



DoD Maintenance FACT BOOK

2012

The *Fact Book's* cover shows the two sides of the coin of the Office for the Deputy Assistant Secretary of Defense for Maintenance. The bottom view, the reverse side of the coin, is a representation of the phoenix, the symbol shared by the award of the same name that is presented annually to the top field-level maintenance unit. The iconic phoenix is framed by the seals for the Joint Staff, Army, Marine Corps, Navy, and Air Force.



ACQUISITION, TECHNOLOGY
AND LOGISTICS

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
(LOGISTICS AND MATERIEL READINESS)
3500 DEFENSE PENTAGON
WASHINGTON DC 20301-3500

In FY2011, DoD maintenance accounted for 12 percent of the total DoD resource allocation of \$689.1 billion—about \$79.5 billion.

This \$79.5 billion effort required approximately 654,000 military and civilian maintainers and thousands of commercial firms—all devoted to the maintenance of roughly 13,900 aircraft; 896 strategic missiles; 367,300 ground combat and tactical vehicles; 275 ships; and myriad other DoD weapon systems to maintain strategic materiel readiness.

The *DoD Maintenance Fact Book* contains a broad range of information about DoD maintenance capabilities and programs that span major depots and shipyards as well as intermediate- and organizational-level units throughout the world.

This 2012 Fact Book also identifies the winners of the 2011 Phoenix Award and 2012 Secretary of Defense field-level maintenance awards, and the current and past winners of the Robert T. Mason Award for Depot Maintenance Excellence.

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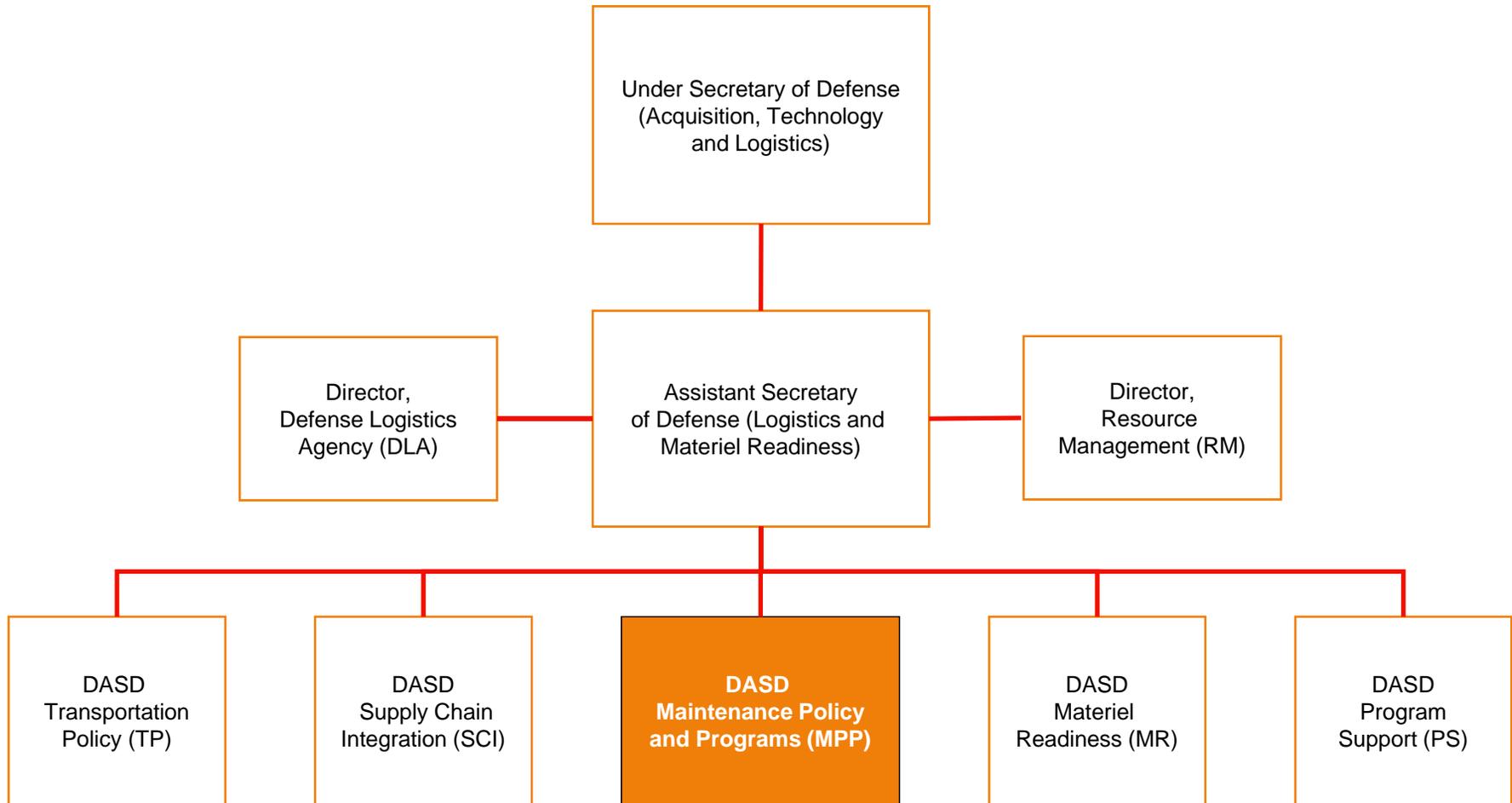
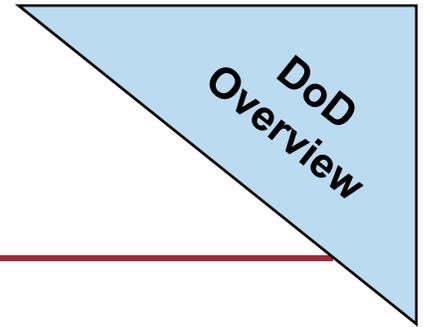
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OSD Logistics Organization



OSD Maintenance Mission Statement

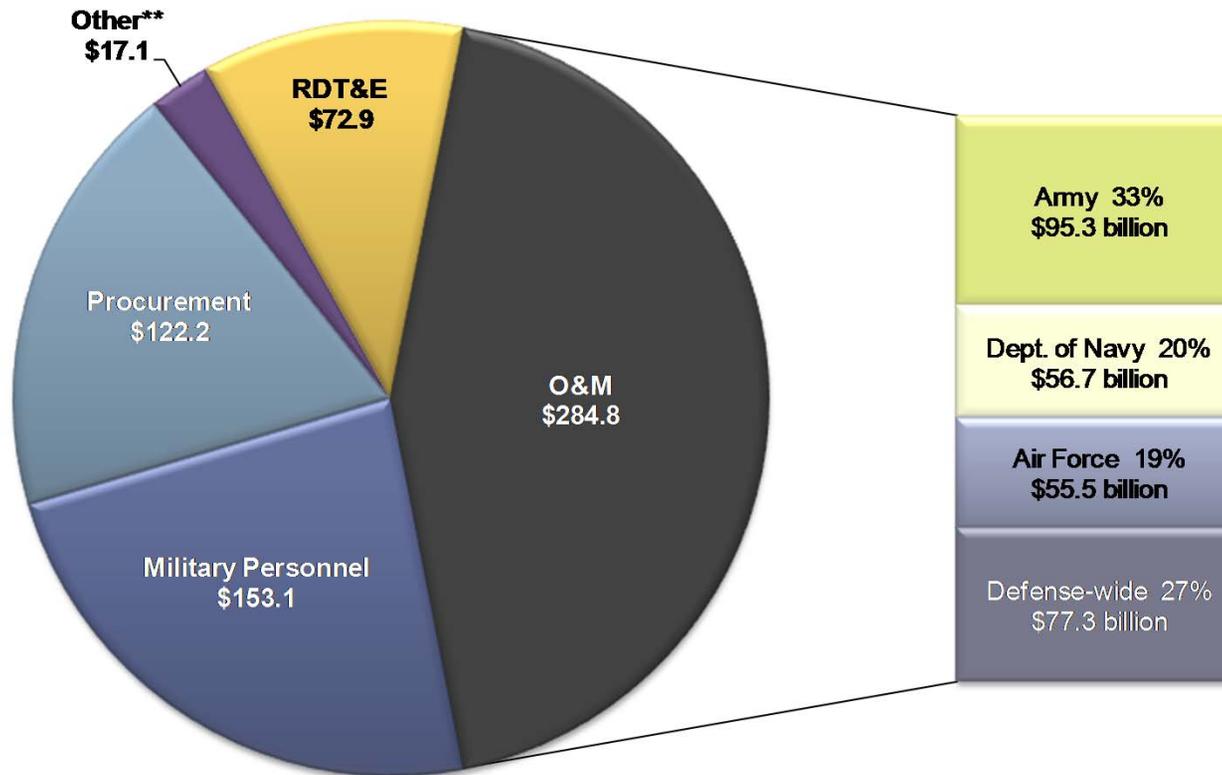
The Deputy Assistant Secretary of Defense for Maintenance

- serves as the principal advisor for policies and procedures for maintenance support of major weapon systems and military equipment;
- provides the functional expertise for centralized maintenance policy and management oversight for all weapon systems, military equipment maintenance programs, and related resources within the Department of Defense; and
- establishes and maintains materiel maintenance policies and programs that are managerially and technologically sound and adequately resourced to maintain the desired levels of weapon system and military equipment readiness to accomplish the Department's missions.

