000 | 14,800,000 | |
| C-5 | 25,400,000 | 55,000,000 | 128,000,000 | |
| C-130 | 24,400,000 | 34,600,000 | 69,600,000 | |
| C-130J MODS | 1,000,000 | 7,600,000 | 7,700,000 | |
| C-135 | 12,900,000 | 11,800,000 | 11,600,000 | |
| H-60 | 6,700,000 | 1,900,000 | 3,800,000 | |
| AIRCRAFT SUPPORT EQUIPMENT AND FACILITIES | | | | |
| COMMON SUPPORT EQUIPMENT | 24,262,000 | 23,654,000 | 20,048,000 | |
| VEHICULAR EQUIPMENT | | | | |
| PASSENGER CARRYING VEHICLES | 281,000 | 293,000 | 2,311,000 | |
| MEDIUM TACTICAL VEHICLE | 265,000 | 2,001,000 | 1,053,000 | |
| HIGH MOBILITY VEHICLE (MYP) | 138,000 | 285,000 | 1,269,000 | |
| HMMWV, ARMORED | 82,000 | | | |
| HMWWV,UP-ARMORED | | 175,000 | | |
| FIRE FIGHTING/CRASH RESCUE VEH | | 383,000 | 386,000 | |
| RUNWAY SNOW REMOVAL & CLEANING | 399,000 | 2,448,000 | 1,864,000 | |
| BASE MAINTENANCE SUPPORT - ITEMS LESS THAN \$5.0M (VEH) | | 2,262,000 | 4,193,000 | |
| ELECTRONICS AND TELECOMMUNICATIONS EQUIP | | | | |
| NATIONAL AIRSPACE SYSTEM | 142,000 | 14,133,000 | 3,139,000 | |
| WEATHER OBSERVATION FORECAST | 2,722,000 | | | |
| AF GLOBAL COMMAND & CONTROL SYS | 525,000 | 525,000 | 650,000 | |
| COMBAT TRAINING RANGES | 700,000 | 700,000 | 700,000 | |
| GCSS-AF FOS | 340,000 | 340,000 | | |
| THEATER BATTLE MGT C2 SYSTEM | 625,000 | 625,000 | 3,400,000 | |
| BASE INFO INFRASTRUCTURE | 21,171,000 | 9,962,000 | 10,083,000 | |
| NAVSTAR GPS SPACE | 1,680,000 | 140,000 | | |
| CCTV/AUDIOVISUAL EQUIPMENT | 500,000 | 500,000 | 500,000 | |

AFR

Table 3

Service Procurement Program - Reserve (P-1R)

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---|----------------------|----------------------|----------------------|----------------|
| OTHER BASE MAINTENANCE AND SUPPORT EQUIP | | | | |
| NIGHT VISION GOGGLES | 185,000 | 125,000 | 567,000 | |
| MECHANIZED MATERIAL HANDLING EQUIPMENT | 63,000 | 64,000 | 516,000 | |
| BASE SUPPORT EQUIPMENT - ITEMS LESS THAN \$5.0M | 599,000 | 745,000 | 775,000 | |
| TOTAL | \$164,479,000 | \$208,360,000 | \$317,954,000 | |

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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008. All values are costs in dollars.

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|--|--------------------|---------------------|---------------------|---------|
| WC-130 DIGITAL DEWPOINT HYGROMETER | 650,000 | | | |
| HC-130 LIGHTWEIGHT AIRBORNE RETRIEVAL SYSTEM | 400,000 | | | |
| F-16 SITUATIONAL AWARENESS DATA LINK UPGRADE | 650,000 | | | |
| C-130H3 SIMULATOR CONVERSION | 2,700,000 | | | |
| A-10 FUEL TANK FOAM INSTALLATION | 180,000 | | | |
| F-16 SOLID STATE VIDEO TAPE RECORDER | 4,000,000 | | | |
| C-130 SPRAY PAINT BOOTH | 640,000 | | | |
| ANTI-TERRORISM/FORCE PROTECTION EQUIPMENT | 650,000 | | | |
| MISCELLANEOUS VEHICLES | 73,900 | | | |
| F-16 LITENING POD UPGRADE MODIFICATION | | 14,760,000 | 8,600,000 | |
| F-16 LITENING AT POD PROCUREMENT | | 14,300,000 | | |
| C-130E/H APN-241 RADAR REPLACEMENT | | 7,072,000 | 1,771,000 | |
| F-16 DISPLAY PROCESSOR | | 6,400,000 | | |
| COMMAND POST CONSOLE UPGRADES | | 1,520,000 | | |
| DOBBINS TELEPHONE SWITCH UPGRADE | | 410,000 | | |
| ANTI-TERRORISM/FORCE PROTECTION EQUIPMENT | | 204,100 | | |
| C-130 LARGE AIRCRAFT INFRA-RED COUNTERMEASURES (8 GROUP A WIRING, 4 GROUP B SYSTEMS, SPARES & SE) | | | 26,000,000 | |
| C-5A AIRLIFT DEFENSIVE SYSTEMS | | | 3,475,000 | |
| TOTAL | \$9,943,900 | \$44,666,100 | \$39,846,000 | |

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 Active 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 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|-------------------------|------------------|--------------------|--------------------|--------------------|----------------------------------|
| AIRLIFT, C-141C | C-141C | -8 | | | C-141 drawdown |
| THEATER AIRLIFT, C-130E | C-130E | -1 | | | |
| AIRLIFT, C-130H | C-130H | -2 | | | OSD-directed transfers to SOCCOM |
| AIRLIFT, C-5A | C-5A | 5 | -11 | | |
| AIRLIFT, C-5B | C-5B | | 8 | | |
| AIRLIFT, C-17A | C-17A | | 8 | | |

FY 2002 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2002 with actual procurements and transfers. FY 2002 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 2004. Procurement and NGREA columns reflect cost values in dollars.

