Condition-Based Maintenance Plus (CBM+) Standards

Promoting Innovation Across Sustainment Enterprise

Mr. Gregory J. Kilchenstein

Director, Enterprise Maintenance Technology

ODASD – Materiel Readiness

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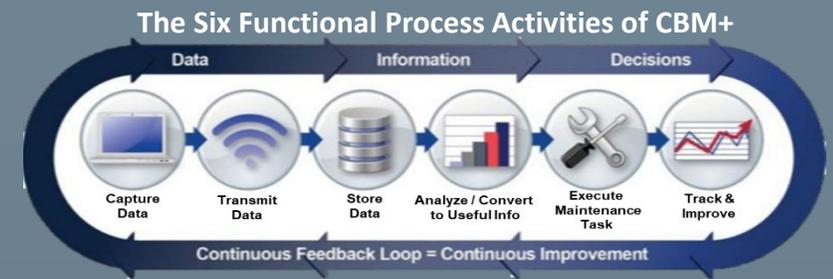
- **Objectives**
  - RCM-based maintenance executed on evidence of need
  - Create insight about materiel condition at all levels of Mx
  - Integrate and use all data as the basis for sustainment decisions

- **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

The Six Functional Process Activities of CBM+

CBM+ turns rich data into information about component, weapon system, and fleet conditions to more accurately forecast maintenance requirements and future weapon system readiness to drive process cost efficiencies and enterprise activity outcomes

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
- On-asset data acquisition and exchange

- Off-asset data acquisition, integration & exchange
- Open system technology solutions
- CBM+ best practices

CBM+ Standards development and adoption is a journey

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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…