

EELV Should Cost Review Overview and Lessons Learned

2011 ISPA/SCEA Conference
June 2011



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Outline



50 YEARS OF VIGILANCE FROM ABOVE

- + EELV Should Cost Review (SCR)
- + SCR Findings
- + Observations/Lessons Learned



Name	Organization
Karen Schaben	NRO Cost Analysis Improvement Group (CAIG)
Joe Kabeiseman	NRO CAIG Support
James Smirnoff	NRO CAIG Support



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Useful Definitions and Terms

NATIONAL RECONNAISSANCE OFFICE



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- + EELV: **E**volved **E**xpendable **L**aunch **V**ehicle
- + ULA: **U**nited **L**aunch **A**lliance
- + ELC: **E**EELV **L**aunch **C**apability Contract
- + ELS: **E**EELV **L**aunch **S**ervice Contract
- + SCR: **S**hould **C**ost **R**eview
- + CRI: **C**ost **R**eduction **I**nitiative



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EELV Should Cost Review



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SECAF Direction



SECRETARY OF THE AIR FORCE
WASHINGTON

MAR 1 2010

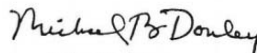
MEMORANDUM FOR DIRECTOR, NATIONAL RECONNAISSANCE OFFICE
COMMANDER, AIR FORCE SPACE COMMAND

SUBJECT: Evolved Expendable Launch Vehicle (EELV) Should Cost Review

The Department of Defense is committed to providing assured access to space by developing, fielding, and operating world-class indigenous space launch capabilities. The EELV program is essential to meeting this requirement. However, the program faces significant concerns moving into the future, including unresolved Defense Contract Audit Agency audit issues, significant contract price increases, and uncertainty in supplier readiness. The price growth of the EELV contracts has drawn considerable interest from both the Department and Congress. Your combined Tiger Team effort should address these issues as part of a systematic evaluation of our launch enterprise business approach. As a cornerstone of this activity, I endorse a Should-Cost Review (SCR) per FAR 15.407-4.

The goals of the Should Cost Review will be to: 1) establish an authoritative baseline for current launch capacity and requirements; 2) identify programmatic requirements specifically for EELV; and 3) determine the most probable EELV costs and the factors affecting EELV costs/availability.

I am assigning Mr. Ron Poussard, Director, Air Force Office of Small Business Programs, to lead this important effort. His team will incorporate members from across government and industry. I ask that you give him your utmost support and assistance as this review goes forward. I believe that a rigorous assessment of how our government and industry partnership does business in this area is critically important to our national security.


Michael B. Donley
DoD Executive Agent for Space

cc:
USD(AT&L)

SECAF as DoD Executive Agent for Space tasked Dir NRO and AFSPC/CC

- Conduct Should Cost Review IAW FAR Part 15.407-4
- Establish an authoritative baseline for current launch capacity and requirements
- Identify programmatic requirements for EELV
- Determine most probable cost and factors affecting EELV costs/availability



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What is a Should Cost Review?



