

## On the Subject of EVM Requirements in the U.S. Government<sup>1</sup>

Dear PMWJ Editor<sup>2</sup>,

Below is an OPEN LETTER to the Honorable Mike Rogers (R-Alabama) Chairman, House Armed Services Committee, U.S. House of Representatives 2184 Rayburn HOB Washington, DC 20515 and Maj. Gen. Gregory Masiello, Defense Contract Management Agency, DCMA - DCC Office of Strategic Communication, 3901 Adams Avenue Building 10500, Fort Gregg-Adams, VA 23801 in support of those who have written REQUESTING, RECOMMENDING, or DEMANDING the US Government ABANDON or MODIFY requiring the continued use of SAE EIA 748D-2019 “Earned Value Management” (FORMERLY ANSI/EIA 748) and REPLACING it with “earned value management” as it originated with the French and British Guilds in the 16th Century as a “cash on delivery” payment system, evolved and refined during the 18th Century Industrial Revolution by Frederick Taylor, Henri Fayol, Henry Gantt, Frank and Lillian Gilbreth et al as a method to incentivize workers to produce more work and be rewarded for doing so, and documented and published by [Halbert Powers Gillette](#) and [Richard Turner Dana](#) in their 1909 book “*Cost Keeping and Management Engineering: A Treatise for Engineers, Contractors and Superintendents Engaged in the Management of Engineering Construction*”<sup>i</sup> on the grounds that the method advocated by these late 18th century-early 19<sup>th</sup> Century researchers and authors has been tested and PROVEN to work as evidenced by their tools, techniques and methods are still in use by the private sector both by asset and operations managers (BUYERS) and project managers and project team members. (SELLERS)

Please feel free to make your SUPPORTED opinions<sup>3</sup> known to our elected and appointed US Government officials before the USA goes bankrupt or our US dollar is no longer the world’s reserve currency.

This announcement was just received from [Crowell.com](#) on Friday, 28 June: "[The Department of Defense \(DoD\) recently announced that it seeks public comments on a proposed change to the contractor business systems regime.](#)" (Specifically Earned Value Management)

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<sup>2</sup> Editor’s note: This work was presented as a Letter to the Editor in an email from the author. Because of its length and substantive content, it is being published as a Commentary article to garner more attention and for reference.

<sup>3</sup> To qualify to render “Professional” or “Expert Opinions,” contributors should meet the 5 Attributes of the Scientific Method:

<https://sciencing.com/five-characteristics-scientific-method-10010518.html>

- 1) Empirical,
- 2) Replicable,
- 3) Provisional,
- 4) Objective and
- 5) Systematic.

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Dear Hon. Mike Rogers, Esq. and Maj. General Masiello.

I am an internationally known<sup>ii</sup> and highly respected (albeit not universally well-liked) project management practitioner, author, consultant, teacher, and mentor with over 50 years of “hands-on” experience as both an owner and a contractor, primarily serving the oil and gas, mining, telecommunications and general construction sectors.

“We The People” have realized for many years now that using SAE EIA 748D-2019 (and the predecessor, ANSI/EIA 748) shows that “progress is too slow, too expensive, and fails to meet performance goals or provide timely, reliable information”<sup>iii</sup> (not to mention how bureaucratic and cumbersome to comply) so how much longer can or should “We the People” be willing to tolerate our governments “doing the same things over and over again but expecting different results” (Einstein’s definition of insanity) or Henry Fords supposed admonition that “If we do the same things we’ve always done, we will continue to get the same results”?

