Army Contracting Command

Contracting officer critical actions. Laws and policies related to contracting and opportunities for and constraints on customer involvement

Michael Patterson

Mr. Michael Patterson is the Chief of the Army Contracting Command (ACC) Headquarters' Field Support Division. Prior to serving as the ACC Field Support Division Chief, Mr. Patterson served as the Principal Assistant Responsible for Contracting at the Military Surface Deployment and Distribution Command at Scott AFB, IL. Mr. Patterson has over 20 years of Department of Defense (DoD) contracting experience and has held positions around the world with various DoD activities. He retired from the Army Reserves in 2009. Mr. Patterson holds a master's degree from Indiana University and a bachelor's from the University of Houston.

UNCLASSIFIED

U.S. Army Contracting Command

Contracting Support to the Warfighter

March 2012

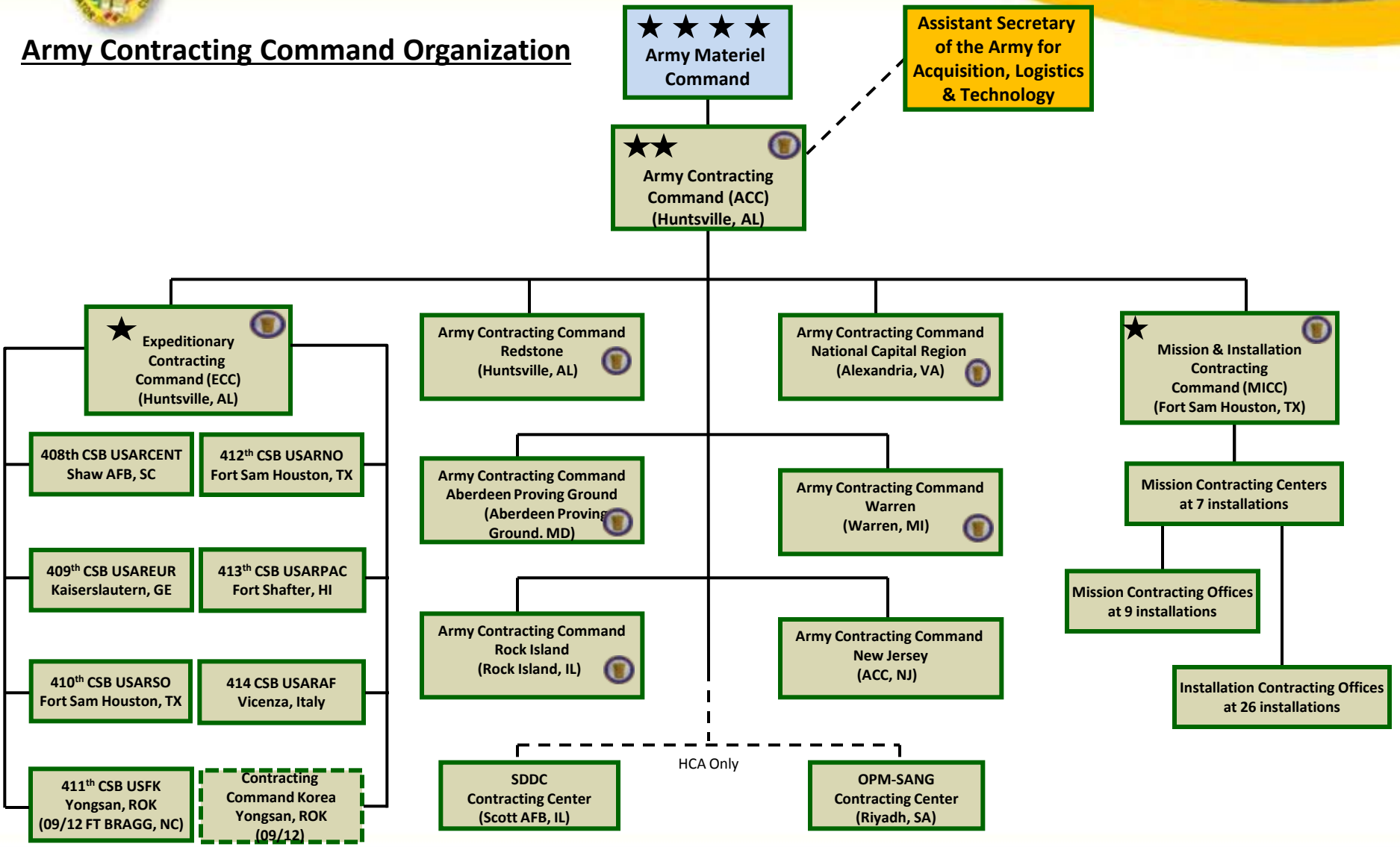
Mission

Provide global contracting support to warfighters through the full spectrum of military operations.

Vision

A professional workforce providing quality contracting solutions in support of our warfighters.

Army Contracting Command Organization



A Progressive Journey…Our Successes

- ✓ 3 Contracting Command HQs at Full Operational Capability
  - ➢ Led by 1 SES and 2 BGs
- ✓ Doubled on-board military strength
- ✓ Only expeditionary contracting C2 in DoD
- ✓ Transition to Redstone Arsenal
- ✓ Over 800 contracting interns hired
- ✓ $80.9M in Section 852 funds executed (FY09, 10, 11 & 12)
- ✓ Enhanced training/development for contracting workforce
- ✓ 33 Successful Congressional & Commission hearings
- ✓ Fielding of Virtual Contracting Enterprise
- ✓ Established standardized processes
- ✓ Establishing Communities of Practice
- ✓ Maturing reach-back concept
- ✓ Haiti: Operation Unified Response
- ✓ Force structure enhancements
- ✓ Trained over 9,168 military Contracting Officer Representatives (CORs)
- ✓ Graduated 31 interns from the Quality Assurance “Bootcamp”
- ✓ Applying lessons learned

A Progressive Journey…Our Challenges

- ✓ Sustaining funding
  - ➢ Base funding shortfall
  - ➢ Continuation of Sec 852 $s needed
- ✓ Enhanced Contract Management Capability
- ✓ Training and developing over 800 interns & newly accessed military personnel
- ✓ Hiring experienced contracting professionals
- ✓ Retaining trained/experienced civilian contracting personnel
- ✓ Accessing Officers and NCOs into Acquisition Corps earlier
- ✓ Officer multi-functional acquisition track vs. single contracting track (Contracting Branch?)
- ✓ Growing demand for expeditionary contracting support (Is force structure adequate?)
- ✓ Deployable Cadre
- ✓ Antiterrorism Integration in Contracting
- ✓ Implementation of Better Buying Initiatives

Personnel Strength Across the Enterprise

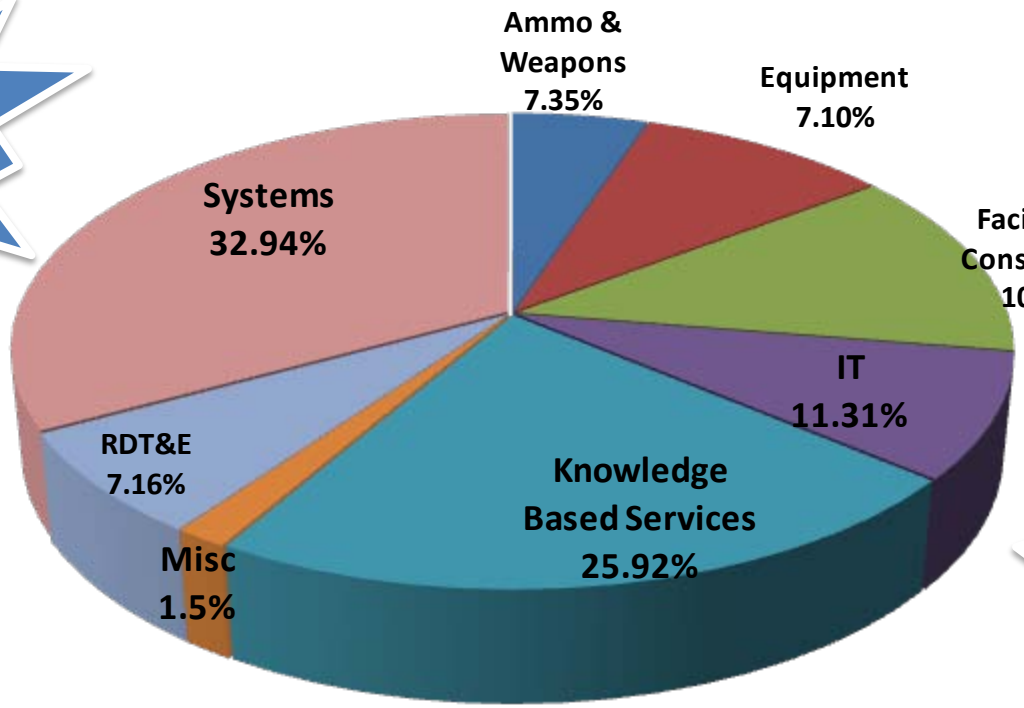
- **Military Personnel**
  - **754 Authorized**
  - **673 On-Board**