FY2012 Funding for the Department of Defense

DoD
Overview

Total obligation authority: \$650.1 billion*



* Includes Base (\$534.4 billion) and Overseas Contingency Operations (\$115.7 billion) as of the February 2012 President's Budget Request.

** Includes military construction, family housing, and revolving and management funds.

Systems Supported by DoD Maintenance *

40,300 Combat Vehicles



896 Strategic Missiles



275 Ships



13,900 Aircraft

- + 327,000 tactical vehicles
- + Communications/electronics equipment
- + Support equipment
- + Other systems

* Numbers shown are approximate

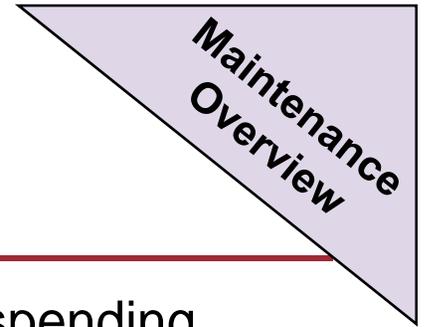
Maintained by:

- 654K DoD personnel
- Private-sector companies

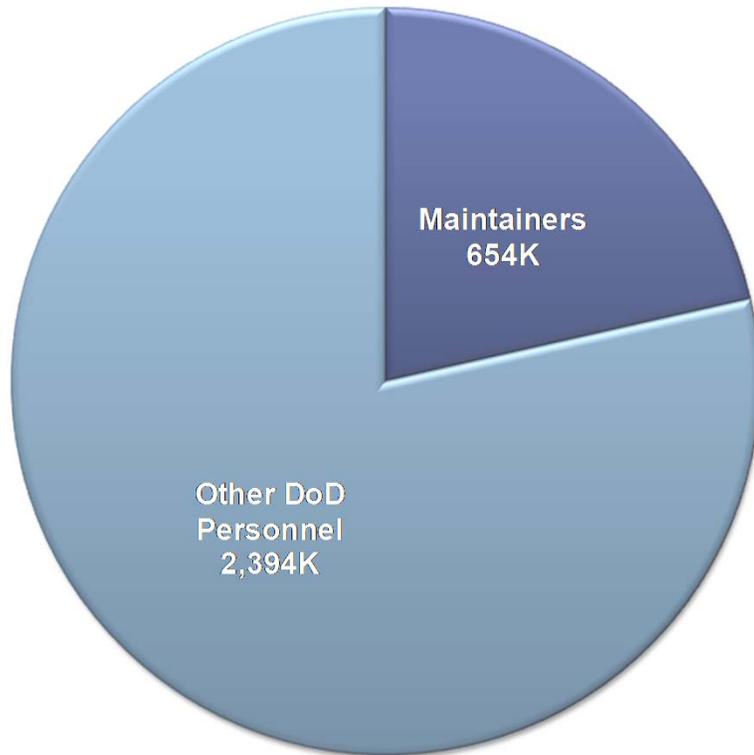
Maintenance cost:

\$79.5 billion

Scope of DoD Maintenance—FY2011

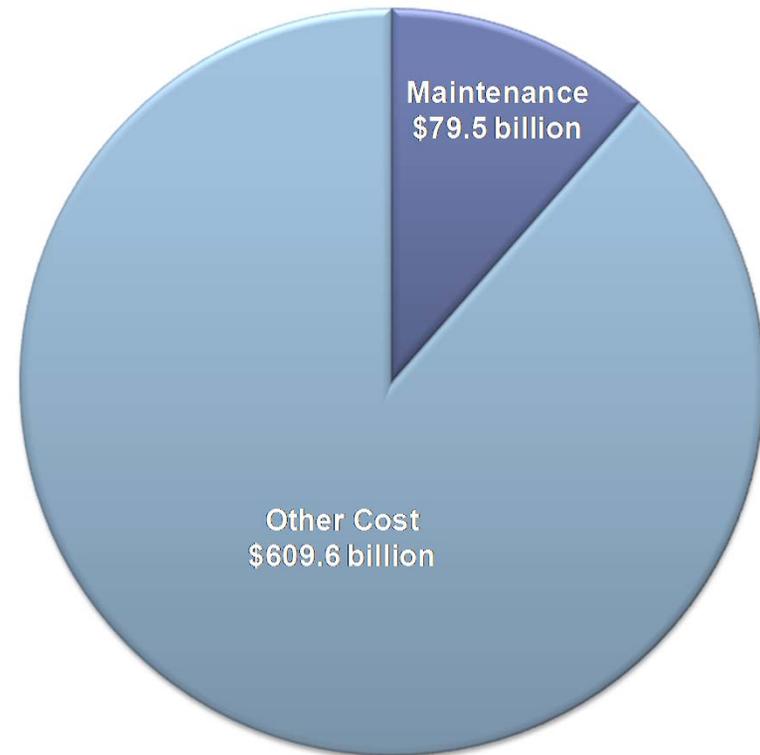


DoD Personnel
(Total = 3.048 million)



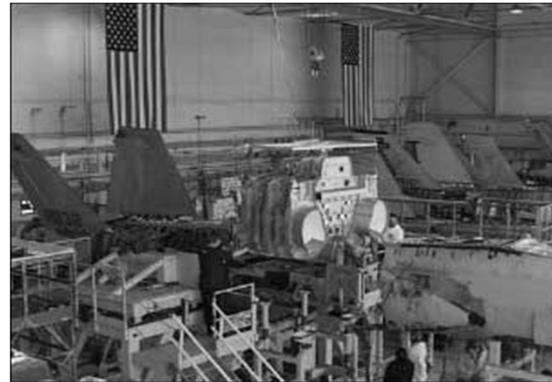
21% maintainers

DoD actual spending
(Total = \$689.1 billion)



12% spent on maintenance

Levels of DoD Maintenance



Field

Depot

Organizational

Intermediate

Increasing **volume** of maintenance



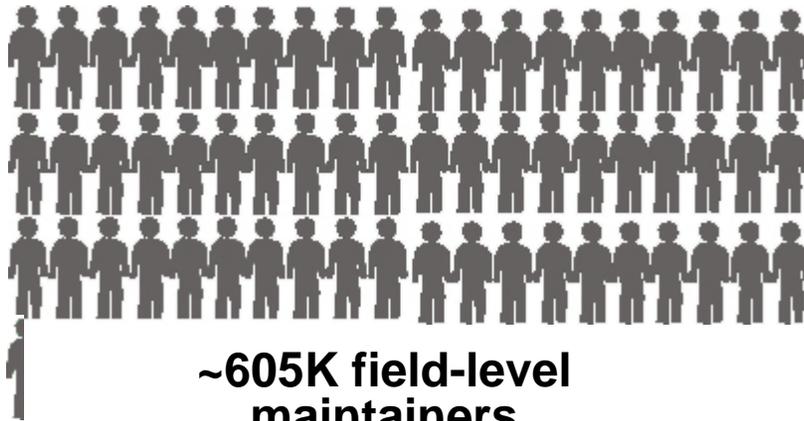
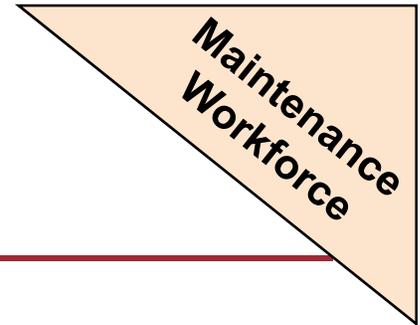
More frequent tasks that require less facilitization and skills

