Trip Report: Joint DOE-DOD Case Study Forum
National Defense University/Defense Acquisition University

August 24, 2006

Submitted by: Mr. David W. Swindle, Jr.

Background:

Mr. David Swindle attended a Federal Acquisition Workshop held at the Defense Acquisition University (DAU) on May 22 - 25, 2006 as an observer. The workshop included courses on acquisition practices, policies, and experiences. Senior/Executive leaders from the Department of Energy's (DOE) Environmental Management Headquarters and field offices engaged with the disciplined training acquisition processes of the Department of Defense (DOD) in Program/Acquisition Management. The workshop is second in a series of three like sessions focused on advanced acquisition/project management training.

DOD operates the DAU under the auspices of the National Defense University (NDU), located at Fort Belvoir in Virginia. DOD has a requirement that all DOD Executives or Civilian and Military leadership receive top-level training in the fundamentals of Federal Acquisition Rules and principles of program/acquisition management, as well as regulatory training in the event that said leadership oversees the acquisition or management of work exceeding $5 million annually.

The DAU's Federal Acquisition Workshop utilizes a case-study approach, whereby participants review lessons learned from previous acquisitions and discuss the reactions of those involved, and how they believe they would react, given similar circumstance. Participants benefit from the workshop's interactive nature and the practicality of the resulting learning process. The workshop quickly puts the complexities of the operations and activities involved in major acquisitions into perspective.

Five areas of technical competency are emphasized in the training, including:

- Mission Need Identification
- Requirements Analysis and Identification
- Trade-Off Studies
- Technical Maturity Assessment
- Earned Value Management

Findings and Observations:

The information and experience imparted to the EM senior participants derived from the DOD case-studies added considerable depth to the leaderships' knowledge base. The majority of current EM leadership was forced to learn acquisition/project management "on-the-job", rather than through formal preparation and training. This workshop helped to fill that omission in EM leadership development. EM participants were able to reflect on the level of discipline DOD requires from its top leadership before allowing them to manage, oversee, or lead projects or acquisitions.

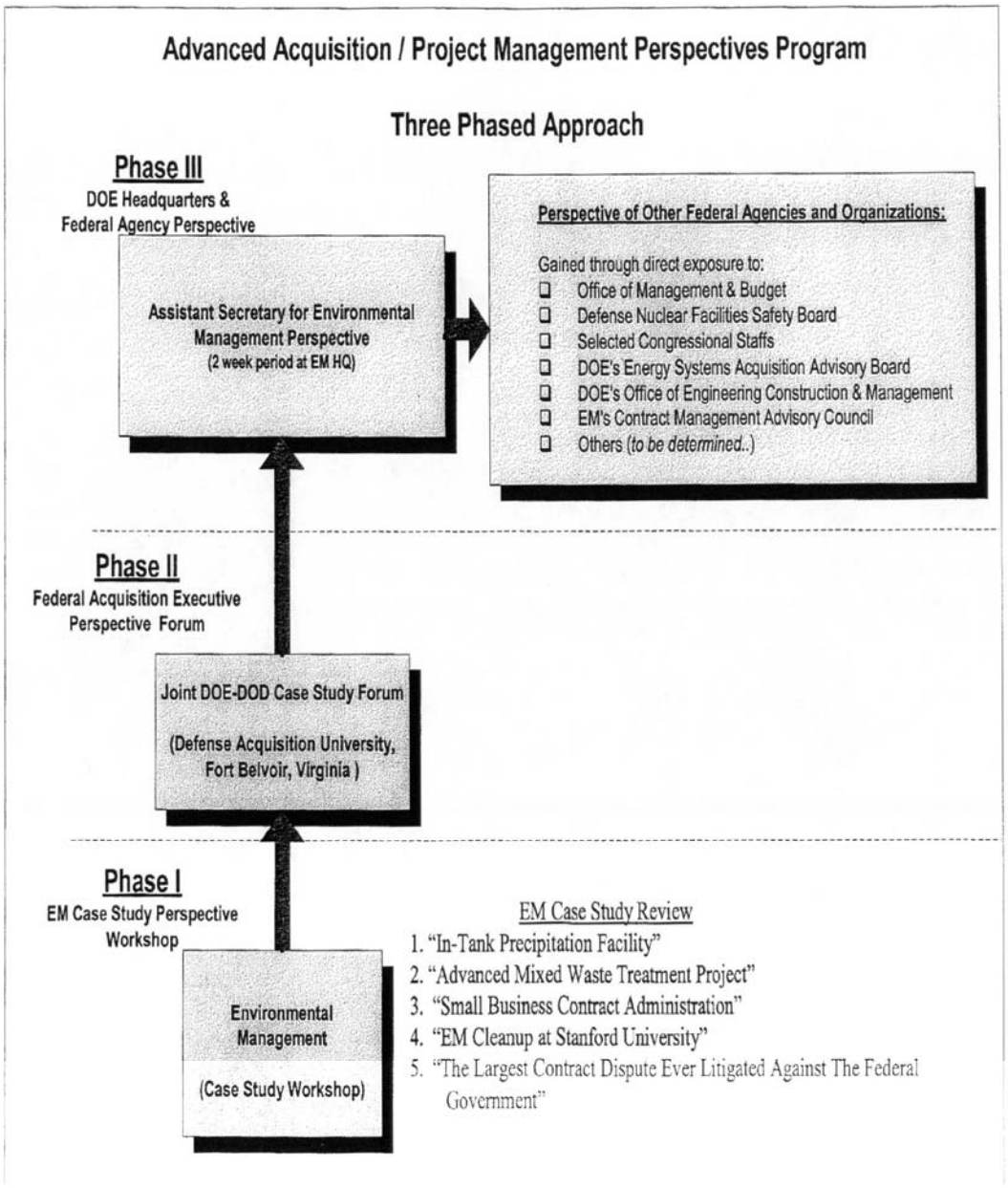
Case-study coursework covered the fundamental competencies required for the leadership, direction, management, and oversight of acquisitions regardless of size or complexity. However, case-studies were derived solely from DOD acquisitions involving hardware and equipment procurement rather than construction and service acquisition. While the fundamentals are applicable to EM acquisitions, they lack direct lessons-learned relevance to the program. Overall, the attendees benefited from the workshop as it provided them with a greater appreciation for high-level reviews and lessons learned, derived from their interaction with DOD acquisition management professionals. The challenge lies in effectively communicating and applying the knowledge gained from this workshop to the mid-level management at HQ and in the field.