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|---|-----------|--------------------------------|--------|----------------------------|------------|---------------------|--------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| AIRLIFT C-141B | C-141B | 5 | 5 | | | | |
| B-52 | | | | 0 | 1,200,000 | | |
| A-10 | | | | 1,600,000 | 1,900,000 | | |
| F-16 | | | | 10,300,000 | 1,500,000 | | |
| C-5 | | | | 26,400,000 | 4,200,000 | | |
| C-130 | | | | 13,800,000 | 9,400,000 | | |
| C-135 | | | | 22,700,000 | 19,800,000 | | |
| H-60 | | | | 3,800,000 | 4,100,000 | | |
| OTHER AIRCRAFT | | | | 500,000 | 0 | | |
| OTHER PRODUCTION CHARGES | | | | 14,900,000 | 5,507,000 | | |
| BUSES | | | | 100,000 | 119,000 | | |
| LAW ENFORCEMENT VEHICLE | | | | 100,000 | 115,000 | | |
| TRUCK, CARGO-UTILITY, 3/4T, 4 | | | | 0 | 1,909,000 | | |
| TRUCK MULTI-STOP 1 TON 4X2 | | | | 1,200,000 | 1,204,000 | | |
| CARGO & UTILITY VEHICLES - ITEMS LESS THAN \$5,000,000 | | | | 1,000,000 | 1,124,000 | | |
| SPECIAL PURPOSE VEHICLES - ITEMS LESS THAN \$5,000,000 | | | | 100,000 | 149,000 | | |
| FIRE FIGHTING EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 200,000 | 187,000 | | |
| TUNNER LOADER | | | | 0 | 6,095,000 | | |
| HALVERSEN LOADER | | | | 0 | 1,646,000 | | |
| BASE MAINTENANCE SUPPORT - ITEMS LESS THAN \$5,000,000 | | | | 100,000 | 142,000 | | |
| NATIONAL AIRSPACE SYSTEM | | | | 700,000 | 743,000 | | |
| WEATHER OBSERV/FORCAST | | | | 0 | 0 | | |
| AF GLOBAL COMMAND & CONTROL SYS | | | | 500,000 | 575,000 | | |
| AIR FORCE PHYSICAL SECURITY SYS | | | | 0 | 3,300,000 | | |
| COMBAT TRAINING RANGES | | | | 700,000 | 700,000 | | |
| BASE LEVEL DATA AUTO PROGRAM | | | | 100,000 | 50,000 | | |

FY 2002 Planned vs Actual Procurements and Transfers

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NAREA (\$s) | |
|--|-----------|--------------------------------|--------|----------------------------|---------------------|---------------------|---------------------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| THEATER BATTLE MGT C2 SYSTEM | | | | 1,500,000 | 1,500,000 | | |
| BASE INFORMATION INFRASTRUCTURE | | | | 4,100,000 | 3,963,000 | | |
| DEFENSE MESSAGE SYSTEM (DMS) | | | | 300,000 | 315,000 | | |
| NAVSTAR GPS SPACE | | | | 400,000 | 0 | | |
| CCTV/AUDIOVISUAL EQUIPMENT | | | | 500,000 | 500,000 | | |
| ORGANIZATION AND BASE - ITEMS LESS THAN \$5,000,000 | | | | 200,000 | 164,000 | | |
| TEST EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 300,000 | 1,311,000 | | |
| NIGHT VISION GOGGLES | | | | 200,000 | 83,000 | | |
| PERSONAL SAFETY AND RESCUE EQUIP - ITEMS LESS THAN \$5,000,000 | | | | 200,000 | 2,591,000 | | |
| MECHANIZED MATERIAL HANDLING | | | | 200,000 | 0 | | |
| DEPOT PLANT & MATERIALS HANDLING EQ - ITEMS LESS THAN \$5,000,000 | | | | 300,000 | 1,247,000 | | |
| FLOODLIGHTS | | | | 200,000 | 402,000 | | |
| ELECTRICAL EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 200,000 | 224,000 | | |
| PHOTOGRAPHIC EQUIPMENT | | | | 300,000 | 150,000 | | |
| AIR CONDITIONERS | | | | 200,000 | 149,000 | | |
| BASE SUPPORT EQUIPMENT - ITEMS LESS THAN \$5,000,000 | | | | 800,000 | 5,533,000 | | |
| C-130J AIRCRAFT | | | | | | 70,769,707 | 70,770,000 |
| F-16 SEM/EDX ENGINE TESTER | | | | | | 900,000 | 600,000 |
| SURVIVAL RADIO TRAINING PACKAGE (PRC-12) | | | | | | 330,000 | 50,000 |
| F-16 PYLON DISPENSER UNIVERSAL UPGRADES (PIDS) | | | | | | 2,970,000 | 3,604,000 |
| A-10 AVIONICS BUS TO EW BUS CONNECTION | | | | | | 600,000 | 0 |
| A-10 FMT/MTT CASNET | | | | | | 200,000 | 200,000 |
| TOTAL | | | | \$108,700,000 | \$83,797,000 | \$75,769,707 | \$75,224,000 |

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 2006 Qty | Deployable? | |
|-------------------------------|------------------------|---------------------------------|------------------------------|----------------|-------------|----|
| | | | | | Yes | No |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Service Does Not Use Substitution To Satisfy
Major Item Equipment Requirements**

Significant Major Item Shortages

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

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/Justification |
|----|---|-------------|---------------|-----------|---------------------|--|
| 1 | C-130 LARGE AIRCRAFT INFRARED COUNTERMEASURES (LAIRCM) | 32* | 24 | 3,250,000 | 78,000,000 | Current defensive systems do not effectively protect the aircraft from current and future IR threats. |
| 2 | HC-130 LARGE AIRCRAFT INFRARED COUNTERMEASURES (LAIRCM) | 5* | 5 | 5,020,000 | 25,100,000 | Current defensive systems do not effectively protect the aircraft from current and future IR threats. |
| 3 | A-10 LITENING AT POD PROCUREMENT | 36* | 30 | 1,300,000 | 39,000,000 | Required to support ongoing contingency operations and training. |
| 4 | F-16/A-10 ROCKET LAUNCHER TRANSPORT MODULE | 12 | 12 | 12,000 | 144,000 | Required to support ongoing contingency operations and training. |
| 5 | APN 241 RADAR REPLACEMENT | 16 | 6 | 885,000 | 5,310,000 | Current fielded APN 59 radar is out of production and does not meet mission reliability, maintainability, supportability requirements. |
| 6 | A-10 TACTICAL DATA LINK | 52 | 52 | 100,000 | 5,200,000 | Required to support ongoing contingency operations and training. |
| 7 | HH-60 TACTICAL DATA LINK | 15 | 15 | 100,000 | 1,500,000 | Required to support ongoing contingency operations and training. |
| 8 | C-5A AIRLIFT DEFENSIVE SYSTEMS | 32 | 27 | 665,625 | 17,971,875 | Provides protection against infrared-guided surface-to-air missile threats. |
| 9 | MC-130E/HC-130 CRASH RESISTANT PARATROOP DOOR SEAT MOD | 38 | 38 | 12,650 | 480,700 | Improves survivability of scanner/loadmaster. Improves ability to accurately observe night time refueling ops. |
| 10 | HH-60 Q-22 FLIR REPLACEMENT | 15 | 15 | 700,000 | 10,500,000 | Required to support ongoing contingency operations and training. |