Having become aware of a growing movement to “recommend” or “demand” that the US Government ABANDON or otherwise MODIFY the requirements for contractors to use SAE EIA 748D-2019, commonly referred to as “Earned Value Management”, I wanted to not only support those calling for the DAU and other Federal Government Agencies STOP REQUIRING the use of SAE EIA 748D-2019 but ABANDON it and REPLACE<sup>iv, v, vi, vii, viii, ix, x, xi, xii, xiii, xiv, xv, xvi, xvii, xviii, xix, xx, xxi, xxii, xxiii, xxiv, xxv, xxvi, xxvii, xxviii</sup> it with a tested and PROVEN system that originated with the French and British Guilds in the 16th Century, evolved and refined during the 18th Century Industrial Revolution by Frederick Taylor<sup>xxix, xxx</sup> Henri Fayol<sup>xxxii</sup>, Henry Gantt<sup>xxxiii</sup>, Frank and Lillian Gilbreth<sup>xxxiiii</sup> et al and documented by [Halbert Powers Gillette](#), and [Richard Turner Dana](#) in their 1909 book [“Cost Keeping and Management Engineering: A Treatise for Engineers, Contractors and Superintendents Engaged in the Management of Engineering Construction”](#)<sup>xxxiv</sup>, producing a simple yet very powerful EVM SYSTEM based on “common sense” that has proven to work so effectively at protecting the interests of both the SELLER and the BUYER, it is still in pervasive use today by the private sector. With the growing dissatisfaction with the US Government’s **FIDUCIARY STEWARDSHIP**<sup>xxxv</sup> and management of the TAXPAYER's money, I am proposing you consider ABANDONING SAE EIA 748D-2019 and REPLACING it with an EVM System that protects the interests of both the SELLER and the BUYER while working to ensure that the US TAXPAYER is getting honest “value for their money” - Quality products/assets delivered on time and within budget.

To clarify confusion between the roles, objectives, and motivations, for OWNERS, projects are COST or INVESTMENT centers undertaken to solve real or perceived problems or exploit real or perceived opportunities. For CONTRACTORS, PROJECTS are PROFIT CENTERS. They are in business to make money from the project. OWNERS undertake PROJECTS to “create, acquire, expand, update, repair, maintain and eventually dispose of ORGANIZATIONAL ASSETS. CONTRACTORS create ASSETS for OWNERS by “initiating, planning, controlling, executing and closing PROJECTS. Even the GAO, although these differences explained to them, has yet to

identify or differentiate the difference between OWNER'S goals and objectives and those of CONTRACTOR'S.  
 The US Government are NOT CONTRACTORS in the project management business. The US Government plays the role (or should be playing) the role of ASSET MANAGERS.

### What is an ASSET...

Investopedia defines an "Asset" to be: <https://tinyurl.com/yxo8438a>

- ✓ a resource with economic value that an individual, corporation, or country owns or controls with the expectation that it will provide a future benefit.
- ✓ are reported on a company's balance sheet and are bought or created to increase a firm's value or benefit the firm's operations.
- ✓ can be thought of as something that, in the future, can generate cash flow, reduce expenses or improve sales, regardless of whether it's manufacturing equipment or a patent.

Thus all Projects produce ASSETS and ASSETS (if they do what they were intended to do) produce BENEFITS, understanding some do, some do NOT.

To learn more, review PAS 55 parts 1 <https://tinyurl.com/yagxp4av> and 2 <https://tinyurl.com/y7wpa4ku>

And the Business Dictionary defines "Asset Management" to be:  
 "Prudent administration of investable (liquid) assets, aimed at achieving an optimum risk-reward ratio."

**Giammalvo, Paul D 2019** <https://is.gd/a3k7Vt>

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**Figure 1- Definition of "Assets" as shown on Organizational Balance Sheets<sup>xxxvi</sup>, <sup>xxxvii</sup>**

Keeping in mind that the primary objective of CONTRACTORS is to earn a profit from the project, compare the simplicity of Earned Value Management as the private sector uses it as opposed to how the government uses SAE EIA 748D-2019, we developed a simple illustration that shows how simple yet effective it is when we go to the greengrocer or butcher each week. In this model, no one is cheated. The SELLER (= Contractor) is obligated to provide documented proof that the quality of the PRODUCTS (=ASSETS) being offered or developed for sale to the BUYER (in this case, the US Government) has met these 3 requirements:

