



Department of the Army Historical Summary

Fiscal Year 2016



*CENTER OF MILITARY HISTORY
UNITED STATES ARMY
WASHINGTON, D.C.*

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General Editor

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Cover: Latvian joint terminal attack controllers and joint fires observers perform tactical movements for a close air support training mission with the 125th Infantry Regiment, at Grayling Air Gunnery Range, Wyoming, Mich.

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DEPARTMENT OF THE ARMY
HISTORICAL SUMMARY

FISCAL YEAR 2016

1

Introduction

The Army in fiscal year (FY) 2016 continued working toward a force with the characteristics described in *The Army Vision: Strategic Advantage in a Complex World*, published in FY 2015:

The Army of 2025 and Beyond will effectively employ lethal and non-lethal overmatch against any adversary to prevent, shape, and win conflicts and achieve national interests. It will leverage cross-cultural and regional experts to operate among populations, promote regional security, and be interoperable with the other Military Services, United States Government agencies and allied and partner nations. Leveraging the Total Force, it will consist of a balanced, versatile mix of scalable, expeditionary forces that can rapidly deploy to any place on the globe and conduct sustained operations within the full range of military operations. Composed of agile and innovative institutions, Soldiers, and Civilians, the United States Army of 2025 and Beyond provides strategic advantage for the Nation with trusted professionals who strengthen the enduring bonds between the Army and the people it serves.

This work continued within an organization that was simultaneously transitioning from the wars in Iraq and Afghanistan, operating continuously around the world, and preparing for an increasingly uncertain and complex security environment. The demand from combatant commands for Army forces remained high, yet three years of reduced funding and the uncertainty created by the Budget Control Act of 2011 left the service with insufficient resources in money, personnel, and force structure to fulfill requirements and to pursue long-term objectives with equal priority. Thus, FY 2016 continually presented senior leaders with decisions requiring trade-offs between the two.

2

Organization, Management, and Budget

Organizational Changes

Secretary of the Army John M. McHugh resigned in November 2015. That same month, the president appointed the acting Under Secretary of the Army Eric K. Fanning as the acting secretary and nominated him to be the next secretary of the Army. A senator then placed a hold on the nomination to protest the possible transfer of detainees from the Guantanamo Bay, Cuba, military prison to the U.S. Disciplinary Barracks at Fort Leavenworth, Kansas. On 4



Army Secretary John M. McHugh, right, and Col. Johnny K. Davis, commander of troops, inspect the troops during an Army Full Honors Farewell Ceremony for McHugh on Summerall Field at Fort Myer, Virginia, on 23 October 2015.



Acting Secretary of the Army Eric K. Fanning visits Camp Atterbury, Indiana.

January 2016, Patrick J. Murphy was sworn in as under secretary of the Army. Later that month Murphy also became the acting secretary of the Army when Fanning stepped down in response to congressional criticisms that his appointment as acting secretary circumvented the nomination process. The Senate Committee on Armed Services approved Fanning's nomination in March, but the senator would not lift his hold until May. On 18 May 2016, Fanning was sworn in as the twenty-second secretary of the Army.

Headquarters, Department of the Army (HQDA), continued its transition to the fiscal year (FY) 2019 Organization Design. This transition was the culmination of a process that began in July 2013 when the Secretary of Defense directed a 20 percent reduction in headquarters management spending by the Department of Defense (DoD). To implement that decision, HQDA conducted a comprehensive review of its organization, including associated field operating agencies. In June 2015, Secretary McHugh approved the redesign recommended by the review, beginning with HQDA's provisional reorganization no later than the end of FY 2016, with full implementation of the plan no later than the beginning of FY 2019.

The review found that numerous HQDA agencies had an excessive number of echelons between action officers and senior decision makers, and that too many managers had too few employees to manage. Guidance for the redesign therefore included limiting organizational echelons to seven and setting the ideal manager-to-employee ratio at one to eight. By the start of FY 2016, the Office of the Administrative Assistant to the Secretary of the Army, supported by the U.S. Army Force Management Support Agency and the affected organizations, had revised organizations' tables of distribution and allowances in accordance with the redesign. During FY 2016, the Army implemented these new tables and began the associated personnel reductions.

In November 2015, Acting Secretary of the Army Fanning directed a small team to explore the possibility of establishing an office for the streamlined acquisition of certain types of materiel. The team looked at offices with a similar mission in the DoD and private industry. The central elements that many of these organizations shared were a short, narrow chain of command; a small, motivated engineering and test team; autonomy; a central decision-making authority; and the ability to produce solutions that met many, but not all, requirements needed for a certain capability.

The result of this effort was the Army Rapid Capabilities Office, established in August 2016. It focuses on high-priority, threat-based projects with the intent of delivering an operational effect within one to five years. It combines analysis, prototyping, development, procurement, and limited fielding functions into one organization. The office provides expertise not just on materiel; its efforts encompass actions that also inform doctrine, organization, training, leadership, personnel, facilities, and policy aspects of implementing new capabilities. It leverages innovation by other government agencies and industry partners, as well as feedback from units. The Army Rapid Capabilities Office is distinct from the Army Rapid Equipping Force, which has a 180-day turnaround time and delivers specific equipment to meet the urgent operational needs of forward-deployed units. The Army Rapid Capabilities Office reports to a board of directors led by the secretary of the Army and includes the chief of staff, Army (CSA), and the assistant secretary of the Army (acquisition, logistics, and technology). The service used personnel and resources from the System of Systems Engineering and Integration Directorate and the Office of the Assistant Secretary of the Army (Acquisition, Logistics, and Technology) to quickly establish the office.

Within the Army staff, the deputy chief of staff, G-3/5/7, and the deputy chief of staff, G-8, share the responsibility for force development. The CSA modified this partnership in FY 2016 by

increasing the authority of the Army Requirements Oversight Council (AROC) so that it can act as a hub for collaboration across requirements, resourcing, and acquisition. In addition, the CSA transferred responsibility of the AROC process from the G-3/5/7 to the G-8. He also ordered the merger of G-3/5/7's Capabilities Integration Office with the G-8's Force Development Office.

A Department of the Army General Order designated the U.S. Army Installation Management Command (IMCOM) as a direct reporting unit of the Office of the CSA in October 2015. This designation ended the practice of the assistant chief of staff for installation management (ACSIM) also serving as the commanding general of IMCOM. The split improved the efficiency of IMCOM headquarters, located at Fort Sam Houston, Texas, by providing a full-time, on-site commander. It also initiated a realignment of the functional chief representative and the career management support positions for Career Program 29 (Installation Management) from IMCOM to ACSIM.

In June 2016, the G-3/5/7 established the Army Protection Directorate, responsible for all components of the Army Protection Program (APP). This directorate ensures unity of effort among HQDA principal officials, Army commands, and other Army organizations for all Army protection-related programs and functions. The APP is the overarching management program for thirteen nonwarfighting functional elements: antiterrorism; cybersecurity; continuity of operations; critical infrastructure risk management; emergency management; fire and emergency services; health protection; high-risk personnel; information assurance; law enforcement; operational security; insider threat and mitigation; and physical security. The directorate manages and executes the Army Critical Infrastructure Risk Management Program, Army Emergency Management Program, and Army Insider Threat and Mitigation Program.

A Department of the Army General Order in July 2016 designated U.S. Army Cyber Command (ARCYBER) as the Army service component command of U.S. Cyber Command. This designation brought ARCYBER's roles and authorities in-line with other Army service component commands. As the Army service component command for cyberspace, ARCYBER directs and conducts operations to ensure freedom of action in this area. Preparations for the move of ARCYBER headquarters from Fort Belvoir, Virginia, to Fort Gordon, Georgia, announced in 2013, continued during FY 2016. Ground breaking for the new facility at Fort Gordon is expected to occur in November 2016.

In another July 2016 action taken to improve the Army's cyber capabilities, HQDA's G-3/5/7 established a Cyber Directorate. The

directorates serves as the Army's focal point for cyber requirements and policy development. It also serves as the principal adviser to the secretary of the Army and the CSA on cyber operations, information operations, and electronic warfare. There are five divisions in the directorate: strategy and policy; mission assurance; resources and requirements; operations and support; and plans and integration. Brig. Gen. Patricia A. Frost, deputy commanding general for operations at ARCYBER, was selected as the first head of the directorate.

During FY 2016, U.S. Army Medical Command and the Office of the Surgeon General continued the reorganization project begun in July 2015 to implement a more flexible and agile design for fully integrating all aspects of Army medicine from the strategic to the tactical levels. The project transformed fifteen regional functional commands into four multidisciplinary regional health commands (RHC). The fourth of these new regional commands, RHC-Central, activated on 1 October 2015. RHC-Atlantic and RHC-Central are aligned with XVIII Corps and III Corps installations, respectively. RHC-Pacific is aligned with U.S. Army, Pacific, whereas RHC-Europe is aligned with U.S. Army, Europe, and U.S. Army, Africa. The project also eliminated Warrior Transition Command, which inactivated in June 2016. The mission of the command, which stood up in 2009, was to supervise the Army's care and transition program for wounded, ill, and injured soldiers. The command's headquarters staff became Medical Command's Deputy Chief of Staff for Warrior Care and Transition.

On 14 September 2016, ground was broken at Fort Belvoir, Virginia, for the National Museum of the United States Army (NMUSA). It will be the capstone of the service's museum system and provide the only comprehensive portrayal of Army history and traditions. The NMUSA Project Office, an element of the Office of the Assistant Secretary of the Army (Installations, Energy and Environment) oversees the design and construction of the museum. Funding for the project comes from nongovernmental sources in accordance with a 2009 memorandum of agreement which designated the Army Historical Foundation (a member-based, publicly supported 501(c)(3) nonprofit organization) as the official fund-raising entity for the project. The Army will operate and maintain the museum once it opens in 2019.

Management

In April 2016, the acting secretary of the Army issued a directive on financial management practices. Effective 1 July 2016, every two-star and Tier 2 Senior Executive Services headquarters and above, to include HQDA, must establish and track required annual

performance measures. These measures focus on achieving the highest level of readiness with the greatest efficiency. Officials were not to use budget execution data and obligation rates as the primary measure of fiscal success. Instead, they were to tie resource expenditures to outcomes, and to identify the specific levels of readiness they expect to achieve given the resources provided. Total costs of critical processes, especially when funding was divided among multiple commands and sources, were to be identified and managed. Commanders and staffs would no longer automatically reduce future funding for commands or programs if they did not spend all of their current allocation; rather, the reasons for this result would be investigated to determine if it was a onetime event or if funding adjustments were needed.

The under secretary of the Army had oversight for implementation of the directive, whereas the inspector general and the Army auditor general would examine these areas in their inspection and audit plans for FY 2017 and beyond. The assistant secretary of the Army (financial management and comptroller) and the director of business transformation were the proponents for this directive. They were to publish implementation guidance to include the process for identifying, reporting, and reviewing performance measures, and ensure that the provisions of this directive were incorporated into appropriate regulations. The directive would be rescinded upon publication of the regulations.

In June 2016, the secretary of the Army issued a directive on divesting the service of obsolete information technology (IT) hardware, software, and services. Elimination of the costs associated with operating and maintaining unnecessary legacy IT would increase resources available to operate a modernized network. The policy directed all senior IT leaders, typically the command G-6 or network enterprise center director, to review their networks to ensure that all commands completed the divestiture. Every quarter, commands had to validate and update IT investments and expenses in the Army Portfolio Management Solution (APMS), the Army's authoritative data source for IT. The Office of the Chief Information Officer/G-6 (CIO/G-6) at HQDA tracked the divestiture via APMS data trends.

The service targeted 140 data centers for closure during FY 2016 as part of the ongoing Army Data Center Consolidation Program and in accordance with the 2010 Federal Data Center Consolidation Initiative. During the fiscal year, seventy-three data centers closed. In August 2016, the Office of the Federal Chief Information Officer promulgated a Data Center Optimization Initiative, superseding the older initiative. The new initiative required agencies to develop and report on consolidation of inefficient infrastructure; optimization of

existing facilities; improvement of security posture; achievement of cost savings; and the transition to more efficient infrastructure, such as cloud services and interagency shared services. The new initiative and the failure to reach the FY 2016 closure target led to a reexamination of the Army Data Center Consolidation Program. The results of that review are expected to be implemented early in FY 2017 by a directive for a more aggressive program of closure and consolidation.

The Army completed planning for the Army Private Cloud Enterprise during the fiscal year. A contract prepared for a three-year pilot program at Redstone Arsenal, Alabama, will be awarded early in FY 2017. Redstone is home to eleven data center facilities, which will be consolidated to host the contractor-built and operated pilot. The Army plans to certify this private cloud at the highest security levels available under DoD cloud security requirements guide, levels 5 and 6, which incorporate the necessary security controls to handle secret-level data. The Army plans to share lessons learned from the pilot program with the DoD and the other armed services.

In February 2016, the deputy secretary of defense directed that the military services and all defense agencies transition to the Microsoft Windows 10 computer operating system by 31 January 2017. The transition was necessary to strengthen cybersecurity and streamline the information technology operating environment. The transition included desktops, laptops, and tablets, but not Windows-based cell phones or Microsoft server operating systems. In FY 2016, the Army owned approximately 1.3 million end-point devices (defined as an Internet-capable computer hardware device) running Windows operating systems.

In March 2016, the Army's chief information officer stated that the service would not meet the transition deadline. The Army had many older systems running Windows 7 (or earlier) which ran highly customized applications. Transitioning these systems required detailed planning and preparation to ensure that the systems operated properly and that the connectivity between them would not be broken. The Army's CIO/G-6 established an "early adopters" process in 2016 for testing, validating, and implementing Windows 10. It also developed a schedule for the transition, with devices in Europe migrating to the new system first, followed by those in the United States and Southwest Asia, and then those in the Pacific region. By the end of FY 2016, the CIO/G-6 expected the transition process in Europe to be completed by the middle of FY 2017.

The Army continued working with the Defense Information Systems Agency (DISA) on implementation of the Joint Regional Security Stacks (JRSS) concept and other network modernization

programs. A joint regional security stack is a suite of equipment that performs firewall functions, detects and prevents intrusions, implements enterprise management, executes virtual routing and forwarding, and operates other network security capabilities. Security of the network is centralized into regional architectures instead of locally distributed architectures at each post, camp, or station. Each physical stack is comprised of racks of equipment enabling big data analytics, and allowing the intake of large sets of data to the cloud. This equipment also provides the platforms for processing data, and the mechanism to help analysts use the data.

DISA and the Army G-6 planned installation of Nonsecure Internet Protocol Router JRSS at ten sites during the fiscal year; DISA completed installation at seven continental United States sites, two sites in Europe, and one site in Southwest Asia. They planned installation of Secure Internet Protocol Router JRSS for eleven sites; DISA completed installation at four sites. They planned installation of Multiprotocol Label Switching at thirty sites; DISA completed installation at fourteen Defense Information Systems Network Subscription Services (DSS) sites and six non-DSS sites. Lastly, DISA and the Army G-6 planned fielding of Installation Campus Area Network at seventeen sites; DISA installed it at fourteen DSS sites and six non-DSS sites.

The Enterprise Content Management System is a centralized library of more than 2,400 electronic forms and publications which supports the Office of the Deputy Chief of Staff, G-1, Human Resources Command, Army Medical Command, and the Army Publishing Directorate (APD). The system resided on obsolete hardware and software and its decommissioning is scheduled to occur during FY 2017. Users will migrate their legacy systems to the Electronic Publications System (ePUBS). The APD transitioned to ePUBS in FY 2016. The adoption of ePUBS also eliminated the need for supporting several other applications and saved the Office of Administrative Assistant to the Secretary of the Army more than \$20 million a year. In addition, the migration of the APD Web site from the Pentagon data center supported the vice director of the Army staff's initiative of increasing the Pentagon's cybersecurity posture.

In October 2015, the Office of the Provost Marshal General initiated a commercial, off-the-shelf procurement process for the Joint Analytic Real-Time Virtual Information Sharing System (JARVISS). The system will facilitate real-time sharing of threat information as incidents unfold, or during daily operations, among commands and installations. In September 2016, the under secretary of the Army established JARVISS as a defense business system and reassigned

it to the Warfighter Mission Area within the Office of Business Transformation. The Army Contracting Command–New Jersey awarded the JARVISS contract on 30 September 2016.

The General Fund Enterprise Business System (GFEBS) is the Army's integrated financial management system for funds distribution, execution, and reporting, as well as for real property management and maintenance. The system subsumed 107 older systems into one enterprisewide system. During FY 2016, the integration of GFEBS and the Global Combat Support System-Army continued. In August 2016, Phase 1B integrated the Army Reserve and the Army National Guard military personnel accounts. The Army National Guard continues the transition of state adjutant general offices to GFEBS, with full implementation expected by April 2017.

Progress continued toward the goal of auditable financial statements by 30 September 2017. In FY 2016, the Army completed its second audit of the General Fund Schedule of Budgetary Activity (SBA). The scope of the audit included FY 2016 appropriation activity, as well as FY 2015 appropriation transactions. During the audit, an independent public accounting firm highlighted 100 findings that need corrective actions. The Army expects the FY 2017 SBA audit to show significant improvement because the majority of the corrective actions identified during the FY 2015 audit have been completed and some of the corrective actions resulting from the FY 2016 SBA audit findings will have been started.

Areas showing improvement during the FY 2016 audit include more consistent and higher quality documentation of supporting transactions, and increased response rate to missing documentation and follow-up questions. Areas with continued findings include inability to support beginning balances; inability to provide certain data populations and reconciliations; and supporting documentation for SBA balances. Although, the Army has made substantial progress toward audit readiness, significant challenges still remain. These consist of the availability of personnel and resources; the improvement of internal controls; the documentation and correction of posting logic; and the reduction of the number and amount of unsupported adjustments.

The service completed an audit of selected lines in the Army Working Capital Fund financial statements. As part of the Working Capital Fund audit-readiness strategy, the audit supplemented other audit-readiness activities and validated corrective actions. Corrective actions have begun to address the findings associated with the limited financial statement audit. The audit found that sufficient supporting evidence was not available or was not provided; transactions were not recorded in the correct accounts and the amounts could not be verified;

transactions were recorded in different periods or fiscal years than the action that generated the transaction; and updated depreciation methodology was not applied consistently to all assets.