- **Civilian Workforce**
  - **5,058 Authorized**
  - **5,577 On-Board**

What ACC Procures

As of Mar 12

FY11: 198,231 Actions $86.9B



FY12: 47,870 Actions $18.2B

Major Customers

- PEOs/PMs
- ASCC
- IMCOM
- NETCOM
- AMC
- USAR
- ATEC
- TRADOC
- FORSCOM
- USASAC

-PEO/PM: Program Executive Office Program/Project/Product Manager

IMCOM: Installation Management Command

AMC: Army Materiel Command

ATEC: Army Test and Evaluation Command

FORSCOM: United States Army Forces Command

ASCC: Army Service Component Command

NETCOM: Network Enterprise Technology Command

USAR: United States Army Reserve

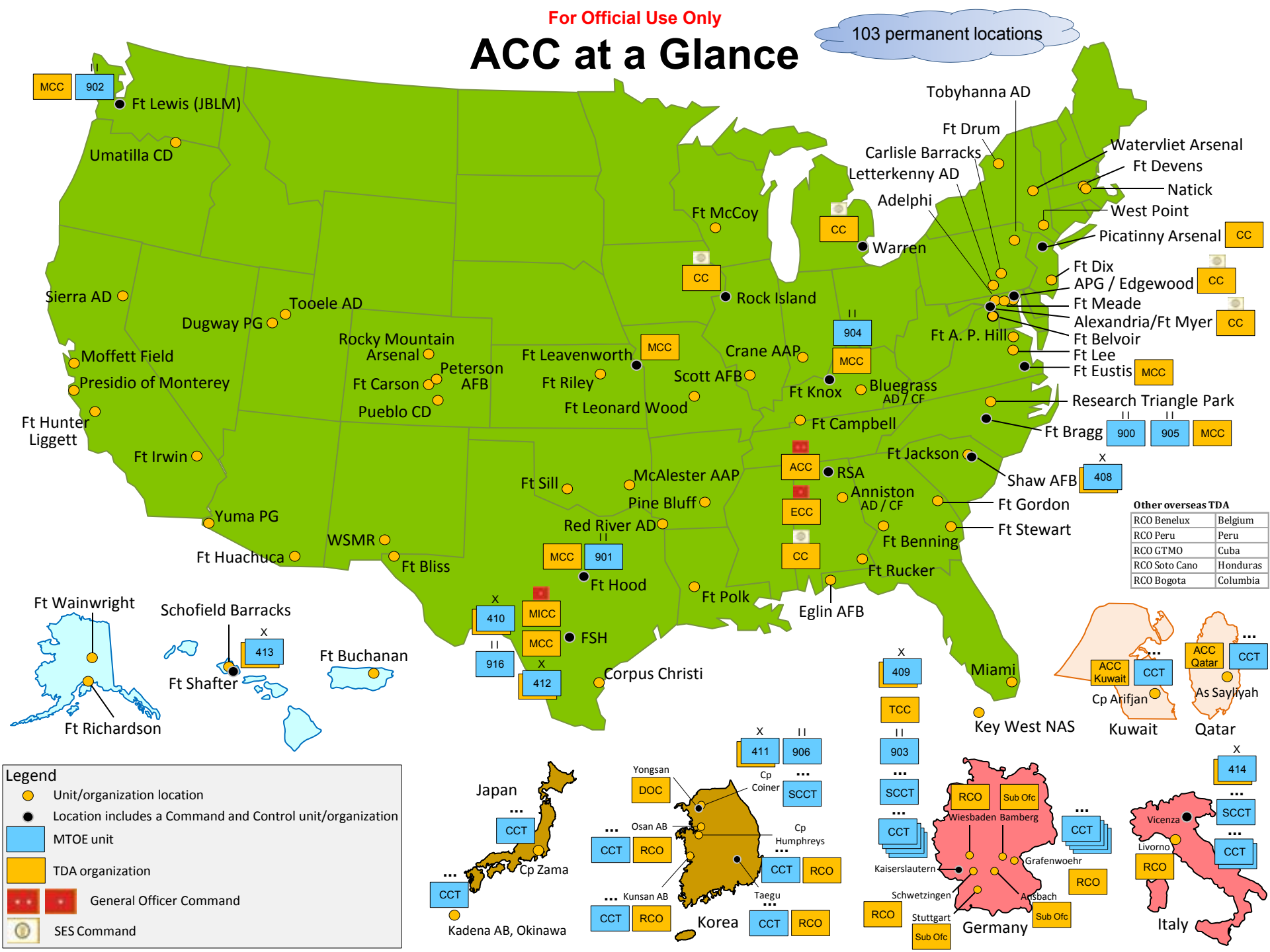
TRADOC: United States Army Training and Doctrine Command

US Army Security Assistance Command

For Official Use Only

ACC at a Glance

103 permanent locations



Other overseas TDA	
RCO Benelux	Belgium
RCO Peru	Peru
RCO GTMO	Cuba
RCO Soto Cano	Honduras
RCO Bogota	Columbia

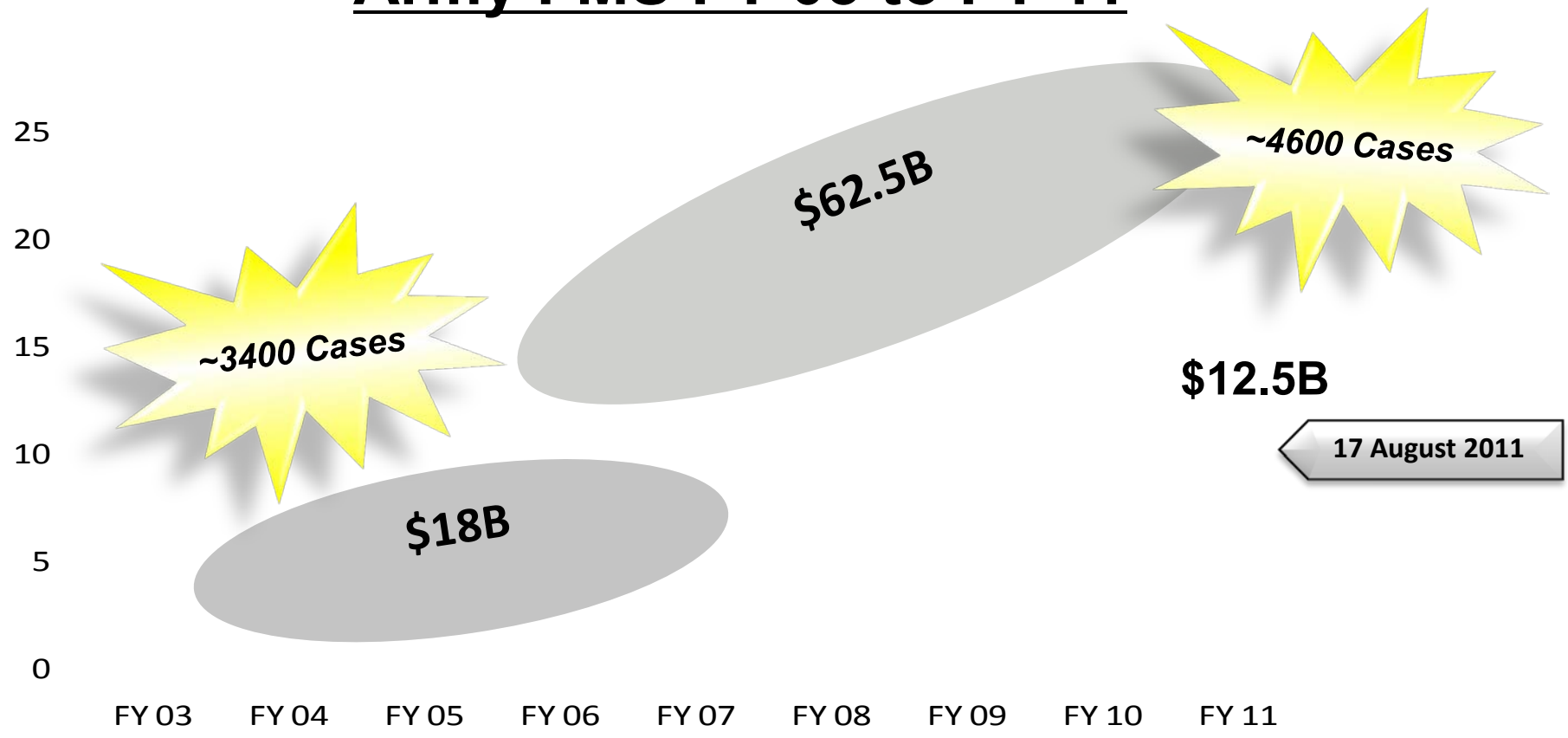
Legend

- Unit/organization location
- Location includes a Command and Control unit/organization
- MTOE unit
- TDA organization
- General Officer Command
- SES Command

ACC Contracting Centers Performing Foreign Military Sales (FMS) Work

- ACC-Aberdeen Proving Grounds (APG)
  - Support to USASAC New Cumberland (various equipment items)
  - Support to CECOM (communications)
- ACC-New Jersey (NJ) - Support to JM&L (non-standard weapons)
- ACC-Rock Island (RI) - Support to JMC (ammunition)
- ACC-Redstone Arsenal (RSA) – Support to AMCOM (aviation)
- ACC- Warren (WRN) - Support to TACOM (vehicles and weapons)

Army FMS FY 03 to FY 11



Acquisition vs. Contracting

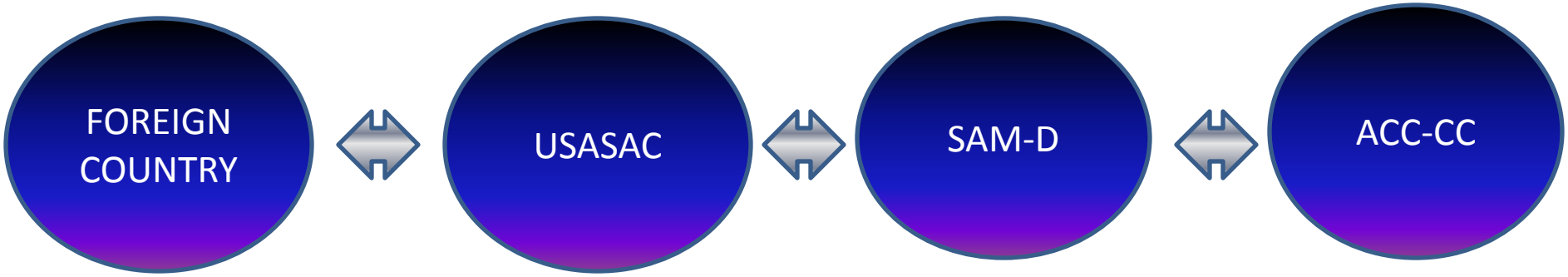
- Acquisition
  - Conceptualization, initiation, design, development, test, contracting, production, deployment, Logistics Support (LS), modification, and disposal of weapons and other systems, supplies, or services (including construction) to satisfy Department of Defense needs, intended for use in or in support of military missions.

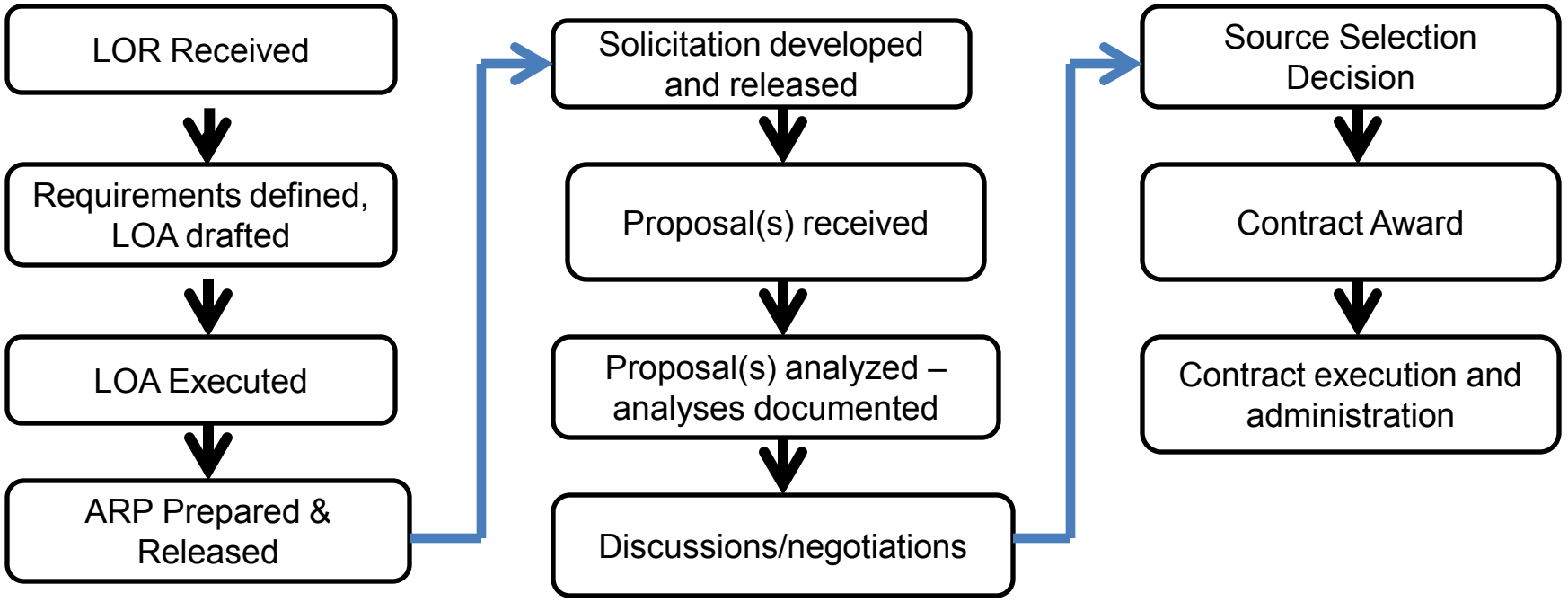
- Contracting
  - The act of buying goods and services for the government

What is a Letter of Offer and Acceptance (LOA)

A Letter of Offer and Acceptance (LOA) is the government-to-government contract utilized by the U.S. Government to sell defense articles/services to a foreign country or international organization under authorities granted by the Arms Export Control Act (AECA).

