

FROM THE
EXECUTIVE EDITOR

PROBLEM SOLVING IN THE 21st CENTURY



Welcome to the *Defense Acquisition Review Journal* (ARJ) theme edition on “Problem Solving in the 21st Century.” Dramatic advances in technology and computing power make higher-order thinking and sound reasoning essential elements of problem solving in the modern era. These skills include the cognitive processes of analysis, comparison, inference and interpretation, evaluation, and synthesis applied to a wide range of domains and problem-solving contexts. However, the basic skills of leadership, personal interaction, collaboration, and teamwork continue to provide effective methods for reaching solutions.

On behalf of the Defense Acquisition University (DAU) Press, the *Defense ARJ* managing editor, and staff, I would like to personally thank the leadership of the DAU Southern Region, Huntsville, AL, for selecting the theme and sponsoring this edition of the journal. Professor David Eiband is also commended for his tireless efforts and tenacity while leading in the selection process and coordination of this issue between DAU South and DAU Headquarters, Fort Belvoir, VA.

Thus, the edition begins with an article entitled, “Problem Solving in Defense Contract Management Services: Collaboration and Teamwork—The Key to Successful Warfighter Contract Support,” by Lt Col (Sel) Gilberto Rosario, USAF; Joseph Vernon; William Kleiner; and Matthew Popham. In this article, the authors point out that while past management approaches to business interactions yielded less than optimal results, a new emphasis in collaboration and teamwork between the Rolls-Royce Corporation and the Defense Contract Management Agency (DCMA) quickly produced sizable benefits for both parties.

Eugene Gholz describes a business model that companies could apply to the development, production, and sale of avionics to the Department of Defense (DoD) in his article, “A Business Model for Defense Acquisition under the Modular Open Systems Approach.” This model uses a Modular Open Systems Approach (MOSA), which has been encouraged through acquisition reform initiatives and emphasizes a thorough understanding and application of core competencies, principal activities, cost structure, and an expected revenue stream to enable sufficient profits to remain in business in a competitive environment.

The article, “Decision Support for Best Practices: Lessons Learned on Bridging the Gap between Research and Applied Practice,” by Raimund L. Feldmann, Forrest Shull, and Michele A. Shaw, examines the process of selecting and implementing best practices. In some cases, a best practice may be only appropriate for a specific scenario or context, and in other cases, a best practice could fit a new or emerging system with evolving threats and tactics. In addition, the authors describe a program that tries to bridge the gap between rigorous empirical research and practical needs for guiding practitioners in selecting appropriate best practices.

Russell A. Vacante’s article, “Sense and Respond: An Emerging DoD Concept for National Defense,” explores the importance of a new concept emerging from the network-centric environment philosophy. This concept is relatively new within much of the defense community, and its true meaning and utility may not yet be completely understood. Dr. Vacante emphasizes why sense and respond is so important to national security in the 21st century and explains its relationship to the logistics community.

LCDR John R. Gensure, USN (Ret.), presents an overview showing how the use of decision analysis and operations research can significantly assist decision makers in the complex world of defense acquisition in his paper entitled, “Application of Structured Decision-Making Tools to Defense Acquisition.” These types of tools enable managers to trade off factors, such as uncertainty, risk, and multiple objectives and priorities to reach optimal decisions. Systematic application of structured decision-making tools can significantly increase a decision maker’s insight into the complex scenarios of defense acquisition.

The next article, “The Challenges and Opportunities of Implementing Human Systems Integration into the Navy Acquisition Process,” by James A. Pharmed, provides a look at how the Navy is implementing Human Systems Integration (HSI)—the process of incorporating considerations of human capabilities and limitations at a level commensurate with decisions regarding hardware and software. The author also addresses policy initiatives, organizational changes, and implementation challenges while incorporating HSI into the acquisition life cycle.

Last but not least, “Applying Office Leadership Solutions to Management Recommendations in Solving Acquisition Problems,” by Martin Cain, focuses on a study of leadership as a primary force allowing high-performance acquisition to materialize. This article examines influences on management resulting from inspections, such as internal auditing, and researched the nonquantifiable impacts while comparing them to effective leadership principles. Conclusions emphasize that appropriate leadership is always key in solving problems and implementing change.

I would like to encourage other organizations to sponsor editions of the Defense ARJ. If you have an idea for a theme, we want to hear about it. For more information on sponsoring an edition of the journal, please feel free to send inquiries to the managing editor, *Defense ARJ*, at DefenseARJ@dau.mil.

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