Less frequent tasks that require more facilitization and skills



Increasing **complexity** of maintenance

Personnel Strength of Field- and Depot-Level Maintenance



**~605K field-level
maintainers**

**Includes approximately 28K
National Guard technicians, 6K
Reserve technicians, and 49K
other civilian maintainers**

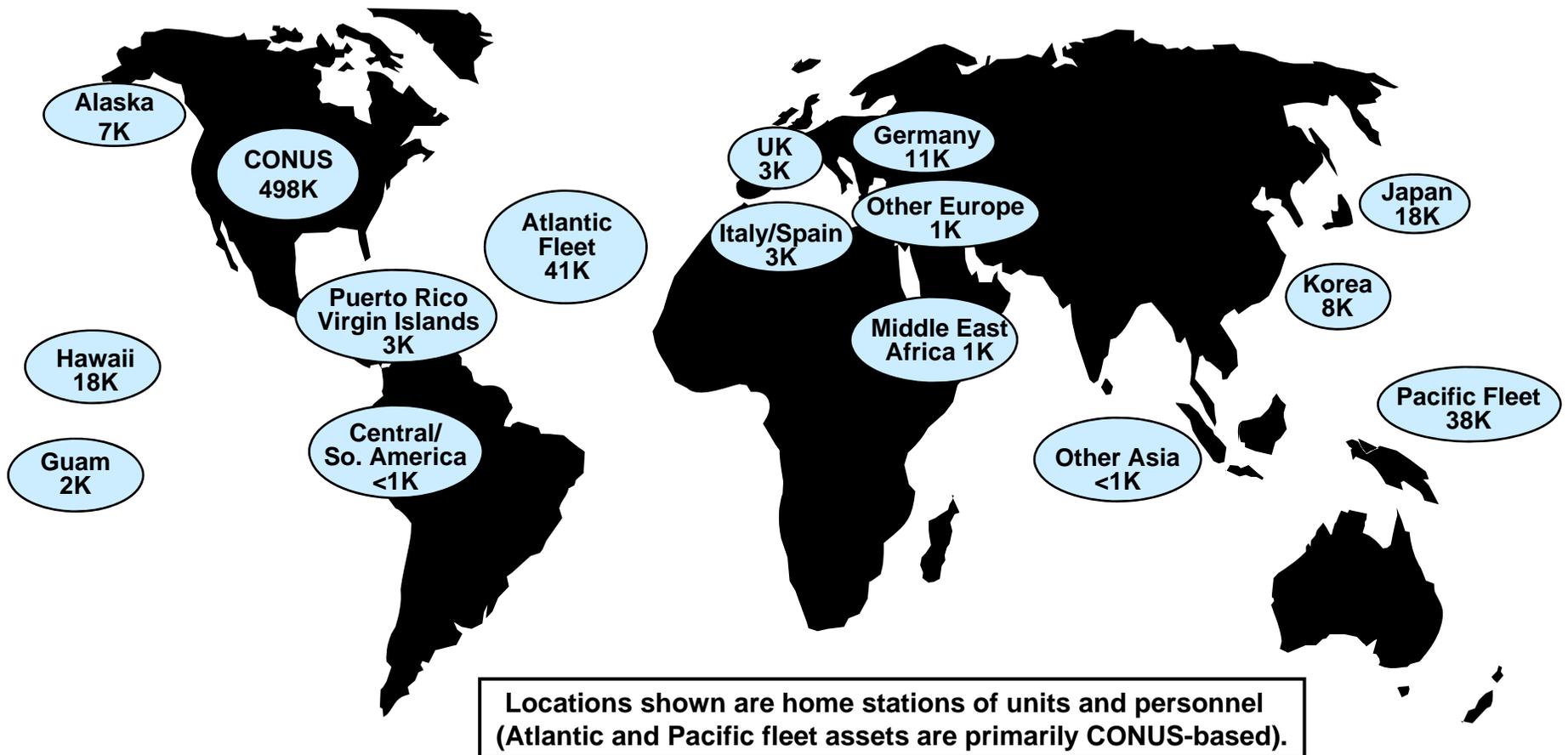


**~82K depot-level
personnel**

**Includes approximately 32K
engineers, scientists, analysts, supply
specialists, and other civilian non-
maintainers essential to maintenance
production**