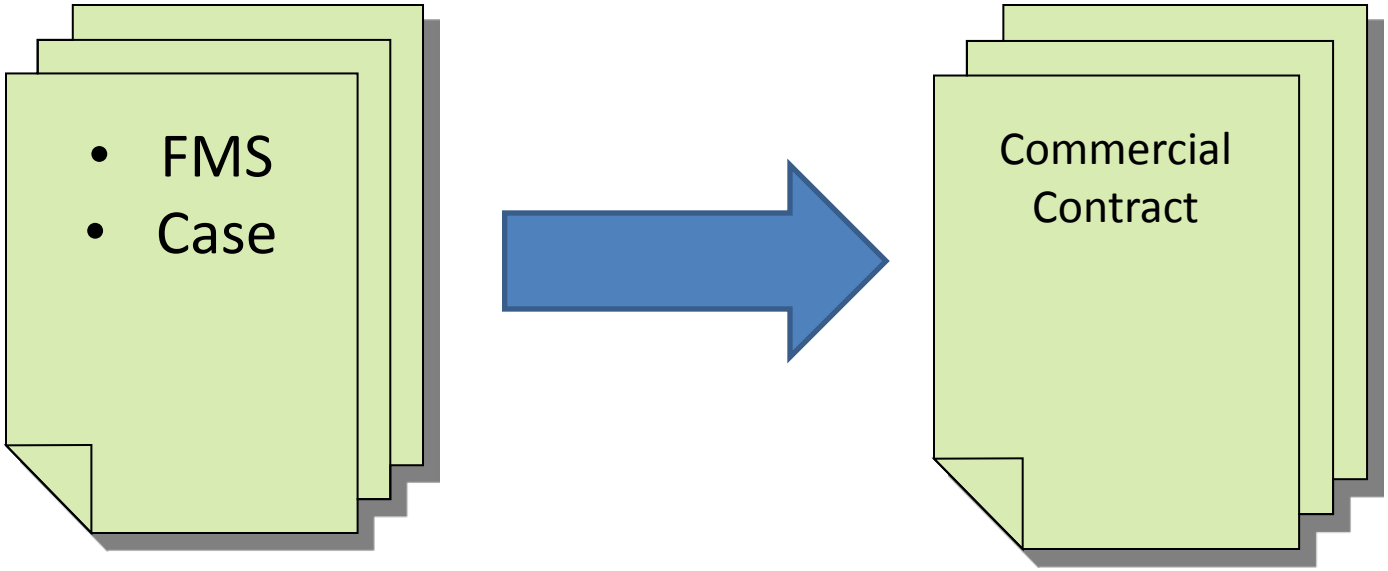
FMS Acquisition Process



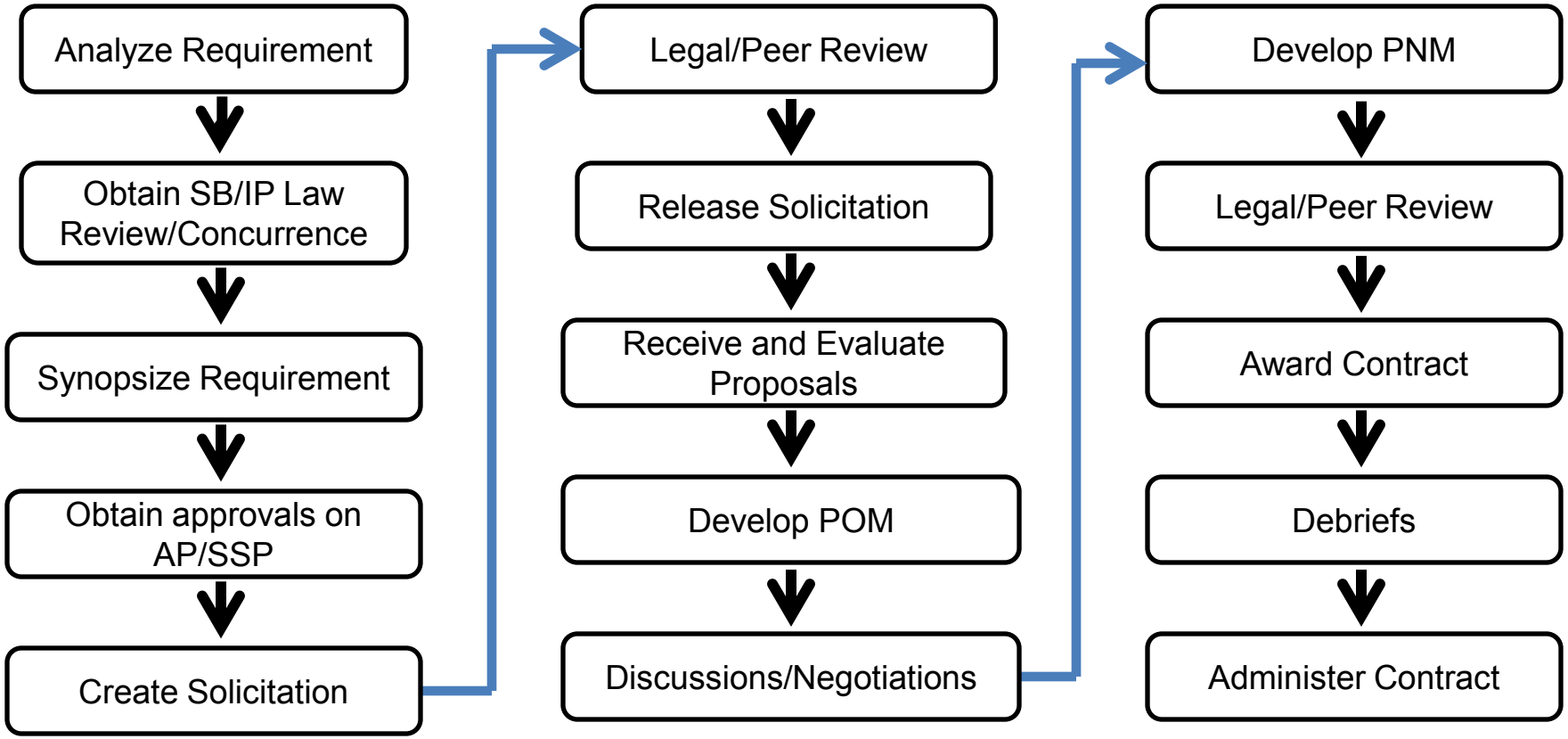


ACQUISITION PROCESS

Foreign Military Sales (FMS) Acquisition



Government to Government	Government to Industry
Moderate requirements definition	Specific requirements definition
Schedule/cost commitments	Schedule/cost commitments?



CONTRACTING PROCESS

Contract Types

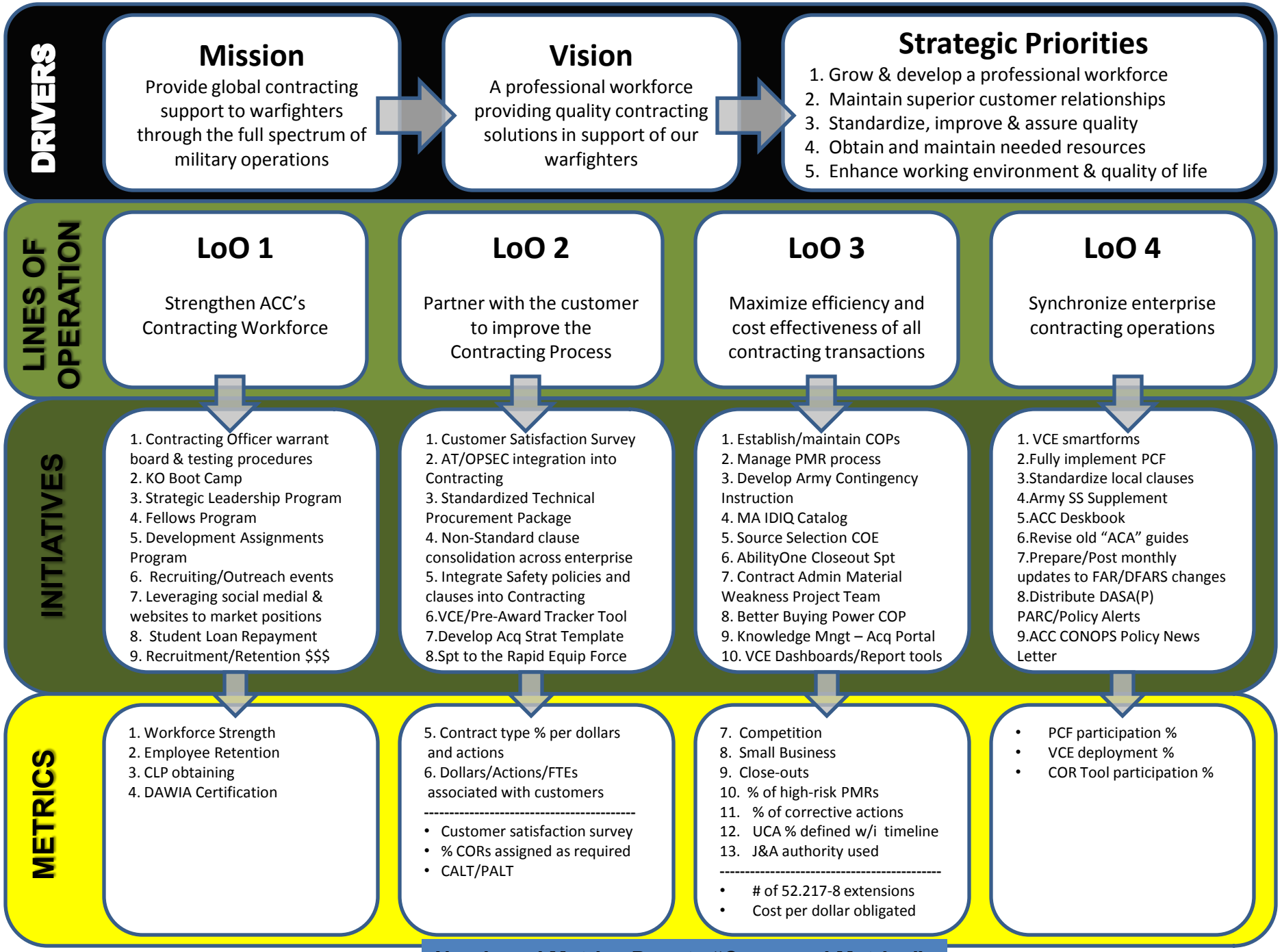
- Fixed Price – Risk put on the contractor
  - Used when the requirement is well defined and a contractor can provide one price to complete effort; EX: FFP, FPIF, FPAF
- Cost Reimbursable – Risk switched to the Government
  - Used when requirement cannot be clearly defined or requirement is unknown; EX: CPFF, CPAF, CPIF
- Time and Materials – Hybrid of Fixed Price and Cost Reimbursable
  - Difficult to get approved, based on recent guidance and contractor abuse concerns.
- IDIQ's – appropriate when the Government anticipates a recurring need, but is unable to define exact quantity at time of award

