

Cost-Effective Weapons

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What's in a name?

- Program Analysis and Evaluation (PA&E) is now Cost Assessment and Program Evaluation (CAPE).
- How does the name change affect our acquisition-focused mission?
- Won't we simply develop cost estimates and guide analyses of alternatives for systems that are designed to achieve a set of requirements?

Secretary of Defense Direction

“Chief among institutional challenges facing the Department is acquisition.”

“First, this department must consistently demonstrate the commitment and leadership to stop programs that significantly exceed their budget or which spend limited tax dollars to buy more capability than the nation needs...

Second, we must ensure that requirements are reasonable and technology is adequately mature to allow the department to successfully execute the programs...

Third, realistically estimate program costs, provide budget stability for the programs we initiate, adequately staff the government acquisition team, and provide disciplined and constant oversight.

We must constantly guard against so-called “requirements creep,” validate the maturity of technology at milestones, fund programs to independent cost estimates, and demand stricter contract terms and conditions.”

Secretary of Defense Robert M. Gates



Weapons Systems Acquisition Reform Act



"The key to successful acquisition programs is getting things right from the start with sound systems engineering, cost estimating, and developmental testing early in the program cycle. The bill that we are introducing today will require the Department of Defense to take the steps needed to put major defense acquisition programs on a sound footing from the outset. If these changes are successfully implemented, they should help our acquisition programs avoid future cost overruns, schedule delays, and performance problems."

–Senator Carl Levin, Chairman, Senate Armed Services Committee



"The Weapon System Acquisition Reform Act of 2009 is an important step in efforts to reform the defense acquisition process. This legislation is needed to focus acquisition and procurement on emphasizing systems engineering; more effective upfront planning and management of technology risk; and growing the acquisition workforce to meet program objectives."

–Senator John McCain, Ranking Member, Senate Armed Services Committee

Key Elements of WSARA 2009

- Creates CAPE with two primary missions—cost assessment and program evaluation
 - Emphasis on independent cost estimation/analysis
- Creates Directors for Developmental Test and Evaluation and for System Engineering
- Creates Office for Performance Assessments and Root Cause Analyses
- Directs DDR&E to assess technological maturity and integration risk
- Directs JROC to seek and consider input from COCOMs
- Adds a number of policies geared toward lowering acquisition risk

Consideration of Tradeoffs

(a) CONSIDERATION OF TRADE-OFFS.—

- (1) IN GENERAL.—The Secretary of Defense shall ensure that mechanisms are developed and implemented to require **consideration of trade-offs among cost, schedule, and performance objectives** as part of the process for developing requirements for Department of Defense acquisition programs.
- (2) ELEMENTS.—The mechanisms required under this subsection shall ensure, at a minimum, that—
 - (A) Department of Defense officials responsible for acquisition, budget, and cost estimating functions are provided an appropriate opportunity to **develop estimates and raise cost and schedule matters before performance objectives are established** for capabilities for which the Chairman of the Joint Requirements Oversight Council is the validation authority; and
 - (B) the process for developing requirements is structured to **enable incremental, evolutionary, or spiral acquisition approaches**, including the deferral of technologies that are not yet mature and capabilities that are likely to significantly increase costs or delay production until later increments or spirals.

Illuminating Trade Space

- Analyses of alternatives will be structured to provide more insight into tradeoffs among cost, schedule, and performance.
 - Can some elements of the mission set be accomplished by other joint forces?
 - Can partial solutions be acquired that allow growth to desired capabilities in incremental steps?
 - What are the marginal dollar and schedule differences?

Trading Off Capabilities

Some Examples

- Combat Search and Rescue-X
- Armed Aerial Scout
- Future Combat System
- Command and Control Ships

Evolutionary Acquisition

Some Examples

- MC-12 Liberty Aircraft
- Spinouts for brigade combat teams
- Ground Combat Vehicle
- Joint Direct Attack Munition

Getting to a Smart Mix

- Beyond AoAs, CAPE will expend significant effort looking a “optimal” mixes of weapons
- Secretary of Defense wants an arsenal that is capable across a full spectrum of conflicts.
- CAPE will need to work with Services to ensure we have a smart balance of capabilities.