The Army allocated \$87 million during FY 2016 for achieving auditable financial statements. Funded activities included completing evaluation, discovery, and corrective actions of the commands and their service providers; testing or verifying audit readiness after completing corrective actions and preparing management assertions; building infrastructure to sustain audit readiness; developing and deploying audit-ready compliant systems; making cost-effective changes to legacy systems; and converting and validating data, implementing and testing controls, and documenting systems and processes.

The HQDA CIO/G-6 revised Army Regulation 25-2, *Army Cybersecurity*. The revision assigns responsibilities and prescribes policies for the Army Cybersecurity Program in accordance with Office of the Secretary of Defense (OSD) policies. The regulation also implements elements of the APP related to cybersecurity risk management. The revision establishes the five concurrent and continuous functions for managing cybersecurity risk: identify, protect, detect, respond, and recover. The draft and supporting Department of the Army pamphlets will enter the publication process in FY 2017.

To better align the service with the OSD policy on conferences issued in September 2015, Army Directive 2016-14 was published in May 2016. The directive lifted administrative burdens on low-cost participation in non-DoD conferences, while maintaining appropriate oversight of Army conference activities. In anticipation of revised guidance, issued in June 2016, the Army coordinated with OSD to ensure its next directive would be synchronized with that guidance. The Army Conference Management Office began consolidating the service's conference policies into an Army Regulation. Staffing for the draft regulation began in September 2016, with publication expected during FY 2017. The new regulation will take into account recommendations from the Army Audit Agency's 2016 audit of compliance with the directive on conferences. During FY 2016, there were 33,688 Army attendees at 2,997 conferences at a total cost of \$50.6 million.

Budget

For the seventh consecutive year the Army began its fiscal year without an approved budget, operating instead on a congressional continuing resolution. The FY 2016 defense budget request submitted by the president had exceeded the caps placed on defense spending by the Budget Control Act of 2011 (*Table 1*). After avoiding a threatened

TABLE 1—TOTAL OBLIGATIONAL AUTHORITY BASE BUDGET REQUEST,
FY 2016 (*MILLIONS OF DOLLARS*)

Military Personnel	
Military Personnel, Army	41,131
Military Personnel, Army Reserve	4,551
Military Personnel, Army National Guard	7,942
Medicare-Eligible Retiree Health Care Fund, Army	1,785
Medicare-Eligible Retiree Health Care Fund, Army Reserve	333
Medicare-Eligible Retiree Health Care Fund, Army National Guard	588
Operation and Maintenance	
Operation and Maintenance, Army	35,108
Operation and Maintenance, Army Reserve	2,666
Operation and Maintenance, Army National Guard	6,718
Environmental Restoration	235
Procurement	
Aircraft	5,689
Missiles	1,420
Weapons and Tracked Combat Vehicle	1,887
Ammunition	1,233
Other Procurement	5,899
Research, Development, Test, and Evaluation	6,925
Military Construction	
Military Construction, Army	743
Military Construction, Army Reserve	114
Military Construction, Army National Guard	197
Army Family Housing	
Operation	394
Construction	100
Army Working Capital Fund	50
Arlington National Cemetery	46
Base Realignment and Closure	30
Chemical Agents Demilitarization	721
Total	126,503

Numbers may not add because of rounding.

Source: Assistant Secretary of the Army (Financial Management and Comptroller),
FY 2016 President's Budget Highlights, February 2015

TABLE 2—TOTAL OBLIGATIONAL AUTHORITY OVERSEAS CONTINGENCY OPERATIONS REQUEST, FY 2016 (*MILLIONS OF DOLLARS*)

Military Personnel	
Military Personnel, Army	1,828
Military Personnel, Army Reserve	24
Military Personnel, Army National Guard	166
Operation and Maintenance	
Operation and Maintenance, Army	11,383
Operation and Maintenance, Army Reserve	25
Operation and Maintenance, Army National Guard	61
Procurement	
Aircraft	165
Missiles	37
Weapons and Tracked Combat Vehicle	26
Ammunition	192
Other Procurement	1,206
Research, Development, Test, and Evaluation	2
Afghanistan Security Forces Fund	2,762
Joint Improvised Explosive Device Defeat Fund	493
Iraq Training and Equipment Fund	715
Syria Training and Equipment Fund	600
Total	20,685

Numbers may not add because of rounding.

Source: Assistant Secretary of the Army (Financial Management and Comptroller), *FY 2016, President's Budget Highlights*, February 2015

shutdown of the federal government, Congress finally passed a National Defense Authorization Act in October 2015. The president vetoed it on the grounds that although the bill contained some funding authorities, the DoD needed an appropriations bill that funded the entire department. Furthermore, he argued that Congress had evaded the Budget Control Act of 2011 caps on the base budget by excessive use of overseas operational contingency appropriations (*Table 2*). The bill also did not include provisions he had requested for making changes in areas such as health care and force structure.

Negotiations within Congress and between Congress and the president led to the Bipartisan Budget Act of 2015 in November. The law raised both defense and nondefense discretionary budget caps by \$25 billion in FY 2016 and \$15 billion in FY 2017. It also

added overseas contingency operations funding at \$16 billion above the president's FY 2016 request and set FY 2017 overseas contingency operations funding at \$73.5 billion. The measure, however, provided the DoD with \$5 billion less than the president's budget request. With passage of the Bipartisan Budget Act, the president ended his opposition to the FY 2016 National Defense Authorization Act, which became law with the \$5 billion cut. As part of that cut, the Army lost approximately \$450 million in readiness-related authorization funds—\$250 million from active duty accounts and \$192.6 million from the National Guard (*Table 3*). The act did permit the Army to shift \$2 billion from its overseas contingency operations funding to the base budget (*Table 4*).

All three military personnel appropriations in the base budget were fully executed by the end of FY 2016. The Army fully executed its three operation and maintenance appropriations in the base budget. The operations and maintenance appropriations for overseas contingency operations were fully executed notwithstanding turbulence within the account. The president's decision to extend the 9,800 troop strength level in Afghanistan, which resulted in a \$1.4 billion shortfall in the account, created the turbulence. Working with Office of the Under Secretary of Defense (Comptroller), the Army submitted a stand-alone reprogramming request and Congress approved reprogramming \$1.4 billion from the Defense Working Capital Fund to offset this shortfall.

In the FY 2016/2018 procurement appropriations, a total of \$13.8 billion of the \$18.5 billion available was obligated. Although this 75 percent obligation rate was below the 80 percent goal set by OSD in the first year of availability, it was still an improvement of 4 percent over the preceding year. The FY 2015/2017 procurement appropriations met the OSD obligation standard of 90 percent in the second year of availability. The Army implemented its expiring-year FY 2014 procurement program at 99.3 percent, leaving only \$107 million unobligated. An Apache helicopter overseas contingency operations award that was less than budgeted and missile procurement funds held to cover incentives associated with contract ceiling liabilities represented the unobligated funds.

Although the Army did not meet the OSD goal of 55 percent, expenditure rate for its first year FY 2016 research, development, test and evaluation appropriation—disbursing \$3.39 billion for a rate of 44.7 percent—it had a 3.7 percent improvement over last year. In expiring FY 2015 research, development, test, and evaluation appropriations, the service obligated 99.8 percent and disbursed 83.1 percent. The remaining funds were retained to finance contract adjustments.

TABLE 3—TOTAL OBLIGATIONAL AUTHORITY APPROVED BASE BUDGET,
FY 2016 (*MILLIONS OF DOLLARS*)

Military Personnel	
Military Personnel, Army	40,923
Military Personnel, Army Reserve	4,463
Military Personnel, Army National Guard	7,892
Medicare-Eligible Retiree Health Care Fund, Army	1,890
Medicare-Eligible Retiree Health Care Fund, Army Reserve	358
Medicare-Eligible Retiree Health Care Fund, Army National Guard	630
Operation and Maintenance	
Operation and Maintenance, Army	34,218
Operation and Maintenance, Army Reserve	2,704
Operation and Maintenance, Army National Guard	6,631
Environmental Restoration	235
Procurement	
Aircraft	5,866
Missiles	1,601
Weapons and Tracked Combat Vehicle	1,952
Ammunition	1,245
Other Procurement	5,719
Research, Development, Test, and Evaluation	7,562
Military Construction	
Military Construction, Army	728
Military Construction, Army Reserve	148
Military Construction, Army National Guard	249
Army Family Housing	
Operation	376
Construction	109
Army Working Capital Fund	195
Arlington National Cemetery	80
Base Realignment and Closure	32
Chemical Agents Demilitarization	700
Total	126,505

Numbers may not add because of rounding.

Source: Assistant Secretary of the Army (Financial Management and Comptroller),
FY 2017, President's Budget Highlights, February 2016

TABLE 4—TOTAL OBLIGATIONAL AUTHORITY APPROVED OVERSEAS
CONTINGENCY OPERATIONS, FY 2016 (*MILLIONS OF DOLLARS*)

Military Personnel	
Military Personnel, Army	1,846
Military Personnel, Army Reserve	24
Military Personnel, Army National Guard	166
Operation and Maintenance	
Operation and Maintenance, Army	12,187
Operation and Maintenance, Army Reserve	25
Operation and Maintenance, Army National Guard	61
Procurement	
Aircraft	162
Missiles	37
Weapons and Tracked Combat Vehicle	487
Ammunition	222
Other Procurement	1,175
Research, Development, Test, and Evaluation	2
Afghanistan Security Forces Fund	3,652
Joint Improvised Explosive Device Defeat Fund	350
Iraq Training and Equipment Fund	715
Total	21,111

Numbers may not add because of rounding.

Source: Assistant Secretary of the Army (Financial Management and Comptroller),
FY 2017, President's Budget Highlights, February 2016

In military construction appropriations, the service awarded ninety-four of 110 Regular Army projects. The remaining projects were either no longer required because of operational changes, or had environmental, site, or solicitation issues which postponed their award to FY 2017. In Army National Guard construction, the service conferred sixty-three of sixty-five projects; the remaining two were postponed until FY 2017 because of environmental, site, redesign, and solicitation issues. In Army Reserve construction, the service awarded eighteen of twenty-three; the remaining projects were postponed to FY 2017 or FY 2018 because of environmental, site, and solicitation issues. In family housing construction, the Army awarded eight of ten projects. One project was not required because of infrastructure consolidation in Europe, and design issues kept the other from being awarded.

The Army is the DoD's executive agent for recruiting centers' security. Congress appropriated \$80.3 million to upgrade security at joint recruiting centers after the 2015 shooting at a Chattanooga, Tennessee, recruiting station. The Corps of Engineers obligated all but \$10 million of this funding. The remaining amount is on hold pending a resolution to a protest that a contractor filed at the end of the fiscal year.

In FY 2016, the above-threshold reprogramming of funds (that is, an amount requiring congressional approval) totaled \$3.84 billion, a 41 percent increase from FY 2015. During FY 2016, the Army reprogrammed an additional \$2.86 billion in amounts below the statutory limits requiring Congressional approval. The service achieved a 98 percent approval rate in above-threshold reprogramming requests, a rate noticeably above the historical average of 80 to 90 percent. Notwithstanding efforts to reprogram earlier in the fiscal year, congressional schedules resulted in most reprogramming actions being approved during the last two months of the fiscal year, with an average processing time of 120 to 150 days for requests. Despite receiving most approvals late in FY 2016, the Army distributed these funds before the end of the fiscal year. There were significantly fewer appropriated-fund sources from which to reprogram funds than in prior years. The primary reasons for this decrease were reduced funding levels and improved management and execution of certain accounts. Primary reprogramming sources include the Army Working Capital Fund, military personnel accounts, and the Defense Working Capital Fund.

The Army Working Capital Fund's activities provide supplies, equipment, and ordnance to prepare, sustain, and reset forces in the most efficient and cost-effective manner possible. The fund ended FY 2016 with a cash balance of \$1.32 billion, a sum within the operating range set for the year. Carryover is the dollar amount of orders accepted from customers that have not been completed by the end of the fiscal year. The Army expects the carryover for FY 2016 to be less than the maximum allowable amount. Stock availability measures the percentage of requisitions filled within established time frames. The goal for stock availability is 85 percent. For FY 2015, the average stock availability was 84 percent and in FY 2016 it was 82 percent.

The Bipartisan Budget Acts of 2013 and 2015 have delayed until FY 2018 the negative effects of the sequestration provisions in the Budget Control Act of 2011. Though these acts provided more predictable funding from FY 2014 through FY 2017, it was less than the Army's FY 2013 sequestered funding and did not keep pace with inflation. These two-year delays were problematic in that they negatively affected midterm programming (that is, programming for the next two

to five years). The lack of predictable funding over a five-year period produces inefficient and less effective use of resources. The Army needs consistent and predictable funding at a level commensurate with current and future requirements to sustain end strength and balance near-term readiness against modernization in order to meet current and future security challenges.

The FY 2017 base budget request prioritizes readiness to conduct the full range of military operations, with an emphasis on building capability for major combat operations (*Table 5*). It funds end strengths of 460,000 for the Regular Army, 335,000 for the Army National Guard, and 195,000 for the Army Reserve, as well as 197,392 full-time equivalents in the civilian workforce. The request supports thirty brigade combat teams in the Regular Army, continues restoring unit readiness, and improves the service's ability to respond to potential threats in Europe by increasing the readiness and capacity of pre-positioned stocks. The request for research, development, and acquisition continues to support science and technology programs, aviation modernization, and ground combat vehicle fleet modernization, while deferring new investment in future fighting vehicles, armed aerial scouts, and full on-the-move networking.

In the overseas contingency operations request, the personnel funding primarily provides pay and allowances, subsistence, training, and administrative support for mobilized reserve component soldiers (*Table 6*). The operations and maintenance funding supports Operation FREEDOM'S SENTINEL in Afghanistan; Operation INHERENT RESOLVE against the Islamic State in Iraq and the Levant; the European Reassurance Initiative; and Operation SPARTAN SHIELD in the Arabian Gulf region. The research, development, and acquisition funding will provide replacement equipment for battle losses, replenish ammunition, and enhance pre-positioned equipment stocks in Europe.

By the end of FY 2016, Congress had not approved a budget for FY 2017. Instead, for the eighth consecutive time, the Army began a new fiscal year funded by a continuing resolution.

TABLE 5—TOTAL OBLIGATIONAL AUTHORITY BASE BUDGET REQUEST,
FY 2017 (*MILLIONS OF DOLLARS*)

Military Personnel	
Military Personnel, Army	40,028
Military Personnel, Army Reserve	4,580
Military Personnel, Army National Guard	7,956
Medicare-Eligible Retiree Health Care Fund, Army	1,794
Medicare-Eligible Retiree Health Care Fund, Army Reserve	342
Medicare-Eligible Retiree Health Care Fund, Army National Guard	589
Operation and Maintenance	
Operation and Maintenance, Army	35,384
Operation and Maintenance, Army Reserve	2,727
Operation and Maintenance, Army National Guard	6,885
Environmental Restoration	170
Procurement	
Aircraft	3,615
Missiles	1,670
Weapons and Tracked Combat Vehicle	2,265
Ammunition	1,513
Other Procurement	6,036
Research, Development, Testing, and Evaluation	
Military Construction	
Military Construction, Army	503
Military Construction, Army Reserve	68
Military Construction, Army National Guard	233
Army Family Housing	
Operation	326
Construction	201
Army Working Capital Fund	56
Arlington National Cemetery	71
Base Realignment and Closure	14
Chemical Agents Demilitarization	551
Total	125,084

Numbers may not add because of rounding.

Source: Assistant Secretary of the Army (Financial Management and Comptroller),
FY 2017, President's Budget Highlights, February 2016

TABLE 6—TOTAL OBLIGATIONAL AUTHORITY OVERSEAS CONTINGENCY OPERATIONS REQUEST, FY 2017 (*MILLIONS OF DOLLARS*)

Military Personnel	
Military Personnel, Army	2,052
Military Personnel, Army Reserve	24
Military Personnel, Army National Guard	152
Operation and Maintenance	
Operation and Maintenance, Army	13,735
Operation and Maintenance, Army Reserve	24
Operation and Maintenance, Army National Guard	67
Procurement	
Aircraft	313
Missiles	483
Weapons and Tracked Combat Vehicle	154
Ammunition	302
Other Procurement	1,211
Research, Development, Testing, and Evaluation	101
Military Construction, Regular Army	19
Army Working Capital Fund	47
Afghanistan Security Forces Fund	3,449
Iraq Training and Equipment Fund	630
Syria Training and Equipment Fund	250
Total	23,011

Numbers may not add because of rounding.

Source: Assistant Secretary of the Army (Financial Management and Comptroller), *FY 2017, President's Budget Highlights*, February 2016

3

Personnel

Army Strength and Distribution

During fiscal year (FY) 2016, as a result of the end of Operation IRAQI FREEDOM and Operation NEW DAWN, and the ongoing drawdown of U.S. forces in Afghanistan, the Army continued along a course begun in FY 2011 to reach an end strength of 460,000 troops by the end of FY 2017. The active-component end strength on 30 September 2016 totaled 475,400 personnel: 77,561 commissioned officers, 14,568 warrant officers, 378,778 enlisted soldiers, and 4,493 military academy cadets. Women constituted 14.7 percent of the total active component and racial and ethnic minorities constituted 43.5 percent.

The Army National Guard end strength on 30 September 2016 was 341,589: 36,961 commissioned officers, 8,567 warrant officers, and 296,061 enlisted soldiers. Women constituted 17 percent of the Army National Guard and racial and ethnic minorities constituted 22 percent. The Army Reserve end strength on 30 September 2016 totaled 198,395 personnel: 33,938 commissioned officers, 3,409 warrant officers, and 161,048 enlisted soldiers. Women constituted 23 percent of the Army Reserve and racial and ethnic minorities constituted 47 percent.

