OFFICE OF THE UNDER SECRETARY OF DEFENSE

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ACQUISITION,
TECHNOLOGY
AND LOGISTICS

March 30, 2004

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Implementing Systems Engineering Plans in DoD – Interim Guidance

On February 20, 2004, the Acting Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) took a major step to reinvigorate DoD Systems Engineering by signing into policy a requirement that "All programs responding to a capabilities or requirements document . . . shall develop a Systems Engineering Plan (SEP) for Milestone Decision Authority (MDA) approval in conjunction with each Milestone review." This memorandum provides interim guidance concerning the purpose and content of these plans. I look forward to working with your representative to the new Systems Engineering Forum to capture best practices and mature this guidance over time. The SEP will be addressed more completely in future updates to the Defense Acquisition Guidebook.

The purpose of the SEP is to lay out a plan that should guide all technical aspects of an acquisition program. Program managers should establish the SEP early in the program definition phase and update it at each subsequent milestone. It is intended to be a living document, tailored to the program, and a roadmap that supports program management by defining comprehensive systems engineering activities, addressing both government and contractor technical activities and responsibilities. The SEP describes the program's overall technical approach, including systems engineering processes; resources; and key technical tasks, activities, and events along with their metrics and success criteria. Integration or linkage with other program management control efforts such as integrated master plans, integrated master schedules, technical performance measures, and earned value management is fundamental to successful application.

There is no prescribed format for the SEP. However, it should address how systems engineering will support the translation of system capability needs into an effective, suitable product that is sustainable at an affordable cost. Specifically, a well-prepared SEP will address the integration of the technical aspects of the program with the overall program planning, systems engineering activities, and execution tracking to include:

- The systems engineering processes to be applied in the program (e.g., from a standard, a capability maturity model, or the contractor's process). Describe how the processes will be implemented and how they will be tailored to meet individual acquisition phase objectives. Describe how the SE processes will support the technical and programmatic products required of each phase.

- The system's technical baseline approach. Describe how the technical baseline will be developed, managed, and used to control system requirements, design, integration, verification, and validation. Include a discussion of metrics (e.g., technical performance measures) for the technical effort and how these metrics will be used to measure progress.

- Event-driven timing, conduct, success criteria, and expected products of technical reviews; and how technical reviews will be used to assess technical maturity, assess technical risk, and support program decisions. SEP updates shall include results of completed technical reviews.

- The integration of systems engineering into the program's integrated product teams (IPTs). Describe how systems engineering activities will be integrated within and coordinated across IPTs; how the IPTs will be organized; what SE tools they will employ; and their resources, staffing, management metrics, and integration mechanisms. Describe how systems engineering activities are integrated in the program's overall integrated schedules.

For programs where the USD(AT&L) is the Milestone Decision Authority (MDA), components shall submit the SEP to me at least 30 days before the scheduled Defense Acquisition Board (DAB) milestone review. My staff and I will evaluate each program's SEP in preparation for the DAB review and in support of Defense Systems' other acquisition and assessment support activities. I encourage all MDAs to take similar actions.

The referenced SEP policy is already in effect, so I urge you to distribute this guidance memorandum to your Program Executive Officers, Program Managers, and/or Systems Commanders. For additional clarification or guidance on SEP tailoring, please contact Mr. Mark Schaeffer, Director, Systems Engineering, (703) 695-7417, mark.schaeffer@osd.mil, or Mr. Bob Skalamera, Deputy Director, Systems Engineering (Enterprise Development), (703) 695-2300, robert.skalamera@osd.mil.

Glenn F. Lamartin
Director, Defense Systems

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