



---

# FROM THE CHAIRMAN AND EXECUTIVE EDITOR

Dr. Larrie D. Ferreiro

---



The theme for this edition of *Defense Acquisition Research Journal* is “Learning from the Past.” As Under Secretary of Defense for Acquisition, Technology, and Logistics Frank Kendall noted in 2011, the Better Buying Power initiatives were not so much a collection of novel ideas as they were guidelines “distilled from best practices and lessons learned.”<sup>1</sup> He also reminded the acquisition workforce in his rollout of the revised DoD Instruction

5000.02 in January 2015, that “we will never stop learning from our experience.”<sup>2</sup>

This issue begins with a rarely seen feature in the pages of *Defense ARJ*—Letters to the Editor. We often receive comments about the articles published in this *Journal*, but rarely are we afforded the opportunity to publish them. In this issue we present a reader’s comments, and the authors’ subsequent reply, to an article from the July 2013 issue, “Current Barriers to Successful Implementation of FIST Principles.” We appreciate and encourage this level of open discourse on topics of immediate interest to the Defense Acquisition Workforce.

In keeping with the theme of learning from the past, the first two articles are reprints from previous issues, but which continue to have relevance today. In “Cost Overrun Optimism: Fact or Fiction?” by Maj David D. Christensen, USAF, (originally published in 1994), and Leland G. Jordan’s “Systemic Fiscal Optimism in Defense Planning” (published in 2000), the authors identified systematic underestimating of cost growth and systematic overestimating of resource availability as major contributing factors to inaccurate and unrealistic cost estimates. This dilemma is not limited to defense programs, but exists in any complex system acquisition; in the book *Megaprojects and Risk: An Anatomy of Ambition* by Brent Flyvbjerg et al., reviewed in *Defense ARJ* (Issue No. 59, July 2011, p. 336), which examines three large European civil engineering programs, the authors cite “overoptimistic estimates” as being primary causes for cost and schedule overruns.

Col Dennis J. Rensel, USAF (Ret.), in “Resilience—A Concept,” takes a holistic approach to measuring the “health” of systems and capabilities. In “Performance Indexing: Assessing the Nonmonetized Returns on Investment in Military Equipment,” the authors Ian D. MacLeod and Capt Robert A. Dinwoodie, USMC, tackle the problem of calculating the “worth” of investments in military equipment programs when a direct comparison using monetary returns falls short.

The featured book in this issue’s Defense Acquisition Professional Reading List is Richard Whittle’s *The Dream Machine: The Untold History of the Notorious V-22 Osprey*, reviewed by Defense Acquisition University Professor Owen Gadeken.

---

<sup>1</sup> Kendall, F. (2011, September–October). Better buying power: Foreword. *Defense AT&L Magazine*, 40(5), 2–4.

<sup>2</sup> Kendall, F. (2015, January 7). Department of Defense Instruction 5000.02 [Memorandum]. Washington, DC: Office of the Under Secretary of Defense for Acquisition, Technology & Logistics.



---

# LETTERS TO THE EDITOR

---

## **From the Executive Editor, *Defense ARJ***

We often receive comments about the articles published in the *Defense ARJ*, but rarely have we been afforded the opportunity to publish them. In July 2013 we published the article “Current Barriers to Successful Implementation of FIST Principles” by Brandon Keller and J. Robert Wirthlin (abstract and link below). We received critiques from Dan Ward, one of the sources that the authors cite in their article. After contacting the authors, we offered to publish Lt Col Ward’s critique along with a response from the original authors. Both parties agreed, and their letters are presented here.

## **Current Barriers to Successful Implementation of FIST Principles**

Capt Brandon Keller, USAF, and Lt Col J. Robert Wirthlin, USAF  
*Defense ARJ*, July 2013, Vol. 20 No. 2: 194–217

[http://www.dau.mil/publications/DefenseARJ/ARJ/ARJ66/ARJ\\_66-Keller.pdf](http://www.dau.mil/publications/DefenseARJ/ARJ/ARJ66/ARJ_66-Keller.pdf)

Abstract: The Fast, Inexpensive, Simple, and Tiny (FIST) framework proposes a broad set of organizational values, but provides limited guidance on practical implementation. Implementing FIST principles requires clarifying the definitions of “fast,” “inexpensive,” and “simple,” recognizing where FIST does and does not apply. Additionally, a subset of the FIST heuristics was expanded upon to increase their usefulness for practitioners. The primary research findings are that FIST principles are less conducive for highly complex or novel systems, immature technologies, future needs, acquisitions in early development phases, or when performance is the foremost value. FIST principles were also found to be constrained by the acquisition process, the requirements process, and oversight.

