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Back to the Future: The DoD Looks back at the Should Cost Review to Save Buying Power in the Future



Presented by

**Marty Sherman
DAU West Region**

Should Cost Review on Evolved Expendable Launch Vehicle (EELV)

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- **SCR History**
- **Better Buying Power**
- **Why an EELV SCR?**
- **Direction and Team Formulation**

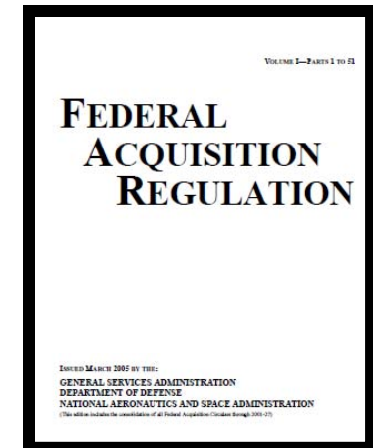
Target Affordability and Control Cost Growth



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

Foundation in the FAR 15.407-4

- Promote short and long-range cost improvements in contractor's economy and efficiency
- Two types of SCRs: Program and Overhead
- Does not assume contractor's historical costs reflect efficient and economical operation (Will Cost)
- Evaluate economy and efficiency of contractor's existing workforce, methods, materials, equipment, real property, operating systems, and management
- Accomplished by a multi-functional government team



Background



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
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

GOALS

- 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

Background

Program Should Cost Review		Overhead Should Cost Review	
Some initial production has already taken place (FAR)		Dollar amount of Government business (FAR); Projected annual sales to DoD exceed \$1 billion (DFARS)	
The contract will be awarded on a sole source basis (FAR)		Level of Government participation (FAR); Projected DoD versus total business exceeds 30 percent (DFARS)	
There are future year production requirements for substantial quantities of like items (FAR)		Level of noncompetitive Government contracts (FAR); Level of sole-source DoD contracts is high (DFARS)	
The items being acquired have a history of increasing costs (FAR)		Volume of proposal activity (FAR); Significant volume of proposal activity is anticipated (DFARS)	
The work is sufficiently defined to permit an effective analysis and major changes are unlikely (FAR)		Major system or program (FAR); Production or development of a major weapon system or program is anticipated (DFARS)	
Sufficient time is available to plan and adequately conduct the should-cost review (FAR)		Corporate reorganizations, mergers, acquisitions, or takeovers (FAR)	
Personnel with the required skills are available or can be assigned for the duration of the should-cost review (FAR)		Other conditions (e.g., changes in accounting systems, management, or business activity) (FAR); Contractor cost control/reduction initiatives appear inadequate	

Conduct full review incorporating both types

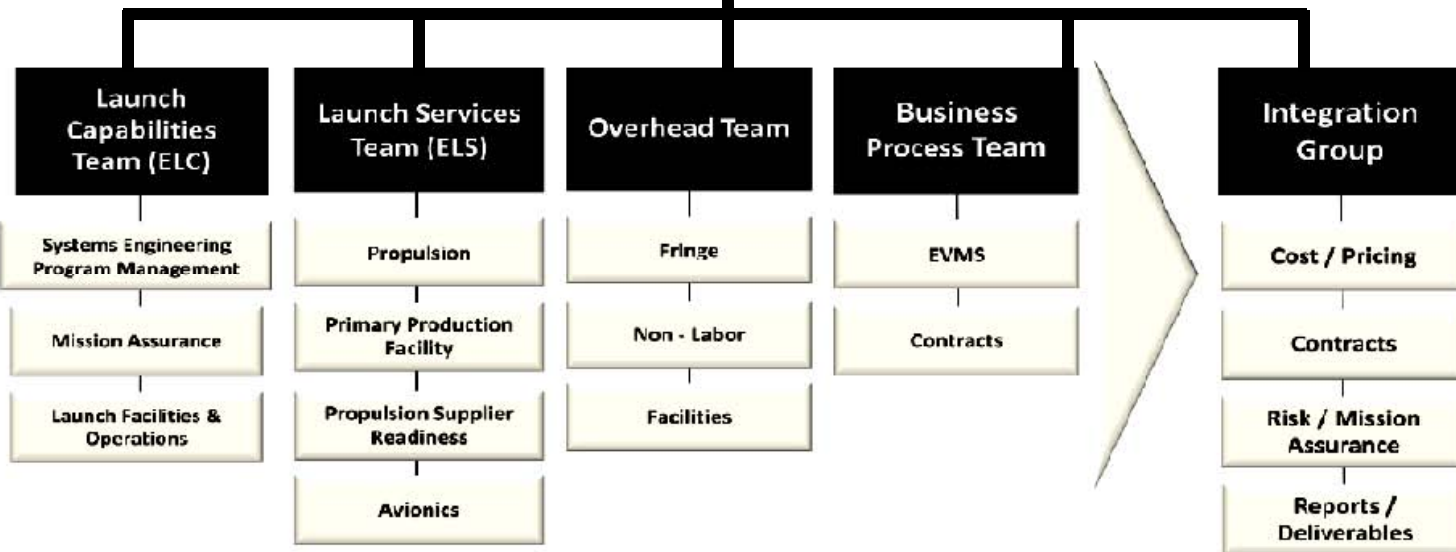
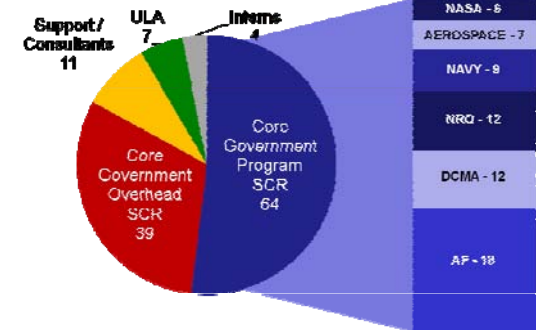
Background