* Quantity includes spares

Chapter 6 United States Coast Guard Reserve

I. Coast Guard Overview

The Coast Guard is a branch of the armed forces of the United States at all times. It is a multi-mission maritime service within the Department of Homeland Security (DHS), that provides maritime safety and security by protecting the public, the environment, and U.S. economic and security interests in U.S. waters, foreign ports, and on the high seas. As the only military service outside the Department of Defense (DoD), the Coast Guard's broad law enforcement authorities make it a unique and extremely valuable instrument of national security.

A. Overall Coast Guard Planning Guidance

1. United States Code

There are myriad references in the United States Code, primarily in Titles 14, 33 and 10 that describe the Coast Guard and outline the Service's responsibilities and various authorities. The following references specifically address defense responsibilities:

- 14 U.S.C. 1. Establishment of Coast Guard. "...the Coast Guard ... 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 or when the President directs, the Coast Guard shall operate as a service in the Navy."
- 14 U.S.C. 145. Navy Department. "...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. Defense and Transportation Memorandum of Agreement

The October 3, 1995 Memorandum of Agreement (MOA) between the Secretaries of Defense and Transportation for "Use of U.S. Coast Guard Capabilities and Resources in Support of the National Military Strategy" provides specific guidance for military planning and operations. This MOA remains in effect after the transfer to DHS. The primary objectives are to identify national defense capabilities of the Coast Guard and to improve Coast Guard responsiveness as a force provider. Annexes to this MOA address the following:

- Maritime Interception Operations to enforce the seaward portion of certain sanctions against other nations or group of nations. It may include stopping, boarding, searching, diverting, or redirecting vessel traffic.
- Marine Environmental Response Operations to facilitate planning, training and deployment of personnel in direct support of combatant commanders' environmental response requirements.

- Port Operations Security and Defense to ensure port and harbor areas are maintained free of hostile threats, terrorist actions and safety deficiencies which would be a threat to the deployment of military resources during contingencies, in both Seaports of Embarkation and Seaports of Debarkation.
- Peacetime Military Engagement to guide participation in combatant commanders' engagement strategies.
- Coastal Sea Control Operations to provide for deployment of Coast Guard personnel and platforms in support of combatant commanders' requirements.

3. National Fleet Policy Statement

The July 9, 2002 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 National Fleet, the Coast Guard and Navy work together to plan, acquire and maintain forces that mutually support and complement each Service's roles and missions. While charged with different aspects of the national security, the Coast Guard and Navy cooperate and integrate capabilities to ensure the highest level of maritime capabilities and readiness during surge or high-tempo operations. 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 include 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. Integration of the Coast Guard Reserve

The Coast Guard uses almost all of its resources daily to accomplish a broad range of operations. Coast Guard reservists prepare for mobilization daily by augmenting active units and carrying out training and operations alongside their active duty counterparts. The synthesis of these two activities is integration. Integration of the Active and Reserve Components was accomplished in three overlapping but distinct stages: alignment of active and reserve units into separate but parallel structures, consolidation of supporting administrative systems, and placement of all personnel into a single organizational structure. Individual reservists now mostly augment active units to simplify administration and increase the utility of the augmentees.

The training employment of the reserve component, other than those assigned to deployable units, is through direct augmentation of active component units using the active component's and other items in their inventory.

Unique to the Coast Guard Reserve is a provision in 14 U.S.C. 712, which allows the Secretary of Homeland Security to involuntarily recall Coast Guard reservists to active duty for not more than thirty days in any four-month period and not more than sixty days in any two-year period for natural or man-made disasters. This authority was exercised as recently as September 2004 for Hurricane Frances recovery efforts in Florida and immediately following the tragic

events of 11 September 2001, to mobilize reservists to carry out security and recovery activities, while presidential mobilization authorization was in process.

B. Coast Guard Equipping Policy

Equipment for domestic operations is provided for within the DHS budget.

Equipment for mobilization under 14 U.S.C. 712 or for normal operational surges is provided by active component units from existing unit inventory, from supporting units, or through contemporary procurement using the DHS budget.

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 high endurance cutters, 270' and 210' medium endurance cutters, 110' patrol boats, Port Security Units (PSU), and Mobile Support Units (MSU).

Personal Protective Equipment (PPE) is acquired for active duty personnel from the units' operations and maintenance budgets. PPE for reservists is purchased from the units' operations and maintenance budgets, and, when available, from the Reserve Training Appropriation.

C. Plan to Fill Mobilization Requirements

The Coast Guard is conducting a comprehensive review of its Contingency Personnel Requirements List (CPRL), a critical element of its mobilization plan, to assimilate lessons learned during recent mobilizations for Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and Operation Noble Eagle (ONE). The CPRL includes active and reserve staffing to satisfy ongoing and contingency operational requirements. Billets identified in the CPRL that can reasonably be filled by trained reservists will be associated with Reserve Personnel Allowance List (RPAL) billets filled by Selected Reservists (SELRES). Training for SELRES will be conducted at Coast Guard stations nationwide consistent with the integration initiative or at specific deployable units.

D. Current Coast Guard Initiative Affecting RC Equipment

Consistent with integration initiatives, approximately 85 percent of the SELRES normally use equipment at operating units that have been acquired and are supported by ongoing operations funding mechanisms. Remaining SELRES are assigned to deployable Port Security Units (PSU). The following initiatives were pursued during FY 2004:

- The Coast Guard allocated \$9.2M for equipment to outfit two new PSUs during FY 2004 to provide the minimum number of units necessary to meet a single OCONUS major military contingency, and to provide the flexibility to address emerging defense requirements recently identified by the Joint Staff, while also offering sufficient depth to support a three year training/reconstitution cycle which will be key to program readiness and reserve personnel retention.