Officers

Human Resources Command (HRC) conducted three Voluntary Transfer Incentive Program panels during the fiscal year and selected 592 officers to transfer to understaffed branches and functional areas. The FY 2016 Lieutenant Colonel Army Competitive Category Enhanced Selective Early Retirement Board chose 253 officers of the 924 considered for separation. The FY 2016 Chief Warrant Officer 5 Army Competitive Category Selective Retirement Board selected fifty-eight officers of the 185 considered.

Enlisted Personnel

Despite a drop in the unemployment rate, the service achieved its FY 2016 objective of 62,500 recruits for the Regular Army. More than

95 percent of these recruits were high school graduates. The percentage of women enlisting was the highest in more than a decade, comprising 17.5 percent of recruits. Approximately 200 women chose infantry or armor occupational specialties. The Army National Guard achieved its recruiting objective of 36,800 for the first time in five years. The Army Reserve met its recruiting objective of 25,900.

Since 2008, the Army has required master sergeants to graduate from the Sergeants Major Course in order to be eligible for promotion to sergeant major. Effective 1 January 2016, the service expanded this concept with a new policy called Select, Train, Educate, Promote. This policy requires all soldiers to complete the appropriate level of formal military education in order to be considered fully qualified for promotion. For the Regular Army and the Army Reserve, corporals and specialists must graduate from the Basic Leader Course for promotion to sergeant; sergeants must graduate from the Advance Leader Course for promotion to staff sergeant; and staff sergeants must graduate from the Senior Leader Course for promotion to sergeant first class. Soldiers who are not fully qualified will remain on the selection list with their sequence number, but will not be selected for promotion until after they are fully qualified and a new promotion requirement exists for their respective specialty and rank. Beginning with the FY 2016 promotion cycle, Army National Guard soldiers on a promotion list who have completed their structured self-development requirements will be selected and assigned to higher grade vacancies. Soldiers selected for higher grade vacancies who have not completed the appropriate course will have twenty-four months to complete that course or they will be removed from the position. Soldiers who need to complete a course consisting of three or more phases will have a deadline of thirty-six months.

During FY 2016, the U.S. Army Training and Doctrine Command (TRADOC) conducted pilot classes of the Master Leader Course. This course will fill a gap in the noncommissioned officer (NCO) professional development system between the Senior Leader Course and the Sergeant Major Course. It will prepare sergeants first class for the responsibilities of a master sergeant. Eventually, completion of the course will become a requirement for promotion to master sergeant. TRADOC conducted the first pilot class at the U.S. Army Sergeants Major Academy, Fort Bliss, Texas. The National Guard Regional Training Institute at Camp Williams, Utah, and the Reserve Training Center at Fort Knox, Kentucky held the next two. The Sergeants Major Academy is conducting several initial operating courses to increase the number of qualified instructors and to validate the locations where the course will be taught in preparation for full implementation of the program in FY 2017.

A new noncommissioned officer evaluation report went into effect on 1 January 2016. The previous report, in use since 1987, had become highly inflated and was too generic. In order to curb rating inflation, the new report will enforce rating official accountability through the use of two new assessment tools: the rater tendency and the senior rater profile. Senior raters will be limited in the number of soldiers they deem “most qualified.” The new report will take into account increasing levels of responsibility by having three versions tailored to a soldier’s rank. The first, for sergeants, will evaluate “direct-level” proficiency. The second, for staff sergeants, sergeants first class, and master sergeants, will focus on the soldier’s “organizational-level” expertise. The third, for sergeants major, will assess “strategic-level” competency.

Civilian Personnel

At the end of the fiscal year, the Army civilian workforce totaled 294,640, including both appropriated fund and nonappropriated fund employees, working in nearly 500 different job series. Some civilians are foreign nationals who are directly funded by the U.S. Army; other foreign national employees are indirectly funded by their host nation (*Table 7*). The FY 2016 National Defense Authorization Act required the Department of Defense (DoD) to establish procedures for using performance as the primary factor for determining which employees should be separated during any reduction in the civilian force. The law also directed that DoD should proceed with “New Beginnings,” the DoD Performance Management and Appraisal Program and begin implementing the new system at the earliest possible date. The act extended the authority to grant Army civilians on official duty in

TABLE 7—COMPOSITION OF THE ARMY CIVILIAN WORKFORCE, FY 2016

Direct Hire in Military Function	197,813
National Guard Technicians	27,307
Foreign National Direct Hire in Military Function	6,859
Foreign National Indirect Hire in Military Function	12,717
Direct Hire in Civil Function	22,268
Direct Hire Cemeterial Function	173
Nonappropriated Fund Employees	27,503
Total	295,640

Source: Assistant G-1 for Civilian Personnel

a combat zone the allowances, benefits, and gratuities comparable to those provided to members of the Foreign Service. It also provided enhanced hiring authorities for Army Cyber Command.

In December 2015, the Office of the Deputy Chief of Staff's G-1 began work on expanding the Acculturation Program Army-wide. The program is meant to provide a positive socialization experience for newly hired civilians to help them learn, understand, and foster an appreciation for Army culture, and to reduce the amount of time it takes them to become effective and efficient employees. TRADOC fielded a pilot program in 2014. Transition of the program to G-1 is expected early in FY 2017 and Army-wide implementation is planned for August 2017.

Integrating Women into Combat Arms Positions

In January 2013, the secretary of defense rescinded the 1994 Direct Ground Combat Definition and Assignment Rule. He directed the military services and U.S. Special Operations Command to validate all occupational standards to ensure they are occupationally and operationally relevant; to complete all studies by autumn 2015; and to either ensure full implementation by 1 January 2016 or submit an exception to policy to the secretary of defense. The Army responded to this directive with the Soldier 2020 program. The program examined institutional and cultural factors associated with gender integration. It also studied the physical demands in combat arms military occupational specialties (MOSs) to develop standards that would ensure that these positions are filled by soldiers who are physically qualified for them. These studies led to the opening of the 12B combat engineer and 13B and 13D artillery specialties, and the Ranger School, to women. On 30 September 2015, the Army recommended opening all MOSs that remained closed to women.

In December 2015, the secretary of defense directed the secretaries of the military departments to provide their plans on gender integration no later than 1 January 2016, detailing their timelines for integrating newly opened occupations and positions using their existing recruiting, accession, training, and assignment procedures. Positions were to be opened for accession as soon as practicable. In April 2016, the Army opened the remaining MOSs that had been closed to women in the infantry, armor, field artillery, and special forces branches.

The Army will use the "leader first" approach: infantry and armor units will receive female officers and noncommissioned officers first so that female junior enlisted soldiers subsequently assigned to these units will have gender integrated leadership. The Army successfully integrated

twenty female infantry and twenty-four female armor officers during the year. In April 2016, the service revised reclassification options for Regular Army enlisted women in the rank of sergeant or below to allow their reclassification without a waiver of policy into fourteen previously closed combat specialties. The revision was necessary because many of these specialties do not meet the requirements for a standard primary MOS change as stipulated in the Reclassification In/Out Calls. Soldiers approved for reclassification will attend the necessary training in a temporary duty status en route to a follow-on assignment in their new MOS. Four female drill sergeants were assigned to the Maneuver Center of Excellence, Fort Benning, Georgia, for initial-entry training of female recruits in infantry and armor specialties. By the end of the fiscal year, approximately 140 women had enlisted for armor and infantry MOSs. Initial-entry training for armor recruits will begin in May 2017 and in June 2017 for infantry recruits.

Special Topics

During the fiscal year, the president awarded the Medal of Honor to two retired soldiers: Lt. Col. Charles S. Kettles of the 176th Assault Helicopter Company, 14th Combat Aviation Battalion, for his actions as a helicopter pilot in Vietnam in 1967 and Capt. Florent A. Groberg of the 4th Brigade Combat Team, 4th Infantry Division, for his actions as an infantry officer in Afghanistan in 2012.

In August 2016, the Army established the Talent Management Task Force to integrate and synchronize efforts to acquire, develop, employ, and retain a high-quality force that can fight and win against any adversary. Following creation of the task force, the Army developed a strategy map as the first step toward transformation. The map lays out the ends, ways, and means necessary to optimize the talent of all personnel.

Work continued on the the Integrated Personnel and Pay System-Army (IPPS-A). This system is designed to end reliance on more than forty stovepipe systems (systems that do not efficiently share information with one another). Once implemented, IPPS-A will provide a centralized resource to better manage personnel and pay information in the Regular Army, the Army National Guard, and the Army Reserve. The system will be fielded in five phases. The first phase was completed in 2015. The remaining phases will be fielded over the next five years.

The Army will use Assignment Interactive Module 2.0 (AIM 2) as a bridge to IPPS-A. The module will contain soldiers' job preferences, background, expertise, and military and civilian skills



President Barack H. Obama presents the Medal of Honor to retired Lt. Col. Charles S. Kettles.

in a single database. The HRC will begin an AIM 2 pilot effort in December 2016—officers attending the Command and General Staff College will receive their postgraduation assignments based on their data in AIM 2.

In January 2016, the secretary of defense directed a comprehensive review of all Distinguished Service Cross, Navy Cross, Air Force Cross, and Silver Star Medal recommendations from the wars in Iraq and Afghanistan. This review is to ensure service members had been appropriately recognized for their valor. The review examined recommendations that had not resulted in an award to determine whether one was merited, and at medals awarded to determine whether the honors should be upgraded. Although there was no indication that members were inappropriately recognized, the secretary directed the review as a cautionary measure. Within the Army, HRC's Adjutant General Division, Awards and Decorations Branch is reviewing 30 Distinguished Service Cross and 486 Silver Star packets for possible upgrade recommendation to a higher award. The review is scheduled to be completed by 30 September 2017.



President Obama presents the Medal of Honor to retired Capt. Florent A. Groberg.

The Army's uniform and appearance regulation prescribes the standards by which soldiers dress and groom their hair. The regulation does not permit religious exceptions other than discreet jewelry and clothing items completely covered by the standard uniform and headgear. During FY 2016, the Assistant Secretary of the Army (Manpower & Reserve Affairs) approved over twenty requests for religious accommodation requiring an exception to these standards. Approved requests included beards, turbans with unshorn hair, hijabs, and dreadlocks for soldiers from Sikh, Jewish, Muslim, and Rastafarian faiths. These requests, and potential involvement in litigation relating to the Religious Freedom Restoration Act, led the secretary of the Army to establish a working group in May 2016 to review religious accommodation policies and procedures. This group is expected to make its recommendations early in FY 2017.

The Soldier for Life program provides a broad network of resources to shape education, employment, and health policies, programs, and services on behalf of soldiers, veterans, and family members. In FY 2016, it helped the Installation Management Command increase

the number of career skills programs offered from fifteen in FY 2014 to more than 156 in FY 2016, with a nearly 93 percent job-placement rate. The program also coordinated with the U.S. Chamber of Commerce's Hiring our Heroes Foundation to plan and execute transition summits, which have grown from six in FY 2014 to over thirty in FY 2016. Along with benefiting retiring and transitioning soldiers, the program provides a significant budgetary savings as well. In 2011, the Army spent \$515 million on unemployment compensation for former soldiers; that amount dropped to \$152 million during FY 2016.

In 2007, the Army began establishing Warrior Transition Units to provide personalized support to wounded, ill, and injured soldiers who require at least six months of rehabilitative care and complex medical management before either returning to duty or discharging from the service. As the number of soldiers in combat declined with the withdrawal from Iraq and the reduction of forces in Afghanistan, the number of soldiers needing to go through the Warrior Transition Units declined. Therefore, the Army reduced the number of Warrior Transition Units from a high of forty-five in 2008 to twenty-five in 2014. It inactivated another ten by August 2016: Fort Gordon, Georgia; Fort Knox, Kentucky; Joint Base Langley-Eustis, Virginia; Fort Leonard Wood, Missouri; Fort Sill, Oklahoma; Fort Polk, Louisiana; Fort Wainwright, Alaska; Joint Base Elmendorf-Richardson, Alaska; Fort Meade, Maryland; and Naval Medical Center, California.

Warrior Transition Units remain in thirteen continental U.S. locations: Joint Base Lewis-McChord, Washington; Fort Carson, Colorado; Fort Bliss, Texas; Joint Base San Antonio, Texas; Fort Hood, Texas; Fort Riley, Kansas; Fort Campbell, Kentucky; Fort Benning, Georgia; Fort Stewart, Georgia; Fort Bragg, North Carolina; Fort Belvoir, Virginia; Walter Reed Medical Center, Maryland; and Fort Drum, New York. The other two are at Tripler Army Medical Center in Hawaii and European Medical Command in Kaiserslautern, Germany.

4

Force Development

The process of force development supports Army Campaign Plan objectives through preparation of doctrine, modernization of equipment, and training programs. Two major issues dominated this effort during FY 2016. The first was restoring capabilities by improving training in certain areas that had been negatively affected by the cumulative effects of the wars in Iraq and Afghanistan. Second: force development needed to develop new equipment and doctrine to fulfill the Army's role as an integral part of the Joint Force.

Army force developers encountered two significant challenges during FY 2016. First, the Army drawdown in personnel strength continued to affect force structure and readiness. When the drawdown process began in January 2012, the service had made several decisions. At least ten Regular Army brigade combat teams (BCT) would be cut from the force structure. The remaining BCTs would be reorganized in conjunction with this smaller force structure. By 30 September 2016, Regular Army personnel strength was the smallest it had been since before the 1940–1941 mobilization. The second issue was the continuing financial uncertainty and the impact of the Budget Control Act of 2011. The financial uncertainty for FY 2016 is described in Chapter 2. The implementation of sequestration provisions in the Budget Control Act during FY 2013 created a significant long-term shortfall in Army funding.

The Department of Defense (DoD), in January 2012, established the Army's long-term force development priorities for FY 2016 with the issuance of *Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense*. A major element of this guidance was a shift of U.S. interests and effort toward the Asia-Pacific region and a gradual reduction in the military strength of the service to 980,000: 450,000 in the Regular Army, 335,000 in the Army National Guard, and 195,000 in the Army Reserve. The 2014 Quadrennial Defense Review provided further direction by warning of a sharp increase in the possibility of conflict with a peer competitor. In 2015, the Joint Chiefs of Staff released an updated National Military Strategy which emphasized the threat posed by "revisionist states," particularly Russia. This new situation was reflected in the Army Posture Statement released in March 2016.

One of the key ideas in the 2016 posture statement was the need to prepare for multidomain battle. The multidomain battle concept, heavily influenced by studies of Russian actions in the Crimea and Ukraine, emphasizes readiness for a broad spectrum of contingencies ranging from peacekeeping to conflict against a near-peer competitor occurring nearly simultaneously within a region. It is a change from the Army's focus on low-intensity conflict and counterinsurgency since 2001. That focus had left units poorly prepared for the fast pace and high lethality of combined arms combat.

The program objective memorandum (POM) released in June 2016 focused on improving readiness for multidomain operations during 2018–2022 by increasing training intensity and lengthening training exercises. The Army National Guard received greater attention in the POM training plan, with a doubling of the Army National Guard combat training center rotations from two per year to four. The POM also increased reserve force mobilizations funded in the base budget by 100 percent.

In the Regular Army, the most important planned shift was the conversion of an infantry BCT to an armored BCT. This conversion would meet rotational demands from Central Command, Pacific Command, and European Command. The POM called for building two Advise and Assist Brigades in the Regular Army and one in the Army National Guard. These units have only 500 personnel, with almost all being midgrade officers and noncommissioned officers trained to work with allied, partner, and coalition units for security force assistance. In the event of a large-scale sustained conflict, these brigades can also provide the cadre for additional armor and infantry brigades.

Training

At the start of FY 2016, the Army implemented changes to basic combat training as part of its transition from the wars in Iraq and Afghanistan to revitalizing capabilities for high-intensity combined arms operations. These changes increase emphasis on Army values and discipline, renew focus on physical fitness, and revise rifle marksmanship training. Training specific to operations in Iraq and Afghanistan will be deleted, and some topics, such as interaction with news media, will be done in the soldier's first unit of assignment. A new addition to the course will be peer evaluations, similar to those used in the Ranger School. The primary purpose of peer evaluations is to assist in assessing a recruit's character.

Another change is the reestablishment of end-of-phase testing. Previously, recruits had been tested on a skill immediately after it had

been taught to them, but this practice did not provide sufficient time for the repetitions necessary for knowledge retention. Now recruits will be evaluated at the end of each phase of the course on a selection of skills taught in that phase. Testing at the end of each phase grows more difficult. At the discretion of their commander, recruits failing an end-of-phase test can be recycled back to that part of the course. The final field training exercise will now include a final end-of-phase test and a timed road march, both of which the recruit will have to pass in order to graduate.

U.S. Army Training and Doctrine Command (TRADOC), in the first quarter of FY 2016, opened an online app store. The TRADOC Application Gateway allows soldiers to download unclassified apps and interactive digital publications that are not considered “for official use only.” In addition to content produced by TRADOC, the store will permit others in the Army to request an app. For development of these applications, the TRADOC capability manager for mobile learning has a team of developers that can do in-house development for Android, iPhone, and Windows phones. Before such apps can be posted, they must first be shown to be safe from malicious code. Then proponent organizations for the app must review it to ensure that it contains accurate and up-to-date information. Organizations already independently hosting their own apps may transfer them to the TRADOC Application Gateway.

Sustainable Readiness Model

In FY 2016, the Army continued developing the Sustainable Readiness Model. Readiness models are used to monitor and plan the forces that can be made available for operations to combatant commands. Sustainable readiness will replace Army Force Generation (ARFORGEN), a model designed primarily to generate units for predictable deployments in Iraq and Afghanistan. The Army now, however, is expected to execute a multitude of highly diverse overseas missions, an operational tempo that could leave it without sufficient units ready for a war or other major contingencies.

Sustainable readiness extends the planning timeline by analyzing the Army’s ability to meet global requirements four years into the future. This enables synchronizing resource decisions with the development of the POM. The previous ARFORGEN model considered a narrower scope of requirements and looked only two years in advance of the execution phase, making it almost impossible to capture key resource decisions in the POM. Sustainable readiness is also designed to ensure that high-operational tempo units, such as civil affairs, combat

aviation, and military intelligence, are tracked in a more detailed manner, compared to the BCT-centric model of ARFORGEN. Unlike ARFORGEN, there are no fixed, progressive cycles for Regular Army units, but reserve component units will remain on a five-year cycle.