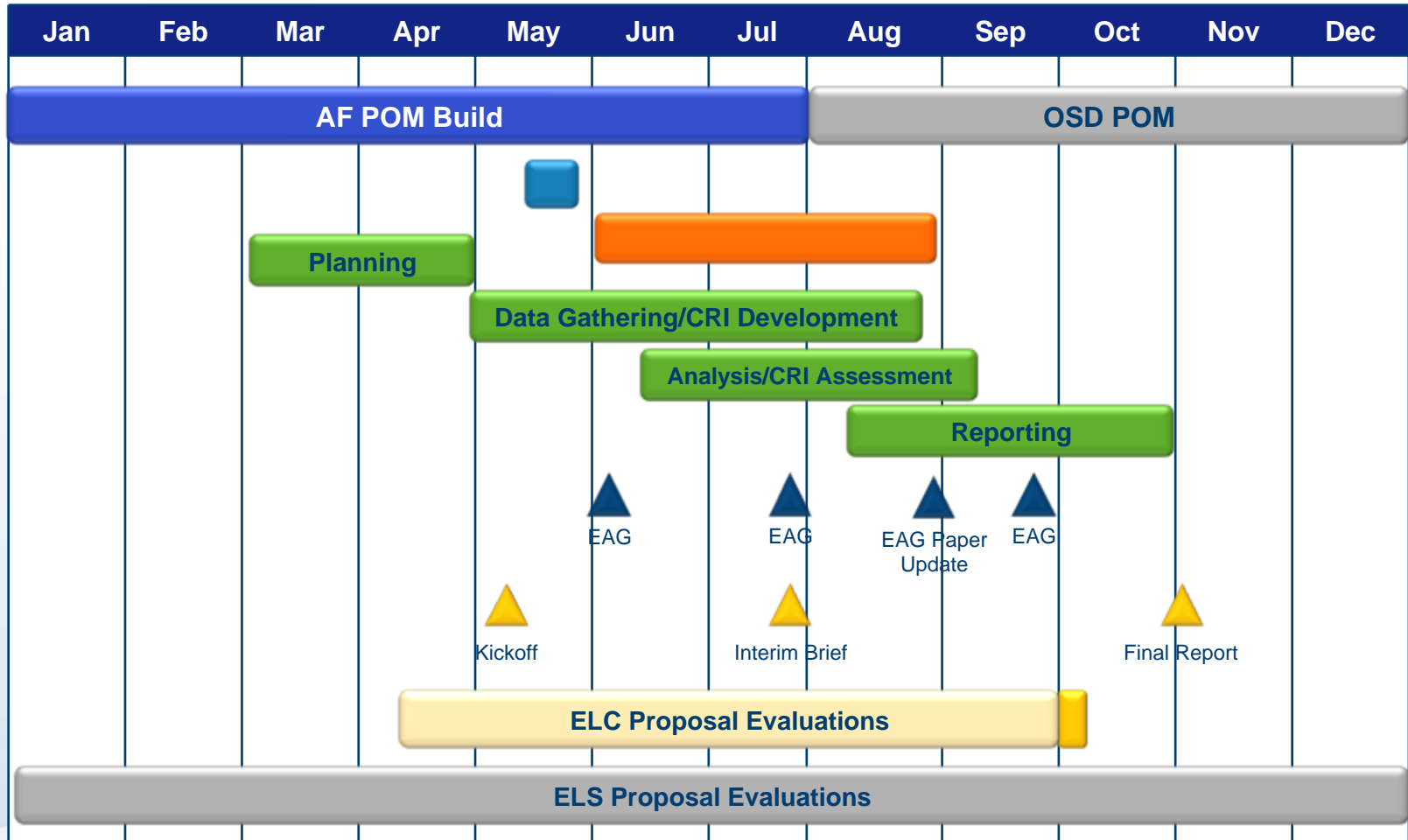
- + EELV Effort was the first major Should Cost Review Since 1995
- + Existing process documents/guidance
 - FAR description
 - C-17 SCR documentation
- + FAR Part 15.407-4 Definition
 - A specialized form of cost analysis
 - Aimed at sole-source contracts
 - Does not assume a contractor's historical costs reflect efficient and economical operation
 - Evaluates economy and efficiency of contractor's existing workforce, methods, materials, equipment, real property, operating systems, and management
 - Accomplished by a multi-functional team of experts
 - An inherently governmental activity
 - Objective: promote improvements in contractor's economy and efficiency to reduce cost