DoD Maintainers Worldwide *

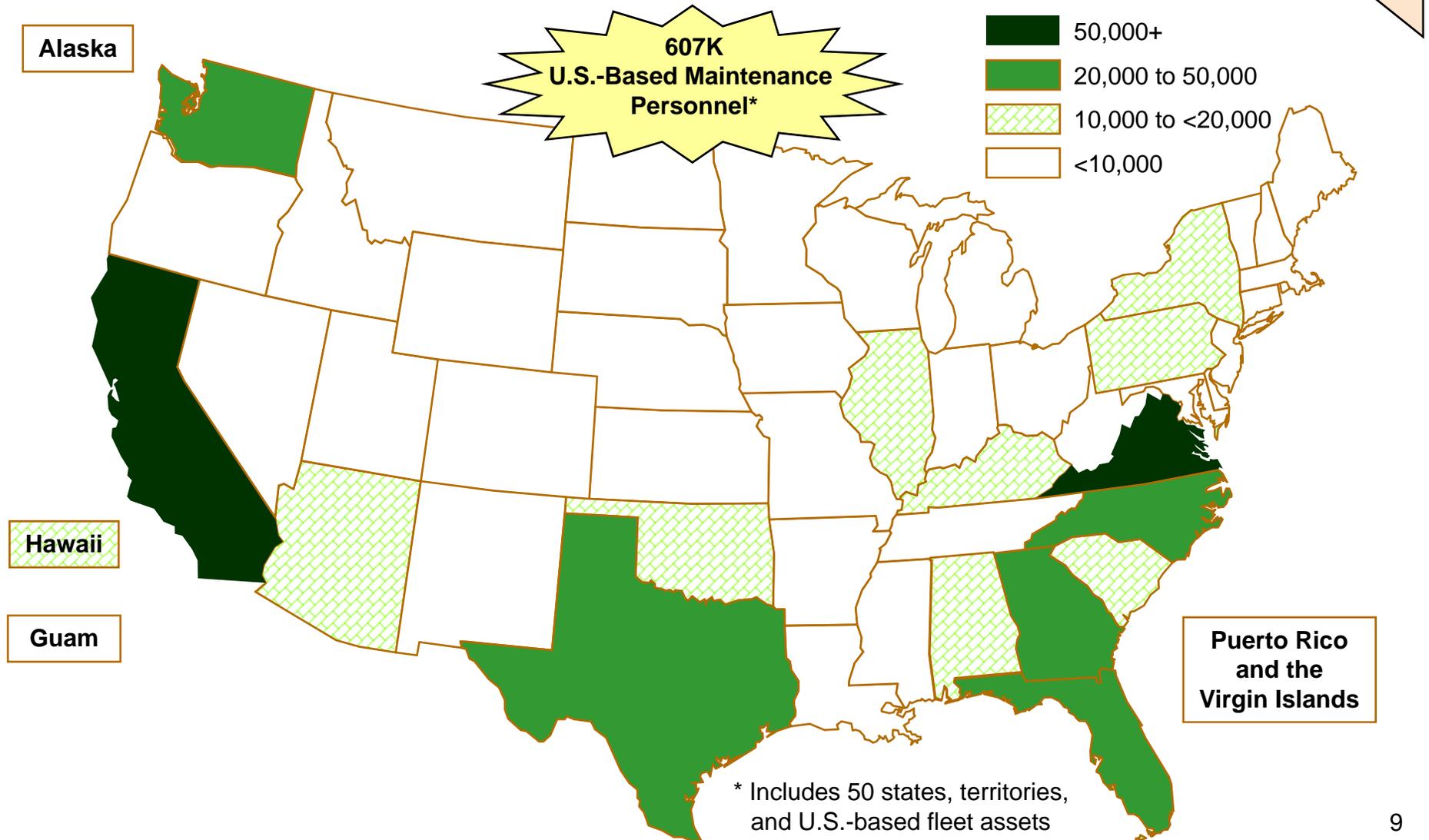
Maintenance
Workforce



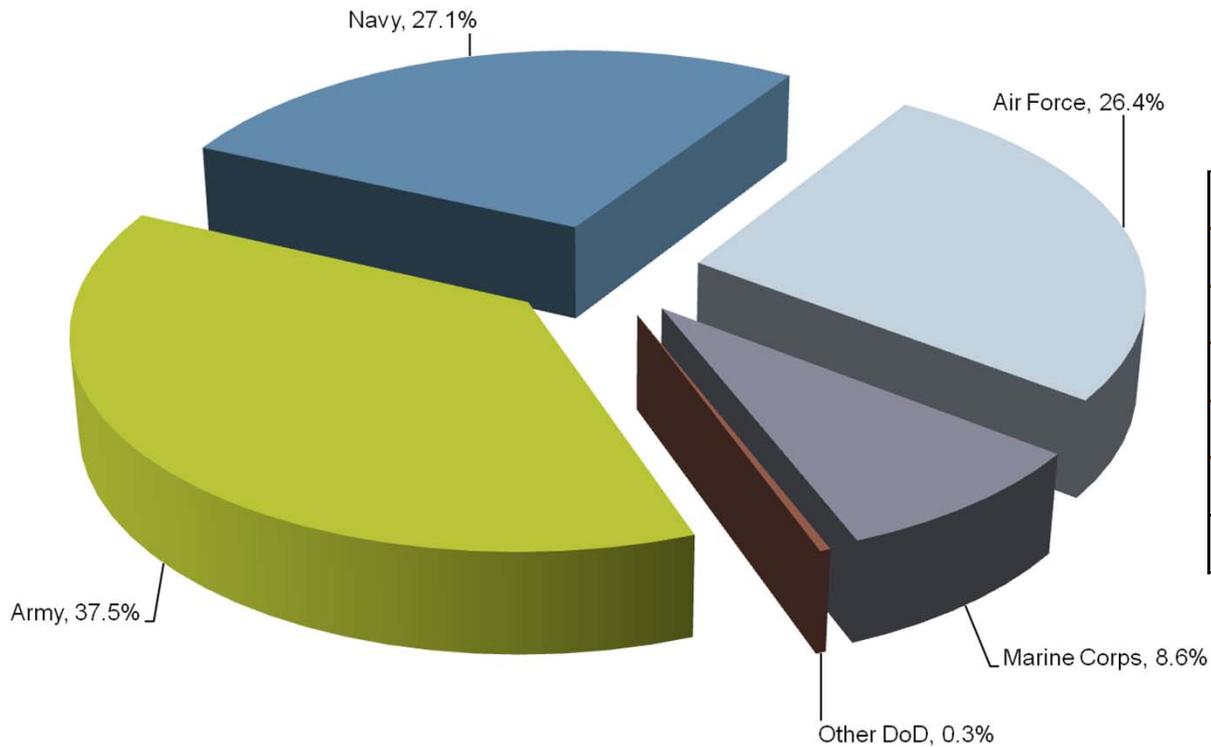
* Numbers shown are approximate

DoD Maintainers by State and Territory*

Maintenance
Workforce

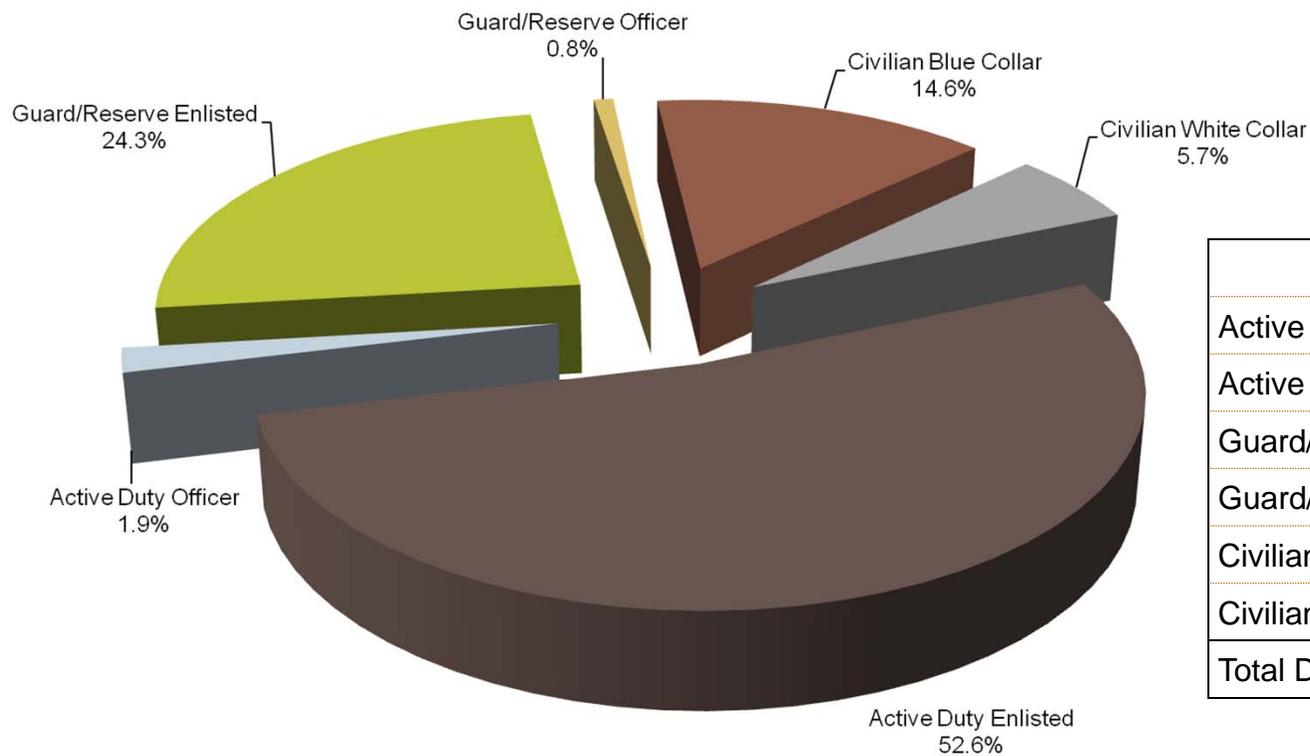
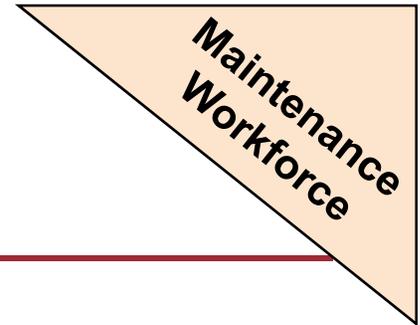


DoD Maintainers by Military Service



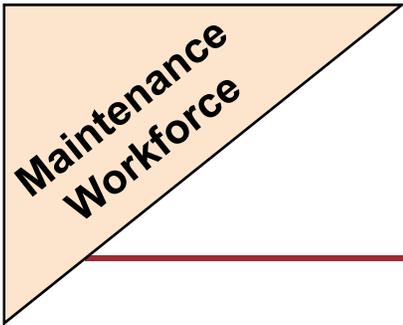
Service	Personnel (K)
Army	245
Navy	178
Air Force	173
Marine Corps	56
Other DoD	2
Total DoD Maintainers	654