Unlike ARFORGEN's three-stage cycle of reset-train-deploy, sustainable readiness will be less mechanistic and create more detailed forecasts of unit readiness because it is measured against anticipated demands on a quarterly basis through the first two years of each Future Year Defense Program. This analysis provides a method for synchronizing Army activities and resources by indicating whether a unit is preparing to assume a mission, ready for a mission, or already assigned a mission.

These readiness states provide the basis for the three descriptive, three-month modules (Prepare, Ready, and Mission) used as the organizing construct for the Sustainable Readiness Model. Within the "Prepare" module, commanders will train their units to complete the full range of military operations. Units in the "Ready" module are prepared for deployment at any time. Units in the "Mission" module are prepared for a variety of tasks, but focused to accomplish a specific mission. The Army will implement the Sustainable Readiness Model in FY 2017.

Readiness Reporting

In FY 2015, Army senior leadership recognized the potential for tactical units to inflate training readiness ratings. The current T-rating criteria in the Unit Status Report (USR) is based on the commander's subjective assessment. During FY 2016, the G-3/5/7 developed the concept of Objective-T for assessing a unit's training readiness. Objective-T consists of four measurable components that will form the overall training rating in the USR. These components are: individual, crew-served, and platform weapon qualifications; collective live-fire proficiency; mission-essential task proficiency; and collective days of training required to reach the highest rating of T-1. The new concept has detailed descriptions of each component and establishes well-defined metrics for the weapons qualification, collective live-fire, and required training-day evaluations. The commander's ability to subjectively upgrade a unit T-levels will be limited to no more than one grade.

The pilot program for Objective-T began in April 2016 with an armored brigade combat team at Fort Hood and it will be completed in January 2017. A second pilot program for aviation units will commence in October 2016 with a combat aviation brigade at Fort Campbell

and will end in September 2017. Implementation of Objective-T is scheduled for November 2017 for the Regular Army and January 2018 for the Army Reserve and the Army National Guard.

Cyber

The development of a capable cyber force is critical to the Army's long term effort of building cyberspace capability. The service created cyber military occupational specialties for officers, noncommissioned officers, and enlisted personnel in the 17-series during 2015. During FY 2016, The U.S. Army Force Management Support Agency revised the force structure documents (modified tables of organization and equipment and tables of distribution and allowances) to reflect all 17-series personnel authorizations.

The Army is building sixty-two Cyber Mission Force Teams. Of these, forty-one will be in the Regular Army, eleven will be in the Army National Guard, and ten will be in the Army Reserve. The first team achieved full operational capability in 2014 and the last is expected to reach that status in FY 2017. During FY 2016, U.S. Army Cyber Command (ARCYBER) fielded teams designated as "Cyber Support to Corps and Below" (CSCB) that integrate cyber effects at the tactical level. These teams work with units at the units' home station, at combat training centers, and on deployments.

In January 2016, a CSCB team partnered with a Stryker brigade combat team during a National Training Center rotation. As part of this exercise, the team created a realistic cyber environment by replicating a real-world network provider serving the several mock villages in the training area, establishing Wi-Fi access points as well as providing laptops and smartphones to individuals portraying civilians and to opposing force units. A second CSCB team supported the 3d Brigade Combat Team, 25th Infantry Division, during its rotation at the Joint Readiness Training Center. This test cycle was supported by ARCYBER and its subordinates: the U.S. Army Cyber Protection Brigade, 1st Information Operations Command, and 780th Military Intelligence Brigade. The CSCB team incorporated more robust cyber effects into training scenarios, and trained the 3d Brigade on threats, tools, tactics, and capabilities at the home station. The CSCB was especially valuable during the planning phase by integrating cyberspace operations into targeting and augmenting the brigade staff.

In August another National Training Center rotation involved a CSCB team supporting the 1st Brigade Combat Team of the 1st Infantry Division. As part of the exercise, a "defensive support team" of four or five soldiers was assigned to protect the brigade network from



CSCB soldiers conduct cyberspace operations at the National Training Center, Fort Irwin, California, 24 January 2016.

attack, whereas four cyber electromagnetic activity weapons teams conducted offensive operations against the opposing force's network. An electronic warfare section of two soldiers provided "dismountable capability," working against opposing forces' tactical eavesdropping, jamming, and hacking.

Holistic Aviation Assessment Task Force

After a spike in Class A aviation accidents in the first quarter of FY 2016, the chief of staff, Army, established the Holistic Aviation Assessment Task Force in January 2016. Its mission was to assess aviation leadership, readiness, training, maintenance, sustainment, policy, and resources. Thirty-four experts from Army Aviation and the RAND Corporation, plus three senior consultants with extensive aviation experience comprised the task force. After four months of research and analysis, the task force made sixty-three recommendations

The recommendations focused on regaining core competencies, ensuring total force employment, operating at best value, optimizing for the future fight, maximizing potential of unmanned aircraft systems, administering aviation soldier career management, and governing of the aviation enterprise. Recognizing the atrophied core competencies,

many of the recommendations emphasized the importance of “flying and fixing” as it relates to training. This in turn translates into readiness and consequently focuses on doctrine, systems and processes, and development of aviation professionals. Other proposals concentrated on the total cost of operations and improving the flying-hour program. Additionally, the program made recommendations to optimize aviation units’ ability to operate against any threat, under any conditions. Lastly, several recommendations called for significant investment in the enhancement of training and education of aviation soldiers. Complete implementation of the recommendations is expected by the end of 2018.

Unit Rotations

In FY 2016, the Army continued deploying units to Europe on a rotational basis as part of the European Reassurance Initiative. This policy responded to increasing threats in that area and used unit rotation because current base funding does not support an increase in permanently assigned forces in Europe. Headquarters, Department of the Army (HQDA), determined that the most effective course of action would be the deployment of an armored brigade combat team on a rotational basis. In addition to unit rotations, the initiative also included increased participation in exercises and expansion of Army pre-positioned stocks in this area.

The 1st Brigade Combat Team, 3d Infantry Division, from Fort Stewart, Georgia, served as the rotational brigade from March 2015 to September 2016. During that period, it had two, three-month rotations and one, six-month rotation. While deployed, the brigade participated in multinational exercises across twelve European countries. The 3d Brigade Combat Team, 4th Infantry Division, Fort Carson, Colorado, became the next rotational brigade. The brigade’s equipment shipped overseas in November 2016 and the brigade’s rotation commenced in January 2017.

Force Structure

The implementation of the Budget Control Act’s sequestration provisions in 2013 made the Army’s aviation structure unaffordable. In response, HQDA created the Aviation Restructure Initiative to retain as many of its most capable aircraft as possible. The initiative also maximized capacity for meeting combatant command requirements by placing all attack helicopters in the Regular Army and focusing Army National Guard units on the lift and medevac missions. The secretary of defense approved the initiative in 2014. By the time it is

completed in FY 2019, the initiative will have eliminated nearly 700 aircraft and three combat aviation brigades from the Regular Army and 111 aircraft from the reserve components. All TH-67 initial pilot training helicopters will be retired. All OH-58A/C training and utility helicopters will be retired. All OH-58D reconnaissance helicopters will be retired. All AH-64 attack helicopters in the Army National Guard will be transferred to the Regular Army to replace the OH-58Ds. Then one AH-64-equipped attack reconnaissance battalion in each Regular Army combat aviation brigade will convert to a heavy attack reconnaissance squadron design. This design will include RQ-7 Shadow drones for the capabilities OH-58Ds previously provided. Additional UH-60 helicopters will be transferred to the Army National Guard to increase the number of medium lift units. One hundred UH-72 helicopters will be procured for training missions.

By the end of FY 2016, four combat aviation brigades had transitioned to the new design. All but one reconnaissance unit had divested their OH-58Ds; the remaining squadron will do so in FY 2017 after the end of its Korean rotation. Forty-six of the planned fifty UH-60s had been transferred from the Regular Army to the Army National Guard. Seventy-two AH-64Ds had been transferred from the Army National Guard to the Regular Army; eighty AH-64Ds remained in Army National Guard units.

The National Commission on the Future of the Army released its final report on 28 January 2016. Congress established the commission in the FY 2015 National Defense Authorization Act in large part because of two concerns. The first was how the Army should best organize and employ its three components in a time of declining resources. The second was whether the service should proceed with the transfer of AH-64 aircraft from the Army National Guard to the Regular Army, as directed by the Aviation Restructure Initiative. Congress directed the commission to undertake a comprehensive study of the structure of the service in order to assess the size and force mix of the Regular Army, Army National Guard, and Army Reserve, and make recommendations in those areas where the commission thought appropriate. In considering recommendations, Congress instructed the commission to take into account anticipated mission requirements for the Army at acceptable levels of national risk and in a manner consistent with available and projected resources. Additionally, Congress specifically directed the commission to study the transfer of all the Army National Guard's AH-64 helicopters to the Regular Army.

The commission had eight members, four appointed by the president, and four by the chairs and ranking members of the Senate and House Armed Services Committees. The commissioners were



25th Combat Aviation Brigade soldiers conduct inspections and prepare former Army National Guard Apache aircraft for their flight to Wheeler Army Airfield from a port in Honolulu after their arrival in Hawaii, 23 April 2016.

appointed as special government employees for the duration of the commission's work. They selected a full-time executive director and a staff director who, in turn, selected a staff of about forty individuals, drawn from the Army Staff, the National Guard Bureau, and the Office of the Chief of Army Reserve, as well as the Joint Staff, the Office of the Secretary of Defense, and the Congressional Research Service. The commission also requested assistance from the Center for Strategic and International Studies, the Army War College, the Center for Army Analysis, the Training and Doctrine Command Analysis Center, the Institute for Defense Analyses, and the RAND Corporation.

In its report, the commission made sixty-three recommendations. Concerning the National Guard's AH-64s, it proposed a plan that would distribute the fleet among twenty-four battalions: twenty in the Regular Army, each equipped with twenty-four aircraft, and four in the Army National Guard, each equipped with eighteen aircraft. Furthermore, it advised that the Army should commit to using the four National Guard battalions regularly, mobilizing and deploying them in peacetime and war. In regards to the Total Force, the commission found the Army's existing initiatives were partially meeting the

concept's intent, but that more must be done to fully implement it. It recommended enactment of legislation allowing the assignment of Regular Army officers and enlisted soldiers to Army National Guard positions without prejudice to their federal standing. It suggested that the legislation should also permit the similar assignment of National Guard officers and enlisted soldiers to Regular Army units. The commission suggested the number of annual rotations for Army National Guard brigade combat teams at combat training centers be increased beginning in FY 2017, without decreasing the number of Regular Army brigade combat team rotations.

Concerning the service overall, the commission advised that Congress should maintain future Army budgets at funding levels at least equal to those in the FY 2016 budget request because of significant threats to national security. Its preferred course of action would be a service of at least 980,000 soldiers: 450,000 in the Regular Army, 335,000 in the Army National Guard, and 195,000 in the Army Reserve. The commission made several recommendations regarding force structure: an armored brigade combat team should be permanently stationed in Europe; a combat aviation brigade should be maintained in Korea; and eleven combat aviation brigades should be retained in the Regular Army. To counter the growing threat from Russia, it advocated for the Army to increase armored brigade combat team capacity, and the service should consider inactivating up to two Regular Army infantry brigade combat teams in order to provide personnel spaces that could be used to address higher priority risks.

The wars in Iraq and Afghanistan had eroded the Army's capacity for combined arms battle against a peer competitor and the commission stressed the importance of rebuilding this capacity. It recommended that Congress require the Secretary of Defense and Secretary of the Army to provide, within a year, an assessment of the ways—and associated costs—of reducing or eliminating various shortfalls it had identified:

- AH-64-equipped attack reconnaissance battalions
- Short-range air defense meeting existing and emerging threats, to include unmanned aerial systems and cruise missiles
- Defense against chemical, biological, radiological, and nuclear weapons
- Field artillery, to include changes in doctrine and war plans resulting from adherence to the 2008 DoD policy restricting the use of cluster munitions, as well as required modernization and munition inventory shortfalls
- Quartermaster fuel distribution and water purification
- Army watercraft and port-opening capabilities

- Transportation of fuel, water, and cargo
- Military police.

After completing a review of the commission's report, HQDA supported, in principle, the vast majority of its recommendations. Some of the most significant ones endorsed include the stationing of an armored brigade combat team in Europe, retaining eleven combat aviation brigades, and increasing National Guard rotations at combat training centers. The difficulty for the service was that in many cases the commission did not identify the resources, in funding and personnel, necessary to implement a recommendation.

To demonstrate its acceptance of the commission's recommendations and its commitment to resolving internal Army friction, the service prepared an unsolicited initial response to Congress on the commission's report. The acting secretary of the Army, the chief of staff, Army, the chief, National Guard Bureau, the chief, Army Reserve, and the director of the Army National Guard signed it on 25 April 2016. They submitted the response to OSD for review and sending to Congress, but OSD elected to not forward the report until after its own assessment—part of the normally scheduled Program Budget Review in the fall of 2016. The House of Representatives subsequently included language in House Report 114–537, requiring a report from the Army by 1 December 2016.

Initially, the Army planned to deactivate two brigade combat teams during FY 2016 in response to fiscal constraints: 3d Brigade Combat Team, 3d Infantry Division, at Fort Benning, Georgia, and 4th Brigade Combat Team, 25th Infantry Division, at Joint Base Elmendorf-Richardson, Alaska. Each brigade would be replaced by an infantry battalion task force, a reduction in strength from about 4,000 soldiers to about 1,050 soldiers. In March 2016, however, the Army suspended the inactivation of the airborne brigade combat team in Alaska because of the threats from Russia and North Korea. The inactivation of the brigade combat team at Fort Benning continued as planned; the Army activated 1st Battalion, 28th Infantry Regiment, there in December 2015 and assigned it to the 3d Infantry Division.

Armored brigade combat teams revised their structure. Each maneuver battalion went from four to three maneuver companies. The brigade's cavalry squadron added a tank company to provide it increased lethality and survivability.

5

Operational Forces

During fiscal year (FY) 2016, units of the Army were active in a variety of global operations and engaged in security assistance with multiple foreign partners. In FY 2016, the service sought to increase its strength in Europe, and continued a program to rotate combat units from the continental United States to Europe. At the end of the fiscal year 26,109 soldiers were stationed in Europe, with 20,611 in Germany. Italy had the second largest total with 4,442, mostly associated with the 173d Brigade Combat Team stationed in Vicenza. In Belgium, 565 personnel supported NATO (North Atlantic Treaty Organization) headquarters and 171 were assigned in the United Kingdom. Additionally, 320 soldiers were stationed in Kosovo in support of Kosovo Force peacekeeping operations.

In East Asia and the Pacific, 2,717 soldiers were stationed in Japan, either at Camp Zama outside of Tokyo or in Okinawa. Forty-five soldiers were stationed in Thailand, helping to coordinate training exercises between the Thailand Armed Forces and the United States. There were 15,866 soldiers stationed in the Republic of Korea.

In the western hemisphere, 141 personnel were assigned to Naval Station Guantanamo Bay, Cuba, 234 were stationed in Honduras, and 26 in Colombia. The majority of countries in the western hemisphere had very small numbers of Army personnel, usually less than three, assigned to embassy staff elements.

Afghanistan

Operation FREEDOM'S SENTINEL in Afghanistan continued to require significant Army support during FY 2016. In September 2015, the number of personnel deployed to Afghanistan was 6,937 Regular Army, 743 mobilized Army National Guard, and 559 mobilized Army Reserve. By the end of September 2016, that number had decreased slightly to 6,846 Regular Army, 609 mobilized Army National Guard, and 677 mobilized Army Reserve. Army combat casualties for Operation FREEDOM'S SENTINEL during FY 2016 were two killed and fifty-eight wounded.

American forces in Afghanistan have two missions: counter-terrorism against the remnants of al-Qaeda and training, assisting,

and advising mission-supporting Afghan security forces. The largest commitments during FY 2016 were elements of two division headquarters and two brigade combat teams augmented to function as security-force-assistance brigades. In October 2015, the 10th Mountain Division and its 3d Brigade Combat Team assumed responsibility for Train Advise Assist Command–East from 3d Infantry Division and 3d Brigade Combat Team, 101st Airborne Division. In June 2016, the 36th Infantry Division and 2d Brigade Combat Team, 4th Infantry Division, assumed responsibility for Train Advise Assist Command–South from the 7th Infantry Division and 2d Brigade Combat Team, 10th Mountain Division.

Iraq

Iraq faces lingering ethnic and sectarian mistrust, tensions between political parties, and strained governmental capacity to provide basic services. The most direct threat to Iraq is the Islamic State of Iraq and Syria (ISIS). Operation INHERENT RESOLVE began in June 2014, in conjunction with partner forces, to defeat ISIS in designated areas of Iraq and Syria and set conditions for follow-on operations to increase regional stability. During FY 2016, significant progress occurred in the fight against ISIS. Iraqi forces recaptured Fallujah on 26 June 2016, which forced ISIS further away from Baghdad and paved the way for the liberation of the Euphrates river valley. On 25 August 2016, Iraqi forces seized the airfield at Qayyarah, thereby placing themselves within striking distance of ISIS-held Mosul. A strategic pause ensued and it is expected that Iraqi forces—again supported by coalition fires, air support, and targeting teams—will begin the battle for Mosul in early FY 2017.

In October 2014, the Department of Defense established the Combined Joint Task Force–Operation INHERENT RESOLVE (CJTF–OIR). The III Corps assumed authority of CJTF–OIR from the U.S. Army Central Command in September 2015. The XVIII Airborne Corps assumed authority of CJTF–OIR from III Corps on 21 August 2016. In March 2016, the headquarters of the 82d Airborne Division relinquished command of the Combined Joint Forces Land Component Command–Iraq (CJFLCC) to the headquarters of the 101st Airborne Division. During its nine-month tour commanding the CJFLCC, the division headquarters was responsible for the command and control of approximately 4,000 coalition troops from eighteen nations. They trained, advised, and assisted the Iraqi security forces and provided critical capabilities to them. The 2d Brigade Combat Team, 101st Airborne Division, deployed to Iraq in May 2016. It replaced the 1st

Brigade Combat Team, 10th Mountain Division, as the lead element for the CJFLCC's advise-and-assist mission.