- ✓ Work has been physically completed,
- ✓ Deliverables are in "substantial conformance" or compliance with the technical requirements,
- ✓ The SELLER has complied with all other contractual requirements

(This is why your greengrocer provides a peeled orange for you to taste before you buy)

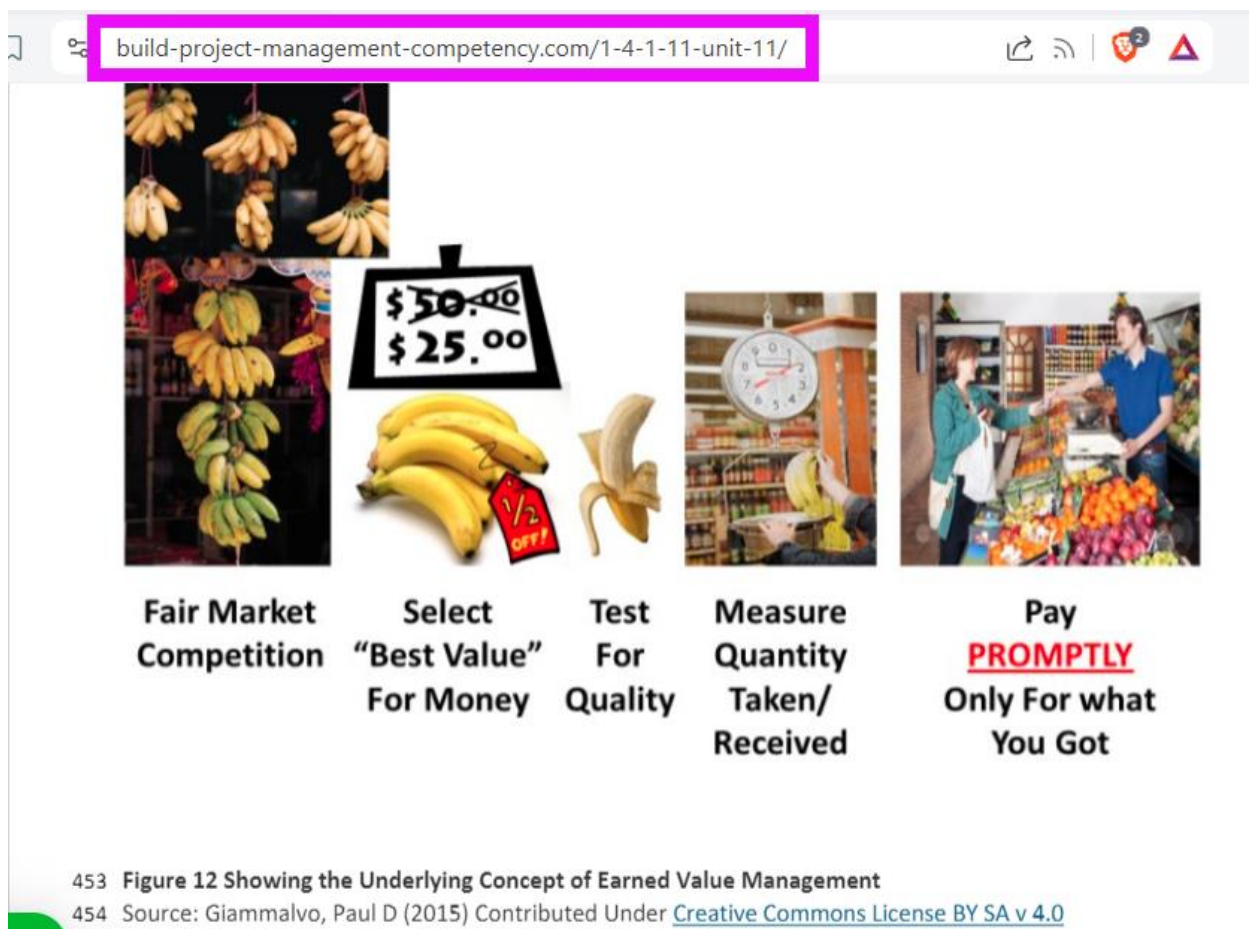
and that in their offer to sell, proposal, or tender, the SELLER must comply with these three legal requirements under the [Federal Trade Commission Act](#):

- ✓ Advertising must be truthful and non-deceptive;
- ✓ Advertisers must have evidence to back up their claims; and

✓ Advertisements cannot be unfair.

