Commercial Technologies for Maintenance Activities

Readiness at Best Cost
CTMA Program Overview

Greg Kilchenstein
Director, Enterprise Mx Technology
Office of the Secretary of Defense, MPP

Debbie Lilu
CTMA Program Director
National Center for Manufacturing Sciences

A Joint NCMS/DoD Partnership
Maintenance Challenge

FY 2015 DoD Budget
$565.0B **

- Operations & Maintenance: $248.7
- Military Personnel: $140.0
- Procurement: $102.8
- RDT&E: $64.0
- Other: $9.5

Maintenance cost: ~$73.3 billion

DoD’s military equipment is valued at ~$601 billion

Maintained by: 618K DoD/ Private-sector personnel

Cost of Mx Doubled Since 2001

Maintain Readiness with Significantly Reduced Funding

- Unprecedented Budgetary Pressure
- High Sustained OPTEMPO
- Aging Weapon Systems/deteriorating Material Condition
- Obsolescence
- Increasing Sustainment Costs

Maintenance Technology Insertion is a Key Factor to Success

** Source: DoD Maintenance 2015 Fact Book
CTMA OVERVIEW

CTMA is the *only* DoD-wide program focused solely on maintenance improvements.

- Over 303 Multi-participant projects by FY 2016
- 17 Awards for innovation
- $75M Applied in OSD & Congressional funds
- $115M Service-directed funds applied
- $151M Industry cost share contributed
- $450M Cost savings to date
- $8B Total projected savings by 2023
- 92% Technology transition rate since 2005

DoD Partnerships by State

107 Defense Partners across 27 States

Last updated: 10-16 Mod 8
**NCMS/CTMA TRACK RECORD**

**Project Impact**

- **Mx Management Improvement**: 17%, 13%, 25%, 38%, 44%, 52%, 71%
- **Environmental**: 13%, 15%, 25%, 38%, 44%, 52%
- **Mx Avoidance & Reliability**: 0%, 20%, 40%, 60%
- **Cost Savings**: 0%, 20%, 40%, 60%

% of Projects Impacting Major Mx Criteria

**Cumulative Results**

- **Actual**: $8B
- **Projection**: $450M
- **$10M**

**Total CTMA Funding Profile**

$186,806,599

**Deployment Rates**

- **Completed 2005+**: 92%
- **1998 to 2005**: 33%

% of Dollars Applied to CTMA Projects Resulting in Transition
%

% of CTMA Projects Transitioned in Maintenance Operations
The CTMA Product:

- Cooperative Agreement
- Streamline business process – 45 days cradle to execution
- Leverages industry innovation
- Facilitates cross industry / cross service collaboration
- Requires industry investment
- Evaluate / Demonstrate / Validate
- Communicate / Champion / Outreach – DoD Wide Transition

CTMA initiatives are moving forward to transition while traditional development efforts are still initiating contracts.
• Existing cooperative agreement with broad applicability
  (FAR compliance not required)
• Military Interdepartmental Procurement Request (MIPR)
  (Ease of funding transfer from services to the CTMA contract vehicle)
• MIPR normally accepted within 1 – 2 days
  (At this point funds have been committed)
• Streamline CA 30 – 45 days
  (Time that MIPR is issued to contract mod, funds have been obligated)
• Well staffed technology transition professionals
• Funding available for business development
• Streamline process execution
• Business to business contracting
• Working in parallel for project formation and project execution
• Expedient and seamless
• Leverage government funding
• Streamlined technology transition

Try it before you buy it
• Turn key operation
• Streamlined well documented process
• Government sponsor can focus on steering, requirements development, evaluation of capability (SME)
• NCMS focuses on blocking / tackling, meeting coordination, accounting, contracting and reporting
• NCMS is responsible for coordinating and delivering the reports, business case analysis project data
• NCMS is a technology transition leader
  • Focus on transition
CTMA AWARENESS AND OUTREACH

- Cross-pollination
- CTMA Connector - Highlight activities and technologies
- Joint Technology Exchange Group
- Technology Calls
- Industry Days / Technology Showcases
- Partners Meeting
- Partnerships: AMMO, JIT, ECRC, America Makes Mx and Sustainment Advisory Group, Composite Maintainers
- DoD Mx Symposium
“CTMA is changing the very nature of DoD maintenance” ~ Bill Black, Col USMC retired
CTMA: Legacy of Success; Relevance Going Forward

• Collaborative streamlined business process

• Mx Technology is a key element in DoD’s strategy to reduce life cycle O&S costs

• Mx costs will continue in order to maintain legacy assets

• Collaboration creates unity of efforts and enables leveraging resources

• Masterful technology transition provides solutions to problems

• CTMA is a force multiplier for available resources (gov’t, industry, academia)

• Initiatives consistently produce substantial benefits

• Delivers value across multiple DoD focus areas
CTMA Collaborative Project Process

**Formation**
- Define Need
- Define Concept
- ID Potential Technologies
- Qualify Potential Technology Providers

**Approval**
- Prepare Documentation
- Submit for Approval
- Notify Project Participants
- Initiate Sub-Awardee Agreements

**Execution**
- Kickoff Meeting
- Finalize Tasks, Deliverables
- Track Progress, Resolve Issues
- Monthly, Quarterly Reporting

**Closeout**
- Assure Deliverables Met
- Quantify Benefits, Transition Plan
- Prepare, Issue Final Report
- Closeout Sub-Awardee Contracts

**Transition**
- Release Report
- Showcase Technology
- Develop Requirements Document
- Promote Benefits across DoD
Purpose – bring industry and specific DoD Mx facilities together

Industry is onsite to develop deeper understanding of DoD Mx operations

DoD artisans are exposed to technology capabilities that can benefit their operations

OSD, Depot Mx, Industry and CTMA/NCMS alignment

Fulfill Depot Technology Needs / Gaps