Condition-Based Maintenance Plus (CBM+)
Standards

Promoting Innovation Across Sustainment Enterprise

Mr. Gregory J. Kilchenstein
Director, Enterprise Maintenance Technology
ODASD – Materiel Readiness
14 October 2020
Innovation Across Sustainment Enterprise

• The 2018 National Defense Strategy calls for:
  • Lethality - Build a more lethal force
    • Have the best, most modern equipment, highly trained, ready, and well-organized force
    • Invest in game-changing technologies (hypersonic, AI, cyber, etc.)
  • Reform - Change the way we do business
    • Reform our processes and procedures to become ever more effective and efficient
    • Ensure that our time, manpower, and resources are directed toward NDS priorities

• To meet the National Defense Strategy
  • Readiness and Sustainability are key factors, and we must:
    • Drive weapon system readiness improvements through innovation
    • Recognize and resolve competing priorities for new weapon systems and sustaining materiel readiness

Sustainment is Key to Materiel Readiness
CBM+ is Transforming Sustainment

• Condition Based Maintenance Plus (CBM+) is a collaborative DoD readiness initiative focused on the development and implementation of data analysis and sustainment technology capabilities to improve weapon system availability and achieve optimum costs across the enterprise.

• Objectives
  • RCM-based maintenance executed on evidence of need
  • Create insight about materiel condition at all levels of Mx
  • Integrate and use all data as the basis for sustainment decisions

• Goals
  • Proactive data/metrics-based execution of maintenance
  • Eliminate unscheduled maintenance
  • Integrate sustainment functions to optimize effectiveness and efficiency

• Outcomes
  • Affordable combat power – Ready & available weapon systems
  • Reliability at reduced cost – Mission assurance
  • High-performing, integrated sustainment enterprise

Transforming how we sustain at scale requires standards...
CBM+ Standards...

- **Standards facilitate CBM+ transformation at scale:**
  - The flow of data in the Sustainment ecosystem is non-linear and involves many functions
  - Proprietary data structures are incompatible with collaborative environments
  - Deploying technologies like AI/ML requires standards for: data, safety, accuracy, usability, interoperability, security, and reliability

**CBM+ Standards are needed to advance:**

- Data Ownership Models
- Data Connectivity, Quality, & Interoperability
- Off-asset data acquisition, integration & exchange
- On-asset data acquisition and exchange
- Open system technology solutions
- CBM+ best practices

**CBM+ Standards development and adoption is a journey**
CBM+ Standards Strategy...

• Establish CBM+ Standards Working IPT in FY21
  • DoD Service Participants
  • Industry Participants
  • Cross domain technical SMEs

• Purpose
  • Identify and address critical gaps in CBM+ Standards
  • Accelerate innovation and CBM+ execution across Sustainment Enterprise
  • Stimulate development of open system technology solutions

• Approach
  • Adopt existing/emerging industry standards developed by SDOs
  • Develop MIL-PRF type specifications to address critical gaps in the near term
  • Work with SDOs and Government Standardization organizations to drive CBM+ standards development focus

Federal involvement in CBM+ standards development is key...
Changing for the better...

• CBM+ is a collaborative digital transformation initiative to improve readiness and availability

• Accelerating innovation across Sustainment Enterprise at scale requires adoption and development of industry standards

• Participation from the military services, industry, and academia subject-matter experts in developing CBM+ standards is essential

• CBM+ standards initiative is aligned with DSP’s mission-to promote standardization and foster innovation using open system technologies and industry best practices.

DSP’s promotion and support of CBM+ standards development initiative is key...