Initially, the 2d Brigade Combat Team, 101st Airborne Division, operated in the same manner as its predecessors. Americans were not permitted to deploy with Iraqi units below the echelon of division headquarters. Therefore the brigade combat team (BCT) focused on training division staffs and training and equipping Iraqi Army brigades at facilities near Baghdad. In April 2016, however, the president authorized the BCT to supply advisers who would accompany the Iraqi Army brigade and battalion headquarters during operations. Previously, only special operations troops had been permitted to move beyond division headquarters when they joined the Kurdish Peshmerga and Iraqi special forces units on some missions. The first use of this authorization came in July 2016, when the BCT assisted the Iraqi Army in installing a bridge over the Tigris River south of Mosul. American engineer advisers, positioned 250 meters from the bridge, coached their Iraqi counterparts, while the BCT provided fire support from its field artillery unit and coordinated unmanned aerial vehicles. An advise-and-assist team helped the Iraqi division leadership synchronize the operation.

The success of this operation soon confirmed that maintaining a persistent presence with Iraqi forces during combat operations was essential to defeating ISIS. This realization led to a shift in concept for the BCT from advise and assist to expeditionary advise and assist. This change required the mitigation of risk to the advise-and-assist teams by adding a security element to the teams. In August 2016, 400 soldiers from the BCT who had remained at Fort Campbell deployed to Iraq to provide that capability.

Strength in Iraq on 30 September 2015, was 2,923 Regular Army, 215 mobilized Army National Guard, and 92 mobilized Army Reserve. By 30 September 2016, Army personnel strength in Iraq had increased slightly to 3,080 Regular Army, 259 mobilized Army National Guard, and 401 mobilized Army Reserve. Other areas of Central Command, particularly logistics and transportation hubs, continued to require Army personnel, most notably approximately 4,000 soldiers deployed in Kuwait. Army combat casualties for FY 2016 in Operation INHERENT RESOLVE were one killed and six wounded.

U.S. Army, South

U.S. Army, South, is responsible for Army operations in Central and South America and the Caribbean. Normal personnel strength is approximately 3,000 Regular Army, Army Reserve, and Army

National Guard soldiers. They support security cooperation and contingency operations, fulfill requirements for Title 10 support and combatant command, and back agent missions for the Department of the Army and the U.S. Southern Command. In 2016, Army South's regionally aligned force was the Florida Army National Guard's 53d Infantry Brigade Combat Team, which conducted training with regional partners to combat illicit trafficking of narcotics, humans, and weapons.

Exercises in 2016 included: medical readiness exercises; BEYOND THE HORIZON, PANAMAX, TRADEWINDS, and FUERZAS ALIADAS HUMANITARIAS. The missions of Joint Task Force–BRAVO, stationed at Soto Cano Air Base, Honduras, and its primary unit, the 1st Battalion, 228th Aviation Regiment, include helicopter support to counter organized crime, medical readiness training, and disaster-relief support. The 525th and 744th Military Police Battalions support Joint Task Force–GUANTANAMO.

U.S. Army, Africa

In October 2015, the 2d Brigade Combat Team, 3d Infantry Division, assumed the role of the regionally aligned force for U.S. Army, Africa. During FY 2016, elements from the BCT deployed to Africa. They trained approximately 7,000 African soldiers in a wide variety of security cooperation missions; provided training in logistics and peacekeeping operations; and conducted basic and advanced infantry training. Units also served tours as the East Africa Response Force, based at Camp Lemmonier in Djibouti. Plans call for the 1st Brigade Combat Team, 101st Airborne Division, to assume the regionally aligned force mission in October 2016.

Army forces also participated in the annual CENTRAL ACCORD exercise in Gabon. CENTRAL ACCORD focuses on command-post and field training in order to foster partnerships, increase interoperability, and build the capacity of the participating African, U.S., and European forces. In addition to troops from the 2d Brigade Combat Team, 3d Infantry Division, units of the 82d Airborne Division conducted an emergency deployment readiness exercise at Fort Bragg, North Carolina, followed by a trans-Atlantic airborne operation to Gabon. Once in Gabon, they participated in two multinational airborne operations, a company live-fire exercise, and a multinational command post exercise.

In January 2016, U.S. Army, Africa, began planning to incorporate a full-time internal sustainment capability. Currently, Africa Command is the only combatant command without an assigned theater sustainment command. The U.S. Army, Africa, staff



Soldiers assigned to 1st Battalion, 30th Infantry Regiment, and the Senegalese Army's 1st Paratrooper Battalion rehearse mortar crew drills during Africa Readiness Training 2016.

therefore must replicate the functions of such a command through memorandums of agreement with the U.S. European Command and the 21st Theater Sustainment Command. In FY 2016, the U.S. Army Reserve was tapped to provide this regionally aligned logistics support. The 79th Theater Sustainment Command will assume this mission late in FY 2017 after completing its transition from a sustainment support command to a theater sustainment command. Until that time, the 13th Expeditionary Sustainment Command, Fort Hood, Texas, will be assigned in early FY 2017 to Africa Command under the operational control of U.S. Army, Africa.

In May 2016, the chief of staff, Army, joined his African counterparts to attend the African Land Forces Summit in Tanzania. The summit theme was “Building Security in Africa through Cooperation.” The leaders discussed a variety of issues, including poaching, countering improvised explosive devices, transnational threats, and violent extremist organizations.

Asia-Pacific

U.S. Army, Pacific, launched the Pacific Pathways initiative in 2014, combining multiple preexisting exercises with partner nations into integrated operations. Each operation is a “Pathway” for enhancing the readiness of participating forces, strengthening relationships with allies, and providing a crisis-response option for Pacific Command. Each Pathway operation deploys a battalion-sized task force and a brigade combat team headquarters for approximately ninety days to conduct a series of exercises. Pathway 15–2, conducted from June through October 2015, and using elements from the 3d Brigade Combat Team, 25th Infantry Division, included exercises in Australia, Indonesia, and Malaysia. Pathway 15–3, conducted from August through November 2015, and using elements from the 1st Brigade Combat Team, 25th Infantry Division, included exercises in Mongolia, Japan, and South Korea. 1st Brigade Combat Team, 2d Infantry Division conducted Pathway 16-1 from December 2015 through May 2016 with exercises in Thailand, South Korea, and the Philippines. The 2d Brigade Combat Team, 2d Infantry Division led Pathway 16–2 from May through September 2016 and was deployed to Thailand, the Philippines, Indonesia, and Malaysia.

In 2004, the governments of the United States and South Korea agreed to move all U.S. forces to garrisons south of the Han River, most of which will be relocated to Camp Humphreys, about forty miles south of Seoul on the country’s west coast. During FY 2016, the relocation effort continued with construction of new facilities at Camp Humphreys. The final adjustment of the camp’s perimeter fence, required by the installation’s expansion in size from 1,041 acres to 3,453 acres, was made in September 2016. The first ground maneuver battalion from 2d Infantry Division relocated to Camp Humphreys in July 2016. It is expected that the move of units and headquarters will be completed during FY 2019.

The brigade combat team rotation program in South Korea continued. The 1st Brigade Combat Team, 1st Cavalry Division, began its nine-month rotation in February 2016. It replaced the 2d Brigade Combat Team, 1st Cavalry Division, which completed the first rotation under this program, and it returned to Fort Hood, Texas.

U.S. Army, Europe

U.S. Army, Europe’s Operation ATLANTIC RESOLVE demonstrates continued U.S. commitment to collective security. It reassures NATO allies and partners of America’s dedication to enduring peace and



Soldiers from the 2d Squadron, 2d Cavalry Regiment, attack simulated enemy combatants, 2 February 2016, during exercise Allied Spirit IV at the U.S. Army's Joint Multinational Readiness Center in Hohenfels Training Area, Germany.

stability in Europe after Russia's intervention in Ukraine. Regionally aligned units support U.S. Army Europe's assigned units in ATLANTIC RESOLVE. The 4th Infantry Division, Fort Carson, Colorado, supplies a mission-command element which oversees the rotational units and provides a division-level, command-and-control capability. The 1st Brigade Combat Team, 3d Infantry Division, Fort Stewart, Georgia, served as the European rotational armored brigade from March 2015 until September 2016. It conducted two, three-month rotations and one, six-month rotation, participating in multinational exercises across twelve countries in Europe. The 3d Brigade Combat Team, 4th Infantry Division, Fort Carson, will become the new European rotational armored brigade early in FY 2017.

The 12th Combat Aviation Brigade is stationed in Germany, but during FY 2015, it was reorganized from a brigade with seven battalions to one with two battalions as part of the Aviation Restructuring Initiative. In order to provide the theater with greater aviation capabilities, the Army began deploying an aviation battalion task force to Germany on a nine-month rotation in FY 2015. In November 2015, the 4th Battalion, 3d Aviation Regiment, completed

the first of these rotations and returned to Hunter Army Airfield, Georgia. The 3d Battalion, 227th Aviation Regiment, Fort Hood, Texas, replaced it. The Army, however, concluded in FY 2016 that Operation ATLANTIC RESOLVE requires additional aviation support. Therefore, it began preparations to begin deploying in FY 2017 a reinforced combat aviation brigade from the United States for a nine-month rotation in Europe.

6

Logistics

During fiscal year (FY) 2016, fiscal constraints and operational commitments led the Army to revise its logistical and modernization programs to focus on the shorter-term needs of deployed forces. This near-term readiness emphasis created risk for future readiness with no new major modernization programs over the next decade. Complicating this situation was a growing threat that near-peer competitors could match U.S. military technological capabilities.

The Army responded by working to improve the use of its existing resources. It did this by implementing new accounting and management systems; identifying equipment that could either be laterally transferred, destroyed, or sold; better calibrating production levels at arsenals and depots; and conducting tests of its accounting systems to prepare for congressionally mandated accounting requirements. It also made progress in restructuring its aviation programs to make them more cost-effective. At the same time, the service took the initiative to build up stores of supplies overseas that could be used by rapidly deploying troops in an emergency, and these troops practice using this equipment. In acquisitions, the Army launched a new office that could streamline the process involved in developing new capabilities and it began an assessment to recalibrate its long-term modernization priorities. During the fiscal year, the Army also decided to focus its limited resources where it believed it could gain the most for the forces in the near-term: attack helicopters; two different types of general purpose utility vehicles; its secure digital information network; and the principal air defense missile system.

Readiness

A key logistical readiness initiative during FY 2016 was expansion of equipment housed either afloat or ashore near areas of possible conflict. These collections, designated as Army Pre-positioned Stocks (APS), reduce the time needed to supply deployed forces. In December 2015, the deputy secretary of defense directed that the European Activity Set, used to support units on regionally aligned-forces deployments to Europe, be converted into APS-2 as part of the European Reassurance Initiative. This conversion would take place



U.S. Army soldiers assigned to 3d Battalion, 69th Armored Regiment, lay out equipment for EAS turn-in at Camp Adazi, Latvia, 20 September 2016.

after the 1st Brigade Combat Team, 3d Infantry Division, turned in the equipment once completing its rotation in September 2016. Future rotational forces would deploy with their own equipment from the continental United States. The Department of the Army published the execution order establishing APS-2 requirements in May 2016. In addition to the existing armored brigade combat team set, the order directed the pre-positioning of stocks for a division headquarters, a fires brigade, and a sustainment brigade.

U.S. Army, Europe, worked with host nations to obtain three sites for APS-2 in Belgium, Germany, and the Netherlands. At the same time it ordered the 1st Brigade Combat Team, 3d Infantry Division, to leave enough equipment to outfit a combined arms battalion at six temporary storage sites in Estonia, Latvia, Lithuania, and Poland. These items will be moved to APS-2 sites once the next rotational armored brigade combat team rotates to Europe in January 2017. The Army Sustainment Command directed the 405th Army Field Support Brigade to provide mission command over APS-2 operations. This will require the brigade to establish operations at three APS-2 sites, develop each site's table of distribution and allowances, execute hiring plans, and reset European Activity Set equipment. At the same time, the brigade will have to operate the six temporary Eastern Europe

sites, then close these sites in addition to closing the two European Activity Set sites in Germany. Equipment from outside Europe for APS-2 began arriving in September 2016 and the three sites are expected to be fully stocked by September 2017.

Logisticians supported the program of expanded Emergency Deployment Readiness Exercises (EDRE). During these exercises, the Army practiced the rapid movement of troops and materiel to test the deployment system and ensure the readiness of units and installations for this task. There were several EDREs during the year in which units moved by air from the continental United States to the Pacific region. Additionally, the 3d Brigade Combat Team (BCT), 101st Airborne Division, executed the first sealift EDRE in over a decade in conjunction with its rotation at the Joint Readiness Training Center, Fort Polk, Louisiana. It sent more than 800 pieces of rolling stock and containers by rail from Fort Campbell to the Port of Jacksonville, Florida, where they were loaded onto a Military Sealift Command ship and transported to Port Arthur, Texas. After the equipment was unloaded, soldiers of the 3d BCT moved it to Fort Polk.

Management

Global Combat Support System–Army (GCSS–Army) is a logistics and financial system for both units and installations. It tracks supplies, spare parts, organizational equipment, unit maintenance, and financial transactions related to logistics. The system, based on a commercial software program, replaces the Standard Army Management Information Systems and integrates about 40,000 local supply and logistics databases. The system is being fielded using the wave approach to avoid disruption to ongoing operations.

Wave 1 fielding, begun in February 2013, was completed in November 2015. In total, 281 supply support activities received this wave which replaced the Standard Army Retail Supply System, the Single Stock Fund/Middleware, and the Funds Control Module. Wave 2 will replace the Property Book Unit Supply-Enhanced and the Standard Maintenance System-Enhanced. Full deployment for Wave 2 began in August 2015 and is scheduled for completion in November 2017. The Wave 2 effort has forty-four materiel fielding teams and roughly three times as many simultaneous fielding events as Wave 1.

The Logistics Modernization Program (LMP), underway since 2003, replaces the two largest national-level logistics systems: the inventory management Commodity Command Standard System, and the depot and arsenal operations' Standard Depot System. The LMP will transform Army logistics operations in eight core business areas:

acquisition, distribution, finance, product life-cycle management, supply-chain planning, depots and arsenals, maintenance, and warehouse inventory management. As with GCSS–Army, the service made use of existing commercially available technology, instead of developing an entirely new one, and it began implementing the new system in waves.

In May 2016, the service completed fielding LMP Increment 2, which was deployed to Army industrial base sites in three waves beginning in January 2014. Increment 2 expanded on the already operational production baseline to specifically address shop-floor automation, automatic identification technology, expanded ammunition requirements, strategic business-transformation goals, and specific Department of Defense (DoD) directives, such as item unique identification. The expanded capabilities of Increment 2 enable the LMP to provide mission-critical information about production activities across the supply chain. Completion of Increment 2 brings the total number of LMP users to 30,000 at more than 50 locations around the world. Transition of sustainment services for LMP from the prime contractor to the Army Shared Services Center was completed during June 2016.

The Army took a number of actions during the year to gain better control of its existing supplies and support activities. The G–4, working with the Army Materiel Command (AMC) and the Defense Logistics Agency, located over 130,000 items worth more than \$3.9 billion that could be divested, and it made significant progress toward removing these items from its stocks. This program eliminated 9,188 tactical wheeled vehicles, saving almost \$20 million, and sold off fifty-one UH–60A helicopters, garnering nearly \$40 million that would be used to procure newer versions of the Blackhawk. Along with sales and divestiture, the Army also identified nearly 70,000 items that could be laterally transferred to where they were needed most and it had units turn in nearly 148,000 pieces of excess equipment.

In February 2016, the G–4 directed a review of BCT-authorized stockage lists (ASL). The ASL is a listing of the units' repair parts, general supplies, common hardware, and specialized maintenance and supply tools. The review concluded that BCTs with similar missions had very dissimilar stockage lists. This finding led the G–4—working with Forces Command, AMC, and various Army service component commands—to begin a multiyear program in September 2016 to develop a common authorized stockage list for BCTs.

The Army was also active during the year in efforts to manage more effectively the five depots and three manufacturing arsenals that make up its organic industrial base. A key initiative was an

assessment to determine what production levels facilities need to maintain during a peacetime operational tempo, while also allowing them to expand quickly during national emergencies. The Industrial Base Directorate in the Office of the Assistant Secretary of the Army (Acquisition, Logistics, and Technology), established in FY 2015, worked with the G-4 and AMC to make this assessment. As a result of the assessment, the Army developed a personnel plan that decreased the service's reliance on contractors, and created over \$100 million in cost avoidance without reducing productivity. It also reduced the number of direct-labor hours it required at its depots by 2.5 million, but it maintained enough work in support of other services to ensure that the equipment and skilled labor at these depots would be available during national emergencies. As part of this undertaking, the offices began revising Army Regulation 700-90, *Army Industrial Base Process*, last issued in FY 2014, to provide guidance on the best methods for calculating production levels.

In April 2015, the chief of staff, Army, put G-4 in charge of revamping the service's system of approving, producing, and distributing soldier organizational clothing and individual equipment. During FY 2016, G-4 explored ways of reducing the more than 200 soldier equipment menus to just five core ones and investigated ways to reduce the number of issuing facilities. It also explored a number of options for delivering clothing directly to soldiers or units using a Web-based system. It began testing these new concepts at Fort Belvoir, Virginia, during the second quarter of the year.

During FY 2016, the service examined options for providing soldiers with quick and healthy food options in field environments and in other locations where it may be difficult to access a dining facility. Although vendor food trucks are allowed on installations through the Army and Air Force Exchange Service or the Morale, Welfare, and Recreation activities, the Joint Culinary Center of Excellence (part of the U.S. Army Quartermaster School) concluded that soldiers should also have this option as part of the service's food program. Those who are meal-card holders will be able to use their meal cards at food trucks, but the trucks will include a point-of-sale system that allows diners to pay with cash as well. The Center will purchase three food trucks and test this concept on posts in the continental United States during FY 2017.