- The Coast Guard allocated \$2.2M to acquire 12 new Transportable Port Security Boats (TPSB) to recapitalize equipment used during Operation Enduring Freedom and Operation Iraqi Freedom. Sources for funding were split between the Emergency Supplemental Appropriations for Iraq and Afghanistan Security and Reconstruction Act, 2004, and the Department of Homeland Security Appropriations Act of 2004.
- Safety is a top priority for the Coast Guard. The Coast Guard has funded the majority of PPE needed for reservists to safely conduct training and operations alongside their active duty counterparts.

E. Plan to Achieve Compatibility Between AC and RC

SELRES personnel are fully integrated into the active component units. They follow the same training programs and carry out assigned duties side-by-side active duty personnel. Units that are mostly reserve-staffed are specifically organized and staffed for military operations and have no similar type of unit in the active component.

II. Coast Guard Reserve (USCGR) Overview

A. Current Status of the USCGR

1. Funding

The Coast Guard Reserve Training Appropriation for FY 2004 provided \$95M for necessary expenses of the Coast Guard Reserve, as authorized by law: operations and maintenance of the reserve program, personnel and training costs, and equipment and services.

2. Personnel

Coast Guard SELRES personnel constitute nearly 20 percent of the uniformed Coast Guard strength and are a critical asset to active component units as round-out personnel for peacetime operational missions and surge resources for natural or man-made disasters.

Although the National Defense Authorization Act (NDAA) for FY 2005 authorizes 10,000 Coast Guard Selected Reservists, the Coast Guard Reserve Training Appropriation for FY 2004 and the President's budget for FY 2005 only support a Selected Reserve maximum staffing of 8,100 billets. The Coast Guard Reserve is therefore staffed at 8,100.

Approximately 7,000 reserve billets are assigned to active duty commands where training is achieved mainly through augmentation. Most Coast Guard units include a minority staffing by reservists. One notable exception is the National Strike Teams that are nearly equally staffed by active and reserve component personnel and deploy regularly to respond to chemical incidents and may be employed in response to a Weapons of Mass Destruction (WMD) incident.

Reserve employment in Defense Contingency operations in FY 2004 and plans for FY 2005 are shown in the tables below. There are plans to increase the number of PSU units from 6 to 8. The number of Coast Guard personnel assigned to integrate at Navy commands will change consistent with a Navy Coastal Warfare reorganization. Staffing at Joint Reserve Units at the

Combatant Commanders will remain static for FY 2005. Approximately 1,350 reservists will be assigned to defense contingency billets in FY 2005.

| FY 2004 Defense Contingency Reserve Staffing | | | | |
|--|----------|--------|----------|--------|
| Units (Number) | Officers | | Enlisted | |
| | Active | SelRes | Active | SelRes |
| Port Security Unit (6) | 1 | 12 | 5 | 128 |
| Harbor Defense Command Unit (9) | 0 | 9 | 0 | 8 |
| Naval Coastal Warfare Group (2) | 1 | 8 | 0 | 5 |
| Joint Reserve Unit (3) | 1 | 13 | 1 | 7 |
| Total | 11 | 208 | 33 | 871 |

| FY 2005 Defense Contingency Reserve Staffing | | | | |
|--|----------|--------|----------|--------|
| Units (Number) | Officers | | Enlisted | |
| | Active | SelRes | Active | SelRes |
| Port Security Unit (8) | 1 | 12 | 5 | 128 |
| Naval Coastal Warfare Squadron (6) | 0 | 9 | 0 | 10 |
| Naval Coastal Warfare Group (2) | 1 | 2 | 0 | 4 |
| Joint Reserve Unit (3) | 1 | 13 | 1 | 7 |
| Total | 13 | 193 | 43 | 1113 |

B. Changes Since Last NGRER

None.

C. Future Years Program (FY 2006–FY 2008)

Combatant commander contingency plans validate requirements for deployable Coast Guard units.

- Six PSUs are currently operational. Two additional PSUs are being organized and equipped during FY 2004 and FY 2005.
- The Coast Guard is closely aligned and integrated into the Navy’s Naval Coastal Warfare (NCW) organization. 128 SELRES personnel fill RPAL and CPRL billets at NCW Groups and Squadrons. There are 3 RC NCW Squadrons (NCWRON) and 1 NCW Group on each coast. An NCW reorganization was implemented to provide additional Anti-Terrorism/Force Protection (AT/FP) capabilities for deployed Navy ships on an ongoing basis.
- The Coast Guard has one Mobile Support Unit (MSU). Stand-up of a second RC MSU has been considered, but has been deferred due to funding constraints.

D. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2008

1. Funding

The Reserve Training budget has increased at a rate similar to the rest of the Coast Guard budget and appears to be adequate to meet projected requirements for FY 2005.

2. Personnel

The Coast Guard has had to balance reserve appropriation funding and reserve billets authorization for FY 2005, among competing Coast Guard operational and mobilization requirements.

3. Equipment

Equipment to support reserve training is adequate. However, there is a shortage of Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) PPE, sensors/detection training, and associated standard allowance equipment for active and reserve personnel that could affect the Coast Guard's ability to conduct operations amidst a Weapons of Mass Destruction (WMD) release or CBRNE incident. For example, CBRNE PPE for reserve component personnel assigned to the Marine Safety Offices (MSO) responsible for DoD Strategic load-out is drastically below requirements. During a military load-out contingency, the current mobilization requirements call for more than 3,500 reserve component personnel. To meet strategic load-out port commitments CBR Mission Oriented Protective Posture (MOPP) gear is required. *Table 8* depicts the current shortfalls.

E. Summary/Conclusions

The Coast Guard continues to analyze emerging missions and roles. Optimizing resources and improving capabilities to meet emerging national security requirements is the challenge for the future. The Coast Guard does not receive any funding through the NGREA.

1. Funding

The Coast Guard is appropriated adequate funds to support reserve training and readiness.

2. Personnel

Coast Guard Reservists have been extremely busy supporting mobilization requirements resulting from the Sep 11 terrorist attacks, Operations Noble Eagle, Neptune Shield, Enduring Freedom, and Iraqi Freedom.

- Retention, training and recruiting during FY 2005 will require significant attention and investment due to considerable employment of reservists on active duty (Involuntary Recall, ADSW and EAD). However there are limitations to the rate that the Coast Guard can process, train and prepare persons for their myriad national defense responsibilities. Sustained operations require a backlog of personnel to ensure

continuity of operations, and to allow for backfill and response to unforeseen contingencies.