DoD Maintainers by Personnel Category

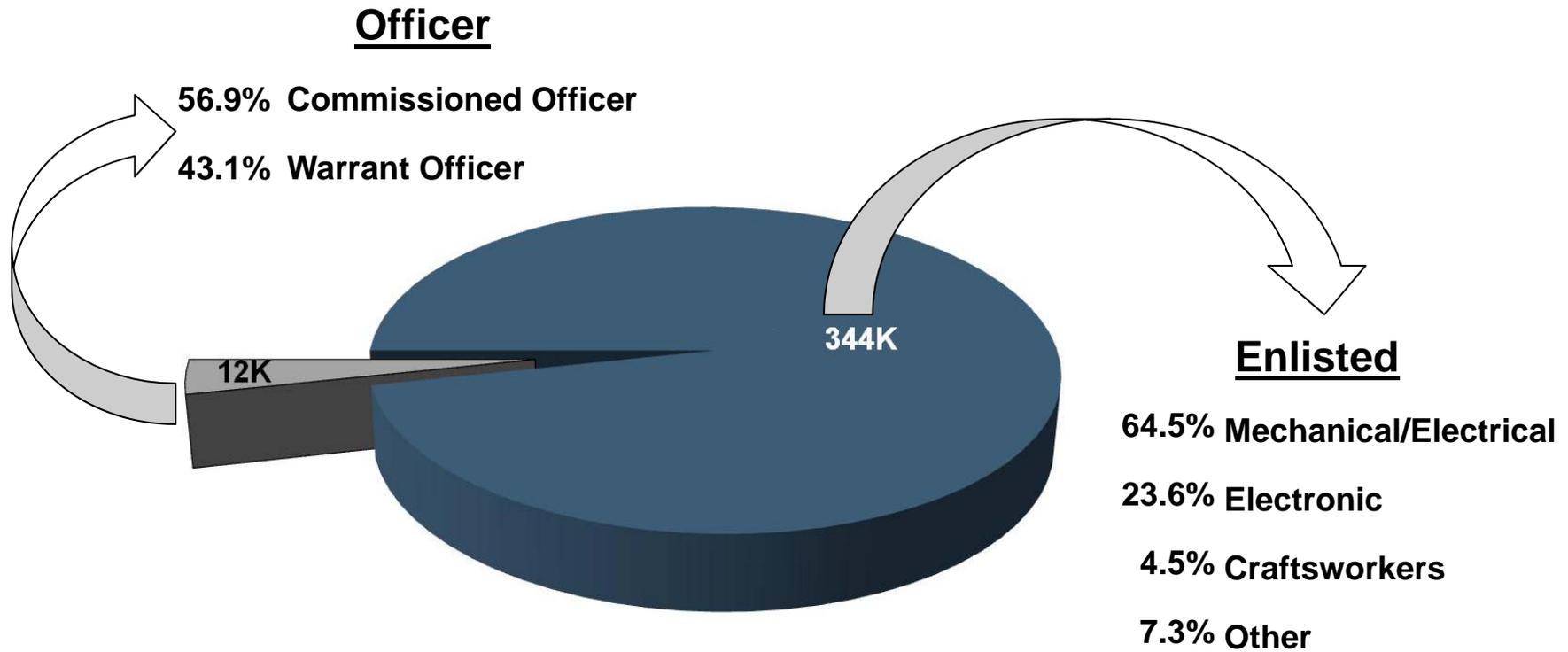


Category	Personnel (K)
Active Duty Enlisted	344
Active Duty Officer	12
Guard/Reserve Enlisted	159
Guard/Reserve Officer	6
Civilian Blue Collar	95
Civilian White Collar	37
Total DoD Maintainers *	653

* Discrepancy in count of Total DoD Maintainers due to rounding

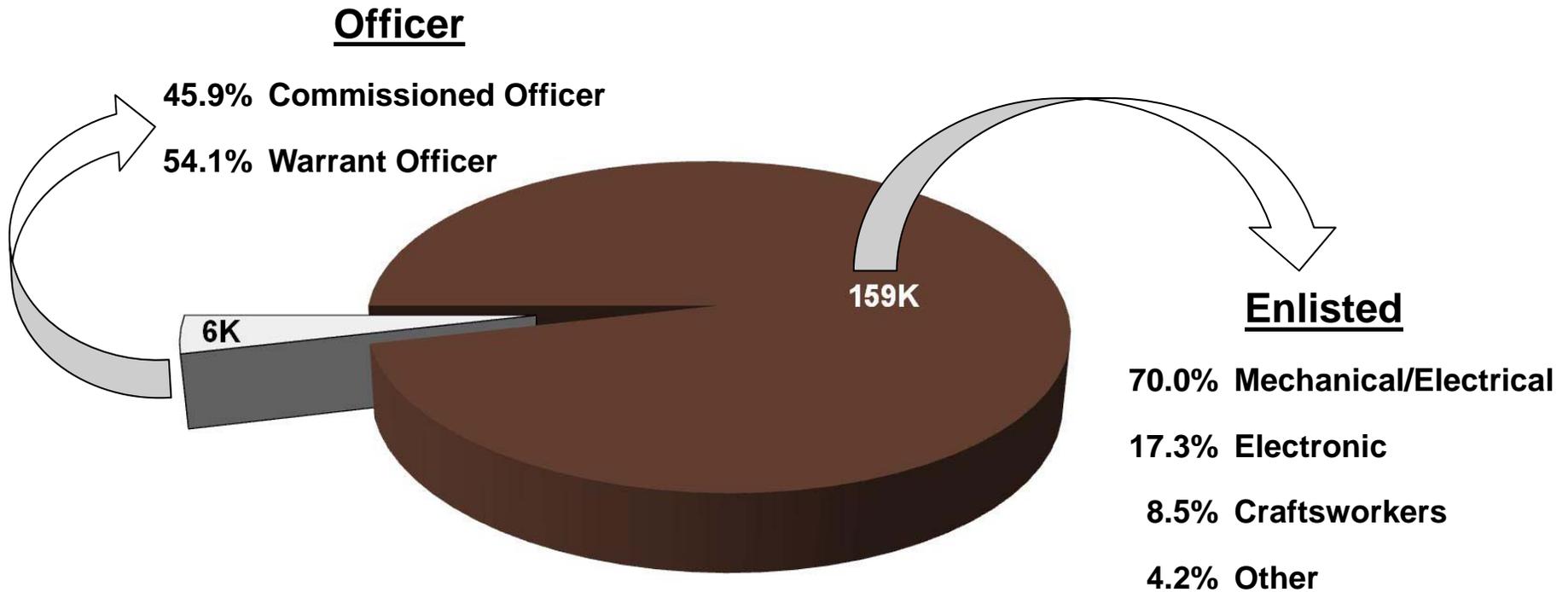


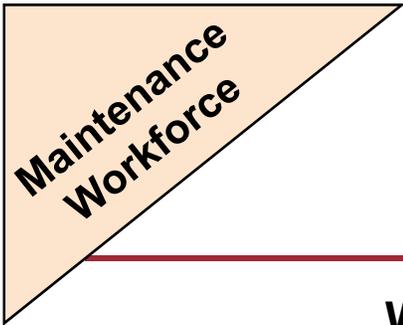
Active Duty Maintainers



National Guard and Reserve Maintainers

Maintenance
Workforce





DoD Civilian Maintainers

White Collar

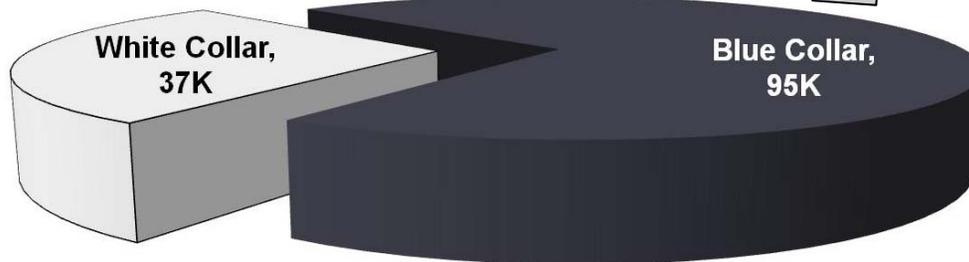
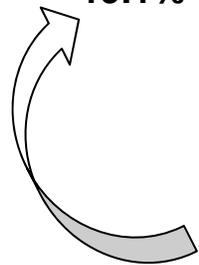
42.0% Electrical/Mechanical & Electronic

18.2% Production Management

9.7% Communications & Radar

11.0% Aviation Maintenance

19.1% Other



Blue Collar

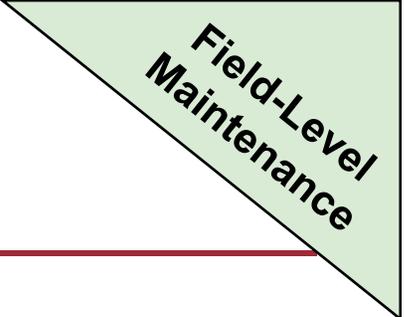
61.6% Mechanical/Electrical

24.4% Craftworkers

12.2% Electronic

1.8% Other

Major Intermediate Maintenance Activities, Active Components



Field-Level
Maintenance

- **Army**
 - 52 aviation maintenance companies
 - 271 ground maintenance companies
 - 1 watercraft maintenance company
- **Navy**
 - 12 shore-based aircraft intermediate maintenance departments (AIMDs) located within 6 fleet readiness centers (FRCs)
 - 6 shore-based overseas AIMDs
 - 20 shipboard AIMDs
 - 8 ship/submarine intermediate maintenance facilities (IMFs)
- **Air Force**
 - 57 aircraft, missile, and munitions maintenance groups (MXGs)
- **Marine Corps**
 - 11 marine aviation logistics squadrons (MALs)
 - 3 maintenance battalions