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SCR Schedule



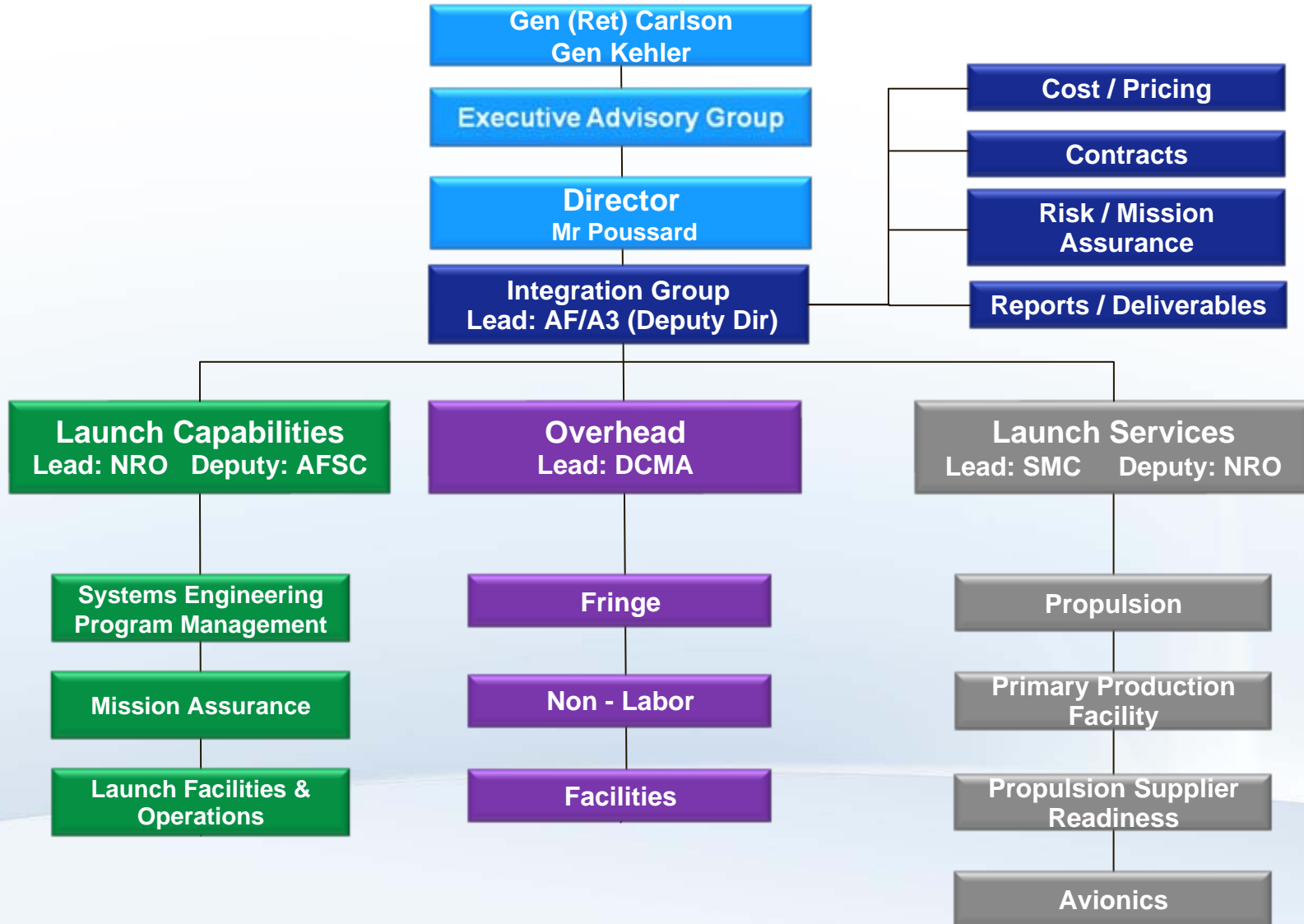
- Site Visits and Analysis
- Team Training
- ELC Contract Award / 1 Oct



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SCR Team Organization





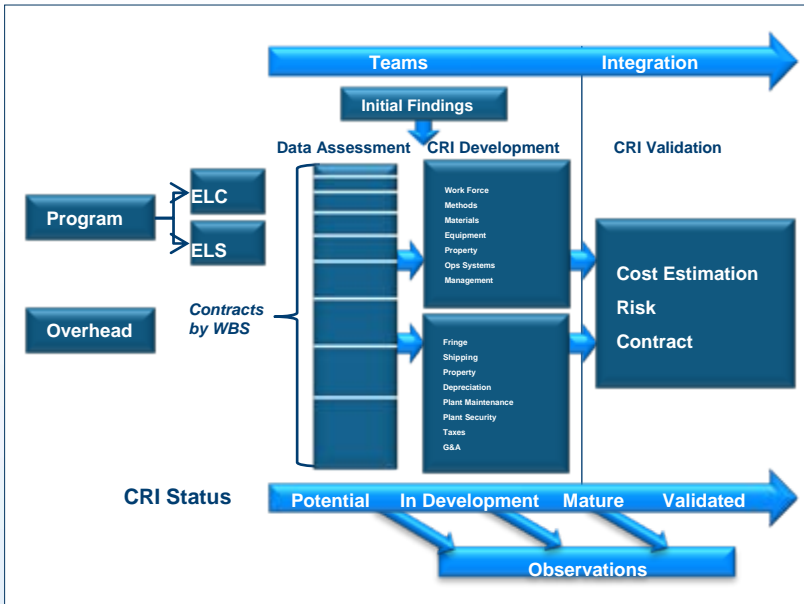
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Output Process

Rigorous Process Supported by Fact Based Analysis



Team	SubTeam	3dig	Approval	Date	Control Number	CRI Ownership	CRI Title	
SAMPLE	SAMPLE	001		1/1/2010	SAMPLESAM-001	Supplier	SAMPLE	
SAMPLE	SAMPLE	001		1/1/2010	SAMPLESAM-001	Supplier	SAMPLE	
Team	SubTeam	3dig	Approval	Date	Control Number	CRI Ownership	CRI Title	Remediation
SAMPLE	SAMPLE	001		1/1/2010	SAMPLESAM-001	Supplier	SAMPLE	ation -

