



---

# FROM THE CHAIRMAN AND EXECUTIVE EDITOR

Dr. Larrie D. Ferreiro

---



The theme for this edition of *Defense Acquisition Research Journal*, “The Challenge of Defense Acquisition: Getting it Right, Right from the Start,” is addressed by a particularly strong lineup of articles. The lead article is “Establishing the Technical Foundation: Materiel Solution Analysis Is More Than Selecting an Alternative,” by Aileen G. Sedmak, Zachary S. Taylor, and William A. Riski. The authors describe the

research conducted under the Department of Defense Development Planning Working Group, which establishes the systems engineering and technical planning activities needed prior to Milestone A in order to develop realistic cost, schedule, and performance estimates. The second article, W. Allen Huckabee’s “Requirements Engineering in an Agile Software Development Environment,” explains how the agile environment used to create defense business systems today is not properly served by function-based requirements development. Instead, the author finds that user-story and acceptance methods are better adapted to establishing and updating system requirements.

In the third article, “Acquisition Challenge: The Importance of Incompressibility in Comparing Learning Curve Models,” authors Justin R. Moore, John J. Elshaw, Adedeji B. Badiru, and Jonathan D. Ritschel, find that the Wright’s Learning Curve model, now in use for over 75 years, does not accurately predict learning performance

compared with other, more recent models. In particular, the authors find that the effect of automation (“incompressibility”) plays a major factor in the accuracy of learning curve estimates. Nicholas J. Ross, in the final print article, “Technical Data Packages: When Can They Reduce Costs for the Department of Defense?” examines when and under what circumstances the government would benefit from buying a Technical Data Package (TDP) as part of an overall bid. He notes that buying a TDP does not automatically lead to savings from competition.

A fifth article, available in the online edition of *Defense ARJ*, “Balancing Incentives and Risks in Performance-Based Contracts,” by Christopher P. Gardner, Jeffrey A. Ogden, Harold M. Kahler, and Stephan Brady, explores contracting issues for Performance-Based Life Cycle Support, and in particular, how to balance long-term commercial partnerships with the need to mitigate financial and operational risks.

The featured book in this issue’s Defense Acquisition Professional Reading List is *Forged in War: The Naval-Industrial Complex and American Submarine Construction, 1940–1961* by Gary E. Weir, reviewed by Stafford A. Ward.