FMS Customer Involvement in the Contracting Process

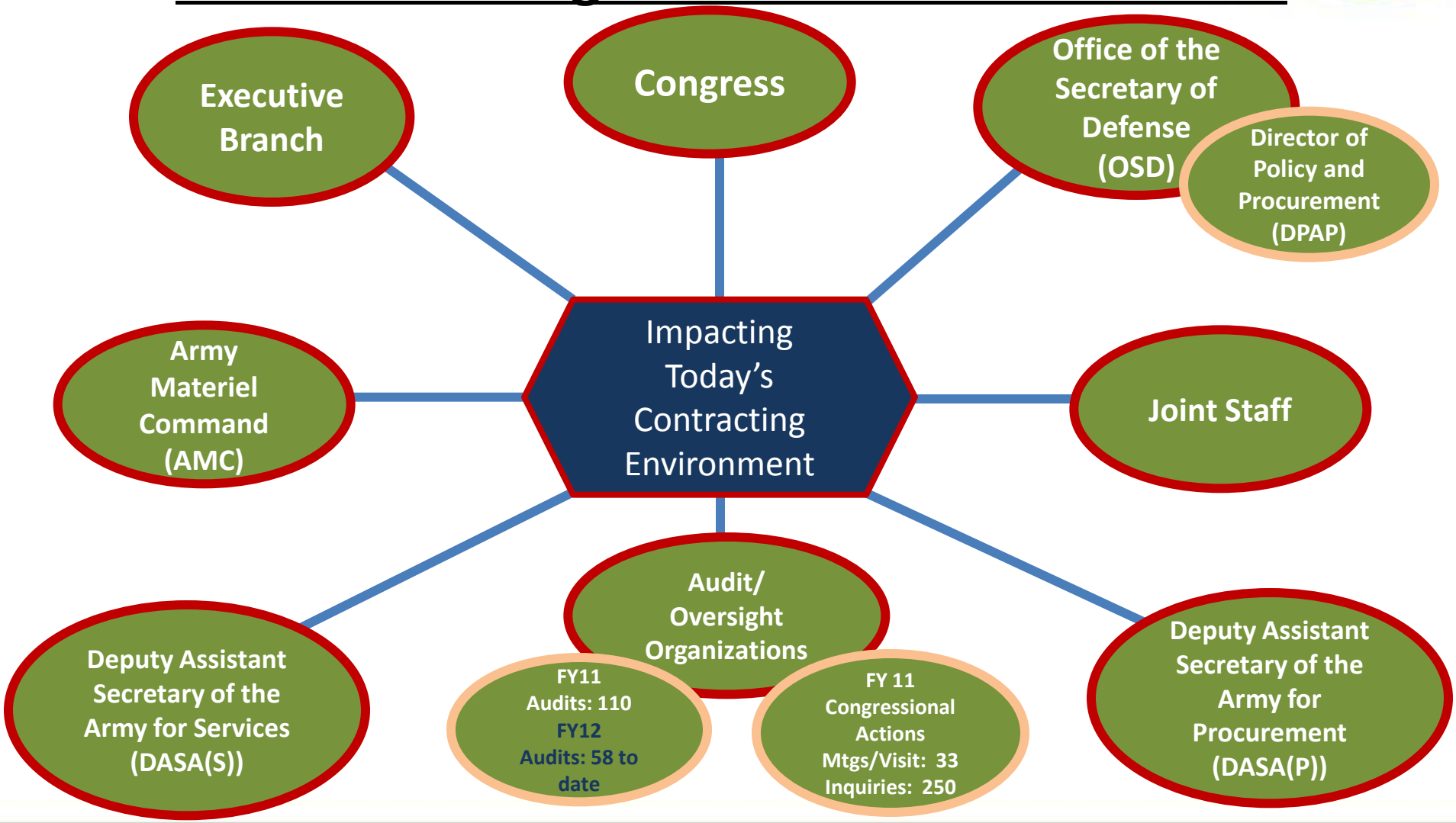
- Contracting officers may consult with FMS purchasers on any matter that could be perceived as inconsistent with or significantly different from an LOA.
- If an FMS customer submits a sole source request it may be consulted during the source selection process , at the discretion of the contracting officer.
- FMS purchasers may participate with USG acquisition personnel in discussions with industry to develop technical specifications, to establish delivery schedules, to identify any special warranty provisions or other unique requirements
- Information concerning FMS prices can be provided to an FMS customer to demonstrate the reasonableness of the price and respond to relevant questions on prices.

Discussion…

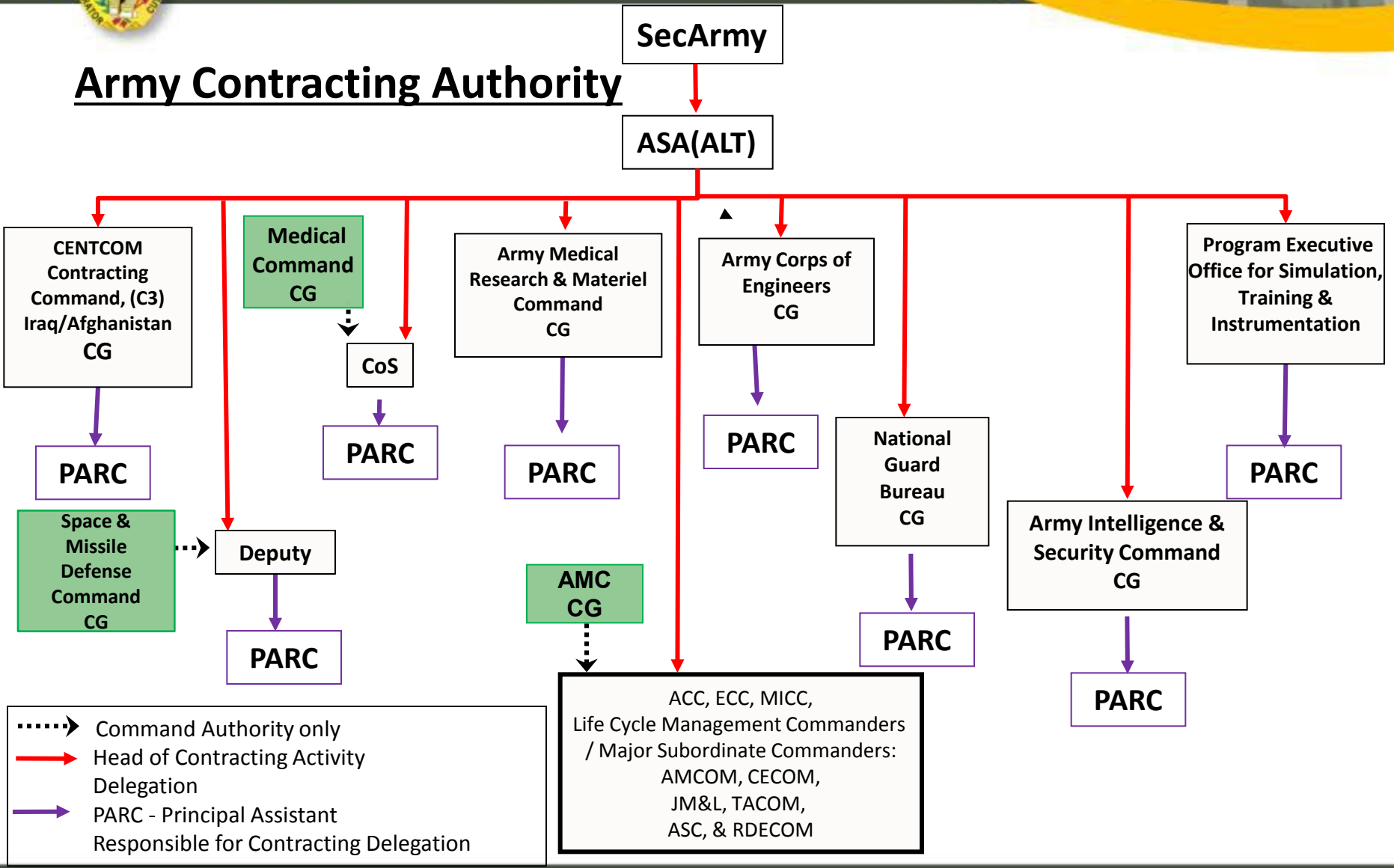
BACK UP


DRIVERS
Mission
Provide global contracting support to warfighters through the full spectrum of military operations
Vision
A professional workforce providing quality contracting solutions in support of our warfighters
Strategic Priorities
1. Grow & develop a professional workforce
2. Maintain superior customer relationships
3. Standardize, improve & assure quality
4. Obtain and maintain needed resources
5. Enhance working environment & quality of life
LINES OF OPERATION
LoO 1
Strengthen ACC's Contracting Workforce
LoO 2
Partner with the customer to improve the Contracting Process
LoO 3
Maximize efficiency and cost effectiveness of all contracting transactions
LoO 4
Synchronize enterprise contracting operations
INITIATIVES
1. Contracting Officer warrant board & testing procedures
2. KO Boot Camp
3. Strategic Leadership Program
4. Fellows Program
5. Development Assignments Program
6. Recruiting/Outreach events
7. Leveraging social medial & websites to market positions
8. Student Loan Repayment
9. Recruitment/Retention $$$
1. Customer Satisfaction Survey
2. AT/OPSEC integration into Contracting
3. Standardized Technical Procurement Package
4. Non-Standard clause consolidation across enterprise
5. Integrate Safety policies and clauses into Contracting
6.VCE/Pre-Award Tracker Tool
7.Develop Acq Strat Template
8.Spt to the Rapid Equip Force
1. Establish/maintain COPs
2. Manage PMR process
3. Develop Army Contingency Instruction
4. MA IDIQ Catalog
5. Source Selection COE
6. AbilityOne Closeout Spt
7. Contract Admin Material Weakness Project Team
8. Better Buying Power COP
9. Knowledge Mngt – Acq Portal
10. VCE Dashboards/Report tools
1. VCE smartforms
2.Fully implement PCF
3.Standardize local clauses
4.Army SS Supplement
5.ACC Deskbook
6.Revise old "ACA" guides
7.Prepare/Post monthly updates to FAR/DFARS changes
8.Distribute DASA(P) PARC/Policy Alerts
9.ACC CONOPS Policy News Letter
METRICS
1. Workforce Strength
2. Employee Retention
3. CLP obtaining
4. DAWIA Certification
5. Contract type % per dollars and actions
6. Dollars/Actions/FTEs associated with customers
• Customer satisfaction survey
• % CORs assigned as required
• CALT/PALT
7. Competition
8. Small Business
9. Close-outs
10. % of high-risk PMRs
11. % of corrective actions
12. UCA % defined w/i timeline
13. J&A authority used
• # of 52.217-8 extensions
• Cost per dollar obligated
• PCF participation %
• VCE deployment %
• COR Tool participation %
Numbered Metrics Denote "Command Metrics"