General Carlson
Gen Kehler

Executive Advisory
Group

Director
Mr. Poussard



- **Conducted Literature review—not much available**
- **Formulated team and established goals**
- **Collected data via RFIs, on-site interviews, observations, etc.**
- **Identified Cost Reduction Initiative opportunities—consolidated results**

- Absent current documentation on the SCR process, much of the effort was trial and error, despite the best efforts to do advance planning
- DAU observed the SCR, captured best practices and lessons learned, documented process and models, and served as thinking partner



“Writing the book as we go”

Planning

- **Best Practices**
 - “Close to” Inherently Governmental Activity
 - Senior Direction must be have Clearly Stated Goals and Objectives
 - Stakeholder Involvement throughout
- **Lessons Learned**
 - Stakeholders and Team Members Must Understand SCR Purpose
 - Define “Should Cost” vs “Will Cost” vs “Could Cost”
 - Clarify Contract Support Requirements, Deliverables and Funding
 - Establish Non-Disclosure Agreement Process
 - Identify IT/Networking Needs and Sources to ease communication
 - Establish SCR Leadership Team to be Part of Planning

Organization

- **Best Practices**

- WBS cost drivers (use Pareto 80/20 rule) helped shape structure
- **Use Navy Price Fighter and CAIG Cost Estimators – include both skill sets**
- Establish Integration Group to Assess Results
- **Rely on DCMA (DACO and Plant Reps) and DCAA (advisory only)**
- Business Process Team (Contracts, Business Systems including EVM)
- Use Prime Contractor Personnel by Invitation
- Include Trainers to Build Training Course for Others

- **Lessons Learned**

- Establish clear chain of Command and Flow of Information
- **Use Frequent and Consistent Communication Tools to Entire Team**
- Manage Prime Contractor Role to Avoid Mis-communication

Processes (cont)

- Best Practices (cont)
 - Use Face-to-Face Site Visits to Facilities with Introduction Letters and Briefing
 - Use a Common, Protected Web-Based Data Storage with Controlled Access to Allow for Transparency in the SCR Processes.
 - Include General Counsel to Work Access to Data and Conflicts of Interest
- Lessons Learned
 - Keep the Methodology Simple
 - Establish Regular In-Person Team Reporting to Team Leads and Director
 - IT networks and applications can be unreliable
 - Document as Teams Make Progress

Processes

- **Best Practices**

- Establish Written Team Charters, Templates and a Common Methodology
- Leverage Work of Others (DCAA, DCMA, OSD) – Did Not Duplicate Work
- Schedule Regular Stakeholder Updates via Executive Oversight Group
- **Protect Data at All Times**
- Train in All-Hands Meetings and Small Groups
- **Just-in-Time (JIT) Training: Initial Training to frame the effort and instill motivation and a common focus, timely relevant training on data gathering and analysis tools, tailored training on the use of the CRI form, databases and models**
- Embed Technical Writers into Teams – Documentation and Report-Writing
- Acquire a Central Facility for Review Duration (Networks, Equipment, Creature Comforts)

The Survey

20. Based on my experience and my participation with this SCR:

11. How would you rate the following during your participation in this event?

Other

My time

If you

21. What

22. What

23. What

24. Please

25. In the

will co

The start-up of this SCR was

The expectations of this SCR

The training I received in su

Important information affect

My participation in the SCR

If given the opportunity, I wo

If you selected 'disagree' or

12. Rate the following statement

My SCR team/sub team was

The SCR process was clear

If you selected 'disagree' or

13. Please respond to the following assigned to a team, please

As Team Lead/Deputy, the

As a Sub Team Lead/Deputy

As a Team Member, the tra

If you selected 'disagree' or

6. How many years of acquisition experience do you have?

Select One...

7. How many years of experience do you have?

Select One...

8. How many times have you participated in a SCR?

Select One...