This is the EVM System we have used for our successful businesses for 50+ years, and we have documented success with many clients.<sup>xxxviii</sup>

Given the dire straits the USA is facing financially<sup>xxxix</sup> and politically<sup>xl</sup>, with the US TAXPAYERS demanding (and deserving) more ACCOUNTABILITY from our elected and appointed Government leadership on how they spend or “invest” our tax dollars, the system developed by Gillette and Dana et al, is still EXTENSIVELY in use today by the private sector, so why not at least consider some pilot projects to test and evaluate this TESTED and PROVEN alternative? (On both tangible and intangible asset delivery projects.)



**Figure 2- Earned Value Management from Gillette & Dana et al.**

Another important aspect of the EVM System we are advocating as used in the private sector is it was designed to REWARD and COMPENSATE those who are INNOVATIVE and WORK EFFICIENTLY to produce QUALITY PRODUCTS consistently (= ASSETS), saving TIME and/or MONEY. While many of the FARS address these options, why are they not FULLY INTEGRATED as part of the EVM System as done with the Gillette and Dana System? And I would be happy to

offer my services to mentor and facilitate anyone interested in proposing a “Pilot” or “Demonstration” project.

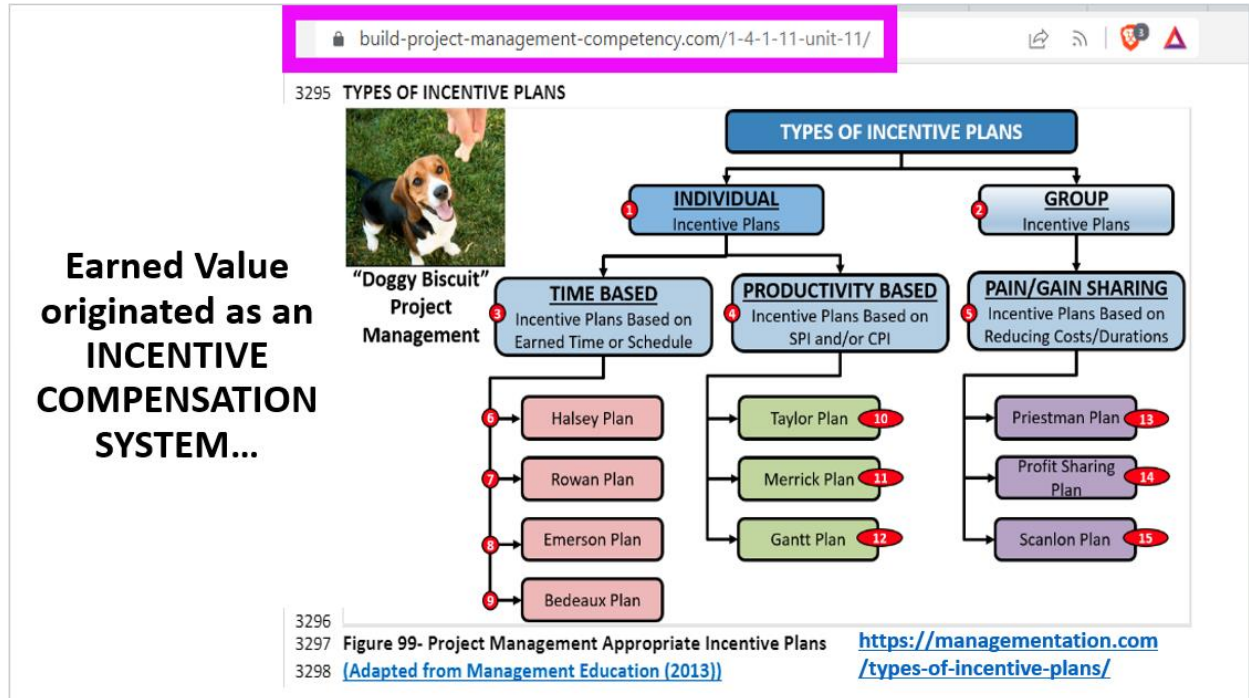
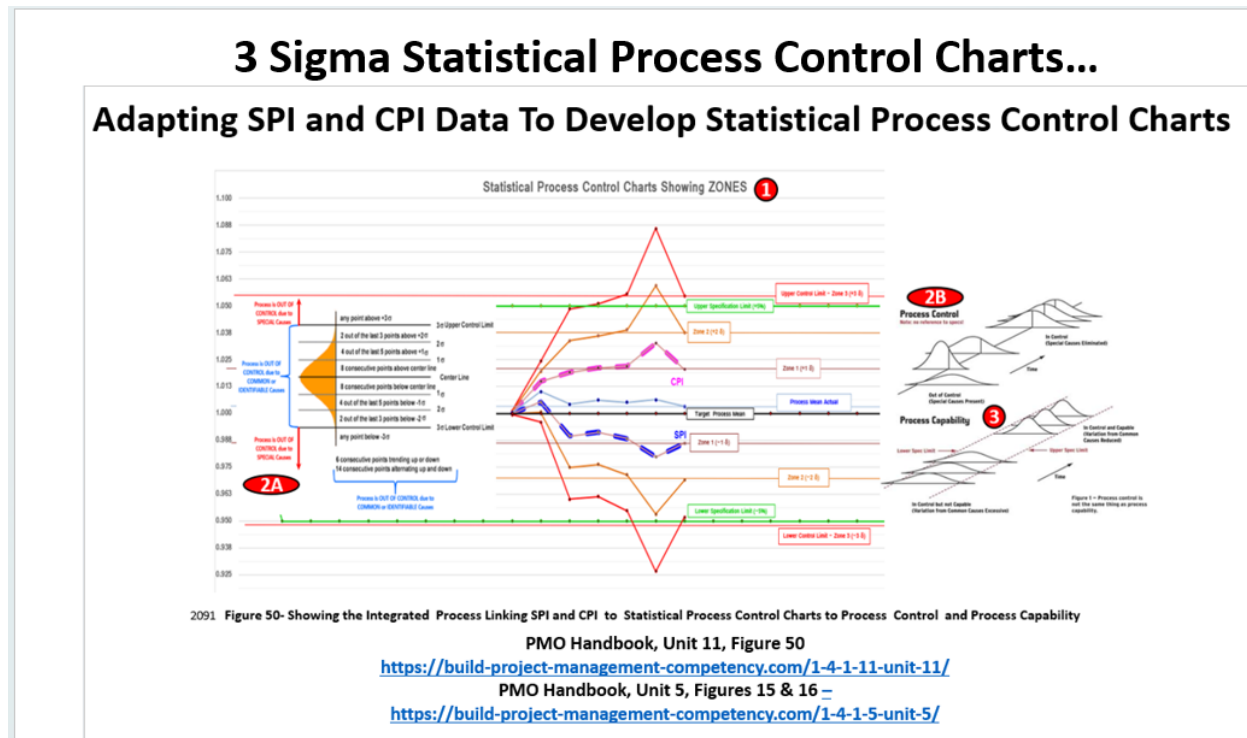


Figure 3- Types of INCENTIVE options (See Taylor, Gantt, et al., circa 1900)<sup>xli</sup>

While the system described by Gillette & Dana based on the research by Taylor, Gantt, Fayol, F. and L. Gilbreth et al. was built for a PRODUCTION environment, it also can be just as easily and is being applied to “one-off” projects regardless of size, complexity or type of contract, irrespective of the deliverable (ASSET) being tangible or intangible.