The DoD directed the Army to develop better accounting for the large quantity of government-furnished property held by contractors. During FY 2016, the service estimated that there were nearly 96,000 items, worth almost \$1.5 billion, in 40,235 open contracts. To improve documentation and management of this equipment, the Army created

a new online form to account for the materiel, updated its policies to align them with Federal Acquisition Regulations and DoD Training Guidance, and included a separate category for these items in the GCSS–Army and LMP systems.

Research, Development, and Acquisition

The Army continued procuring the latest generation attack helicopter, the AH–64E Apache Guardian, during FY 2016—the first of which were delivered in 2011. Among the new capabilities of this Apache model are control of unmanned aerial systems; improved performance with 701D engines; composite main rotor blades; enhanced rotor drive system; and satellite communication with an integrated communication suite. In April 2016, Army Contracting Command awarded a contract for remanufacturing 117 AH–64D models into AH–64E models. The acquisition objective is to procure 690 aircraft—56 built as E-models and 634 remanufactured from D-models.

The Armored Multi-Purpose Vehicle (AMPV) will replace the M113 family of vehicles, a design first fielded in the 1960s, of which approximately 3,000 variants remain in service. The AMPV will replace the M113 at the brigade level and below in five roles: general purpose, medical evacuation, medical treatment, mortar carrier, and mission command. The Army needs the AMPV because of mobility and survivability deficiencies in the M113. The M113's space, weight, power, and cooling limitations also prevent the incorporation of future technologies in them. The AMPV entered system development in December 2014. Though the AMPV utilizes a new hull design, it is derived from the Bradley Fighting Vehicle and a majority of AMPV subsystems are derived from the Bradley.

Before AMPV's critical design review, the Office of the Deputy Assistant Secretary of Defense for Systems Engineering assessed that the vehicle's preliminary design might not meet survivability and force protection requirements. In response, the program requested and received approval from the Army Requirements Oversight Council to modify the system's survivability requirement as well as several key system attributes. In September 2016, the Joint Requirements Oversight Council validated the survivability requirement change.

Although the program held its critical design review in June 2016 with over 90 percent of its design drawings released to manufacturing, the program had not yet demonstrated a system-level integrated prototype. The contractor started building AMPV prototypes in May 2016 to support design demonstration and developmental testing.



JLTV

However, delays related to the release of engineering drawings and manufacturing-planning efforts created disruptions. Delivery of the first prototype was expected in December 2016.

The Joint Light Tactical Vehicle (JLTV) is an Army and Marine Corps program to produce vehicles with companion trailers. There will be two- and four-seat variants and four mission-package configurations: general purpose, heavy-guns carrier, close-combat-weapons carrier, and a utility/shelter carrier. In August 2015, the Army awarded a firm, fixed price production contract for low-rate, initial production. It started in the first quarter of FY 2016. The Army and the Marine Corps will procure approximately 17,000 vehicles under the contract. A decision on full-rate production should come in FY 2018. Army procurement of the vehicles is expected to last until approximately 2040, totaling 49,099 vehicles. In May 2016, the Army announced that it had selected the JLTV as the platform for a light reconnaissance vehicle instead of procuring a new system. This version of the vehicle will replace the High Mobility Multipurpose Wheeled Vehicles used in the reconnaissance units of infantry brigade combat teams.

In September 2015, one of the corporations which had competed for the contract, but had not been selected, filed a protest with the Government Accountability Office (GAO). It claimed that its design

for the JLTV was more capable and more affordable. Work on the program stopped while the GAO reviewed the protest. In December 2015, the GAO dismissed the protest because the corporation had decided to file a “Notice of Post-Award Bid Protest” with the U.S. Court of Federal Claims as well. Immediately after the GAO dismissed the protest, the Army instructed the contractor to resume work on the JLTV order. The corporation withdrew its protest in the Court of Federal Claims in February 2016. The work stoppage created a six-month delay in reaching initial operational capability, which is now expected to occur in late 2019 instead of mid-2019. The Army received its first seven JLTVs for testing in September 2016.

The Warfighter Information Network–Tactical (WIN–T) is the Army’s Internet Protocol–based satellite and line-of-sight–communications network which supports voice, data, and video communications for units at theater level and below. The service approved the WIN–T program requirements in December 2000 and the system is being fielded in three increments. In 2012, the Army completed fielding the first increment which created an at-the-halt network backbone that provides the full range of data, voice, and video communications to command posts at the battalion echelon and above. In 2014, fiscal constraints led the Army to restructure the third increment, which was to have produced a full networking-on-the-move capability using airborne communications relays. This change eliminated the requirements for hardware but retained the development efforts to complete the network operations software and the Network Centric Waveform 10.x software upgrade, which will then be used to update Increments 1 and 2.

During FY 2016, the service continued the fielding of the second increment, which had begun in 2012. This increment provides an initial on-the-move capability as well as a robust line-of-sight transmission network and greater satellite data for division headquarters and down to the company level for maneuver brigades. Fiscal constraints led to the FY 2016 budget having fewer Increment 2 sets procured than originally programmed for the year, postponing fielding in one infantry brigade combat team, one division headquarters, one infantry BCT engineer company, and one maneuver support battalion.

Work on WIN–T’s third increment continued during FY 2016. In October 2015, the Army conducted a WIN–T Increment 3 Government Developmental Test of the enhanced Network Centric Waveform 10.1.2b at Aberdeen Proving Ground, Maryland. An operational assessment of the increment occurred during the Network Integration Evaluation 16.2 in May 2016. This assessment employed the 2d Brigade Combat Team, 1st Armored Division,

conducting operationally realistic missions at Fort Bliss, Texas, and White Sands Missile Range, New Mexico. In September 2016, the Army acquisition executive approved the deployment of the increment's network operations and Network Centric Waveform enhancements. In June 2016, the Product Manager WIN-T Increment 3 office was redesignated the Product Manager Tactical Cyber and Network Operations. The new title better reflected the office's changing responsibilities. No longer focused on just WIN-T systems, it now supports the full range of devices and services on the mission command network.

In its report for FY 2015, released in January 2016, DoD's Office of the Director, Operational Test & Evaluation, stated that the WIN-T Increment 2 could not survive on the battlefield. Although improved, the office found that this increment continued to demonstrate serious cybersecurity vulnerabilities. The Under Secretary of Defense for Acquisition, Technology, and Logistics, when he approved the program to enter full-rate production in June 2015, also directed the Army to correct performance deficiencies and cybersecurity vulnerabilities discovered in testing. The Johns Hopkins University and the Army Research Laboratory conducted an assessment in FY 2016 that recommended improvements to user-training techniques and procedures, and hardware and software enhancements to reinforce against threats. Efforts continued during FY 2016 to address these cybersecurity issues.

Integrated Air and Missile Defense (IAMD) is a command and control system that integrates sensors, weapons, and a common mission command capability. During FY 2016, the program conducted limited-user testing to collect data on the IAMD's operational effectiveness, suitability, and survivability. This testing found that IAMD's software was still immature. In August 2016, the decision on whether to commence low-rate production, planned for November 2016, was placed on hold until software deficiencies were fixed. Fiscal Year 2018 is the programmed date for the start of full-rate production.

The Patriot surface-to-air missile remains the cornerstone of air and missile defense. During FY 2016, several developments enhanced its capabilities. The Patriot Advanced Capability-3 (PAC-3) Missile Segment Enhancement (MSE) is the latest version of the PAC-3 missile, with increased battlespace defense capabilities and improved lethality. The PAC-3 MSE program achieved initial operational capability in July 2016, ahead of schedule. The Patriots successfully engaged ballistic missile and air-breathing threats during tests. This demonstrated for the first time an interception of a ballistic missile

with a hit-to-kill PAC-3 MSE interceptor and a Patriot Guided Enhanced Missile—tactical ballistic missile, in a ripple-method fire.

In FY 2016, the Army made a major modification to the Network Integration Evaluation (NIE) program. Begun in 2011, the NIEs were held twice a year at Fort Bliss, with a focus on operational testing of equipment, tactics, techniques, and procedures. This testing permitted a more comprehensive evaluation of integrated mission-command networks than is possible through evaluations of individual network components. From the start of the program, a dedicated unit, 2d Armored Brigade Combat Team, 1st Armored Division, was used during every NIE. This policy produced a depth of organizational learning on how to conduct these evaluations that ensured effective testing. However, shrinking force structure and the commitment to deploy a rotational armored brigade to Europe meant that 2d Armored Brigade Combat Team could no longer be dedicated to evaluation mission. Instead, the NIE mission will be filled by other brigades on a rotational basis.

Foreign Military Sales

The Army's Foreign Military Sales (FMS) program is part of the Defense Security Assistance program, which transfers defense articles and services to friendly foreign countries and international organizations. The FMS program is managed by the Office of the Deputy Assistant Secretary of the Army, Defense Exports and Cooperation (DE&C), which oversaw \$14.8 billion in international sales of Army equipment, training, supplies and services during the year, with the Central Command region being the largest recipient. Reflective of the importance the U.S. government places on maintaining the stability of these programs, the Army received approval in FY 2016 to make all FMS positions exempt from restructuring and personnel reductions. Of particular importance was the anti-ISIS program under Operation INHERENT RESOLVE. Since November 2014, the Army has provided over \$2 billion in war materiel under this program to equip ten Iraqi Security Forces Brigades, two Peshmerga Brigades, a number of counterterrorism units, and assorted paramilitary forces. The materiel included individual equipment, light and heavy machine guns, antitank weapons, non-U.S. weapons, ammunition, vehicles, communications devices, and medical supplies.

Outside of Central Command, the office oversaw triple the amount of sales and training activity in Europe as compared to FY 2015. Key in these efforts was a \$2.5 billion agreement to remanufacture AH-64

Apache helicopters for the United Kingdom; and \$158 million in support of operations in Ukraine. In the Pacific region, U.S. Army sales activity was nearly double the amount in FY 2015, including the sale of \$932 million in AH-64E Apache helicopters to India. At the end of the year, the Army still had 5,636 partially completed sales or service transactions with 152 different countries that would be valued at \$176 billion when completed. In addition to direct sales and service, the DE&C also supported the Army's review and adjudication of 6,350 commercial export licenses. The office also supported 10,978 training sessions for allies at U.S. Army schools, and the deployment of thirty-eight training teams to twenty-three different countries.

In addition to sales, DE&C helped conclude twenty new armaments cooperation agreements during the year under the FMS program, in which the nations involved collaborated on research and development efforts. Along with these new efforts, it also oversaw 517 ongoing collaborative efforts with thirty-five different countries. Altogether, these programs were valued at \$327 million in research, development, testing, and evaluation. One of the more significant collaborations was the first ever U.S.-Japan Service to Service Forum, which was held 26–29 July 2016 in Tokyo, Japan. During the forum, defense officials and industry representatives from both nations met to share information on a number of equipment programs of mutual interest. Similarly, the office sponsored a number of forums with India under the U.S.-India Defense Technology and Trade Initiative, during which defense and industry representatives discussed bilateral cooperation on military research and development efforts. As a result of these forums, the U.S. Army formed two working groups with Indian defense offices, one on chemical and biological protection equipment, and another on materiel systems and technology.

7

Reserve Components

Organizational Structure and Personnel

The Army National Guard (ARNG) had an authorized strength of 342,000 soldiers in fiscal year (FY) 2016, which was down 8,200 from FY 2015. Even with the reduction, however, the component still comprised roughly 39 percent of the Army's overall operational force: its combat arms, combat support, and combat service support. Supporting these soldiers were roughly 1,500 full-time Army civilians. Structurally, the ARNG was divided into fourteen command and control headquarters during the year. They included eight divisional and two expeditionary sustainment commands, along with one headquarters each for Army air and missile defense, military police, theater aviation, and theater sustainment. Additionally, the Guard had 2 special forces groups, 27 brigade combat teams, 45 multifunctional support brigades, 51 functional support brigades and groups, and 514 modified tables of equipment (MTOE) battalions.

The Army National Guard Directorate, located at Arlington Hall, Virginia, reported to the National Guard Bureau, and administered the ARNG's programs. The directorate consisted of the Office of the Director, ARNG, and the Army National Guard Readiness Center. The ARNG Directorate instituted one major organizational change during FY 2016. In May, it created the Installations and Environment Directorate as a separate ARNG G-Staff equivalent organization. The new directorate took over operation of the Guard G-4's Installations and Environmental division, and the ARNG functionally aligned it with the Office of the Assistant Chief of Staff for Installation Management. The change allowed the ARNG to reduce its staffing requirements.

The U.S. Army Reserve (USAR) experienced no major changes to its organization or mission during the year. The USAR maintained nearly 1,100 reserve centers and training facilities, six installations, and equipment inventories valued at more than \$39 billion. The organization that was responsible for implementing USAR's plans and programs during the year was the U.S. Army Reserve Command. The command oversaw eight operational commands during the year, which

could be fully deployed as headquarters, individual units, or both. It also directed seven functional command headquarters, which were not deployable, although the individual units assigned to them could be; seven support commands, which provided support services for base operations services, administration, personnel, logistics, retention, and liaison; and seven training commands, which were responsible for the routine training of soldiers in all components.

Mobilization

In FY 2016, the ARNG mobilized 460 units, with a total of 10,291 soldiers, of which 9,930 served overseas (*Table 8*). It also provided 361 personnel to support the National Capitol Region-Integrated Air Defense System, commanded by North American Aerospace Defense Command/U.S. Army Northern Command. The ARNG contributed command and control elements made up of its air defense artillery brigades from seven battalions in five different states. These units worked with a number of different agencies, including the Air National Guard, the Department of the Treasury, the Department of Homeland Security, and Army air and missile defense units.

The cyber-defense mission remained an important ARNG priority during the year. In FY 2015, the ARNG began standing-up cyber-protection teams to protect critical Army network infrastructure. The teams were made up of soldiers with specialized skills in information technology garnered from their government and private sector careers. After selection, the soldiers received special training for their missions by U.S. Army Cyber Command. The ARNG added seven new teams during the year to join four that it had already established. When combined with Air National Guard cyber assets, the National Guard Bureau planned to have cyber assets in each of the ten Federal Emergency Management Agency response regions.

During FY 2016, the ARNG participated in two major exercises in Europe involving U.S. forces and other nations. Between 1 May and 13 September, personnel from engineer units and a signal battalion deployed to Europe to participate in Operation RESOLUTE CASTLE 16, a special engineer exercise. The soldiers deployed to Europe in seven rotations of twenty-two days each, and participated in events in Estonia, Hungary, Romania, and Bulgaria. In addition, between July and August, the 116th Cavalry Brigade Combat Team from Idaho and the 122d Engineer Battalion from South Carolina participated in a U.S. Army, Europe-led NATO exercise, Operation SABER GUARDIAN. The exercise, which took place in Romania, involved approximately 2,800 military personnel from ten nations in an effort to promote regional

TABLE 8—ARMY NATIONAL GUARD OVERSEAS MOBILIZATION, FY 2016

<i>Operation or Mission</i>	<i>Soldiers Mobilized</i>
Joint Task Force GUANTANAMO	848
Kosovo Forces	603
Multinational Force and Observers	237
Joint Task Force BRAVO	62
Horn of Africa	921
Operation FREEDOM'S SENTINEL	1,406
Operation INHERENT RESOLVE	1,099
Operation SPARTAN SHIELD	4,749
Training Support-South	2
Operation ENDURING FREEDOM-TRANS-SAHARA	3

Source: Office of the Director, Army National Guard

stability and security between NATO and Partnership for Peace member nations, and to improve interoperability between militaries.

On 30 September 2016, the ARNG ended one of its long-standing federal support missions, Operation PHALANX, which had begun in July 2010. Over its six years of operation, the ARNG had committed significant amounts of personnel and equipment to assist U.S. Customs and Border Protection in its defense of the U.S.-Mexican border against illegal immigration and transnational criminal activities. While the units remained under state control, their expenses were paid with federal funds. Most of these operations had involved aerial detection and monitoring using UH-72A Lakota helicopters. Operation PHALANX was originally scheduled to end in December 2016, but by September the Guard had already reduced its commitment to only a hundred personnel—most of whom were performing detection and monitoring with aerial assets, criminal analysis, and command and control missions.

In FY 2016, the Army mobilized ARNG personnel for a total of 1,082,410 workdays under a mix of Title 10 and Title 32 for domestic missions. Of these call-ups, sixty were for natural disaster events, including the Hurricane Joaquin, Hurricane Lester, Hurricane Hermine, and Tropical Storm Darby. There were also twenty-eight special and nontraditional events, including the papal visit to Washington, D.C. and Texas; the Nuclear Security Summit; the National Collegiate Athletic Association Football Championship; the National Football League Super Bowl; Independence Day celebrations; special support missions to Washington D.C. museums; the Breeder's

TABLE 9—ARMY RESERVE OVERSEAS MOBILIZATION, FY 2016

<i>Operation or Mission</i>	<i>Soldiers Mobilized</i>
Joint Task Force GUANTANAMO	835
Kosovo Forces	21
Joint Task Force BRAVO	125
Horn of Africa	216
Operation FREEDOM'S SENTINEL	2,156
Operation INHERENT RESOLVE	594
Operation SPARTAN SHIELD	2,897
Chemical, Biological, Radiological, and Nuclear Response Enterprise	380
Africa Command Counterterrorism	8

Source: Office of the Deputy Chief of Staff, G-3/5/7

Cup; the Kentucky Derby; the Boston Marathon; the Las Vegas New Year's Eve celebration; and the Democratic and Republican National Conventions.

In FY 2016, Army Reservists were deployed at home and abroad, including supporting operations in Afghanistan; civil affairs missions in the Horn of Africa; deterrence operations in Kuwait; military police operations in Guantanamo Bay, Cuba; medical support operations at facilities in Honduras; and responding to natural disasters (*Table 9*).

