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# Sustainment Metrics Reporting in DAMIR



# Overview

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- Background
- Current Status
- Issues
- Future Plans
- Summary



## Background

- July 08 USD(AT&L) memo strengthened basis for Life Cycle Management priorities
  - Directed L&MR & ARA to issue guidance on sustainment metrics reporting in DAMIR
  - In the interim all MDAPs were to establish metrics goals
  - Linked metrics reporting with other sustainment initiatives
- December 08 DUSD(L&MR) & ARA memo issued guidance on metrics reporting
  - Requires reporting on the three Joint Staff sustainment metrics
    - Mean Down Time was left as optional
  - Reporting directed to begin within 90 days (March 09)
  - Linked to DAES ABC list for ease of use
  - Submissions due at the end of each month



## Current Status

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- Two full metrics submission cycles complete
- Army and Navy are submitting automatically into DAMIR – Air Force to follow
- Metrics submissions have ranged across the board in quality and adequacy
- A learning curve is to be expected but there have been a number of trends that need to be addressed before they become habits



# Administrative Issues

- Submission
  - Several programs have never submitted metrics
- Formatting
  - Text fields vs. Numerical Fields
    - Goal fields are for numerical entries only
    - Leave text descriptions of values to the text block on far right
    - Possible resolution: Inclusion of Notes field in submission page
  - PDF or Excel Sheet
    - PowerPoint and Word submissions are not acceptable for those still submitting manually
- Dates
  - Original Baseline Goal was first time metrics submitted or date of document if similar goal is pre-existing
  - Current Baseline Goal should be the last time this was changed



# Substantive Issues

- Definitions
  - Using Operational Availability or Mission Capable Rate vs. Materiel Availability
  - Materiel Reliability should be in hours, not a percentage
  - Ownership Cost definition flexible to allow existing certified O&S cost data
- Exemptions
  - No MDAP is exempt from reporting
    - No grandfathering
  - Programs should not skip reporting specific metrics, i.e. not report Materiel Reliability
- Sub-Programs
  - Use when practical
    - FCS, Stryker, Satellite Programs, multiple end item programs
    - Decision on split left to Services with OSD recommendations
- Current Estimate vs Actual Data
  - Programs were required to set goal and report current estimate for all metrics



## DAMIR Status Update

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- Automatic link is currently established and working for both AIM and Dashboard
  - SMART will require additional time based on subprogram submissions
- Sustainment field is active in each program in the Purview function
- Layout almost identical to spreadsheet reporting structure with same data points



## What's Next?

- **DAMIR – Service System Link**
  - Finalize SMART link and work on proposed upgrades
    - Notes field
    - View reorganization
- **Another Service – OSD meeting to review submissions**
  - Are lessons learned being incorporated?
  - L&MR assessing in DAES every program that submits metrics
  - Not just L&MR interested in the metrics
- **L&MR Observations**
  - Will review all submissions for all programs with L&MR input
- **Mean Down Time**
  - Programs have shown reporting is possible
  - Information is useful in understanding the complete sustainment picture
- **Legacy Programs**
  - Examine reporting metrics on programs post-SAR reporting
  - Support in OSD for moving to legacy reporting



**QUESTIONS?**



# Backup Slides



## Metrics Background

- Metrics established by Joint Staff 3170.01C in May 2007
  - Materiel Availability (KPP)
  - Materiel Reliability (KSA)
  - Ownership Cost (KSA)
- March 07 memo by DUSD(A&T) required reporting of Life Cycle Sustainment as a fifth rating category in the monthly DAES submissions
  - Rating is based on program's performance on the four sustainment metrics
  - Included Mean Down Time as the fourth metric
- March 07 memo by DUSD(L&MR) codified the metrics and required a reporting system to be established in DAMIR along with assessments in DAES



## Metrics Background

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- August 07 memo by DUSD(A&T) required Life Cycle Sustainment to be added as a fifth rating category in the traditional quarterly DAES system with PM and OSD assessments
  - Previously only Cost, Schedule, Performance & Funding were rated
- July 08 USD(AT&L) memo further strengthened basis for Life Cycle Management priorities
  - Directed L&MR & ARA to issue guidance on sustainment metrics reporting in DAMIR
  - In the interim all MDAPs were to establish metrics goals
  - Linked metrics reporting with other sustainment initiatives



## Why the Metrics?

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- Warfighter demanded improved sustainment capabilities
  - Joint Staff implemented warfighter request through the Sustainment KPP
  - Joint Staff revalidated requirement in the recent CJCSI 3170.01G
- Life Cycle Management as a policy or on implementation of a program cannot be achieved without metrics
  - Both OSD and the Services need sustainment metrics to manage across the Life Cycle
  - Traditional acquisition metrics do not address sustainment issues
- The four sustainment metrics bring a common set of parameters to manage across Services and platforms
  - Previous performance metrics were not common and did not lend themselves to a portfolio style of management



# Metrics Definitions

## Material Availability

Input Directions: Materiel Availability is a number between 0 and 100 that provides the average percentage of time that the entire population of systems is materially capable for operational\* use during a specified period.

$$\bullet \text{Materiel Availability} = \frac{\text{Number of End Items Operational}^*}{\text{Total Population of End Items}^{**}}$$

• Materiel Availability measures the percentage of the entire population that is operational.

\* Operational means in a materiel condition such that the end item is capable of performing an identified mission.

\*\* This does not include systems in long term or terminal storage.

## Materiel Reliability

Input Directions: Materiel Reliability = Mean Time Between Failure (MTBF)

$$\text{Materiel Reliability} = \frac{\text{Total Operating Hours}}{\text{Total Number of Failures}}$$

## Ownership Cost

Input Directions: Ownership Cost = Operations & Support (O&S) costs\* associated with Materiel Readiness

\* Using the CAIG O&S Cost Estimating Structure Selected cost elements:

- 2.0 Unit Operations (2.1.1 (only) Energy (Fuel, POL, Electricity))
- 3.0 Maintenance (All)
- 4.0 Sustaining Support (All except 4.1, System Specific Training)
- 5.0 Continuing System Improvements (All)

Programs can use either the 1992 or 2007 CAIG cost estimate definition.

## Mean Down Time

$$\text{Input Directions: Mean Down Time} = \frac{\text{Total Down Time for All Failures}}{\text{Total Number of Failures}}$$