- The FY 2004 investment in two new PSUs has significant challenges because it is being carried out from within the existing base of 8,100 Selected Reservists; over 280 billets reprogrammed. Whereas a larger number of PSUs could reduce operations tempo caused by repeated deployments as well as contingency readiness requirements, it is unlikely that expeditionary units will be at their required readiness levels until June of FY 2005 due to repeated deployments and high operations tempo.
- Reconstituting forces will be essential to sustain Coast Guard operations amidst any hostile actions. Although contingency plans have been developed to provide follow-on forces required for on-scene regular relief, there is a need for additional capacity to support significant backfill that may be required.

3. Equipment

Additional military equipment for use in a combat zone is required. New PSUs and recapitalization is needed to support ongoing operational requirements.

Current strategic planning in the Joint Strategic Capabilities Plan and the Unified Combatant Commanders' OPLANs obligates the Coast Guard to support operations for two complete patrol boat squadrons. Currently, the Coast Guard maintains one Mobile Support Unit capable of only supporting one squadron of no more than six patrol boats. These limitations are due to equipment and manpower shortfalls. The Coast Guard would like to upgrade the program in order to meet its full obligation to DoD. In addition to supporting two 110' cutter squadrons, the MSU theoretically could support other Coast Guard standard boats if properly trained, staffed and equipped. Current MSU equipment shortfalls are shown in *Table 8*.

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 2006 Unit Cost | Begin FY 2006 QTY O/H | Begin FY 2007 QTY O/H | Begin FY 2008 QTY O/H | End FY 2008 QTY O/H | End FY 2008 QTY REQ |
|--|----------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------------------------------|------------------------------------|
| PORT SECURITY UNITS | | | | | | |
| 25' TPSB (6 per unit) | 85,000 | 54 | 54 | 54 | 54 | 54 |
| 175HP OUTBOARD MOTOR (2 per boat/6 total spares) | 10,000 | 166 | 166 | 166 | 166 | 166 |
| VEHICLE, F350 PICKUP (2 per unit) | 45,000 | 18 | 18 | 18 | 18 | 18 |
| VEHICLE, F350 12-PASSENGER VAN (1 per unit) | 50,000 | 9 | 9 | 9 | 9 | 9 |
| VEHICLE, F550 STAKEBED (1 per unit) | 50,000 | 9 | 9 | 9 | 9 | 9 |
| PRC 117F RADIO, TRI-BAND (1 per boat/1 total spares) | 45,000 | 40 | 40 | 40 | 40 | 63 |
| RADIO, VHF/FM SPECTRA (1 per boat, 4 total spares) | 5,000 | 90 | 90 | 90 | 90 | 90 |
| PRC 117F RADIO, TRI-BAND, BASE (1 per unit) | 55,000 | 9 | 9 | 9 | 9 | 9 |
| PSU EQUIPMENT PACKAGE | 1,750,000 | 8 | 8 | 8 | 8 | 8 |
| MOBILE SUPPORT UNITS | | | | | | |
| TRAILER, CONNEX BOX | 30,000 | 23 | 23 | 23 | 23 | 23 |
| TRUCK, PICK-UP | 45,000 | 2 | 2 | 2 | 2 | 2 |
| TRUCK, STAKEBED | 50,000 | 4 | 4 | 4 | 4 | 4 |
| TRUCK, TRACTOR TRAILER | 105,000 | 2 | 2 | 2 | 2 | 2 |
| FORKLIFT, 10,000 LB | 20,000 | 1 | 1 | 1 | 1 | 1 |
| GENERATOR SET 160KW & SPARE PARTS KIT | 23,000 | 2 | 2 | 2 | 2 | 2 |
| WELDER, GAS POWERED | 3,000 | 1 | 1 | 1 | 1 | 1 |

USCGR

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 2005.

| Nomenclature | Equip No. | Average Age | Remarks |
|---------------------------------------|-----------|-------------|---------|
| PORT SECURITY UNITS | | | |
| 25' TPSB | | 3 | |
| 175HP OUTBOARD MOTOR | | 3 | |
| VEHICLE, F350 PICKUP | | 6 | |
| VEHICLE, F350 12-PASSENGER VAN | | 6 | |
| VEHICLE, F550 STAKEBED | | 6 | |
| RADIO, TRI-BAND (1 per boat/2 spares) | | 2 | |
| RADIO, VHF/FM SPECTRA | | 4 | |
| RADIO, TRI-BAND, BASE | | 4 | |

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 2006 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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008.

| Nomenclature | FY 2006 | FY 2007 | FY 2008 | Remarks |
|---------------------|----------------|----------------|----------------|----------------|
| | | | | |
| | | | | |
| | | | | |

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 2006 would be expected to arrive in RC inventories in FY 2007 or FY 2008. All values are costs in dollars.

| Nomenclature | FY 2003 | FY 2004 | FY 2005 | Remarks |
|--------------|---------|---------|---------|---------|
| | | | | |
| | | | | |
| | | | | |

Table 4 not applicable for 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 Active 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 2006 Qty | FY 2007 Qty | FY 2008 Qty | Remarks |
|--------------|-----------|-------------|-------------|-------------|---------|
| | | | | | |
| | | | | | |
| | | | | | |

Service has no planned transfers or withdrawals for the years FY 2006 thru FY 2008

USCGR

Table 6

FY 2002 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2002 with actual procurements and transfers. FY 2002 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 2004. Procurement and NGREA columns reflect cost values in dollars.

| Nomenclature | Equip No. | FY 2002 Transfers (# of items) | | FY 2002 Procurements (\$s) | | FY 2002 NGREA (\$s) | |
|--------------|-----------|--------------------------------|--------|----------------------------|--------|---------------------|--------|
| | | Plan | Actual | Plan | Actual | Plan | Actual |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

USCGR had no planned or actual transfers or procurements of major equipment during FY 2002

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 2006 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 an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

| PR | Nomenclature | Total Req'd | # Items Short | Item Cost | Total Shortage Cost | Rationale/ Justification |
|-----------|------------------------------------|--------------------|----------------------|------------------|----------------------------|------------------------------------|
| 1 | Truck, tractor trailer | 2 | 2 | 105,000 | 210,000 | Mobile Support Unit equipment |
| 2 | Trailer, connex box | 23 | 23 | 30,000 | 690,000 | Mobile Support Unit equipment |
| 3 | Truck, pick-up | 3 | 1 | 25,000 | 25,000 | Mobile Support Unit equipment |
| 4 | Forklift, 10,000 lb | 2 | 1 | 20,000 | 20,000 | Mobile Support Unit equipment |
| 5 | Welder, gas powered | 2 | 1 | 3,000 | 3,000 | Mobile Support Unit equipment |
| 6 | MSU equipment package | 1 | 1 | 213,500 | 213,500 | Mobile Support Unit equipment |
| 7 | Two additional PSU TOA inventories | 8 | 2 | 2,703,000 | 5,406,000 | Mobile Support Unit equipment |
| 8 | Level A suits | 156 | 30 | 600 | 18,000 | WMD Response Gear |
| 9 | Chem-bio detection equipment | 12 | 10 | 9,000 | 90,000 | WMD Response Gear |
| 10 | PRC-117F Radio | 23 | 23 | 45,000 | 1,035,000 | Required for DoD/NCW compatibility |

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 U.S. Code 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. Finally, in compliance with the FY 1993 National Defense Authorization Act, 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.

