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The Honorable Gregory Kausner  
USD(A&S)  
1010 Defense Pentagon  
Washington, DC 20301-1010

Subject: Additional Revisions to DoD EVMSIG

This augments the letter dated Sept. 27, subj: Support for Two USD(A&S) Goals. It includes four additional recommendations to revise the EVMSIG. Revised guidance will correct omissions and ambiguities that block situational awareness of program status and assessment of the cost, schedule, and technical performance of programs for proactive course correction.

Additional guidance for rework and new guidance for the use of the percent complete earned value technique (EVT) is provided. If contractors implement practices that comply with the guidance, there will be less overstatement of earned value (BCWP), CPI, and SPI. Currently, there is no assurance that reported BCWP is accurate if:

1. Rework is not included in the budget baseline and
2. The BCWP percent complete is not based on the correct numerator and denominator

If the revisions are not incorporated, predictive measures that are derived from false BCWP and similar DCMA EVMS Compliance Metrics will continue to be invalid and inaccurate. Also, the rework revision will deter misuse of MR and improper consumption of MR during early phases of EMD.

## **Rework**

The previous sources for the new, rework recommendation are in Attachment A of the referenced letter.

Also, improper MR harvesting was discussed in the DCMA EVMS Compliance Report | Lockheed Martin Aeronautics Co. (LM) Post Acceptance Review for Cause dated November 19, 2007. Excerpts follow.

The misuse of MR budget results in significant distortions in cost performance data and to-complete efficiency metrics. For the F-35 Program, at a minimum, cost overruns are under-reported by at least \$124M. The LM-Aero cost metrics have also been skewed by tens of millions of dollars by the application of MR to open work packages with no concurrent change in scope. MR harvesting has resulted in leaner out-year budgets that have a high

probability of overrunning. The improper application MR budgets have consumed MR unnecessarily and have weakened LMAero's ability to properly fund unanticipated future program requirements.

The EVMS guidance and compliance review environment that led to the LM's MR harvesting have not changed since 2007. Additional information about MR harvesting, including my allegations of fraud related to undeserved award fees based on distorted metrics, is available at [www.pb-ev.com](http://www.pb-ev.com) at the F-35 Whistleblower Case tab.

### BCWP percent complete

The arguments for the BCWP percent complete recommendation were presented in a tutorial at the Naval Postgraduate School on March 11, 2020, in the following slide.

### Fallacy of % Complete EV Technique

1.  **Ignores technical performance** 
  - % of drawings, lines of code, test points is “objective” but, as practiced, may indicate original plan, not current estimate
2.  **Misleading if denominator increases** 
  - “Hold” % at 95% until done; Common practice (trick?)
  - Numerator may include rework
  - **DAG 4.3.3.4.2 (Critical Design Review) propagates the fallacy** 
    - Rule of thumb: 75% -90% of...product drawings, software design specifications and associated instructions...complete
3.  **EV and the cost performance may be overstated when...based on % of drawings or code completed without regard to the technical maturity of the evolving design. As a result, the EAC may be understated.”**

Source: Basing Earned Value on Technical Performance, CrossTalk— January/February 2013

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The new, proposed revisions follow:

Additional Proposed Revisions to EVMSIG					
GL	GL Title	Section	Is	Should be	Source
<b>Rework</b>					
14	Identify MR and UB	Intent of Guideline	MR is not a source of funding for additional work scope or the elimination of performance variances.	MR is not a source of funding for additional work scope, <b>rework</b> , or the elimination of performance variances.	GAO-20-195G,  GAO-20-590G
<b>BCWP Percent Complete</b>					
10	Determine Discrete Work and Objective Measures	Intent of Guideline	... These measurable outputs are where	<b>Add:</b> When the Earned Value Technique (EVT) is Percent Complete or	Naval Post-grad.

Additional Proposed Revisions to EVMSIG					
GL	GL Title	Section	Is	Should be	Source
			program status can be measured objectively.	50/50, BCWP is based on the ratio of the quantity of measurable outputs in the budget baseline to the quantity in the updated EAC.	School
23	Analyze Significant Variances	Intent of Guideline	o Cost variance analysis should be at the control account and summary level by element of cost. This should address the cost drivers, which may include both direct and indirect components, for management visibility	<b>Add:</b> When the EVT is Percent Complete, compare the quantity of measurable outputs in the budget baseline with the quantity in the updated EAC.	Naval Post-grad. School
27	Maintain Estimates at Completion	Intent of Guideline	This is done by considering many of the same factors included in the monthly evaluation of the control account as well as:	<b>Add:</b> When the EVT is Percent Complete, assessment of the quantity of measurable outputs in the updated EAC.	Naval Post-grad. School

Seventeen recommendations have now been provided. I recommend that you poll the SMEs at the DCMA EVMS Center to validate my assertions and obtain their opinions.

These recommendations will also support the objectives of acquisition reform legislation that I have submitted to you and to Congress.

This letter and the previous letter may be downloaded at the Acquisition Reform tab of my website.



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CC:  
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DAU Pres. James Woolsey  
HASC Chairman Adam Smith  
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