External Oversight & Political Environment

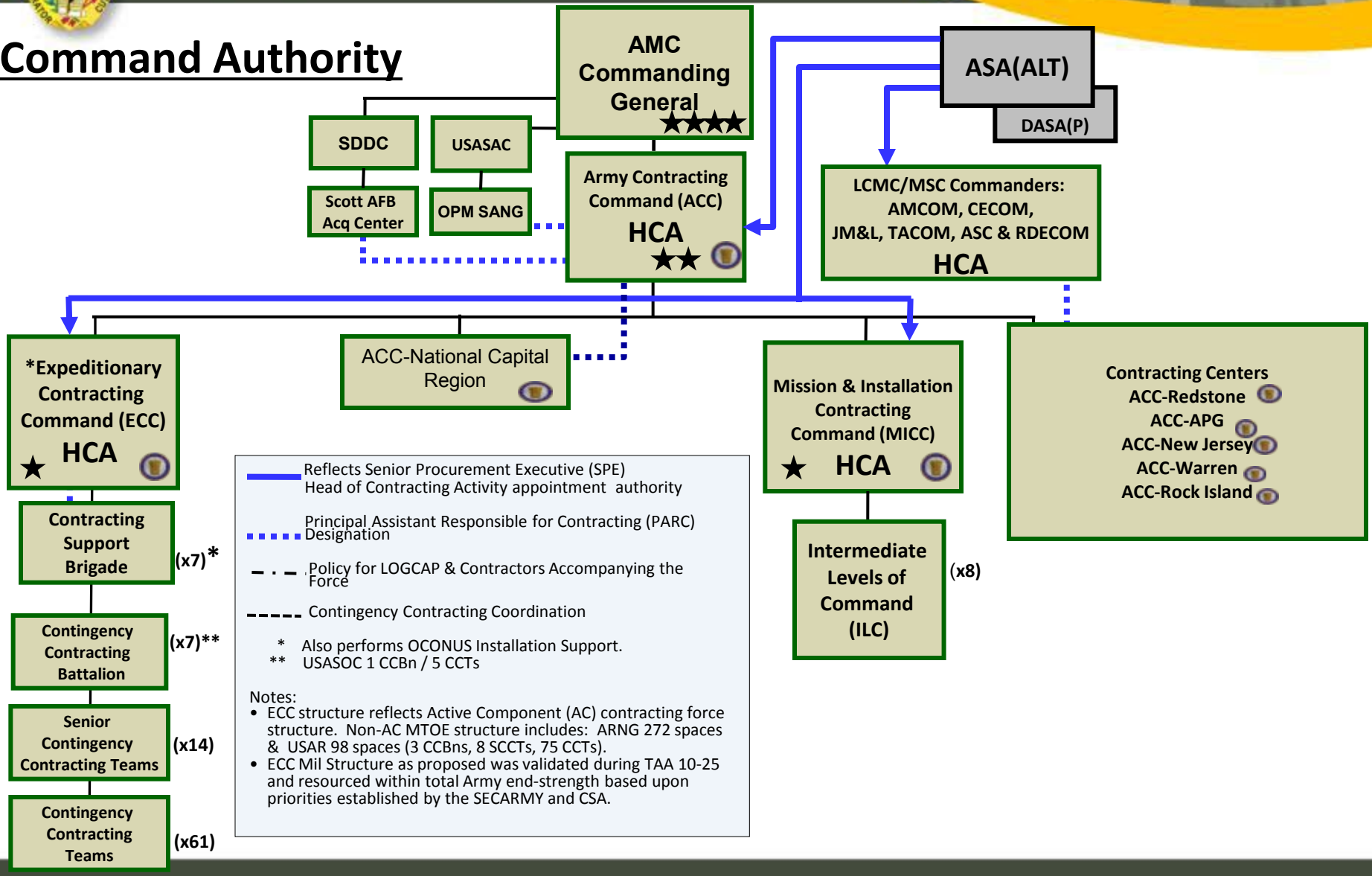


Army Contracting Authority



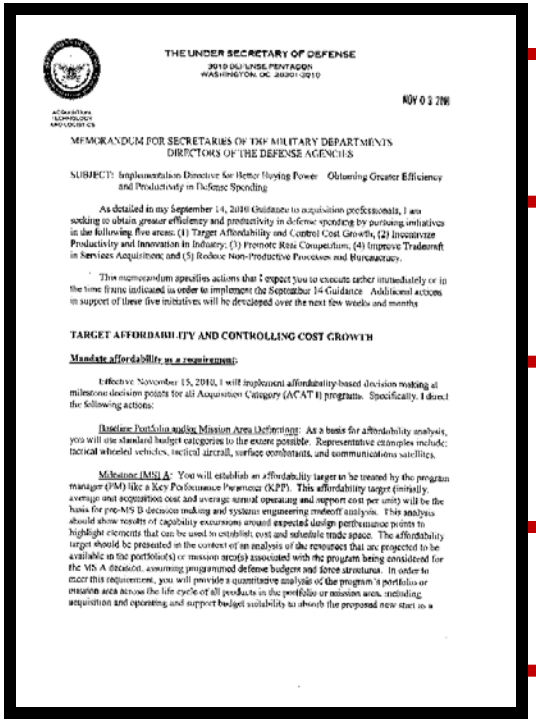
U.S. Army Contracting Command

Command Authority



OSD Better Buying Power Initiatives

Five Key Initiatives



THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

NOV 03 2010

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Implementation Directive for Better Buying Power – Obtaining Greater Efficiency and Productivity in Defense Spending

As detailed in my September 14, 2010 Guidance to acquisition professionals, I am seeking to obtain greater efficiency and productivity in defense spending by pursuing initiatives in the following five areas: (1) Target Affordability and Control Cost Growth, (2) Incentivize Productivity and Innovation in Industry; (3) Promote Real Competition; (4) Improve Tradecraft in Services Acquisitions; and (5) Reduce Non-Productive Processes and Bureaucracy.

This memorandum specifies actions that I expect you to execute either immediately or in the time frame indicated in order to implement the September 14 Guidance. Additional actions in support of these five initiatives will be developed over the next few weeks and months.

TARGET AFFORDABILITY AND CONTROLLING COST GROWTH

Mandate affordability as a requirement:

Effective November 15, 2010, I will implement affordability-based decision making at milestone decision points for all Acquisition Category (ACAT I) programs. Specifically, I direct the following actions:

Baseline Portfolio and/or Mission Area Definitions: As a basis for affordability analysis, you will use standard budget categories to the extent possible. Representative examples include: tactical wheeled vehicles, tactical aircraft, surface combatants, and communications satellites.

Milestone (MS) A: You will establish an affordability target to be treated by the program manager (PM) like a Key Performance Parameter (KPP). This affordability target (initially, average unit acquisition cost and average annual operating and support cost per unit) will be the basis for pre-MS B decision making and systems engineering trade-off analysis. This analysis should show results of capability excursions around expected design performance points to highlight elements that can be used to establish cost and schedule trade space. The affordability target should be presented in the context of an analysis of the resources that are projected to be available in the portfolio(s) or mission area(s) associated with the program being considered for the MS A decision, assuming programmed defense budgets and force structure. In order to enter this requirement, you will provide a quantitative analysis of the program's portfolio or mission area across the life cycle of all products in the portfolio or mission area, including acquisition and operating and support budget scalability to absorb the proposed new start as a

OSD's Implementation Directive for Better Buying Power (3 Nov 10)

- Target Affordability and Control Cost Growth
- Incentivize Productivity & Innovation in Industry
- Promote Real Competition
- Improve Tradecraft in Acquisition of Services
- Reduce Non-Productive Processes and Bureaucracy

Results: Guidance Roadmap

Target Affordability and Control Cost Growth

- Mandate affordability as a requirement
  - At MS A (aka Technology Development Decision) set affordability target as a Key Performance Parameter
  - At MS B (aka Product Development Decision) establish engineering trades showing how each key design feature affects the target cost
- Drive productivity growth through Will Cost/Should Cost management
- Eliminate redundancy within warfighter portfolios
- Make production rates economical and hold them stable
- Set shorter program timelines and manage to them

Incentivize Productivity & Innovation in Industry

- Reward contractors for successful supply chain and indirect expense management
- Increase the use of FPIF contract type where appropriate using a 50/50 share line and 120 percent ceiling as a point of departure
- Adjust progress payments to incentivize performance
- Extend the Navy's preferred supplier program to a DoD-wide pilot
- Reinvigorate industry's independent research and development and protect the defense technology base

Promote Real Competition

- Present competitive strategy at each program milestone
- Remove obstacles to competition
- Allow reasonable time to bid
- Require non-certified cost and pricing data on single offers
- Require open system architectures and set rules for acquisition of technical data rights
- Increase dynamic small business role in defense marketplace competition

Improve Tradecraft in Acquisition Services

- Create a senior manager for acquisition of services in each component, following the Air Force's example
- Adopt uniform taxonomy for different types of services
- Address causes of poor tradecraft in services acquisition
  - Assist users of services to define requirements and prevent creep via requirements templates
  - Assist users of services to conduct market research to support competition and pricing
  - Enhance competition by requiring more frequent re-compete of knowledge-based services
  - Limit the use of time and materials and award fee contracts for services
  - Require that services contracts exceeding $1B contain cost efficiency objectives
- Increase small business participation in providing services

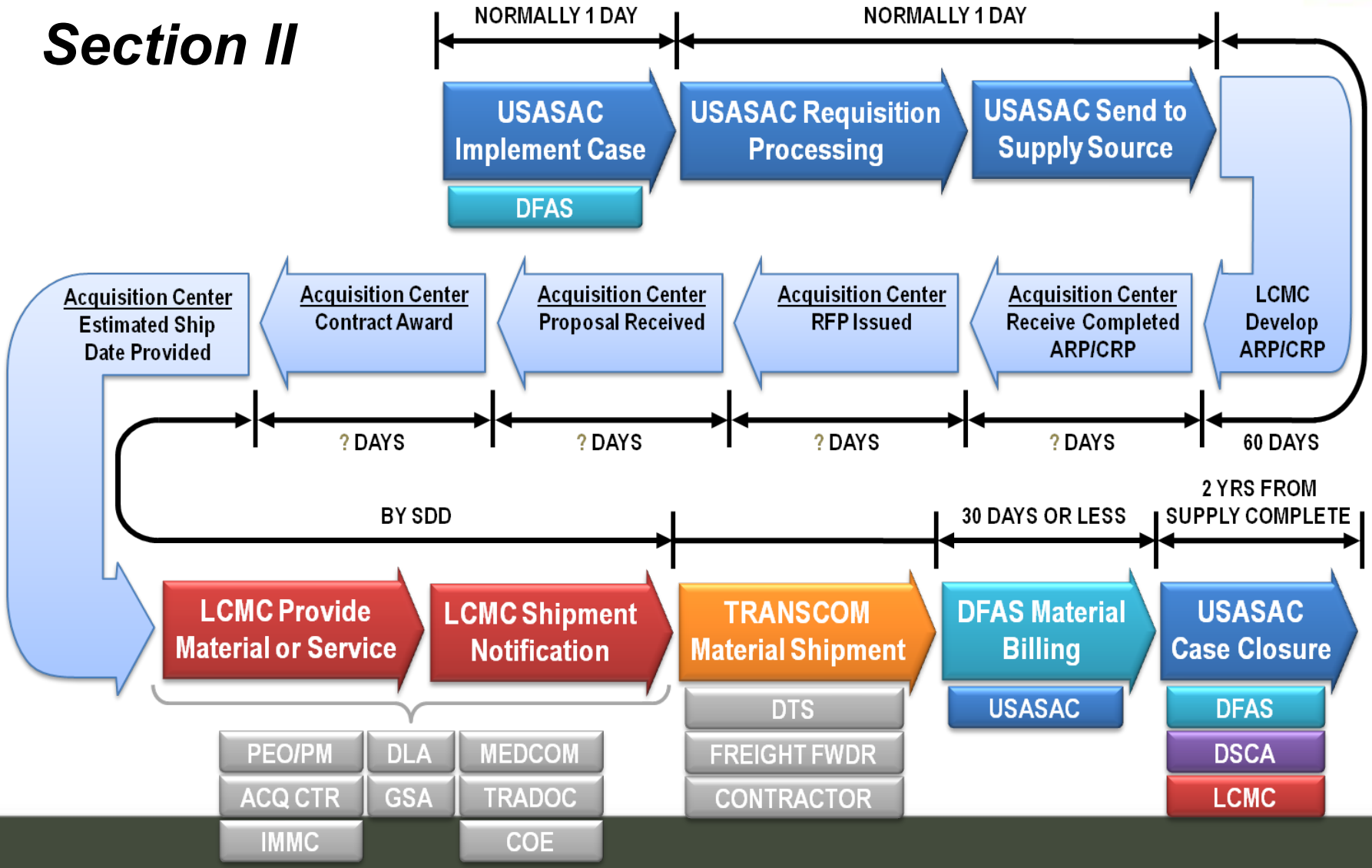
Reduce Non-Productive Processes and Bureaucracy