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CRI #:
CRI Title:

DESCRIPTION	COST																
	TY\$M Savings																
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Now</th> <th>FY12</th> <th>FY13</th> <th>FY14</th> <th>FY15</th> <th>FY16</th> <th>FY17</th> <th>Beyond</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Now	FY12	FY13	FY14	FY15	FY16	FY17	Beyond								
Now	FY12	FY13	FY14	FY15	FY16	FY17	Beyond										
<ul style="list-style-type: none"> CRI Element Description Assessment Key Actions Required 	<ul style="list-style-type: none"> Estimated Savings to Proposals Baseline / Overhead Pools 																
CONTRACTS	CONSOLIDATED RISK ASSESSMENT																
<ul style="list-style-type: none"> Contract Implications 	<div style="margin-top: 10px;"> <p>INPUTS</p> <p>T = Technical Risk C = Cost Risk S = Schedule Risk</p> </div>																

Integrity - Service - Excellence



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SCR Site Visits

Sample Site Visits

ELC Site Visits

ULA CCAFS FL	ULA VAFB CA
ULA Denver CO	Arde Carlstadt NJ
PWR Canoga Park CA	Moog East Aurora NY
Scot-Downers Grove IL	ULA Decatur AL
PWR West Palm Beach FL	EELV Program Office

ELS Site Visits

ULA Decatur AL	Aerojet Sacramento CA
ULA Denver CO	PWR Canoga Park CA
ULA Harlingen TX	L3 Comm Budd Lake NJ
ULA San Diego CA	L3 Comm Cincinnati OH
Honeywell Tampa FL	EELV Program Office
PWR West Palm Beach FL	

Overhead Site Visits

PWR West Palm Beach FL	PWR Canoga Park CA
ULA Denver CO	ATK Brigham UT
Aerojet Sacramento CA	

91 Personnel
69 Sites
10 Sub-Teams
3 Months





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EELV SCR Findings



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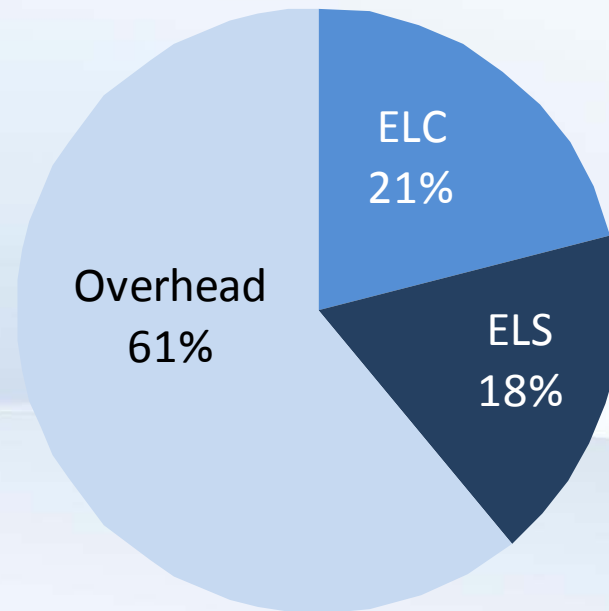


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CRI Breakdown

Team	Sample CRI's
OH	IT - Functional Improvement
	G&A - Depreciation Cap
ELC	Reduce Unplanned Tasks, More Explicit RFP / SOW
	Streamline Pedigree Review Processes
ELS	Production Cost Baseline - Take Anomalous Data Out of BOEs for New ELS Proposals
	Proposed Material Factors

Percent Savings by Team





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Final Products



- + Comprehensive Model of EELV Launch Costs (ELC and ELS)

- + Final report in three volumes:
 1. Executive summary, about thirty pages

 2. Detailed write-up by each sub-team covering all activities and CRI analysis

 3. Supporting data, RFIs, and responses
 - Over 3,000 files
 - 4.7GB of data



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Observations



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Cost Estimating Observations



- + Lack of access to in-depth launch cost data hindered cost team
- + Baseline not tied to budget, thus complicating:
 - Understanding CRI impacts to Government Program Office(s) budget
 - Showing savings against Future Years Defense Plan (FYDP)
- + Use Pareto analysis to focus on the key cost drivers
- + Initial lack of SCR common cost reporting ground rules led to disconnects across sub-teams with regard to reporting:
 - Savings and investments - some in TY\$ some in BY\$
 - Which years to show savings – proposal POP, FYDP, other?
 - Phasing in of CRIs – immediate vs. mid/long term
- + Limited focus on “most probable costs”
- + Portrayed Gross and Net savings to baseline
 - Easily misinterpreted savings to Government
 - Increase SPO costs not always clear