While the FARS recognizes most of these contractual options, the question is why the US Government DIVORCES “PAYMENT” from “PERFORMANCE.” That seems to be the major difference between the EVM espoused by SAE EIA 748D-2019 and the EVM, as Gillette & Dana advocate it.

As our focus (as SELLERS or CONTRACTORS) is on “Continuous Process Improvements,” we rely heavily on Schedule Performance Index (SPI) and Cost Performance Index (CPI) and then apply 3 Sigma Statistical Process Control Charts (per Shewhart and Deming), then focus on OPTIMIZING TIME and COST to deliver ASSETS (the products of the project) to the OWNER that what they specified or expected our project to do when we turned the DELIVERABLES (Product or Asset) to the owner.



**Figure 4- How we APPLY 3 Sigma Tools to the SPI and CPI Data<sup>xlii, xliii</sup>**

This is how we develop continuous process improvements using well-established, tested, and PROVEN AI tools and techniques, all of which are Excel-based<sup>xliiv</sup>.

The other major differences are:

- ✓ SAE EIA 748D-2019 is designed to look BACKWARDS, focusing on AUDITS, while EVM used by the private sector is FORWARD looking, being used to continuously improve the workflow processes to reduce TIME and/or COST to finish on time and within budget.
- ✓ SAE EIA 748D-2019 is not readily scalable, being only used on large or cost-plus contracts, while EVM, as Gillette & Dana shows us, can be applied to ALL projects, regardless of the size, complexity, or contracting methods, irrespective of the deliverable (ASSET) being tangible or intangible.
- ✓ Examples of the private sector using EVM surround us daily, from the example of buying a kilo of bananas to hundreds of other examples from the trades and professions:
  - A Dentist offers a firm fixed price to clean your teeth or fill a cavity
  - Your Painter, Tile, Carpet, or Roofing contractor quotes you a price per square foot and then bills you based on the total number of square feet DELIVERED.
  - Your doctor quotes you a firm fixed price to deliver a baby or remove an inflamed appendix. (Becoming very common for doctors and hospitals to quote at least a budget cost of their services in advance of admitting you)
  - Your mechanic quotes you a firm fixed price for an oil change based on how many quarts of oil your engine requires.
- ✓ Lastly, because so many OWNERS are slow in paying the bills from their CONTRACTORS,

using the Gillette & Dana EVM system will help ensure that the CONTRACTORS are not being starved for cash flows as it establishes a clear link between work delivered that has been installed in substantial compliance with the specifications and contractual terms and conditions and PROMPT PAYMENT for that work or the CONTRACTORS can claim “late payment penalties” just as your credit cards do. This will BENEFIT BOTH BUYERS and SELLERS, as being starved for cash flows is one of the leading causes of contractors working slowly or even going bankrupt.

As Gillette and Dana described, examples of applied EVM are everywhere. So why has the Government taken such a basic, “common sense” method that we all use and understand and turned it into a bureaucratic nightmare that doesn’t add value to the TAXPAYER and that the CONTRACTORS don’t like using?

### Earned Value (Time) as an INCENTIVE System is still in use...



[https://www.mosaicprojects.com.au/PDF\\_Papers/P158\\_Henry\\_L\\_Gantt.pdf](https://www.mosaicprojects.com.au/PDF_Papers/P158_Henry_L_Gantt.pdf)

**Figure 5- Examples of “Piecework” Incentive-Based EVM System in Use TODAY**

I have included a selected bibliography to back up my recommendations and suggestions.

Thank you for taking the time to consider my suggestions, and if anyone on your team has any questions or would like to see some examples, I would be happy to make a Zoom presentation with our successful case studies.

Respectfully Submitted,

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