- Reduce the number of OSD-level reviews to those necessary to support major investment decisions or to investigate and respond to significant program execution issues
- Eliminate low-value-added statutory processes
- Reduce by half the volume and cost of internal and congressional reports
- Reduce non-value-added overhead imposed on industry
- Align DCMA and DCAA processes to ensure work is complementary
- Increase use of Forward Pricing Rate Recommendations (FPRRs) to reduce administrative costs

Blue = PM Green = OSD
Red = Contracting Purple = Joint PM/Contracting
Orange = DASA(Services) and requiring activity

Sept 14, 2010

Section II


NORMALLY 1 DAY
NORMALLY 1 DAY
USASAC Implement Case
DFAS
USASAC Requisition Processing
USASAC Send to Supply Source
LCMC Develop ARP/CRP
Acquisition Center Receive Completed ARP/CRP
Acquisition Center RFP Issued
Acquisition Center Proposal Received
Acquisition Center Contract Award
Acquisition Center Estimated Ship Date Provided
? DAYS
? DAYS
? DAYS
? DAYS
60 DAYS
BY SDD
30 DAYS OR LESS
2 YRS FROM SUPPLY COMPLETE
LCMC Provide Material or Service
LCMC Shipment Notification
TRANSCOM Material Shipment
DFAS Material Billing
USASAC Case Closure
PEO/PM
DLA
MEDCOM
ACQ CTR
GSA
TRADOC
IMMC
COE
DTS
FREIGHT FWDR
CONTRACTOR
USASAC
DFAS
DSCA
LCMC

Roles and Responsibilities of a Program Manager

Discussion of Army PMs role and responsibilities related to FMS.

Darryl Colvin

Mr. Darryl Colvin is the Project Manager, Lower Tier Project Office. As such, he is responsible for leading the PATRIOT, PAC-3, Missile Segment Enhancement, JTAGs, and the US Medium Extended Air Defense System programs. Darryl has over 20 years of professional experience in all aspects of Program Management, Contracting, Financial Management, and Foreign Military Sales for Army ACAT IC/ID programs. Mr. Colvin is a member of the Army Acquisition Corps and is Level III Certified in Program Management and in Systems Planning, Research, Development and Engineering - Science and Technology career fields. Mr. Colvin earned a Master of Science Degree in Metallurgical Engineering from the Colorado School of Mines and a Bachelor of Science Degree in Mining Engineering from the University of Missouri at Rolla.

LOWER TIER PROJECT OFFICE

DISTRIBUTION F: This information is approved for release to authorized representatives of the Defense MOU Attaches Group (DMAG) for Official Use Only. Further dissemination must be approved by the U.S. Army.

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BOTTOM LINE UP FRONT

- US PATRIOT ground support equipment will remain in the field beyond 2040!
- PATRIOT obsolescence mitigation plan reduces cost to all partners and is included in the 30-year strategy (with International Partner participation).
- PATRIOT Recapitalization/Reset programs are critical components of readiness.
- Synchronized Requirement Generation, Strategic Plans, and Execution with International Partners, Army Air and Missile Defense Programs, and Missile Defense Agency.
- LTPO and International Partners Leverage FMS Sales to Mitigate Obsolescence.
- PATRIOT continues to *evolve* to counter current and evolving threats!

Provide Increased Performance Over Time - *at reduced cost, increased reliability, and effectiveness.*

LOWER TIER PROGRAM OVERVIEW

Technology Dev Phase	Engineering & Manufacturing Development Phase		Production and Deployment		Operations and Support Phase
Advanced Component Development & Prototype	Integrated System Design	Sys Capability & Mfg, Process Demonstration	LRIP	Full Rate Production & Deployment	Life Cycle Sustainment
	MS-B	CDR	MS-C	FRP	

PATRIOT 30 Year Plan
- Obsolescence Mitigation
- Cost Avoidance
- World-wide Pure Fleet

MEADS

Proof of Concept

IAMD

- Interoperability
- Force Multiplier

Evolutionary Development Plan (EDP)
- Counter Evolving Threat
- PATRIOT-THAAD / AEGIS Interoperability

MSE

- Missile
- MRT / ERT
- Launcher Mods

TEMP

PDB-8 Software

PDB-7 Software
- MAP, MMS

GEM-T Production

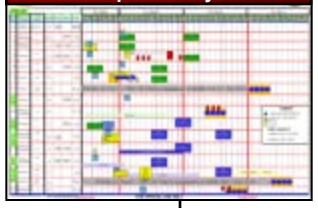
PATRIOT Modernization
- GSE Production
- GSE Mod Kits
- RDP, MAP, MMS
- Integrated CID

PAC-3 (Missile Segment)
- ELES
- FSC
- Canister
- CRI

Config-3 (Mod Kit)
- REP-III
- CDI-3
- RLCEU

BCP (w/TMSS)

Sweep-down Synch



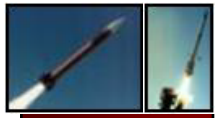
GTA 1-62, 4-3

BCP

GEM-T Conversion

11 International Partners
- International Engineering Services
- Field Surveillance Program
- Case Development

Pure Fleet



PAC-2 / PAC-3 Sustainment

Software
- PDB-6.5 (Fielded)
  - Initial MSE
  - Mode 5 IFF Single Bit
  - ECP 24

Recap

JTAGS

- BCP (Battalion Command Post)
- CDR (Critical Design Review)
- CID (Combat ID)
- CRI (Cost Reduction Initiative)
- ELES (Enhanced Launcher Electronics System)
- FMS (Foreign Military Sales)
- FRP (Full Rate Production)
- FSC (Fire Solution Computer)
- FSP (Field Surveillance Program)
- GEM (Guidance Enhanced Missile)
- GSE (Ground Support Equipment)
- GTA (Grow The Army)
- IAMD (Integrated Air & Missile Defense)
- LRIP (Low Rate Initial Production)
- MAP (Modern Adjunct Processor)
- MSE (Missile Segment Enhancement)
- MMS (Modern Manstation)
- MRT/ERT (Missile Round Trainer/Empty Round Trainer)
- PAC-3 (PATRIOT Advanced Capability 3)
- PDB-X (Post Deployment Build Number)
- RDP (Radar Digital Processor)
- JTAGS (Joint Tactical Ground Station)

US Appropriations | US Unique w/ FMS | Shared with International / FMS

PATRIOT EVOLUTION (U)

An Enduring Relationship with International Partners

- CONCEPT FORMULATION EARLY 60's
- 1967-1980: ADVANCED DEVELOPMENT
- 1981-1983: NETHERLANDS FMS (FEB 84)
- 1984: GERMANY FMS (FEB 85)
- 1985: JAPAN LICENSED PRODUCTION (OCT 85)
- 1986: U.S. INITIAL DEPLOYMENT TO EUROPE (MAR 85)
- 1987: PDB-1 (JUL 86)
- 1988: MULTIYEAR PROCUREMENT (MAR 87)
- 1989: PAC-1 INITIAL ATM CAPABILITY PDB-2 (JUL 88)
- 1990: COMPLETE INITIAL DEPLOYMENT BN(-)
- 1991: PAC-2 MISSILE DEPLOYMENT PDB-3 (SEP 90)
- 1992: OPERATION DESERT STORM
- 1993: QRP (SEP 92)
- 1994: PAC-3 MS IV
- 1995: GEM FIELDING
- 1996: CONFIGURATION 1 FUE (DEC 95)
- 1997: PAC-3 MISSILE CDR
- 1998: CONFIGURATION 2 FUE PDB-4 (DEC 96)
- 1999: START PAC-3 FLIGHT TEST PROGRAM
- 2000: CONFIGURATION 3 FIELDING
- 2001: SUCCESSFUL HIT-TO-KILL FLIGHT
- 2002: SUCCESSFUL HIT-TO-KILL FLIGHTS
- 2003: CONFIGURATION 3 FUE-G
- 2004: SWEEP V SWA, GERMANY
- 2005: RECAPITALIZATION BEGINS
- 2006: PAC-3 FRP DECISION
- 2007: OPERATION IRAQI FREEDOM
- 2008: CONFIGURATION 3 FUE PDB-5.5.2 (FEB 04)
- 2009: DAB MS-B
- 2010: D&D CONTRACT
- 2011: LIFE CYCLE MGMT COMMAND & SOLDIER FOCUSED LOGISTICS IMPLEMENTED (JUN 05)
- 2012: MSE CDR (APR 06)
- 2013: CONFIG-3 PDB-6 FUE (JUN 07)
- 2014: PURE FLEET& GROW THE ARMY (GTA)
- 2015: MSE FLIGHT GFT-1B (DEC 09)
- 2016: MSE INTERCEPT 7-2A (FEB 10)
- 2017: PATRIOT MODERNIZATION CDR (MAY 10)
- MSE INTERCEPT 7-3 (MAR 11)
- PDB-7 IOC
- MSE PRODUCTION DECISION
- PDB-8
- MSE FUE
- TAIWAN PAC-3 UPGRADE
- UAE FMS (NOV 08)
- KOREA FMS (OCT 07)
- SPAIN (JAN 05)
- GREECE LEASE / DIRECT SALE
- GERMANY FOIA SIGNED (FEB 98)
- TAIWAN FMS (94) (MADS)
- SAUDI ARABIA FMS #2 KUWAIT FMS (DEC 92)
- ISRAEL FMS (MAY 91)
- SAUDI ARABIA FMS #1 (NOV 90)

Deployment
Production
Engineering Dev

- RDT&E
- Procurement
- Fielding, Sustainment, Prod Improvement
- Demilitarization
- Recapitalization
- Combat

CASLWALPCC 08/15/94 (01) Ver 24 (9 Apr 12)

PATRIOT OVERVIEW

Battalion Headquarters

Tactical Command Station (TCS)

Information and Coordination Central (ICC)

Firing Battery (Up to 6 Per Battalion)

Minimum Engagement Capability

Active (PAC-3)

Semi-Active (GEM-T)

Phased Array Radar Set (RS)

Engagement Control Station (ECS)

Electric Power Plant (EPP)

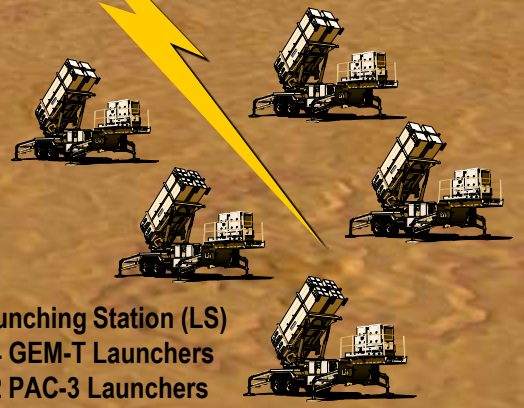
Launcher

Guided Missiles (GM)
- 16 Ready-to-Fire PAC-3 Missiles – Hit-to-Kill
- 4 Ready-to-Fire GEM-T Fragmentation Warhead

Electric Power Unit (EPU)

Antenna Mast Group (AMG)

Communications Relay Group (CRG)