Key to the ability to deploy these forces effectively was the USAR's system of Army Reserve Engagement Cells and Army Reserve Engagement Teams. These cells provided technical and tactical advice on USAR capabilities to Army Service Component Commands (ASCCs) and field armies, and they helped mobilize the right personnel for specific missions and training exercises. By FY 2016, the USAR had been able to place these cells in six of the nine ASCCs, but it was still trying to get them fully staffed during the year.

Readiness

A key readiness indicator, total equipment on hand, showed some signs of improvement during the year for the ARNG. In FY 2016, the ARNG had 93 percent of its required MTOE. By comparison, the MTOE rate in FY 2011 had been only 77 percent. Additionally, for critical dual-use equipment—those MTOE items deemed necessary for both state and federal missions—the on-hand level was 89 percent.

Going forward the ARNG was programmed to receive approximately \$12.8 billion in new equipment in FYs 2017–2021.

In September 2016, the chief of staff, Army, approved a plan that the ARNG had developed during the year to improve its readiness over a five-year period beginning in FY 2017. The plan, known as ARNG 4.0, would increase the readiness and availability of select ARNG armor and Stryker brigade combat teams (BCTs) by the close of FY 2019. As part of the change, the ARNG would transition from a five-year training cycle to a four-year one beginning in FY 2017. The plan also increases the number of training days from thirty-nine to fifty-one for certain units to achieve target readiness levels, and to allow for increased unit rotations at the Combat Training Centers.

The ARNG planned to implement ARNG 4.0 in three phases: Phase 1—Policy and Guidance Development, would be implemented in FYs 2016 to 2017. During this time, Guard leaders would focus on drafting guidance for the building and training that would be implemented between FYs 2019 and 2023. In Phase 2—Initial Operating Capability, the ARNG would begin to implement the new guidance for select BCTs during FY 2018. Under Phase 3—Full Operational Capability, in FY 2019, Guard leaders expect to reduce postmobilization training time for select BCTs to sixty days.

Throughout the fiscal year, the ARNG continued to contribute to the State Partnership Program. Inaugurated in 1993, the program links ARNG units directly with the military units of U.S. allies to develop long-term relationships in accordance with U.S. foreign-policy objectives. These units conducted regular military-to-military and interagency activities, including maneuver- and combat-related tasks; security; disaster response and mitigation; crisis management; interagency cooperation; border, port, and aviation security; fellowship-style internships; and combat medical training. During the year, the ARNG maintained seventy unique security partnerships.

Because of severe budget and personnel cuts, the USAR saw readiness and training levels decline. By making special efforts to conserve its resources, the USAR had been able to maintain training for critical units supporting combatant commanders abroad. However, many of these missions required additional training days because of their complexity, and the command was not certain funds for such training would be forthcoming from Congress. The USAR also had significant backlogs in professional military education and military occupational specialty qualification training and insufficient full-time support personnel to provide for day-to-day administration, personnel, medical, training, recruiting, mobilization, and other functions.

Bold Shift

During FY 2016, First Army completed its Bold Shift restructuring. First Army advises, assists, and trains reserve component units so that they can achieve their directed readiness requirements both before and after mobilization. Begun in 2014, Bold Shift is part of the service's efforts to transition from the predictable deployment cycles of the Iraq and Afghan wars to a new environment featuring a smaller force that must prepare for changing global commitments and a renewed emphasis on high-intensity combined arms. This requires reserve component units to maintain a higher readiness level in order to minimize the time between mobilization and deployment. First Army, therefore, shifted its focus from operating postmobilization training sites to improving unit mission essential skills during weekend and annual training periods. First Army also used the program to comply with the service's organizational redesign directive to reduce 2- and 3-star headquarters staffs.

First Army's end-state structure, effective 1 October 2016, consists of nine modular training support brigades (TSB) and provides a 32 percent increase of observer coach/trainers through reduction of the headquarters staffs and a reduction from sixteen to nine TSBs. The six combined arms training brigades (CATBs) are organized to provide training support to ARNG BCTs, but also have the capability to support ARNG and USAR functional/multifunctional formations to meet premobilization readiness requirements. The CATBs generally consist of two maneuver battalions, one fires battalion, one brigade engineer battalion, and one brigade support battalion. Multi-Functional Training Brigades (MFTBs) are organized into functional/multifunctional brigades. The MFTBs consist of two brigade engineer battalions and three brigade support battalions which are staffed with the appropriate specialties to provide the required expertise. All of First Army's brigades are composed of both Regular Army and reserve component soldiers. Under Bold Shift, First Army aligned its subordinate division and brigade headquarters with their reserve component counterparts based primarily on geographic location and like-unit capabilities. These habitual partnerships focus on mutual cooperation between partner units to increase reserve component premobilization readiness.

Associated Units Pilot Program

The Associated Units Pilot Program began in FY 2016. It is a multiyear test of a new concept to increase readiness and

responsiveness of the Army as a total force. The program uses the secretary of the Army's authority to associate units of reserve components with Regular Army units for training oversight before mobilization. When the secretary of the Army designates associated units, the association relationship modifies administrative control. The Regular Army unit commander is now responsible for approving the associated unit's training program, reviewing its readiness report, assessing its resource requirements, and confirming collective proficiency. Association also helps units from different components train together.

In addition to training with Regular Army units, reserve component units selected for the pilot were provided with additional resources to sustain higher readiness. They will have up to fifteen additional days of training each year. They will have more frequent rotations at combat training centers or other capstone training events based on their type of unit. Regular and reserve component units in an associated relationship will be staffed to ensure sufficient available personnel to execute the training strategy, will exchange assigned personnel to enhance mutual understanding across components, and will wear common patches. Associated units will not be required to maintain the exact same modernization levels, but must be compatible to ensure they can train and fight together. The pilot program will last for three years and after that time an assessment will be made to decide how the program could expand.

Units participating in the pilot program are:

- 3d BCT, 10th Mountain Division, stationed at Fort Polk, Louisiana, associated with the 36th Infantry Division, Texas ARNG
- 86th Infantry BCT, Vermont ARNG, associated with the 10th Mountain Division, stationed at Fort Drum, New York
- 81st Armored BCT, Washington ARNG, associated with the 7th Infantry Division, stationed at Joint Base Lewis-McChord, Washington
- 48th Infantry Brigade, Georgia ARNG, associated with the 3d Infantry Division, stationed at Fort Stewart, Georgia
- 1st Battalion, 28th Infantry Regiment, stationed at Fort Benning, Georgia, associated with the 48th Infantry BCT, Georgia ARNG
- 100th Battalion, 442d Infantry Regiment, an Army Reserve unit, associated with the 3d BCT, 25th Infantry Division, stationed at Schofield Barracks, Hawaii
- 1st Battalion, 143d Infantry Regiment, Texas ARNG, associated with the 173d BCT, stationed in Vicenza, Italy

- 1st Battalion, 151st Infantry Regiment, Indiana ARNG, associated with the 2d BCT, 25th Infantry Division, stationed at Schofield Barracks
- 5th Engineer Battalion, stationed at Fort Leonard Wood, Missouri, associated with the 35th Engineer Brigade, Missouri ARNG
- 840th Engineer Company, Texas ARNG, associated with the 36th Engineer Brigade, stationed at Fort Hood, Texas
- 824th Quartermaster Company, a North Carolina-based Army Reserve unit, associated with the 82d Sustainment Brigade, stationed at Fort Bragg, North Carolina
- The 249th Transportation Company, Texas ARNG, and the 1245th Transportation Company, Oklahoma ARNG, associated with the 1st Cavalry Division's Sustainment Brigade, stationed in Fort Hood
- 1176th Transportation Company, Tennessee ARNG, and the 2123d Transportation Company, Kentucky ARNG, associated with the 101st Sustainment Brigade, stationed at Fort Campbell, Kentucky.

8

Support Services

Installation Management

The Office of the Assistant Chief of Staff for Installation Management (OACSIM), in response to a Center for Army Analysis study published in March 2016, started an initiative in fiscal year (FY) 2016 to improve the reimbursement for services provided to non-Army tenant units. The study recommended updating outdated policy and standardizing business practices that inhibit installations from collecting non-Army tenant funds. The OACSIM updated Army Regulation 5–9 *Installation Support Agreements*; developed training modules for garrison commanders; gained installation management command support to add an instruction module to the garrison leader’s course; and published a handbook with how-to procedures for collecting funds from non-Army tenants.

In September 2016, the Office of the Deputy Assistant Secretary of the Army (Strategic Integration) (ODASA (SI)), within the Office of the Assistant Secretary of the Army (Installations, Energy, and Environment) (OASA (IE&E)), published the second version of *Installations, Energy and Environment Strategy 2025*, covering FYs 2017–2025. The document is an important part of the Army’s performance management process. It provides benchmarks that allow the Army to assess its overall efficiency and effectiveness in the areas of installations, energy, and the environment. This document will be refined and updated biennially as directed. The ODASA (SI) developed the document in collaboration with OACSIM, Headquarters, Department of the Army, G–4, the Chief Information Officer, G–6, and others, as well as with key Department of Defense (DoD) partners.

Installations are platforms for Army readiness. They provide secure and sustainable facilities and infrastructure that support combatant commanders’ top priorities, enable Army missions, and sustain soldier and unit readiness. Yet even though the Army has processes that examine future warfighting capability, it has no corresponding process to examine the future of installations—an essential component of readiness. To address this gap, the Army began exploring a futures process for its installations. The OASA

(IE&E) launched an initiative in April 2016 to examine the long-term future of Army installations with ODASA (SI) as the lead element. Pilot studies on the future of installation-related functions such as multipurpose buildings, communal spaces, and campus-style dining were launched in September 2016. They were modeled on the Army's existing institutional methods that examine its future operating environment. This initiative is consistent with the *Army Operating Concept and Force 2025 and Beyond*.

In December 2015, the Army updated its policy on child, youth, and school services programs to incorporate guidance in an August 2014 DoD directive. The changes revised eligibility criteria for using these programs. All individuals who have contact with children in any Army child, youth, and school services program must now complete DD Form 2981 (Basic Criminal History and Statement of Admission). The update provided a list of training topics for all regularly scheduled volunteers.

Housing and Infrastructure

In June 2016, OACSIM began on-site barracks-condition assessments and coupled them with analysis of all unaccompanied housing inventory records. The information gained from these inventories and assessments supports development of a barracks master plan and informs implementation of a 2+0 Barracks Assignment Policy. It also identifies excess unaccompanied housing for demolition or repurposing; supports the development of maintenance and repair requirements to address quality deficits; and assists in focusing limited sustainment, maintenance, and repair funding on validated requirements.

Before the Budget Control Act of 2011, installations relied on year-of-execution reprogramming to meet critical needs, but the act ended this practice. The military construction budget for FY 2016 covered only 34 percent of requirements. Only 70 percent of facility sustainment and 23 percent of restoration and modernization requirements were funded in FY 2016. Continued underfunding has resulted in accelerated degradation of facilities; by the end of 2016, almost 20 percent of Army facilities were in poor or failing condition.

Property Transfer

The Army continued to transfer properties identified by the 2005 Base Realignment and Closure Commission (BRAC 2005) for real property disposal or conveyance. In FY 2016, it reached resolution

of two conveyances of land. One was the remaining 566 acres of Fort Monmouth, New Jersey, which were transferred to the Fort Monmouth Economic Revitalization Authority. The other was the Walter Reed Army Medical Center, where thirty-two acres were transferred to the Department of State for redevelopment as a foreign missions center and twelve acres were conveyed to the Children's National Health System for public health research facilities. The OACSIM conveyed an additional 1,576 acres of excess installation property, including eight Army Reserve sites selected by the BRAC 2005. Property outside of the BRAC 2005 also was transferred, including the final 294-acre parcel of the Indiana Army Ammunition Plant. The OACSIM continued to oversee BRAC 2005 properties which continued to generate revenue through leases and land sales. The service received almost \$117 million in revenue from this source during the year and used the proceeds to accelerate the remaining environmental cleanup at BRAC 2005 installations.

Privatized Army Lodging

Since 2009, the Army has had leasing arrangements with private sector developers to modernize visitor lodging on Army installations. As part of this program, the service opened a new Candlewood Suites at Redstone Arsenal, Alabama, in March 2016. Although this hotel is only a small portion of the Privatized Army Lodging program, which encompasses 12,492 guestrooms across forty-one Army installations, it is the first hotel in the country to be constructed entirely using cross-laminated timber (CLT)—a modern, large-scale, prefabricated, solid, engineered-wood-panel material. The building is environmentally friendly, and the CLT construction will provide 31 percent energy savings. Furthermore, the facility was built 37 percent faster than it would have taken to build a similar-sized structure using conventional framing materials and methods. Additional facilities of this type are planned for FY 2017 at Fort Drum, New York, and Joint Base Lewis-McChord, Washington.

Army and Air Force Exchange Service

The Army and Air Force Exchange Service (AAFES) provides retail and restaurant services on Army and Air Force installations in the United States and overseas. It provides online shopping and credit card services as well. The AAFES is directed by a board of directors responsible to the secretaries of the Army and Air Force through those services' chief of staff. During FY 2016, AAFES operated in

thirty-six countries in addition to its operations in the United States. It ran more than 2,700 facilities. There were approximately 1,750 quick-serve restaurants under licenses, such as Starbucks, Subway, and Boston Market. Additionally, the exchange operated more than 3,600 concession operations, and forty-seven contingency operations in Afghanistan, Iraq, Poland, Kosovo, and elsewhere.

Approximately two-thirds of AAFES earnings are used to support morale, welfare, and recreation programs. The remaining one-third is used to construct new stores, modernize regional distribution centers, and upgrade AAFES retail stores. In FY 2016, AAFES had revenue of \$8.3 billion and earnings of \$384 million. The year's dividends totaled \$225 million, of which the Army received \$128 million.

Safety

During FY 2016, 109 soldiers died in accidents, one less than in FY 2015. There were a total of 135 aviation and ground Class A accidents in FY 2016, six less than the previous fiscal year. Aviation, both piloted and remotely operated, experienced twenty-eight Class A accidents, whereas ground on- and off-duty incidents combined accounted for the remaining 107. Overall, Army aviation experienced sixty-four Class A–C crewed aircraft accidents. This was a 21 percent decrease from the eighty-one Class A–C aircraft accidents reported in FY 2015. Historically, human error contributes to approximately 80 percent of all Army aviation accidents and it remained the leading causal factor in mishaps in FY 2016.

In FY 2016, there were eleven vehicle Class A accidents that resulted in twelve soldier fatalities, compared to seventeen in FY 2015, with thirteen fatalities. Nine of the FY 2016 fatalities occurred in one Army-vehicle mishap. There was also a 5 percent decline in the number of on-duty ground fatalities between FY 2015 and FY 2016, from twenty-one to twenty. Off-duty Class A incidents decreased by 2 percent, from eighty-three in FY 2015 to eighty-one in FY 2016. In FY 2016, there were 12,161 Army civilian injury or illness claims, compared to 12,077 claims in FY 2015. In FY 2016, there was one Class A fatal accident involving an Army civilian employee, compared to two in FY 2015.

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Special Functions

Surgeon General

The Office of The Surgeon General created and implemented Army-wide directives during fiscal year (FY) 2016 to further the primary mission of improving Army medical readiness. One such change was to simplify classification of soldiers to show whether or not they are deployable. Reasons for their nondeployability are made available to commanders in an online portal that shows how long it would take for their soldiers to become deployable. In another change, the surgeon general issued new directives that standardized Army physical training elements such as speed drills, warm-up exercises, and stretching routines in order to lower soldier training injuries and increase the medical readiness of the Army.

The surgeon general also implemented the TeleHealth and Virtual Health programs to maintain the wellness of retirees, beneficiaries, and soldiers outside of the continental United States (OCONUS). Both programs made medical advice readily available to OCONUS locations and places in the continental United States not near a medical treatment facility. Currently more than thirty pilot programs in thirty separate countries allow health care providers to use TeleHealth services for patients anywhere in the world, including forward-deployed areas such as Afghanistan or Iraq. During FY 2016, 55,000 beneficiaries received care through these online services. Additionally, the Tricare Online Pharmacy Refill capability went live on 15 January 2016, and enabled 5,400 prescriptions to be refilled in February 2016 alone.

Army Audit Agency

The U.S. Army Audit Agency (AAA) had 499 personnel organized into seventeen functional audit teams that provided internal auditing services for the Army. Personnel were located in seventeen offices, fourteen within the United States and three in OCONUS locations. The AAA published the Army's FY 2016 internal audit plan which assessed Army-wide programs and functions to discover areas of

monetary waste within the Army budget. Execution of the plan produced 149 reports with \$2.6 billion in potential savings for the Army. In addition to the FY 2016 audit, AAA conducted seven follow-up audits of FY 2014 projects, and discovered \$441 million in potential savings from FY 2014. By the end of FY 2016, the Army had realized \$302 million in actual savings from the ongoing implementation of follow-up recommendations from the FY 2014 audit.

Army National Military Cemeteries

The Army National Military Cemeteries (ANMC) advises the secretary of the Army on all matters related to Army cemeteries. Its goals for FY 2016 included continuation of the organizational cemetery inspection program in which ANMC sent certified and trained personnel to the Army's cemeteries to conduct formal, baseline inspections. Additionally, ANMC began three new projects: triennial review inspections, the responsible-officials training program, and the Native American–repatriation project at Carlisle Barracks Post Cemetery in Carlisle, Pennsylvania.

The purpose of the triennial cemetery inspections is to prevent the misidentification of soldiers' remains and other problems reported in FY 2010 at Arlington National Cemetery (ANC). The triennial inspection program started with the Main Post Cemetery at Fort Bragg, North Carolina. The inspection team presented a formal brief and conducted a thorough field and records-based appraisal using interview, review, and observation techniques. The also reviewed random gravesites and records to confirm the accuracy of records information. The completed inspection products included the formal outbrief as well as a written report reviewed by the secretary of the Army and forwarded through the chain of command to the cemetery's responsible commander. The command of the inspected cemetery provided a corrective action plan outlining actions taken to remedy deficiencies. The inspections checked on the overall quality control efforts for cemetery records, and the corrective action plans improved the recordkeeping of the ANMC.