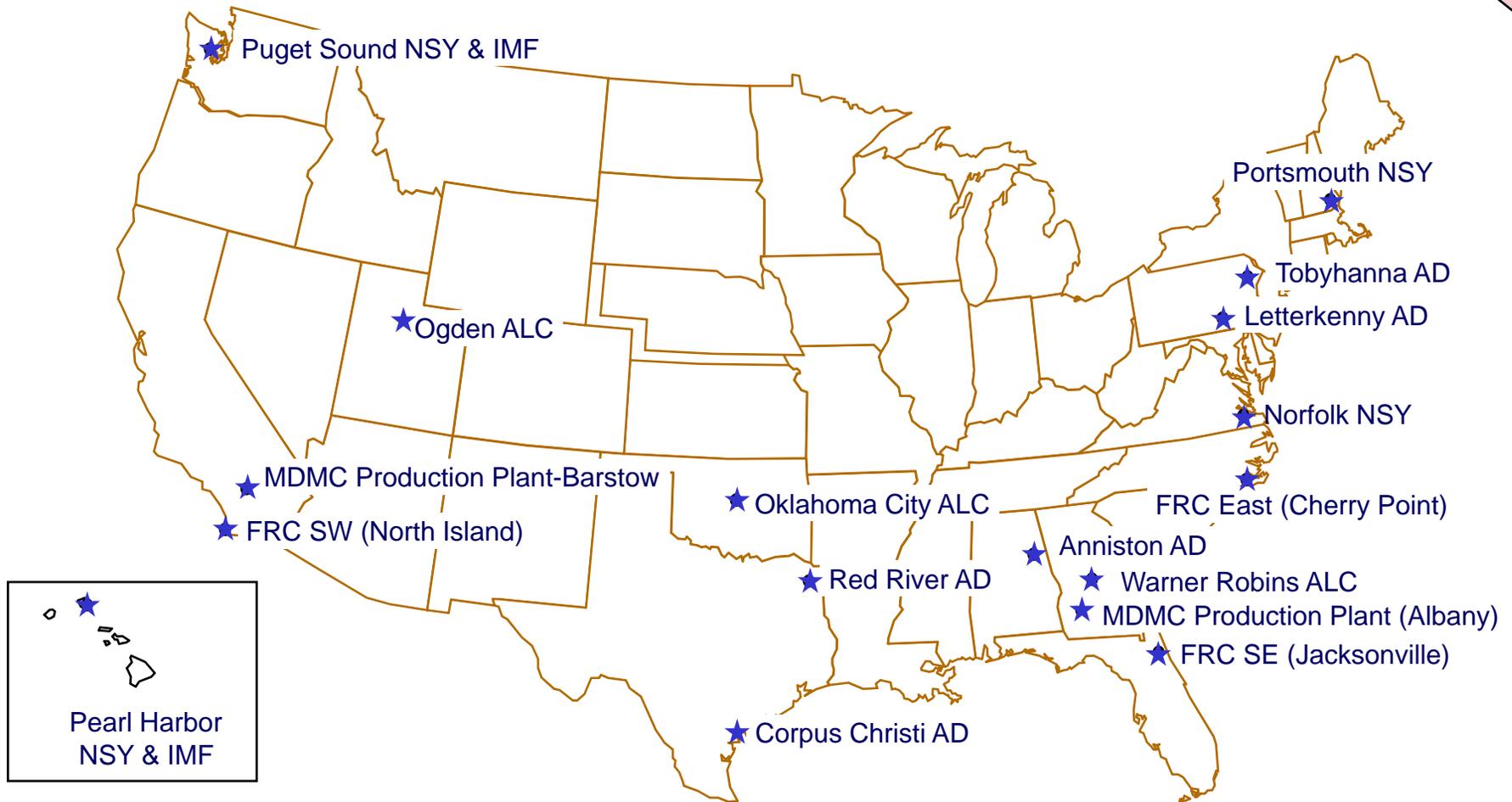
Major Intermediate Maintenance Activities, Reserve Components *

- **Army National Guard**
 - Maintenance companies: 30 aviation, 248 ground
 - Approximately 13,400 civilian maintainers primarily assigned to field maintenance shops, training equipment set sites, and aviation support facilities in each state or territory
 - 4 aviation classification repair activity depots (AVCRADs)
- **Army Reserve**
 - Maintenance companies: 3 aviation, 32 ground, 1 watercraft
 - Approximately 2,700 civilian maintainers assigned across the four regional support commands, working primarily at dispersed equipment concentration sites (ECSs) or area maintenance support activity (AMSA) locations
- **Navy Reserve** – 4 shore-based AIMDs
- **Air National Guard/Air Force Reserve**
 - 114 aircraft, missile, and munitions MXGs
- **Marine Corps Reserve**
 - 2 MALSSs
 - 1 maintenance battalion

* Excludes provisional units

Major Depot-Level Activities by Location

Depot-Level
Maintenance



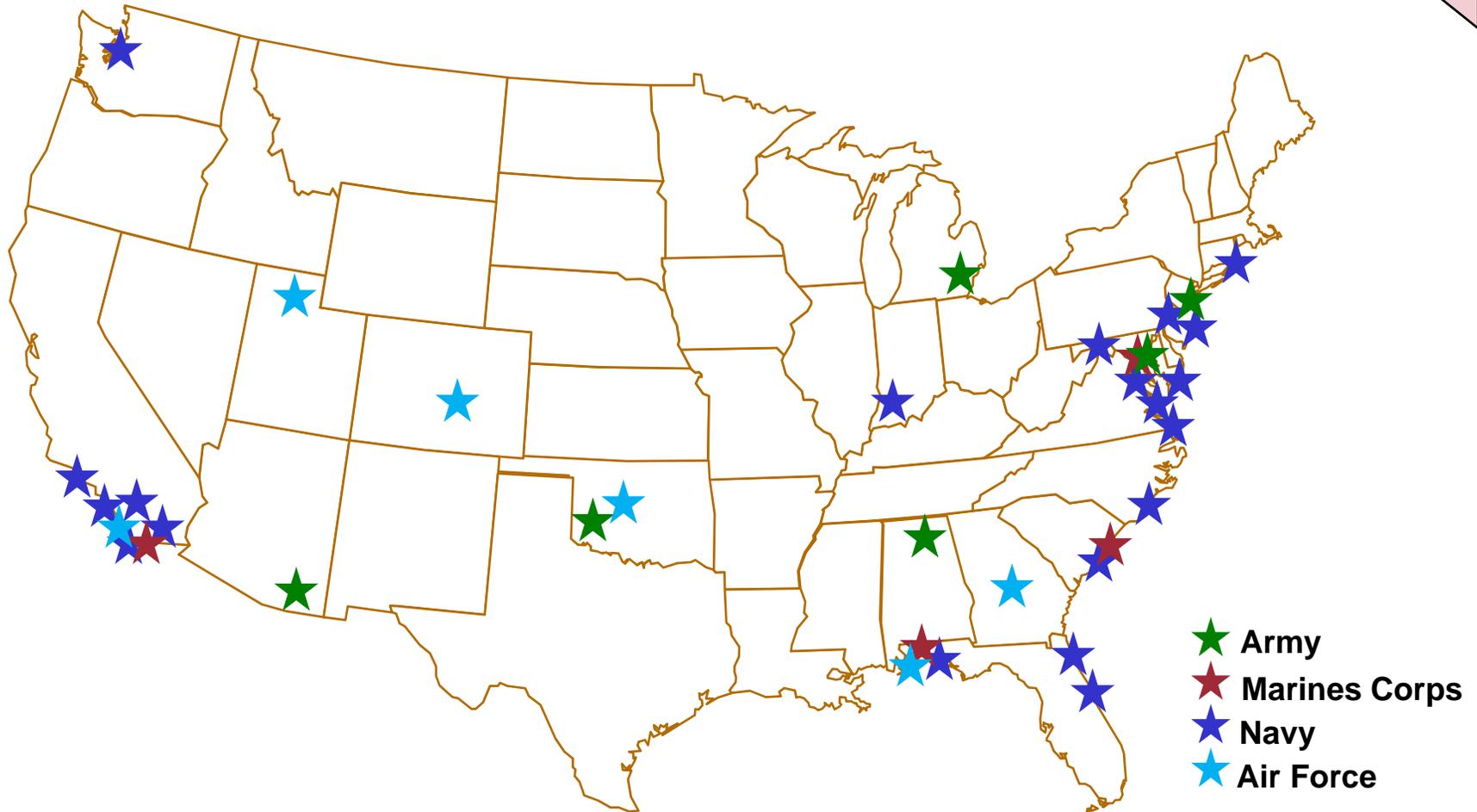
Major Depot-Level Activities

by Category

- Shipyard – Navy (4)
- Vehicle and Armament
 - Army (2)
 - Marine Corps (2)
- Aviation
 - Army (1)
 - Navy (3)
 - Air Force (3)
- Missile – Army (1)
- Communications and Electronics – Army (1)

Organic Depot-Level Software Activities by Location *

Depot-Level
Maintenance



* Based on preliminary data

Organic Depot-Level Software Activities by Organization and Location

Army

AMRDEC, Redstone Arsenal, AL
ARDEC SEC Picatinny Arsenal, NJ
CECOM SEC/CERDEC SED Aberdeen (APG), MD
CECOM SEC/CERDEC SED Ft. Huachuca, AZ
CECOM SEC/CERDEC SED Ft. Sill, OK
TARDEC Detroit Arsenal, MI

Marine Corps

Aberdeen Proving Ground, MD
Camp Pendleton, CA
NSWC Panama City, FL
SPAWAR Systems Center Atlantic, SC

Navy

FRC East, NC
FRC Southeast, FL
FRC Southwest, CA
NAWC China Lake, CA
NAWC Lakehurst, NJ
NAWC Orlando, FL
NAWC Patuxent River, MD
NAWC Point Magu, CA
NSWC Carderock, MD

Navy (cont.)