Launching Station (LS)
- 4 GEM-T Launchers
- 2 PAC-3 Launchers

PATRIOT MISSILE LINEAGE (U)
US INVENTORY

Anti -Tactical Missile (ATM) (PAC-2)

- Modifications
  - Dual beam fuze
  - Large fragment size warhead
- Effects
  - Tailored fuze response-- ABT or TBM
  - Improved fuzing vs. faster targets
- TBM HE warhead kills vs INF-compliant threats
- C-Band

1990

Guidance Enhancement Missile (GEM)

- Modifications
  - Low noise RF receiver
  - Increased fuze sensitivity
- Effects
  - Reduced fuze response time
  - Improved low RCS tracking
  - TBM HE warhead kill vs. more stressing threats
  - Lower altitude intercepts
- C-Band

1995

GEM Upgrade (GEM+)

- Modification
  - Low Noise Oscillator
  - Enhanced Fuze (New Production)
- Effects
  - Frequency stability
  - Improved subclutter visibility
  - Counters lower RCS threats in high clutter
  - Improved TBM HE warhead kill vs more stressing threats

2000

PAC-3 Missile (Initial Production)

- Modifications
  - Additional processing in GPU and seeker
  - Increased performance attitude control motors
  - Improved stability margin
- Effects
  - Improved anti-TBM performance
  - Robust performance against air breathing threats
  - Robust cruise missile defense
- Production DAB Oct 2002

1999

PAC-3 Missile (Cost Reduction Initiative)

- Modifications
  - MRFDL
  - Simplified IMU
  - Advanced MFG

  Effects
  - Reduction of missile cost
  - Improved reliability
  - Maintains PAC-3 Missile Performance Capability
- Production IPR Jan 2005

2005

PAC-3 MSE Missile (Missile Segment Enhancement)

- Modifications
  - 11.4" Rocket Motor
  - Larger Control and Fixed Fins
  - Enhanced Guidance and Control

  Effects
  - Increased Engagement Envelope
  - Insensitive Munitions (IM) Improvements

Development

**** Note: Each missile modification retains improvements incorporated in previous missile modification***

Inventory

Production

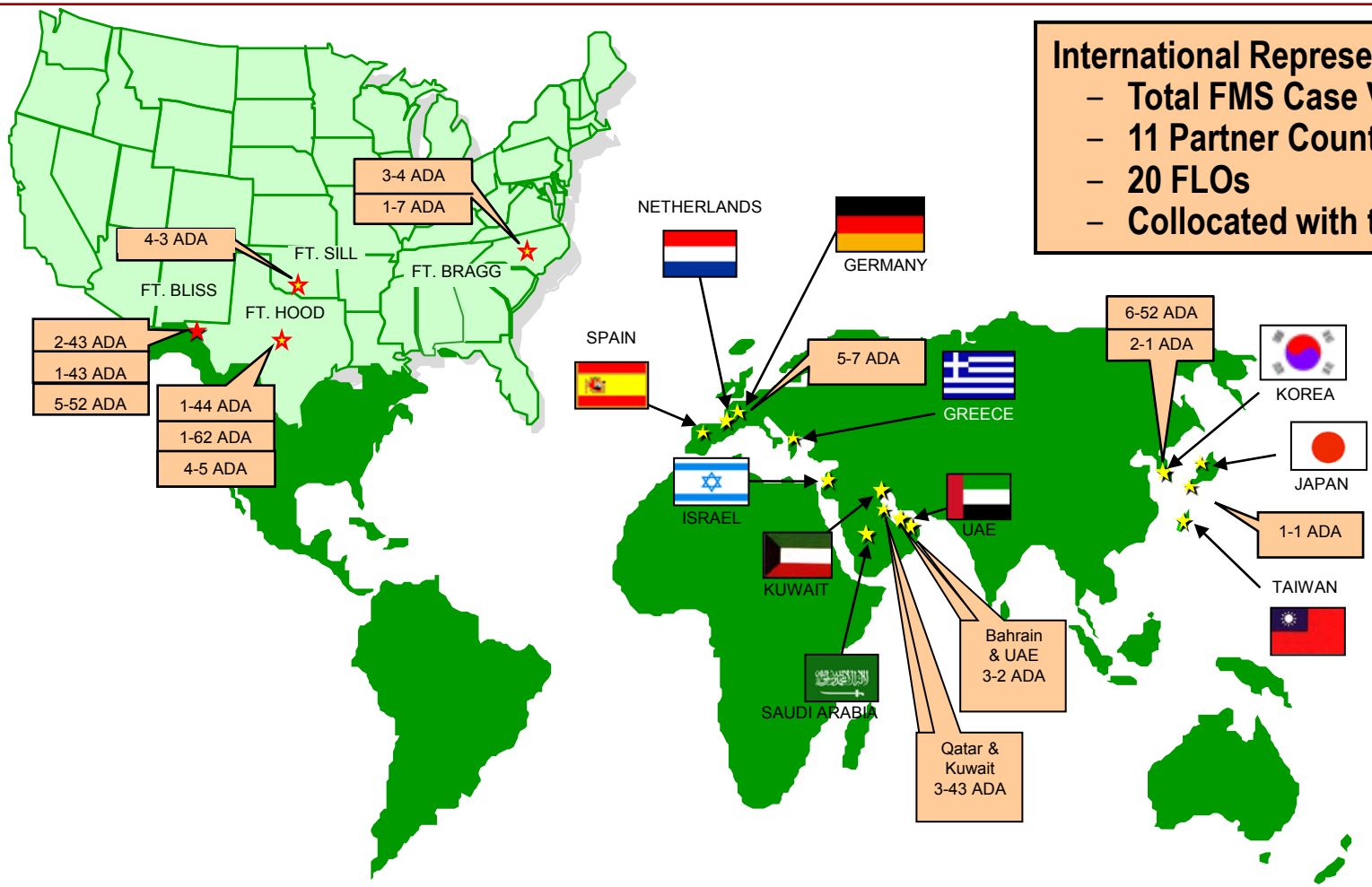
Test Config

PATRIOT Test Flight

29 March 2012

VIDEO

PATRIOT – PARTNERS AROUND THE WORLD



International Representation:

- Total FMS Case Value: ~$20.8B
- 11 Partner Countries
- 20 FLOs
- Collocated with the LTPO

Provides Proven Combat Capabilities to US and Coalition Partners Against Current and Evolving ACMD/TBM Threats

INTERNATIONAL ENGINEERING SERVICES PROGRAM

- LTPO 's IESP is an established international program offering countries owning the PATRIOT system a ***cost effective means*** to keep systems viable against current and evolving global threats

- ***Shared*** / Common engineering efforts and advantages of the program are:
  - Post Deployment Software Build Analysis, Requirements, Coding and Release
  - Hardware Modifications for Improved Technology and Obsolescence Resolution
  - Ongoing Support for Test Facilities
  - Maintenance of Technical Documentation
  - Support Engineering such as Product Assurance, Test & Evaluation, Logistics, Systems Analysis

- Current 2012 IESP Program:
  - Common Engineering Efforts ***share*** costs among 12 Countries (Includes US)
  - US share is approximately **35%** annually (each country ***share*** reduces with the addition of new countries)
  - Countries share costs based on selectable task and Fire Unit density
  - Program provides continuation and evolution of robust system against threat

Together, the PATRIOT Family Keeps the System Viable, Ready, and Affordable!

FIELD SURVEILLANCE PROGRAM

OVERVIEW

An integrated program of checks, tests, and recertification activities conducted over the life cycle of the missile to assess and maintain the health of the deployed PATRIOT stockpile

- Destructive/non-destructive; US/FMS assets; natural/accelerated aging; component/missile level; replacement of limited life components/purge of faults

Shared program required by LTPO policy as a condition of ownership

- Countries share test data, test assets, and program costs
- Sharing is based on country objective missile density

The FSP has provided these tangible benefits

- Identified – latent defects, safety issues, failure modes, GSE maintenance issues, need for corrective action, risks
- Confirmed – acceptable missile reliability, life of components
- Enabled – extension of missile operational life (20 to 30 years), extension of recertification interval (5 to 15 years), development of corrective actions and lessons learned to PAC-3 missile deployment

US AND FMS LIFT / BENEFITS

- **Radar Data Processor (RDP)**
  - 64 module types replaced with 6
  - 432 total modules to 12

- **Digital Track Via Missile (TVM)**
  - 32 of 38 Module Types eliminated
  - 328 total modules eliminated
  - 10 racks eliminated

- **Reconfigurable Table Top Trainer (RT3)**
  - Replaces obsolete hardware with COTS based solution
  - Runs tactical software

- **Modern Man Station (MMS)**
  - 30” color LCD displays with touch screens
  - Upgrade replaces 221 obsolete parts in 41 assemblies
  - Opportunity to reduce IAMD costs

Opportunity to Leverage Technology Development with FMS Partners to Keep PATRIOT Relevant for Next 30 Years

CURRENT ACTIONS AND LESSONS LEARNED

Current Actions:

- Letters of Request / Letters of Offer and Acceptance for PATRIOT Fire Units pending
- Hybrid Direct Commercial Sales/Foreign Military Sales are common
- Modernization emphasizes total ownership cost reduction

Lessons Learned/Applied:

- Total package fielding focuses heavily on training and unit level certification
- Third Party Transfers (TPT):
  - Recent TPTs generated a number of actionable lessons learned:
    - Security Agreements
    - Configuration Management (pre-transfer configuration identified)
    - Supportability Plan
    - Transportation Plan
    - Material Fielding Plan
  - Revised TPT Approach: USG review/assessment should include the country requesting transfer approval authority and the country receiving the PATRIOT system to ensure Total Package Fielding

SUMMARY

- US PATRIOT ground support equipment will remain in the field beyond 2040!
- PATRIOT obsolescence mitigation plan reduces cost to all partners and is included in the 30-year strategy (with International Partner participation).
- PATRIOT Recapitalization/Reset programs are critical components of readiness.
- Synchronized Requirement Generation, Strategic Plans, and Execution with International Partners, Army Air and Missile Defense Programs, and Missile Defense Agency.
- LTPO and International Partners Leverage FMS Sales to Mitigate Obsolescence.
- PATRIOT continues to *evolve* to counter current and evolving threats!

Provide Increased Performance Over Time - *at reduced cost, increased reliability, and effectiveness.*

Missile Defense Agency Overview

Orientation to the Missile Defense Agency, missile defense systems, and a discussion of special considerations related to FMS of missile defense.

Robert Helfant

Mr Helfant is the Deputy for Regional Affairs, MDA, reporting to the Director for International Affairs. He is responsible for directing and coordinating country engagement activities in support of the expansion of international cooperation in missile defense. His educational background is in international affairs, science and engineering, and public policy. Professionally, his missile defense experience focuses on acquisition and program management, international agreements, and strategic outreach. Since joining MDA, key assignments include the Russian American Observation Satellites program office, lead for US-UK cooperative BMD programs, and Division Chief for Strategy and Integration. Prior to joining MDA, Mr Helfant worked in the defense industry where he supported various US Government customers in the areas of theater missile defense requirements and operations, political and military threat assessment, mission and force posture planning, and arms control.