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General Observations



- + Sufficient high-level written direction, goals, objectives, and terms of reference provided
- + Team members qualified in their area of expertise
- + Solid support from team member's home office leadership
- + Good Logistics – Central HQ, data sharing web site
- + Timely Prime and sub-contractor support and response
- + Active DCMA (DACO and Plant Reps) and DCAA Participation
- + Extensive site visit focus limited time for cost data analysis
- + Large team/sub-team size slowed progress; difficult to coordinate (e.g. travel), and communicate effectively
- + The level of Program Office participation makes a difference
- + Establishment of final report and briefing templates helps ensure teams' data collection and analysis in-sync with end product



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Back-Up Slides



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OSD AT&L Memo

NATIONAL RECONNAISSANCE OFFICE



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OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

SEP 14 2010

ACQUISITION,
TECHNOLOGY
AND LOGISTICS

MEMORANDUM FOR ACQUISITION PROFESSIONALS

SUBJECT: Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending

On June 28, I wrote to you describing a mandate to deliver better value to the taxpayer and warfighter by improving the way the Department does business. I emphasized that, next to supporting our forces at war on an urgent basis, this was President Obama's and Secretary Gates' highest priority for the Department's acquisition professionals. To put it bluntly: we have a continuing responsibility to procure the critical goods and services our forces need in the years ahead, but we will not have ever-increasing budgets to pay for them. We must therefore strive to achieve what economists call productivity growth: in simple terms, to DO MORE WITHOUT MORE. This memorandum contains specific Guidance for achieving the June 28 mandate.

Secretary Gates has directed the Department to pursue a wide-ranging Efficiencies Initiative, of which this Guidance is a central part. This Guidance affects the approximately \$400 billion of the \$700 billion defense budget that is spent annually on contracts for goods (weapons, electronics, fuel, facilities etc., amounting to about \$200 billion) and services (IT services, knowledge-based services, facilities upkeep, weapons system maintenance, transportation, etc., amounting to about another \$200 billion). We estimate that the efficiencies targeted by this Guidance can make a significant contribution to achieving the \$100 billion redirection of defense budget dollars from unproductive to more productive purposes that is sought by Secretary Gates and Deputy Secretary Lynn over the next five years.

Since June, the senior leadership of the acquisition community – the Component Acquisition Executives (CAEs), senior logisticians and systems command leaders, OSD officials, and program executive officers (PEOs) and program managers (PMs) – has been meeting regularly with me to inform and craft this Guidance. We have analyzed data on the Department's practices, expenditures, and outcomes and examined various options for changing our practices. We have sought to base the specific actions I am directing today on the best data the Department has available to it. In some cases, however, this data is very limited. In these cases, the Guidance makes provision for future adjustments as experience and data accumulate so that unintended consequences can be detected and mitigated. We have conducted some preliminary estimates of the dollar savings anticipated from each action based on reasonable and gradual, but steady and determined, progress against a clear goal and confirmed that they can indeed be substantial.

Changing our business practices will require the continued close involvement of others. We have sought out the best ideas and initiatives from industry, many of which have been adopted in this Guidance. We have also sought the input of outside experts with decades of experience in defense acquisition.

Page 3:

"I will require the manager of each major program to conduct a Should Cost analysis justifying each element of program cost and show how it is improving year by year or meeting other relevant benchmarks for value.

...will continue to set the program budget baseline using an ICE.

ICE = ...forecasts of what a program Will Cost based on reasonable extrapolations from historical experience



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Should Cost Vs Will Cost



- + FAR Based Should Cost –
 - Tool to Support Contract Negotiations
 - Doesn't Assume Contractor is Operating Efficiently
 - Identifies and Prices Efficiencies (Direct and Indirect costs)
 - Fact-Based Cost Reduction Initiatives for Negotiations
 - Can Inform Budget Process and Acquisition Strategies
- + “Will Cost”
 - Independent Cost Estimate
 - Primarily Used for Budgetary Purposes
 - Uses Parametrics and Historical Data
 - Output is Earlier than Requirements and Acquisition Process
- + “Could Cost”
 - If the Government Buys Differently... (Acquisition Strategy)

The type of review will require different objectives, organization, resources and processes