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 Title 10, U.S. Code, Section 10541.

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.

(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.

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 2006 to 2008 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 2006 - FY 2008
 - remaining shortfall for FY 2009 and beyond.
- Focus primarily on major items of equipment.

III. Report Contents

A. Analysis and Conclusion (Chapter 1)

Chapter 1, Analysis and Conclusion 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 2002 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 and 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 Army; Table of Authorized Materiel (TAM) 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 2006 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 2006, 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.

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 2002 Planned vs Actual Procurements and Transfers. This table compares what the Service planned to procure and transfer to the RC in FY 2002 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 2004.

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 2006 - 2010 FYDP, are listed on 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 Points of Contact

DEPARTMENT OF DEFENSE

**Office of the Assistant Secretary of Defense for Reserve Affairs
ATTN: OASD/RA (M&F)
1500 Defense Pentagon, Room 2E217
Washington, DC 20301-1500**

Ms. Patricia J. Walker
Deputy Assistant Secretary of Defense for Reserve Affairs
(Materiel & Facilities)
(703) 695-1677

COL Stan Wilson
OASD/RA (M&F)
Deputy Director, Equipment Resources and Evaluation
(703) 695-1677
Emory.Wilson@osd.mil

UNITED STATES ARMY

**Office of Deputy Chief of Staff, G-4
ATTN: DALO-PLR
500 Army Pentagon, Room 1D343
Washington, DC 20301-0500**

LTC Charles Shepherd
(703) 614-4247
Charles.Shepherd@us.army.mil

Mr. Dan Bernhardt (ARNG)
(703) 607-7443
Daniel.Bernhardt@ngb.army.mil

LTC Carol Leighton (Army Reserve)
(703) 695-4587
Carol.Leighton@hqda.army.mil

UNITED STATES MARINE CORPS

**Headquarters, United States Marine Corps
Manpower and Reserve Affairs (RAC)
3280 Russell Road
Quantico, VA 22134**

Maj William Geissler
(703) 784-9141
william.geissler@usmc.mil

UNITED STATES NAVY

**Headquarters, United States Navy
Office: Chief of Naval Operations
ATTN: CNO-N9598E
2000 Navy Pentagon
Washington, DC 20350-2000**

LCDR Roberto Molina
(703) 614-4401
Roberto.Molina@navy.mil

UNITED STATES AIR FORCE

**Headquarters, United States Air Force
Office: Deputy Chief of Staff Installations & Logistics
ATTN: AF/ILSP
1030 Air Force Pentagon, Room 5A276
Washington, DC 20330-1030**

Mr. Al Blomgren (AF/REC)
(703) 695-0468
Alan.Blomgren@pentagon.af.mil

Col James Keels (AF/REOR)
(703) 697-4740
James.Keels@pentagon.af.mil

Maj Diane Belmessieri (ANG/XOR)
(703) 607-3252
Dianne.Belmessieri@ngb.ang.af.mil

UNITED STATES COAST GUARD

**United States Department of Homeland Security
United States Coast Guard
Office, Director Reserve & Training
2100 Second Street, S.W.
Washington, DC 20593-0001**

LTJG Mark Fisher
(202) 267-1919
MFisher@comdt.uscg.mil

Appendix C

Acronym Glossary

| Acronym | Nomenclature |
|----------------|--|
| AAO | Approved Acquisition Objective |
| AATC | Air National Guard/Air Force Reserve Test Center |
| AAV | Amphibious Assault Vehicle |
| ABI | Airborne Broadcast Intelligence |
| AC | Active Component |
| ACC | Air Combat Command |
| ACW | Air Control Wing |
| ADRS | ARNG Division Redesign Study |
| AE | Aeromedical |
| AEF | Aerospace Expeditionary Force |
| AETC | Air Education and Training Command |
| AF | Air Force |
| AFIWC | Air Force Information Warfare Center |
| AFR | Air Force Reserve |
| AFRL | Air Force Research Laboratory |
| AFSOC | Air Force Special Operations Command |
| AFSPC | Air Force Space Command |
| AIFF | Advanced Identification/Friend or Foe |
| AMARC | Aerospace Maintenance and Regeneration Center |
| AMC | Air Mobility Command |
| AMCM | Airborne Mine Countermeasures |
| AMP | Avionics Modernization Program |
| AMSA | Area Maintenance Support Activities |
| ANG | Air National Guard |
| ANGMS | Air National Guard Medical Service |
| AOA | Add-on-armor |
| AOC | Air Operations Center |
| AOR | Area of Responsibility |
| ARB | Air Reserve Base |
| ARC | Air Reserve Component |
| ARNG | Army National Guard |
| ASCS | Airborne Sensor and Control System |
| ASE | Aircraft Survivability Equipment |
| ASIP | Aircraft Structural Integrity Program |
| AT | Advanced Technology |
| ATACM | Army Tactical Missile Systems |
| AT-FLIR | Advance Targeting Forward-Looking Infrared |
| AT/FP | Anti-Terrorism/Force Protection |
| ATGM | Anti-Tank Guided Missile |
| ATLAS | All Terrain Lifter, Army System |
| ATLASS | Asset Tracking Logistics and Supply System |
| ATP | Advanced Targeting Pod |
| AVIM | Aviation Intermediate Maintenance |
| | |
| BCT | Brigade Combat Team |
| BOL | Bolt On Launcher |
| | |
| CAF | Combat Air Force |
| CAS | Close Air Support |