Recommendation 2006-05: In support of the Human Capital Initiative, EM should develop advanced management training modules and review the DOD's career development processes to devise a suitable, DOE, career-progression path for internal advancement and growth. Such action would strengthen the EM's resources and aid in leadership retention.

Suggestions for Implementation:

- With support from DOD's NDU, the program should establish a re-occurring, DOE EM-specific case-study forum, supplemented by advanced training in the Federal Acquisition Regulation (FAR), Department of Energy Acquisition Regulation (DEAR), and principles of industry financial, equity, and capital markets.
- The Board encourages EM to make the aforementioned training forum a pre-requisite for DOE assignments of program/acquisition management, in addition to the existing project management certification requirement.

Appendix A: Summary of the Three-Phased Approach for DOE EM Advanced Acquisition/Project Management



Appendix B: Joint DOE-DOD Case Study Forum May 22-25, 2006

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Appendix C: Technical Competencies for the Federal Acquisition Executive Perspective Forum

Competency Area	Background and Targeted Technical Competency
1. Mission Need Identification	Upon initiation of any project, a mission need in terms of capability is identified. At the project initiation stage, the mission need must not be identified in terms of equipment, facilities or other solutions, because this preempts the project management process that is designed to identify and analyze alternatives, and then select the best alternative. Often an executive is confronted with a mission need that is identified, either consciously or un-consciously, in terms of equipment or a facility. In some cases, a premature bias toward an alternative exists and is difficult to control. Case studies should be presented and examined that illustrate the executive's challenge at this stage of a project's development. Additionally, the programmatic process should be illustrated.
2. Requirements Analysis and Identification	Requirements (technical, programmatic, legal, regulatory, etc.) form the basis of the design and engineering phases of a project. However, analysis and identification of requirements are often accomplished at a superficial level, with increased scope, schedule and cost occurring from subsequent changes in the project's lifecycle. Case studies should be presented and examined that illustrate the programmatic consequences of inadequately defined requirements for a project. Additionally, at least one example of a satisfactory, compete set of project requirements (technical, programmatic, etc.) from a technically complex project should be presented and discussed.
3. Trade-Off Study	While requirements define what a project must produce and how it must perform, the process of analyzing alternatives is designed to identify the solution that will best meet those requirements. Often, a solution is not obvious and is dependent on objective, technically based trade-off study analysis. Case studies should be presented and examined that illustrate the programmatic implications of inadequate trade-off study analysis. A successful example of a technically based trade-off study should be presented and discussed during the forum.
4. Technical Maturity Assessment	Alternative analysis often is confronted with assessing the maturity of technologies. An executive

must give consideration to whether a technology is readily available to implement an identified solution. If research and development is necessary, the executive must determine if the technology is developed beyond the state of fundamental research. In some cases, demonstrations and prototyping, which provide proof of principle, are necessary.

Case studies should be presented and examined that illustrate the implications of premature technology selection. An example of successful "proof of principle" testing should be presented and discussed, including the government requirements for an actual "proof of principle" test.

5. Earned Value Management

An effective earned value management system (EVMS) provides and executive with an objective, consistently measured status of a project's progress. However, the basis of the EVMS is strongly dependent on consistent application of performance measuring methods. EM executives will be familiar with the calculation and interpretation of EVMS basic elements, such as BCWS, BCWP, ACWP, CPI, and SPI. They will <u>not</u> need a review of basic EVMS calculation methods.