In FY 2016, the ANMC began a multiyear project to validate and approve excavation requests from Native American tribes and return Native American decedents to their respective tribes. This project began in response to two Native American tribes requesting repatriation of remains from the Carlisle Barracks Post Cemetery. Approximately 200 Native American students died while attending the Carlisle Indian Industrial School, which was once part of the current Carlisle Barracks. They were buried at the school's cemetery,



Members of the 3d Infantry Regiment (the Old Guard) march into Arlington National Cemetery from Fort Myer for Flags-In, 26 May 2016, in Arlington, Virginia.

the predecessor of the Post Cemetery. This ongoing repatriation project involves a coordinated effort between AMNC staff, the Corps of Engineers, and Native American tribes.

During the year, ANC conducted 7,140 burials and there were four internments at the Soldiers' and Airmen's Home National Cemetery. The ANC also worked with the Corps of Engineers to expand burial space in ANC, as there is not enough space for continued burials in the cemetery through 2050. The Corps of Engineers and ANC also worked to upgrade the cemetery's workspaces and facilities, including installing a new fire suppression system in the visitors' center and repairing the ANC amphitheater. In addition, ANC engineering completed the first ever survey and condition assessment of 250 government-owned historic structures at the cemetery.

The cemetery also improved its customer-support technology to help families find information on potential burial plots and the locations of loved ones. Changes to the ANC Web site improved navigation, aesthetics, and event management, and gave the public a place to submit online requests for services such as wreath-laying ceremonies and honor flights.

Civil Works

The Corps of Engineers executes the Army's Civil Works Program. It maintains more than 900 coastal, Great Lakes', and inland harbors. In 2016, it created, restored, or preserved more than 6,000 acres of wetlands and provided storm damage protection and risk reduction for hundreds of miles of shoreline. The Corps of Engineers oversees approximately 14,000 of the nation's 100,000 miles of levees, and it operates approximately 650 dams and 238 navigation lock chambers on 12,000 miles of inland waterways. It was also the largest federal provider of outdoor recreation, with more than 4,300 recreation sites at Corps lakes and river projects.

In FY 2016, the Corps of Engineers worked on dozens of major projects and maintenance efforts. One of the most notable projects nearing completion was the Olmsted Locks on the Ohio River in Illinois. The project began in 1988 as an effort to replace aging locks and dams that were causing shipping delays. In FY 2016, \$180 million was allocated to the Olmsted program and completion is expected no later than FY 2018. Another major program was the Columbia River fish mitigation effort, which received more than \$80 million in funding. This effort seeks to allow salmon to reach spawning grounds despite the network of eight dams along the Columbia River. In northern California, the Corps of Engineers continued to modify the Folsom Dam as part of the project to remediate seepage along approximately twenty-two miles of the American River and to strengthen and raise twelve miles of Sacramento River levee in the Natomas area.

Environmental Protection

Environmental protection programs are the responsibility of the Office of the Assistant Secretary of the Army (Installations, Energy, and Environment) (OASA (IE&E)). The office establishes policy and provides strategic direction in matters relating to infrastructure, Army installations and contingency bases, energy, and environmental programs. In FY 2016, OASA (IE&E) analyzed data for the Army's environmental enforcement actions going back twenty-five years. The analysis showed that over those years, the Army has managed to reduce the number of environmental enforcement actions to which it must respond by 80 percent.

The Army exceeded its potable water and industrial, landscaping, and agricultural water conservation goals in the fiscal year. The FY 2016 potable water usage was 8.5 percent ahead of the FY 2016 target, and represented a 26.5 percent reduction from the FY 2007



Olmsted Locks and Dam conducts a concrete placement on its eighth navigable pass shell.

baseline. The Army is also developing alternative sources for water, such as rainwater, to reduce its dependency on well or municipal water sources. Fort Buchanan, Puerto Rico; Fort Riley, Kansas; and Joint Base Lewis-McChord, Washington, installed rainwater harvesting systems as part of their net zero water objectives. Fort Buchanan successfully installed rainwater sites on nine buildings and is currently harvesting 1.2 million gallons of water annually, with a design capability of 1.8 million gallons per year. Additionally, Fort Carson, Colorado, reclaimed water from its onsite wastewater treatment plant.

In FY 2016, the Army increased its renewable energy capacity for a third consecutive year. It added 92.6 megawatts of renewable energy capacity in FY 2016 through thirty-two new projects for a total of 252.5 megawatts, a 58.9 percent increase from the previous fiscal year. The projects included the installation of a large solar panel array at Fort Detrick, Maryland, and a biomass facility at Fort Drum, New York, to burn wood shavings and pulp from the nearby logging industry. A 216-acre solar facility opened at Fort Benning, Georgia, on 1 June 2016. The site features 133,950 solar panels, ideally



A fifteen-megawatt solar array at Fort Detrick, Maryland

producing thirty megawatts, which is 17 percent of Fort Benning's overall energy need.

The fifty-megawatt Schofield Generating Station project at Schofield Barracks, Hawaii, which broke ground in August 2016, will be the only power-generation facility in Oahu located above the tsunami-strike zone. It will run on a mixture of biofuels and conventional fuels and is expected to be operational by spring 2018. The plant will improve the resiliency of the entire island power grid by providing secure and flexible energy generation. During emergency operation, the Army will have first right to power for 100 percent of the operational requirements for Schofield Barracks, Wheeler Army Airfield, and Field Station Kunia for a minimum of thirty days.

Legal

The Office of the Judge Advocate General of the Army (OTJAG) is responsible for advising Army leadership and Congress on all significant issues pertaining to military justice. *Table 10* shows the number and type of requests for legal information sent to OTJAG over the past three fiscal years.

The office's key efforts for FY 2016 focused on sexual assault, reform of the Uniformed Code of Military Justice (UCMJ), and

TABLE 10—NUMBER OF OTJAG REQUESTS OVER THREE FISCAL YEARS

<i>Request</i>	<i>FY 2014</i>	<i>FY 2015</i>	<i>FY 2016</i>
Congressional and Other Inquiries	155	120	148
Officer Dismissals	26	18	32
Article 69 and Other Reviews	196	68	137
Freedom of Information/Privacy Act	32	16	23

Source: *Report of the Judge Advocate General of the Army, 1 October 2015 to 30 September 2016*

initiatives to ensure fair and equal justice for all soldiers in the military justice system. The OTJAG made defense counsel and special victim counseling (SVC) courses outside of the Army available to SVC judge advocates. These courses taught judge advocates how to interact, question, and listen to victims of sexual assault. The office made senior leader courses focused on identifying sexual assault victims available to judge advocates and commanders twice annually. In addition, OTJAG took steps to create a computer application to help child victims express the traumatic experience of sexual assault with judge advocates.

During the year, OTJAG completed its recommendations through the Military Justice Review Group (MJRG) for changes to the UCMJ. The MJRG was a staff-officer working group among all services that was directed by the secretary of defense to discuss changes to the UCMJ. The changes made by the MJRG were written into the Military Justice Act of 2016, and constituted the most important changes to the UCMJ in more than thirty years. Significant changes included establishing prereferral authority for military judges, specifying the number of judges for courts-martial by level, overhauling all punitive articles, and extending the right of the accused in the appellate and review process.

During FY 2016 there were 956 courts-martial, a 5.3 percent decrease from FY 2015, but this involved a higher number of increasingly complex cases of sexual assault and other sex offenses (*Table 11*). The rate of nonjudicial punishments imposed under Article 15 of the UCMJ also declined (*Table 12*).

At the end of FY 2016, the military attorney strength of the active Army was 1,803. That number does not include sixty-nine officers currently attending law school through the Army's funded legal-education program. The diverse composition of the active duty military attorney population in FY 2016 included 501 women, 117 African Americans, 57 Hispanic Americans, and 104 Asian

TABLE 11—COURTS-MARTIAL STATISTICS, FY 2016

<i>Type of Court</i>	<i>Tried</i>	<i>Convicted</i>	<i>Acquittals</i>	<i>Rate of Increase (+) or Decrease (-) from FY 2015</i>
General	558	486	72	-12.3%
Bad Conduct Discharge (BCD) Special	236	224	12	+4.9%
Non-BCD Special	1	1	0	+0.0%
Summary	161	Not Tracked	Not Tracked	+8.8%
Overall Rate from Last Report				-5.3%

Source: *Report of the Judge Advocate General of the Army, 1 October 2015 to 30 September 2016*

TABLE 12—NUMBER OF NONJUDICIAL PUNISHMENTS (NJP) (ARTICLE 15, *UCMJ*), FY 2016

Number of Cases Where NJP Imposed	29,707
Rate per 1,000	62.49
Rate of Increase or Decrease over Previous Period	-8.91%

Source: *Report of the Judge Advocate General of the Army, 1 October 2015 to 30 September 2016*

Americans and Native Americans. At the end of FY 2016, the military attorney strength of the Army Reserve was 1,814 and 891 for the National Guard. At the end of the year, 267 attorneys were deployed in support of operations in Afghanistan, Djibouti, Egypt, Cuba, Honduras, Iraq, Israel, Jordan, Kosovo, Kuwait, Qatar, and other locations around the world.

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Conclusion

As in the previous fiscal year, the Army accepted increased risk in future readiness and capabilities during fiscal year (FY) 2016 in order to fund current requirements. In response to an ongoing high demand for the Army's unique capabilities, senior leaders continued to prioritize readiness at the expense of modernization. This priority enabled units from all three components to accomplish their assigned missions in deployments at home and overseas. Although far fewer than earlier in this decade, casualties in Iraq and Afghanistan were a reminder that this was still an Army at war.

The service did make some progress toward the long term objectives laid out in the Army Vision. It took steps to enhance the quality of its noncommissioned officer corps and of recruit training. Changes in organization—such as establishment of the Rapid Capabilities Office and further integration of cyber capabilities—and in force structure improved the ability to respond to the challenges of an increasingly complex security environment. Although in general agreement with recommendations from the National Commission on the Future of the Army, the service remained constrained in implementing them given the funding levels. Although there were promising developments, resource constraints continued to slow the research, development, and acquisition activities necessary for full long-term modernization.

As they prepared for FY 2017, senior Army leaders concluded that without a significant increase in the resources provided, the service would continue to face the same numerous, major challenges to meeting both its current requirements and achieving its long-term objectives.

Bibliographical Note

The primary sources for the *Department of the Army Historical Summary* are material provided to the Center of Military History by various offices in Headquarters, Department of the Army (HQDA). Additional primary sources are reports and other documents produced during the fiscal year by HQDA, Army major commands, and the Office of the Secretary of Defense. An unofficial source of value is *Inside the Army*, a weekly newsletter published by InsideDefense.com that covers Army programs, procurement, and policymaking. This summary also utilizes unofficial media articles, most importantly those from *Army Times* and *ARMY* magazine.

ABBREVIATIONS AND ACRONYMS

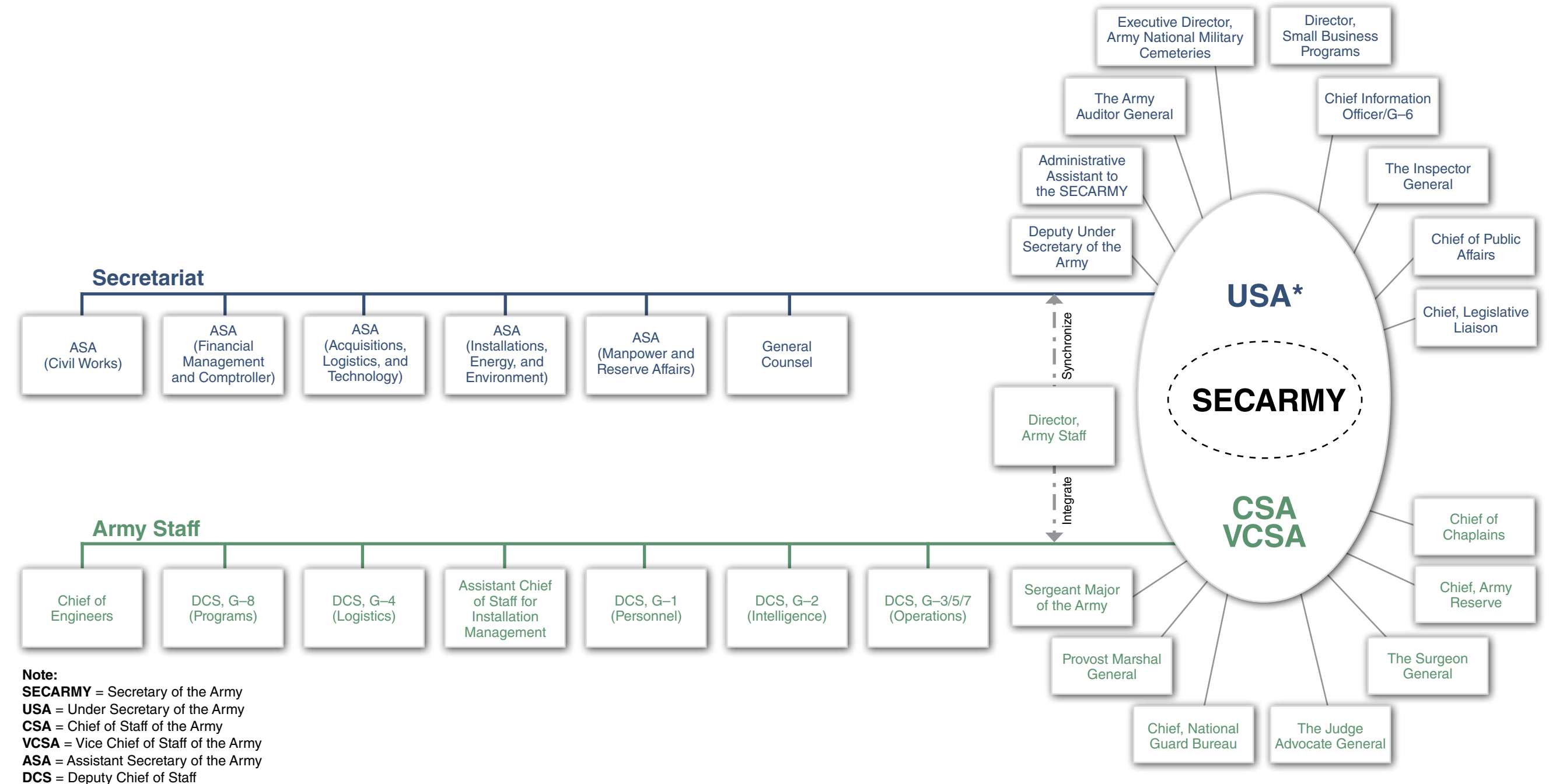
AAA	U.S. Army Audit Agency
AAFES	Army and Air Force Exchange Service
ACSIM	Assistant Chief of Staff for Installation Management
AIM 2	Assignment Interactive Module 2.0
AMC	Army Materiel Command
AMPV	Armored Multi-Purpose Vehicle
ANC	Arlington National Cemetery
ANMC	Army National Military Cemeteries
ARNG	Army National Guard
APD	Army Publishing Directorate
APMS	Army Portfolio Management Solution
APP	Army Protection Program
APS	Army Pre-positioned Stocks
ARCYBER	U.S. Army Cyber Command
ARFORGEN	Army Force Generation
AROC	Army Requirements Oversight Council
ASCC	Army Service Component Commands
ASL	authorized stockage lists
BCD	Bad Conduct Discharge
BCT	brigade combat team
BRAC 2005	2005 Base Realignment and Closure Commission
CATBs	combined arms training brigades
CIO/G-6	Office of the Chief Information Officer/G-6
CJFLCC	Combined Joint Forces Land Component Command-Iraq
CJTF-OIR	Combined Joint Task Force-Operation INHERENT RESOLVE
CLT	cross laminated timber
CSA	Chief of Staff, Army
CSCB	Cyber Support to Corps and Below
DE&C	Defense Exports and Cooperation
DISA	Defense Information Systems Agency
DoD	Department of Defense
DSS	Defense Information Systems Network Subscription Services
EDRE	Emergency Deployment Readiness Exercises
ePUBS	Electronic Publications System

FMS	Foreign Military Sales
FY	fiscal year
GAO	Government Accountability Office
GCSS–Army	Global Combat Support System–Army
GFEBs	General Fund Enterprise Business System
HQDA	Headquarters, Department of the Army
HRC	Human Resources Command
IAMD	Integrated Air and Missile Defense
IMCOM	U.S. Army Installation Management Command
IPPS-A	Integrated Personnel and Pay System–Army
ISIS	Islamic State of Iraq and Syria
IT	information technology
JARVISS	Joint Analytic Real-Time Virtual Information Sharing System
JLTV	Joint Light Tactical Vehicle
JRSS	Joint Regional Security Stacks
LMP	Logistics Modernization Program
MFTBs	Multi-Functional Training Brigades
MJRG	Military Justice Review Group
MOS	military occupational specialty
MSE	Missile Segment Enhancement
MTOE	modified tables of equipment
NATO	North Atlantic Treaty Organization
NCO	noncommissioned officer
NIE	Network Integration Evaluation
NMUSA	National Museum of the United States Army
OACSIM	Office of the Assistant Chief of Staff for Installation Management
OASA (IE&E)	Office of the Assistant Secretary of the Army (Installations, Energy, and Environment)
OCONUS	outside of the continental United States
ODASA (SI)	Office of the Deputy Assistant Secretary of the Army (Strategic Integration)
OTJAG	Office of the Judge Advocate General of the Army
OSD	Office of the Secretary of Defense
PAC–3	Patriot Advanced Capability–3
POM	program objective memorandum
RHC	regional health commands
SBA	Schedule of Budgetary Activity
SVC	special victim counseling
TRADOC	U.S. Army Training and Doctrine Command
TSB	training support brigades
UCMJ	Uniformed Code of Military Justice

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U.S. Army Reserve
Unit Status Report
Warfighter Information Network-Tactical

Appendix—Headquarters, Department of the Army Organization (FY 2016)



Source: Department of the Army, General Orders No. 2012-01 (Assignment of Functions and Responsibilities Within Headquarters, Department of the Army).

*By law, the Under Secretary of the Army is the Army Chief Management Officer.