PLACEHOLDER

FOR

MISSILE DEFENSE AGENCY

BRIEFING

DMAG-CPM One-on-One Meetings

1530-1630 Tuesday, May 1st

Australia:
CPM Mr. Al Thomas
Guest WCdr Debbie Richardson

Sweden:
CPM Ms Sharon Spinks
Guest Mr. Peter Hallkvist

Netherlands:
CPM Mr Kris Davis
Guest Cdr Martin Noordzij

Korea:
CPM Ms Kathy Biniak
Guest COL Sunyup Choi

Canada:
CPM Mr. Jerry Parowczenko
Guests Ms. Martine Belanger
Maj Mike Ross
Ms. Chantal Briere

Norway:
CPM Mr Andrew Neuschaefer
Guest Maj Ann Karin Sondov

Germany:
CPM Mr Andrew Neuschaefer
Guest Mr. Tobias Fehlhaber

Italy:
CPM Mr Brian Steinberg
Guest Lt. Col Giuseppe Battaglia

Finland:
CPM Mr Kris Davis
Guest Lt. Col Kim Juhala

Customer Perspectives: Dealing with the FMS System

Point of view of the customer when negotiating the U.S. FMS system. Areas where U.S. and Industry could help reduce fog and friction.

Wing Commander Debbie Richardson

Wing Commander Debbie Richardson joined the Royal Australian Air Force in January 1986 as a Logistics Officer. She attended the Australian Defence Force Academy where she completed a Bachelor of Arts (Honours) from the University of New South Wales. She was then posted to positions including No 34 Squadron Equipment Officer and Aide de Camp to the Chief of Air Force. She has spent the majority of her career in the Defence Materiel Organisation in positions such as the Trainer Aircraft Project Manager and Integrated Logistics Support Manager for the Jindalee Over the Horizon Radar, Heavy Airlift Project (C-17) and New Air Combat Capability (F-35). She was also posted to the Joint Strike Fighter Program Office in Crystal City VA in 2007-09. Wing Commander Richardson holds a Doctor of Business Administration from the University of Southern Queensland.

PLACEHOLDER

FOR

AUSTRALIA CUSTOMER PERSPECTIVES

BRIEFING

Industry Perspectives on USG-Industry-Customer Cooperation

Discussion of industry perspectives on FMS, collaboration with the Army, and interaction with customers - focusing on areas where the customer can have the greatest positive impact.

Mr. Richard G. (Rick) Alpaugh

A native of Shippensburg Pennsylvania, Rick joined AM General as Vice President of International Military Sales in September 2010. In this role he is responsible for worldwide sales of AM General products and services to military organizations. Prior to joining AM General, Rick had a 36 year career as a Department of the Army civilian, with more than 32 years as a member of the United States Army Security Assistance Command. During his tenure at USASAC, Rick served in a variety of progressively responsible positions, to include Chief - Systems Branch, Program Manager – Egyptian Armament Authority Computer Center, Director – Program Operations, Civilian Executive for Operations and Director – Policy/Plans. In 1998 Rick was appointed to the Senior Executive Service as the Deputy to the Commanding General where he served until his retirement in 2010. USASAC was responsible for development and execution of the Army Foreign Military Sales program, with on active portfolio exceeding $100B involving more than 140 countries. Rick was the recipient of a number of awards, both US and foreign, to include the Presidential Meritorious Executive Rank award, the Meritorious Civilian Service award and recognition as a Distinguished Member of the Army Quartermaster Regiment. Rick resides in Manassas Virginia with his wife Reggie and has two adult sons, Ryan and Mitchell.

NO BRIEF

(DISCUSSION ONLY)

Army Lessons Learned

Discussion of Army lessons learned in coalition operations in Iraq and Afghanistan

TBD

PLACEHOLDER

FOR

ARMY LESSONS LEARNED

BRIEFING

MENU

Connors Steak & Seafood

= a house specialty

DRESSINGS

Honey Mustard
Fat Free Italian
Ranch
Blue Cheese
Thousand Island
Sweet Vinaigrette
Balsamic Vinaigrette
Ginger Soy Vinaigrette

SIDES

Fresh Vegetable Plate 10
choose four sides

Garlic Herb Mashed Potatoes
Sugar Snap Peas
Fresh Steamed Broccoli
Sweet Potato Fries
French Fries
Mac 'n' Cheese
Collard Greens
Baked Potato
Cole Slaw
Rice Pilaf
Cheese Grits
Asparagus*
**seasonal, +1.25*

STEAK TOPPINGS

Blue Cheese Butter 3
Boursin Cheese & Tobacco Onions 3
Burgundy Peppercorn Sauce 3
Black Truffle Butter 3
Scampi 6
Oscar 6

ADD-ONS

Soup, Caesar or House Salad 3
Spinach & Strawberry Salad 4
Handmade Crabcake 7
Half Skewer Grilled Shrimp 8
Half Pound Crab Legs market
Cold Water Lobster Tail market

DESSERTS

Homemade Ice Cream 2.5/4
Crème Brulée 5
New York-Style Cheesecake 6
German Chocolate Upside-Down Cake 6
Chocolate Mousse Cake 6
Bananas Foster 6.5
Strawberry Shortcake 7

A gratuity of 18% will be added to parties of nine or more.

Please make us aware of any food allergies or dietary requirements and we will make every effort to accommodate your request.

Consuming raw or undercooked meats, poultry, seafood, shellfish, or eggs may increase the risk of foodborne illnesses.

There is risk associated with consuming raw oysters. If you have chronic illness of the liver, stomach or blood or have immune disorders, you are at greater risk of serious illness from raw oysters, and should eat oysters fully cooked. If unsure of your risk, consult a physician.

Visit our website for locations, gift cards and more.
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SATISFACTION GUARANTEED

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APPETIZERS & SMALL PLATES

VOODOO SHRIMP fried popcorn shrimp in spicy remoulade sauce, green onion 9
SESAME PORK DUMPLINGS pork & vegetables lightly steamed, sesame soy sauce, green onion, crispy wontons 7
CHIPOTLE SMOKED SALMON hand-flaked salmon atop crispy potato cakes, capers, onions, cilantro cream 10
CRISPY SHRIMP crunchy rice flour wrapper, flash fried, mango coconut dipping sauce 9
JUMBO SHRIMP COCKTAIL five jumbo shrimp, zesty homemade cocktail sauce 10
BLUE POINT OYSTERS 1/2 dozen, on the half shell 11
PAN SEARED AHI TUNA seared rare, sesame seed encrusted, marinated vegetables, wasabi & orange ginger sauces 13
BATTER FRIED MUSHROOMS creole mustard sauce 8
MOZZARELLA STICKS fried golden brown, marinara sauce 7
CRISPY CALAMARI zesty homemade cocktail sauce 10
FRIED GREEN TOMATOES cheese grits, tasso and white gravies 8
JUMBO LUMP CRABCAKES two crabcakes, aioli sauce 14
LOBSTER DIP warm and creamy dip, crispy seafood crackers 10
ISLE OF SHELLFISH fresh oysters, jumbo shrimp, lobster tail, lump crab meat, king crab leg market

SOUPS & SALADS

SIGNATURE LOBSTER CRAB BISQUE 3.5/4.5
HOMEMADE SOUP OF THE DAY 3.5/4.5
HOUSE SALAD mixed greens, grape tomatoes, carrots, egg, bacon, almonds 5
CAESAR SALAD romaine lettuce, homemade caesar dressing, croutons, parmesan cheese 5
AHI TUNA SALAD wonton strips, water chestnuts, onion, red pepper, zucchini, squash, ginger soy vinaigrette 12
GRILLED CHICKEN SALAD zucchini, red peppers, onion, feta cheese, water chestnuts, tortilla strips 11
FRIED CHICKEN TENDER SALAD zucchini, red peppers, onion, feta cheese, water chestnuts, tortilla strips 11
BABY SPINACH & STRAWBERRY SALAD walnuts, blue cheese crumbles, tossed in sweet vinaigrette dressing 10

STEAKS & CHOPS

- INCLUDES SOUP OR SALAD (BABY SPINACH & STRAWBERRY SALAD +1)
- MESQUITE GRILLED, SERVED WITH BAKED POTATO OR CHOICE OF SIDE ITEM

CONNORS PRIME RIB 8 oz or 12 oz, slow roasted, 90% lean 18/21
SIRLOIN 10 oz, rich, flavorful, center-cut 19
RIBEYE 12 oz, well-marbled, heavily aged 22
NEW YORK STRIP 14 oz, the "king of beef" 26
CONNORS FILET 6 oz or 9 oz, center-cut tenderloin 22/26
BOURSIN FILET 6 oz or 9 oz, boursin cheese, crispy tobacco onions 25/29
USDA PRIME OR DRY AGED STEAK highest quality, top two percent of beef market
CENTER-CUT PORK CHOPS two 6 oz chops, mashed potatoes, collard greens 17
AUSTRALIAN LAMB CHOPS four 3 oz chops, rosemary mint demi glace, mashed potatoes 24

FRESH SEAFOOD

- FLOWN IN DAILY, USDC INSPECTED

SHRIMP & GRITS shrimp, andouille sausage, peppers, onion, over cheese grits 15
FISH & CHIPS cold water cod fried golden brown, coleslaw, dill caper sauce, fries 13
JUMBO LUMP CRABCAKES two crabcakes, aioli sauce, mashed potatoes, broccoli 18
CILANTRO LIME GRILLED SHRIMP mesquite grilled, eight jumbo shrimp, cocktail sauce, rice, broccoli 19
MAHI-MAHI mesquite grilled, herb butter, seasonal topping, rice, sugar snap peas 24
CRAB ENCRUSTED TILAPIA sautéed, shrimp & lobster sauce, rice, broccoli 26
RED SNAPPER mesquite grilled, lobster buerre blanc and pomegranate glaze, couscous, broccoli 23
ATLANTIC SALMON mesquite grilled, fennel peperonata topping, rice, broccoli 18
PARMESAN ENCRUSTED ALASKAN HALIBUT baked, lemon piccata sauce, rice, broccoli 26
ALASKAN KING CRAB LEGS over a pound of succulent steamed king crab, drawn butter, asparagus market
COLD WATER LOBSTER TAILS single or twin tails, drawn butter, asparagus market

PASTA & POULTRY

TOMATO BASIL PASTA fresh basil, garlic, marinara, angel hair pasta *(with grilled chicken or sautéed shrimp +4)* 11
SHRIMP FLORENTINE PASTA fresh spinach, pineapple & mango salsa, basil cream sauce, angel hair pasta 15
GRILLED CHICKEN PASTA sautéed mushrooms, green onion, tomato, basil cream sauce, bow tie pasta 15
CHICKEN PARMESAN marinara, provolone & parmesan cheeses, angel hair, sugar snap peas 15
COLORADO BBQ CHICKEN bacon, cheddar & jack cheeses, tomato, green onion, mashed potatoes, collard greens 15
CHICKEN PICCATA lemon wine sauce, mashed potatoes, collard greens 15
CHICKEN TENDERS hand-breaded, bbq & honey mustard sauces, fries 12

SANDWICHES & BURGERS

- WITH FRIES, SWEET POTATO FRIES, OR CHOICE OF SIDE ITEM
- BURGERS TOPPED WITH LETTUCE, TOMATO, ONION, PICKLES

PHILLY-STYLE CHEESESTEAK peppers, onions, mushrooms, provolone cheese, toasted hoagie 11
GRILLED CHICKEN CLUB ham, bacon, cheddar & jack cheeses, lettuce, tomato, pickle, mayonnaise, toasted wheat bun 11
CONNORS REUBEN lean corned beef, sauerkraut, Swiss cheese, thousand island dressing, toasted marble rye 10
CLASSIC BURGER add cheese, bacon, sautéed onion, or mushrooms, +0.75 each 9
SMOKY BURGER bacon, cheddar cheese, sautéed onion, bbq sauce 10
MUSHROOM BURGER sautéed mushrooms, boursin cheese, crispy tobacco onions 10