NSWC Crane, IN
NSWC Corona, CA
NSWC Dam Neck, VA
NSWC Indian Head, MD
NSWC Panama City, FL
NSWC Philadelphia, PA
NSWC Port Hueneme, CA
NUWC Keyport, WA
NUWC Newport, RI
Norfolk Naval Shipyard, VA
SPAWAR Headquarters San Diego, CA
SPAWAR Systems Center Atlantic, MD
SPAWAR Systems Center Atlantic, VA
SPAWAR Systems Center Atlantic, SC

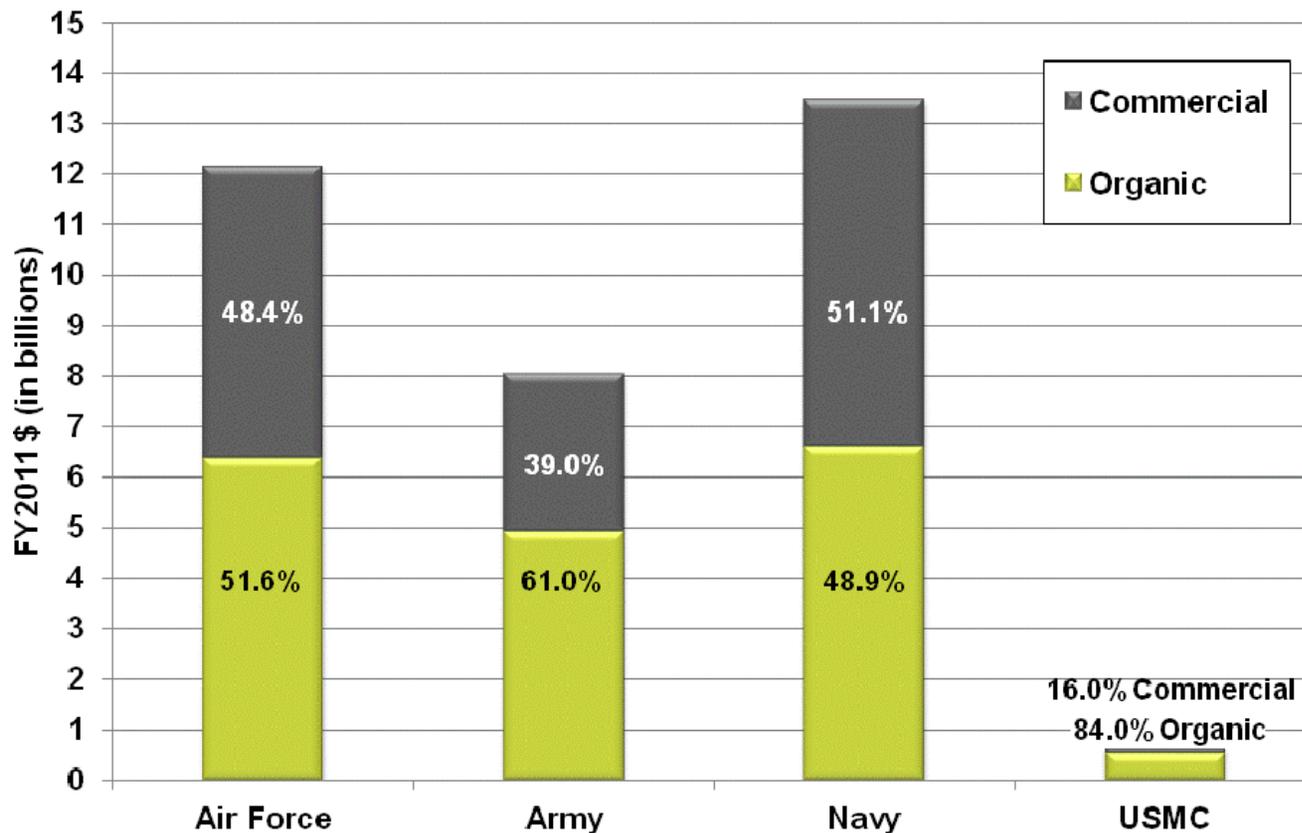
Air Force

Ogden ALC, UT
Oklahoma City ALC, OK
Patrick AFB, FL
Peterson AFB, CO
Warner Robins ALC, GA
Vandenberg AFB, CA

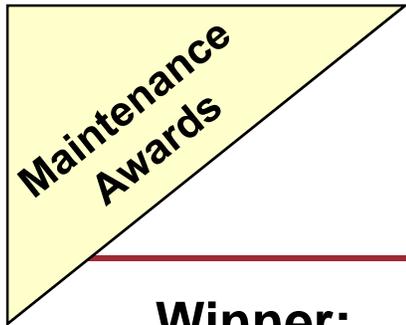
Organic-Commercial Mix of DoD's Depot Maintenance Workload

Depot-Level
Maintenance

Department-wide: 53.6% Organic and 46.4% Commercial



Navy and Marine Corps as a Department: 50.5% Organic, 49.5 % Commercial



2011 Phoenix Award Winner

The Highest Award for Field-Level Maintenance in DoD *

Winner: **Marine Tactical Electronic Warfare Squadron 1,
2nd Marine Aircraft Wing
Marine Corps Air Station Cherry Point
United States Marine Corps**

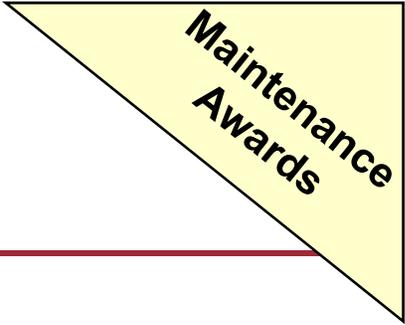
Deployed on short notice to Bagram Air Base in Afghanistan, VMAQ-1:



- Flew 590 sorties for a total of 2,293 flight hours during its 6-month Operation Enduring Freedom deployment;
- Maintained an 85 percent mission capable rate, exceeding all previous records;
- Implemented innovative maintenance practices and decreased yearly costs for ordered components from \$11million to \$5.8 million; and
- Built an intermediate maintenance support detachment of 26 Marines from the ground up.

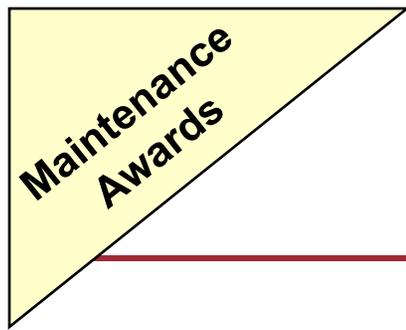
* 2012 winner to be announced at the 2012 DoD Maintenance Symposium.

