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The Honorable David L. Norquist
President & CEO
National Defense Industrial Association
2101 Wilson Blvd, Suite 700
Arlington, VA 22201

Subj: DoD's Need for Output-based Performance Metrics

Dear Mr. Norquist:

The NDAA for FY 2022 requires an assessment of the DoD's mechanisms and systems for monitoring DoD's program execution, including the use of performance metrics. The Final Report of the Commission on PPBE Reform (*PPBE Report*) was issued in March 2024. It reconfirmed prior reports with an unfavorable assessment of earned value management (EVM): "EVM systems have long been criticized as easily manipulated and *inadequate to the task.*"

We can't let this chronic disease go untreated.

The NDIA Integrated Program Management Division (IPMD) is the author and steward of the *EIA-748 EVMS Standard* (EIA-748). Please consider leading IPMD and the NDIA Systems Engineering (SE) Division to verify and respond to those assessments.

IPMD is inadequate to the task of fixing EIA-748 because of its track record of failures to perform. Despite two unfavorable reports that were submitted to the SASC and HASC in 2009 (report by DoD that was required by WSARA) and in 2018 (Section 809 Panel Report), IPMD has not revised the guidelines. The 2009 DoD report to Congress stated "The program manager should ensure that the EVM process measures the **quality** and technical maturity of technical work products instead of just the **quantity** of work performed."

The task of EVM, per EIA-748 Rev. D, is to "effectively integrate the **work scope** of a program with the schedule and cost elements for optimum program planning and control. The primary purpose of the system is to support IPM." There's the rub. EIA-748 guidelines and EVM metrics focus solely on the work, not on the product. Also, the use of technical performance measures (TPM) as base measures of EV is optional, not required (Quality Gap).

IPMD is culpable for the unsatisfactory assessments because it always reaffirms guidelines that enable contractors to avoid reporting behind schedule conditions in achieving the product requirements or planned technical maturity. The evidence and several remedies are in my three white papers.

For background, please read my past emails to you and the cited letters to USD Kathleen Hicks.

- Subj: NDIS Implementation Plan and Final Report of the Commission on PPBE Reform (*PPBE Report*), dated 3/7/24
- Subj: NDIS Implementation Plan and NDAA Sec. 827, Modification to Earned Value Management System (EVMS) Requirements, dated 1/22/24

In 2012 and 2017, IPMD commenced the process to either reaffirm or revise the standard. I submitted comments with recommendations to require EV to be based on TPMs and to introduce the term, "product scope," into the guideline on "authorized work," as follows: Define the authorized work *necessary to produce the product scope of the program. The product scope includes the features and functions that characterize a product, service, or result.*

My comments on the Quality Gap, in 2017, mirrored those of 2012. Some of the 2017 comments, intended for Revision E, follow:

- Revise Guideline 6 to add "including the *product scope*, as needed, to meet technical objectives.
- Replace the misleading statement, "An EVMS for IPM will effectively integrate the work scope of a program with the schedule and cost elements for optimum program planning and control," with the following statement from OMB Circular No. A-11, Capital Programming Guide: "EVMS measures progress towards milestones on an independently verifiable basis, in terms of cost, *capability* of the investment to meet *specified requirements*, timeliness, and *quality*."

In 2012, IPMD chose to not consider my comments without considering their merits. It informed me that "your inability to provide a cost/benefit analysis with facts and data to support your assertions and opinions does not allow the Working Group to proceed with consideration of your comments." The IPMD's response also cited an "article discussing many of the points raised by Mr. Solomon...titled-*Integrating Technical Performance Measurement with EVM*." That article, published in 2010, is attached so that you may understand IPMD's mind set. The authors stated, "To those who state we need documents to link technical performance with EVM — we already have them. To those who want Congress to dictate how we perform EVM — thanks but no thanks. We can handle EVM without enabling legislation."

It is now 2024. NDIA still has not issued a useful standard. The NDAA provision regarding DFARS and EVMS is law.

Incidentally, the release of EIA-748 Rev. E is behind schedule. I suspect that the issuing committee, G-47 Systems Engineering, has also found Quality Gap deficiencies.

Please request that IPMD inform you of the status of EIA-748 E and determine if it includes my revisions to close the Quality Gap. If not, why not? Also, EIA-748 is silent on risk management. I submitted a comment to add a guideline, "Risk Management: "Include risk mitigation plans in the schedule and budget baselines and include the likely outcomes of identified risks and opportunities in the EAC." Please determine the disposition of that comment too.

The NDIA SE Div. mission statement includes "Advocates for the widespread use of SE in the Defense Department *acquisition* process to achieve affordable, supportable, and interoperable weapon systems." Because both divisions have missions regarding the acquisition process, please review your mission statement which includes:

- NDIA will ...advance and advocate for best practices, initiatives, and products in defense.
- As NDIA looks to the next 100 years, it will continue to make sure all perspectives and ideas – including those that have not traditionally participated in the defense of our nation – are represented so that we may remain a forward-thinking and innovative organization that evolves with changing times.

Then take the following actions:

1. Lead an effort to review the overlapping mission statements and actions, if any, of both divisions and resolve any differences regarding the Quality Gap and risk mitigation. Determine if either or both divisions are "*adequate to the task*".
2. Meld the input from both divisions to support DoD's NDIS and PBBE objectives.
3. Meld the input from both divisions to advise DoD on how to implement the NDAA provision to remove the DFARS EVMS requirement for software contracts or to remove it for all contracts.
4. Consider recommendations to integrate SE with IPM in three white papers which were cited in the Hicks letters.

My recommendation is to remove the DFARS EVMS requirement for all contracts. If EVM is as beneficial as claimed, we don't need ("no stinking EVM") to regulate it and we can eliminate compliance review costs. DoD should buy a product that works, not a SOW.

We need outcome-based performance measures, with or without EVM. Per *PPBE Report*, “the Department relies instead on metrics that enable it to assess various aspects of its operations, sometimes on the basis of outcomes, but more frequently on the basis of inputs and outputs. These metrics are specific to functional pillars or organizations.” Output-based metrics are discussed in my attached letter to USD LaPlante, subj: *Software Acquisition Policy and Congressional Oversight Issues*. “

Yours truly,

A handwritten signature in cursive script that reads "Paul J. Solomon". The signature is written in black ink on a light-colored background.

Paul Solomon

CC:

Hon. Donald Norcross, HASC

Hon. Adam Smith, HASC

Hon. Robert Wittman, SASC

Hon. William LaPlante, USD(A&S)

Hon. Heidi Shyu, (USD(R&E))

Hon. Andrew Hunter, AF Asst. Sec. for AT&L

Anthony Capaccio, Bloomberg News