**Letter from Lt Col Dan Ward, USAF**

To The Editor,

There are three significant misrepresentations in the 2013 article "Current Barriers to Successful Implementation of FIST Principles," by Keller and Wirthlin. I would like to offer the following corrections:

1. The authors misrepresent my opinion several times, saying "Ward agrees" to propositions I disagree with. Specifically, the authors claim I believe FIST is "not conducive for immature technologies" and that using mature technologies "is often the antithesis of innovation." This demonstrates a shallow reading of the FIST literature and a misunderstanding of the nature of innovation itself. Many writers, including myself, explain that innovation often results from putting mature technologies together in new and interesting ways. Using mature components is therefore entirely consistent with delivering innovative new capabilities to the marketplace.
2. The authors misrepresent the scope of their own research. They claim to have reviewed "the multitude of materials related to FIST," but the most recent document they cited was published in 2009. They therefore omitted four years of publications on the topic, upwards of 25 articles, journal papers, conference presentations, and other material published by myself and others. Such shallow research presents an incomplete picture of the topic and does a disservice to readers. It also helps explain why their portrayal of FIST was so far off the mark and why they claimed "no evidence is offered" and that FIST "provides limited guidance on practical implementation." A more complete survey of the recent literature would have revealed considerable evidence and guidance.
3. Finally, the authors misrepresent their contribution to the FIST concept. They claim to have "expanded upon" the FIST heuristics and offered some "recommended additions," but fully half of their additions either cite my work, lightly paraphrase my work without citation, or are copied word-for-word from my work without citation. For example, one of the heuristics they claimed to add was the following: "The project leader's influence over the development is inversely proportional to the budget and schedule." That exact line appears on page 103 of my thesis, but the authors present it as their own original contribution.

The article is riddled with other errors, largely resulting from shallow research (see #2 above). It attributes the concept of “disruptive innovation” to a 2011 publication by Dyer instead of a 1995 paper by Christensen. It asserts “early operator feedback on a satellite program... is nearly impossible,” which overlooks the successful Operationally Responsive Space office, established in 2007. It claims “FIST is less conducive for complex, large programs,” which overlooks the FIST Navy’s Virginia Class submarine program.

While I enthusiastically welcome discussions and debates about FIST, I am disappointed in the way Keller and Wirthlin misrepresented my opinions, my work, and their own contribution to the topic. They incorrectly attributed opinions to me which I do not share, overlooked four years’ worth of material, and claimed my words as their own. I hope future writers do not follow their example and instead present a more accurate, thorough, and original contribution.

**Response from Capt Brandon Keller, USAF, and Lt Col J. Robert Wirthlin, USAF**

To the Editor,

We appreciate *Defense ARJ* giving us the opportunity to respond to Lt Col Ward’s Letter to the Editor about our article in the July 2013 *Defense ARJ* edition. We have a professional disagreement with aspects of FIST that we documented in this peer-reviewed forum and still assert to be true. Our response to his remarks follows:

1. We never wrote that Ward agrees that FIST is not conducive for immature technologies... we say that Ward agrees “that a key to FIST implementation is the use of mature technologies” (Ward, 2009). The finding “FIST is not conducive for immature technologies” is our conclusion; however, although Ward says he disagrees with the statement, pp. 16, 17, 32, 44, 89, and 90 of Ward’s thesis from 2009 clearly promote the use of mature technology in FIST.

We also agree combining mature technology in novel ways can produce innovative results.

2. We did not misrepresent anything. The most recent cited document in our published work was from 2012, but there are several reasons the most recent FIST-related citation was 2009:

- a. We focused on citing peer-reviewed publications for academic rigor; and,
  - b. We tried to cite the original document in which a viewpoint was presented—many newer publications merely re-stated previously documented FIST viewpoints. Quantity of citations about FIST does not strengthen the veracity of the assertions.
  - c. Concern over whether we did not attribute conclusions by other authors from earlier dates should not imply we were unaware of those authors' conclusions, nor does it demonstrate academic malpractice. Researchers in similar fields often draw the same conclusions independently.
3. We did miss one citation. In August 2013, we privately apologized for the oversight of the heuristic; it was an honest oversight on our part and in no way intended to imply his work as ours.

There are clear distinctions between FIST and our own conclusions, and we disagree that half of the heuristics come from Ward's body of work. The heuristics in our article that do come from others' work (and cited as such) are included because we believe they further solidify our own positions. This also includes heuristics cited from Ward that add credence to our findings.

It is unfortunate that Ward uses a strawman of embellished assertions designed to discredit our work without directly confronting the conclusions or presenting any evidence that would further enlighten discussion and knowledge of the subject matter. Rigorous academic research ought to question and test the assertions of the author. Our work invites other researchers to join the discussion. FIST concepts have been around a very long time in the project management profession, but citing a handful of successful programs doesn't show causality of success when compared to the thousands of unsuccessful programs. It is far more the norm for the current barriers to FIST implementation to surface than FIST principles leading to a successful program by itself. We still assert that barriers exist to successful implementation of FIST in all types of defense acquisition scenarios.