Past Winners of the Phoenix Award for Field-Level Maintenance



Maintenance
Awards

- 2010** Marine Aviation Logistics Squadron 40, USMC
- 2009** 1st Squadron, 3rd Armored Cavalry Regiment, USA
- 2008** 1st Special Operations Maintenance Group, USAF
- 2007** 1st Maintenance Battalion, USMC
- 2006** 3D Materiel Readiness Battalion, USMC
- 2005** 3rd Battalion, 7th Field Artillery Regiment, USA
- 2004** Combat Service Support Battalion 10, Air Ground Combat Center, USMC
- 2003** 3rd Battalion, 7th Infantry Regiment, USA
- 2002** USS ENTERPRISE (CVN 65), USN
- 2001** USS DWIGHT D. EISENHOWER (CVN 69), USN
- 2000** 555th Fighter Squadron, USAF



Past Winners of the Phoenix Award

for Field-Level Maintenance (Continued)

- 1999** Shore Intermediate Maintenance Activity, Naval Station Norfolk, VA, USN
- 1998** 68th Transportation Battalion, USA
- 1997** 1st Maintenance Battalion, USMC
- 1996** 48th Fighter Wing, USAF
- 1995** 51st Maintenance Battalion, USA
- 1994** 1st Maintenance Battalion, 1st Force Service Support Group (FMFPAC), USMC
- 1993** Shore Intermediate Maintenance Activity, Charleston, SC, USN
- 1992** Marine Fighter Attack Squadron 235, USMC
- 1991** Marine Aviation Logistics Squadron 16, USMC
- 1990** 1st Battalion, 29th Infantry Regiment, USA
- 1989** 363rd Tactical Fighter Wing (TAC), USAF
- 1988** USS ACADIA (AD 42), USN
- 1987** 50th Tactical Fighter Wing (USAFE), USAF
- 1986** 416 Bombardment Wing (SAC), USAF
- 1985** USS JOHN F. KENNEDY (CV 67), USN

2012 Secretary of Defense Field-Level Maintenance Award Winners

Maintenance
Awards

Small Category



Helicopter Maritime Strike Squadron 77
Naval Air Station North Island, California, USN



353rd Special Operations Maintenance Squadron
Kadena Air Base, Japan, USAF

Medium Category



Marine Aviation Logistics Squadron 40
Marine Corps Air Station Cherry Point, North Carolina, USMC



3rd Aircraft Maintenance Squadron
Joint Base Elmendorf – Richardson, Alaska, USAF

Large Category



23rd Maintenance Group
Moody Air Force Base, Georgia, USAF



1st Squadron, 3rd Armored Cavalry Regiment, United States Division – South
Fort Hood, Texas, USA

2012 Robert T. Mason Award for Depot Maintenance Excellence

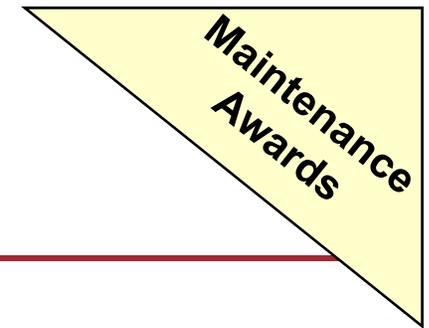
**Winner: C-130 Programmed Depot Maintenance Team
Warner Robins Air Logistics Center
Robins Air Force Base, Georgia
United States Air Force**

During 2011, the C-130 Programmed Depot Maintenance Team:



- Produced 64 aircraft, an increase of 15, with a 100 percent on-time delivery by the end of the fiscal year;
- Reduced work in progress from 41 to 36 aircraft and slashed flow days from 102 to 69 days;
- Lowered customer-reported deficiencies by 60 percent; and
- Incorporated numerous quality and efficiency improvements.

Past Winners of the Robert T. Mason Award



- 2011** KC-135 Programmed Depot Maintenance Team
Oklahoma City Air Logistics Center
Tinker Air Force base, Oklahoma

- 2010** Emergent Repair Program
Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility
Joint Base Pearl Harbor, Hickam, Hawaii

- 2009** Mine-Resistant, Ambush-Protected Vehicle Program
Red River Army Depot, Texarkana, Texas

- 2008** H-1 Aircraft Production Program
Fleet Readiness Center East
Marine Corps Air Station Cherry Point, North Carolina

- 2007** Dedicated Design and Prototype Effort
Marine Corps Maintenance Center, Albany, Georgia

- 2006** High Mobility Multipurpose Wheeled Vehicle (HMMWV) Recapitalization Program,
Red River Army Depot, Texarkana, Texas

- 2005** Vehicle Armor Protective Kits Program,
Marine Corps Maintenance Center, Albany, Georgia

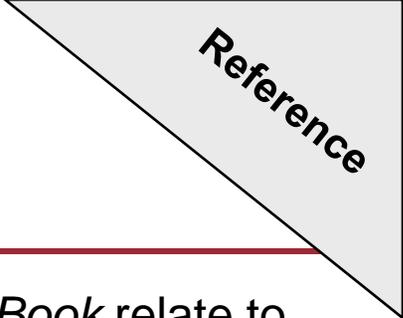
Acronyms

AD	Army Depot
AFB	Air Force Base
AIMD	Aircraft Intermediate Maintenance Department
ALC	Air Logistics Complex
AMRDEC	Aviation and Missile Research, Development and Engineering Center
AMSA	Area Maintenance Support Activity
APG	Aberdeen Proving Ground
ARDEC	Armament Research, Development and Engineering Center
AVCRAD	Aviation Classification Repair Activity Depot
CV	Multipurpose Aircraft Carrier
CECOM	Communications-Electronics Command
CERDEC	Communications-Electronics Research, Development and Engineering Center
CONUS	Continental United States
CVN	Carrier, Fixed Wing Aircraft, Nuclear
DASD	Deputy Assistant Secretary of Defense
DLA	Defense Logistics Agency
DoD	Department of Defense
ECS	Equipment Concentration Site
FMFPAC	Fleet Marine Force, Pacific
FRC	Fleet Readiness Center
FY	Fiscal Year
HMMWV	High Mobility Multipurpose Wheeled Vehicle
IMF	Intermediate Maintenance Facility
LCMC	Life Cycle Management Command
MALS	Marine Aviation Logistics Squadron
MDMC	Marine Depot Maintenance Command
MPP	Maintenance Policy and Programs
MR	Material Readiness
MXG	Maintenance Group

Acronyms (Continued)

NAWC	Naval Air Warfare Center
NSY	Naval Shipyard
NSWC	Naval Surface Warfare Center
NUWC	Naval Undersea Warfare Center
O&M	Operations and Maintenance
OCO	Overseas Contingency Operations
OSD	Office of the Secretary of Defense
PS	Program Support
RDT&E	Research, Development, Test, and Evaluation
RM	Resource Management
SAC	Strategic Air Command
SCI	Supply Chain Integration
SE	Southeast
SEC	Software Engineering Center
SED	Software Engineering Directorate
SNaP	Select & Native Programming (SNaP) Data Input System
SPAWAR	Space and Naval Warfare Systems Command
SW	Southwest
TAC	Tactical Air Command
TARDEC	Tank Automotive Research, Development and Engineering Center
TP	Transportation Policy
UK	United Kingdom
USA	United States Army
USAF	United States Air Force
USAFE	United States Air Forces in Europe
USMC	United States Marine Corps
USN	United States Navy
USS	United States Ship
VMAQ	Marine Tactical Electronic Warfare Squadron

Explanatory Notes

A gray right-angled triangle pointing downwards and to the right, with the word "Reference" written inside it in a bold, black, sans-serif font.

Reference

- All facts and statistics depicted in the *DoD Maintenance Fact Book* relate to materiel maintenance, a category that *includes* both hardware and software maintenance of weapon systems and related components and equipment but *excludes* maintenance of real property, installations, and utilities. The cost of materiel maintenance in FY2011, including overseas contingency operations (OCO), was \$79.5 billion.
- As depicted on page 6, DoD materiel maintenance is performed at several levels, ranging in complexity from daily system inspections to the rapid removal and replacement of components, to the complete overhaul or rebuild of a weapon system. The following terms are used throughout the *Fact Book*:
 - **Depot level** for the most complex and extensive work.
 - **Intermediate level** for less complex maintenance performed by operating unit back shops, base-wide activities, or consolidated regional facilities.
 - **Organizational level** for more time-sensitive work performed in the field, on the flight line, or at the equipment site.
 - **Field level** to signify the combination of the organizational and intermediate levels.

Explanatory Notes (continued)

- All financial charts in the *Fact Book*, unless otherwise noted, depict FY2011 year-end data.
- Percentage with pie charts will not always equal 100% because of rounding.
- Organic Depot-Level Software Activities by Organization and Location on pages 19 and 20 are based on preliminary data and do not include “Other” Service-reported unspecified locations. Map locations are based on Service-provided input, data from the SNaP Data Input System, and the Defense Manpower Data Center.
- This document is published for information only. It does not constitute official DoD correspondence.

An electronic version of the *Fact Book*, as well as other information relevant to the responsibilities and functions of DoD's Maintenance Policy and Programs office, is located on the following website:

<http://www.acq.osd.mil/log/mpp/>