Appendix C

Acronym Glossary

| Acronym | Nomenclature |
|----------------|---|
| CBMU | Construction Battalion Maintenance Units |
| CBRNE | Chemical, Biological, Radiological, Nuclear and Explosives |
| CBU | Construction Battalion Unit |
| CC | Combatant Commander |
| CCIP | Common Configuration Improvement Program |
| CERT | Computer Emergency Response Teams |
| CESE | Civil Engineering Support Equipment |
| CFLSW | Commander, Fleet Logistics Support Wing |
| CHP | Controlled Humidity Preservation |
| CHWR | Commander, Helicopter Wing Reserve |
| CID | Combat Identification |
| CIS | Combat Intelligence System |
| CMFDS | Color Multi-functional Displays |
| CMS | Countermeasures Management System |
| CONUS | Continental United States |
| COTS | Commercial Off-the-Shelf |
| CPRL | Contingency Personnel Requirements List |
| CQ | Combat Quadrangle |
| CRC | Command and Reporting Center |
| CRPW | Commander, Reserve Patrol Wing |
| CS | Combat Support |
| CSAR | Combat Search and Rescue |
| CSEL | Combat Survivor Evader Locator |
| CSS | Combat Service Support |
| CST | Civil Support Team |
| CT | continuation training |
| CUCV | Commercial Utility Cargo Vehicles |
| CUPID | Combat Upgrade Plan Integration Details |
| CVWR | Carrier Air Wing Reserve |
| | |
| DSCS-AF | AF Distributed Common Ground System |
| DEPMEDS | Deployable Medical System |
| DHS | Department of Homeland Security |
| DISA | Defense Information Systems Agency |
| DMO | Distributed Mission Operations |
| DMT | Distributed Mission Training |
| DoD | Department of Defense |
| DOTMLPF | Doctrine, Organizations, Training, Materiel, Leadership and Education, Personnel, and Facilities |
| DTOC | Distributed Training Operations Center |
| DVR | Digital Video Recorder |
| | |
| EFDS | Expeditionary Force Development System |
| EFV | Expeditionary Fighting Vehicle |
| EMEDS | Expeditionary Medical Support |
| EMOC | Electronic Maintenance Operations Center |
| EOD | Explosive Ordnance Disposal |
| EOH | Equipment On-hand |
| EPLRS | Enhanced Position Location Reporting System |
| EPT | Enterprise Product Team |

Appendix C

Acronym Glossary

| Acronym | Nomenclature |
|----------------|--|
| ER | Equipment Readiness |
| ESL | Expected Service Life |
| ESP | Extended Service Program |
| | |
| FAC | forward air control |
| FCS | Future Combat System |
| FDL | Fighter Data Link |
| FEMA | Federal Emergency Management Agency |
| FFG | Guided Missile Frigate |
| FFGL1 | BNBC Defense Teams |
| FFGLB | Patient Decontamination Teams |
| FLIR | Forward Looking Infra-Red |
| FMT | Full Mission Trainer |
| FMTV | Family of Medium Tactical Vehicles |
| FOC | Full Operational Capability |
| FRRI | Federal Reserve Restructuring Initiative |
| FRU | Fleet Readiness Unit |
| FSSG | Force Service Support Group |
| FSSP | Fuel System Supply Point |
| FTU | Flying Training Unit |
| FTU | Formal Training Unit |
| FW | Fighter Wing |
| FY | Fiscal Year |
| FYDP | Future Years Defense Plan |
| | |
| GATM | Global Air Traffic Management |
| GMTI | Ground Moving Target Indicator |
| GPS | Global Positioning System |
| GWOT | Global War on Terrorism |
| | |
| HEMTT | Heavy Expanded Mobility Tactical Truck |
| HET | Heavy Equipment Transporter |
| HETS | Heavy Equipment Transporter System |
| HF | High Frequency |
| HIMARS | High Mobility Artillery Rocket System |
| HMCS | Helmet Mounted Cueing System |
| HMLA | light attack helicopter |
| HMMWV | High Mobility, Multi-Purpose Wheeled Vehicle |
| HQDA | Headquarters, Department of the Army |
| HTS | HARM Targeting System |
| HUD | Heads Up Display |
| | |
| IAMS | Inertially Aided Munitions |
| IAP | International Airport |
| IBU | Inshore Boat Unit |
| ICV | Infantry Carrier Vehicle |
| IED | Improvised Explosive Device |
| IFF | Identification Friend or Foe |
| IGS | Intragovernmental Solution |

Appendix C

Acronym Glossary

| Acronym | Nomenclature |
|----------------|---|
| IHFR | Improved High Frequency Radio |
| IO | Information Operations |
| IOC | Initial Operational Capability |
| IOS | Information Operations Squadron |
| ISB | Intelligence Support Battalion |
| ISR | Intelligence, Surveillance and Reconnaissance |
| ITAS | Improved Target Acquisition System |
| IR | Infrared |
| IRCM | Infrared Countermeasures |
| IWAS | Information Warfare Aggressor Squadron |
| | |
| JBPDS | Joint Biological Point Detection System |
| JDAM | Joint Directed Attack Munitions |
| JFACC | Joint Force Air Component Commander |
| JHMCS | Joint Helmet Mounted Cueing System |
| JM | Joint Module |
| JPO | JSTARS Program Office |
| JRIC | Joint Reserve Intelligence Center |
| JSTARS | Joint Surveillance Target Attack Radar System |
| JTAC | Joint Tactical Air Control |
| JTAGS | Joint Tactical Air Ground Simulator |
| JTCTS | Joint Tactical Combat Training System |
| JTEP | Joint Range Extension Equipment Package |
| JTIDS | Joint Tactical Information Distribution System |
| JTRS | Joint Tactical Radio System |
| JWRAC | Joint Web Risk Assessment Cell |
| | |
| KW | Kilowatt |
| | |
| LCAC | Landing Craft, Air Cushion |
| LAIRCM | Large Aircraft Infrared Countermeasures |
| LANTIRN | Low Altitude Navigation and Targeting Infra-red for Night |
| LARS | Light Armored Reconnaissance |
| LARS | Lightweight Airborne Recovery System |
| LAV | Light Armored Vehicle |
| LD/HD | Low Density/High Demand |
| LMTV | Light Medium Tactical Vehicle |
| LOSAT | Line of Sight Antitank Weapon System |
| LST | Laser Spot Track |
| LST | Newport Class Tank Landing Ship |
| LUH | Light Utility Helicopter |
| LW | Lightweight |
| | |
| MAGTF | Marine Air-Ground Task Force |
| MAJCOM | Major Command |
| MARCORLOGBASES | Marine Corps Logistics Bases |
| MARFORRES | Marine Forces Reserve |
| MASINT | Measurement and Signature Intelligence |
| MAW | Marine Aircraft Wing |
| MCCC | Mobile Consolidated Command Center |

Appendix C

Acronym Glossary

| Acronym | Nomenclature |
|----------------|--|
| MCM | Mine Countermeasures |
| MCS | Modular Control System |
| MCT | Mission Crew Trainer |
| MDS | Mission Design Series |
| MFOM | Multiple Launch Rocket System Family of Munitions |
| MGS | Mobile Gun System |
| MHC | Coastal Mine Hunter |
| MHE | Materiel Handling Equipment |
| MIDS | Multifunctional Informational Distribution Systems |
| MIE | Major Item of Equipment |
| MIUW | Mobile Inshore Undersea Warfare |
| MLB | Mobile Light Brigade |
| MLC | Marine Logistics Command |
| MLRS | Multiple Launch Rocket System |
| MLS | Multi Level Security |
| MOA | Memorandum of Agreement |
| MOPP | Mission Oriented Protective Posture |
| MPF | Major Program Force |
| MPF | Maritime Preposition Force |
| MRB | Materiel Readiness Battalion |
| MSE | Mobile Subscriber Equipment |
| MSU | Mobile Support Unit |
| MTEC | Mission Training Engineering Center |
| MTS | Mobile Tracking System |
| MTV | Medium Tactical Vehicle |
| MTVR | Medium Tactical Vehicle Replacement |
| | |
| NAVELSF | Naval Expeditionary Logistics Force |
| NCF | Naval Construction Force |
| NCFSU | Naval Construction Force Support Unit |
| NCR | Naval Construction Regiment |
| NCW | Naval Coastal Warfare |
| NDAA | National Defense Authorization Act |
| NGREA | National Guard and Reserve Equipment Appropriation |
| NGRER | National Guard and Reserve Equipment Report |
| NIPRNET | Non-Secure Internet Protocol Router Network |
| NMCB | Naval Mobile Construction Battalion |
| NMS | National Military Strategy |
| NRF | Naval Reserve Force |
| NRFI | Not Ready For Issue |
| NRO | National Reconnaissance Office |
| NSA | National Security Agency |
| NSC | National Security Cutter |
| NTS | Navigator Training Systems |
| NVG | Night Vision Goggles |
| NVIS | Night Vision Imaging System |
| | |
| OEF | Operation Enduring Freedom |
| OIF | Operation Iraqi Freedom |

Appendix C

Acronym Glossary

| Acronym | Nomenclature |
|----------------|---|
| ONE | Operation Noble Eagle |
| ONS | Operational Needs Statements |
| OPLAN | Operation Plan |
| OPN | Other Procurement-Navy |
| OPTEMPO | Operations Tempo |
| ORI | Operational Readiness Inspection |
| OTV | Outer Tactical Vests |
| OUE | Operational Utility Evaluation |
| | |
| PE | Precision Engagement |
| PLS | Palletized Load System |
| PMC | Procurement Marine Corps |
| PMO | Program Management Office |
| PPE | Personal Protective Equipment |
| PRESBUD | President's Budget |
| PSU | Port Security Unit |
| | |
| QDR | Quadrennial Defense Review |
| | |
| RBE | Remain Behind Equipment |
| RC | Reserve component |
| RERP | Reliability Enhancement Re-engining Program |
| RF | Radio Frequency |
| RPAL | Reserve Personnel Allowance List |
| RQW | Rescue Wing |
| RSTA | Reconnaissance, Surveillance Target Acquisition |
| RTC | Regional Training Center |
| RTC | Reserve Training Center |
| RTCH | Rough Terrain Container Handler |
| RWR | Radar Warning Receiver |
| | |
| SADL | Situation Awareness Data Link |
| SADS | Situational Awareness Display System |
| SAPI | Small Arms Protective Insert |
| SASO | Security And Stability Operations |
| SAW | Squad Automatic Weapons |
| SBCT | Stryker Brigade Combat Team |
| SBE | Stay Behind Equipment |
| SELRES | Selected Reservist |
| SFMR | Stepped Frequency Microwave Radiometer |
| SIGINT | Signals Intelligence |
| SINCGARS | Single Channel Ground-Air Radio System |
| SIPRNET | Secret Internet Protocol Router Network |
| SLEP | Service Life Extension Program |
| SNFL | Standing Naval Forces Atlantic |
| SMCR | Selected Marine Corps Reserve |
| SOW | Special Operations Wing |
| STAR | Structural Augmentation Roadmap |

Appendix C

Acronym Glossary

| Acronym | Nomenclature |
|----------------|---|
| T/A | Training Allowance |
| T/O | Table of Organization |
| T/O&E | Table of Organization and Equipment |
| TAA | Total Army Analysis |
| TACAIR | Tactical Air |
| TADIL-J | Tactical Digital Information Link-J |
| TAIS | Tactical Airspace Integration System |
| TAM | Table of Authorized Materiel |
| TARS | Theater Airborne Reconnaissance System |
| TAS | Tool Accountability System |
| TAWS | Terrain Avoidance Warning System |
| TBMCS | Theater Battle Management Core System |
| TCAS | Traffic Alert & Collision Avoidance System |
| TOA | Table of Allowance |
| TPED | Tasking, Processing, Exploitation & Dissemination |
| TPSB | Transportable Port Security Boat |
| TQG | Tactical Quiet Generator |
| TRITAC | Tri-Service Tactical Communications Program |
| TUAV | Tactical Unmanned Aerial Vehicle |
| TWS | Thermal Weapon Sight |
| TWV | Tactical Wheeled Vehicle |
| UAV | Unmanned Aerial Vehicle |
| USAR | United States Army Reserve |
| USCG | United States Coast Guard |
| USCGR | United States Coast Guard Reserve |
| USMCR | United States Marine Corps Reserve |
| USNR | United States Navy Reserve |
| VHF | Very High Frequency |
| V/STOL | Vertical/Short Takeoff and Landing |
| VTC | Video Tele-Conference |
| WCMD | Wind Corrected Munitions Dispense |
| WMD | Weapons of Mass Destruction |
| WRMS | War Reserve Materiel Stock |
| WRS | Weather Reconnaissance Squadron |
| WST | Weapon System Trainer |