9. What has been your team affiliation?

☐ Integration Group

☐ Launch Capabilities Team

☐ Launch Services Team

☐ Overhead Team

☐ Other

10. What statement best describes your role?

☐ Team Lead

☐ Deputy Team Lead

☐ Sub Team Lead

☐ Team Member

☐ SME Support

☐ Staff/Admin Support

☐ Other

EXPENDABLE LAUNCH VEHICLE SHOULD COST REVIEW

Evolved Expendable Launch Vehicle (EELV) Should Cost Review (SCR) Team Members: In an effort to make the Department's participation in the EELV SCR pay even greater dividends, we respectfully ask that you take a few minutes to respond to this short survey.

Your responses will remain anonymous and your identity will be protected. Your support is greatly appreciated.

1. Tell us about yourself. What best describes your parent organization?

DCMA	DAU	DCAA	SAF	SMC	HQAFMC	Aerospace	NRO	AFCAA	AT Kearney	BTAS	ULA	OTHER
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

If you checked other, please state:

2. What is your primary functional area of expertise?

Select One...

If other, please state:

3. How many years of experience in your primary functional area of expertise do you have?

Select one...

4. Please indicate the highest DAWIA certification level(s) you have achieved in the corresponding functional area(s). If you are not DAWIA certified, continue to the next question.

Functional Area	Level I	Level II	Level III
Program Management	☐	☐	☐
Systems Engineering	☐	☐	☐
Budget, Cost Estimating and Financial Management	☐	☐	☐
Life Cycle Logistics	☐	☐	☐
Production Quality Manufacturing	☐	☐	☐
Contracting	☐	☐	☐

If you have other Acquisition or DAWIA certifications, please list:

Who Participated In The Survey?

Almost Everyone!

High Confidence Sample

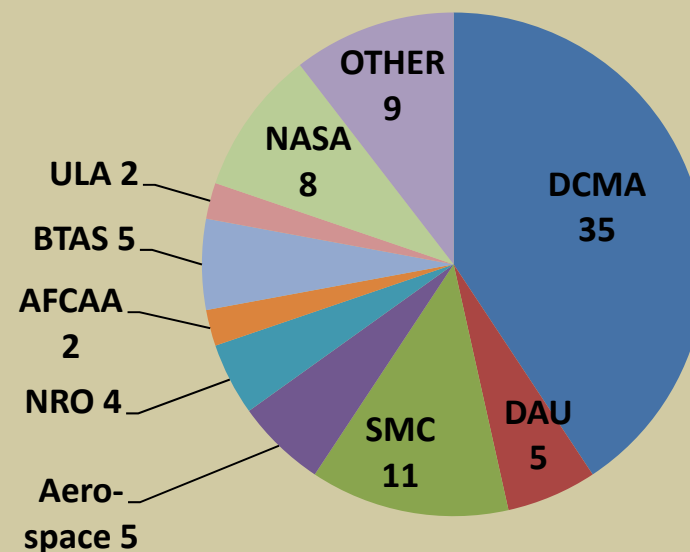
91 Should Cost Participants
86 Survey Respondents

~

99% Confidence Level
3% Confidence Interval



Organization



Who Participated In The Survey?

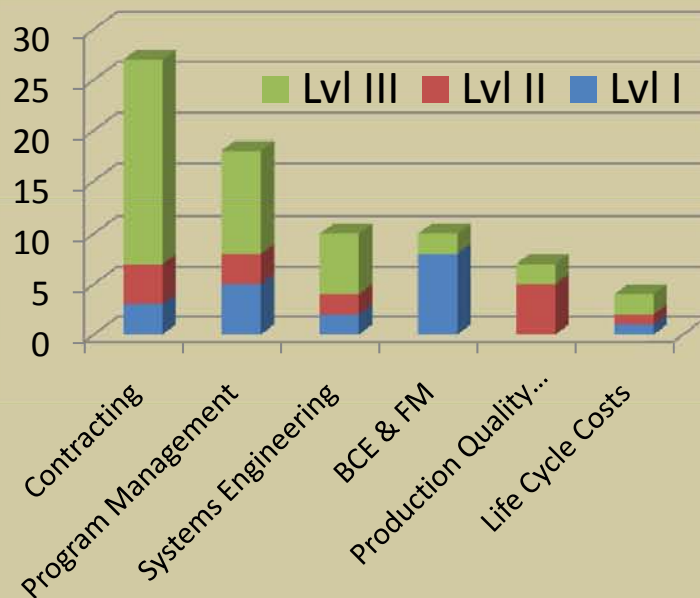
Many Functional Areas!

Contracting	18	Administrative
Cost Estimating	13	Materials Engineer
Systems Engineering	12	Operations
Program Management	14	Propulsion
Financial Management	9	Price Analyst
Production & Quality Manufacturing	4	Acquisition
Auditing	2	Avionics
Logistics	1	Civil Engineering
		Supply Chain Management
		Systems Engineering
		Technical Writer/Editor

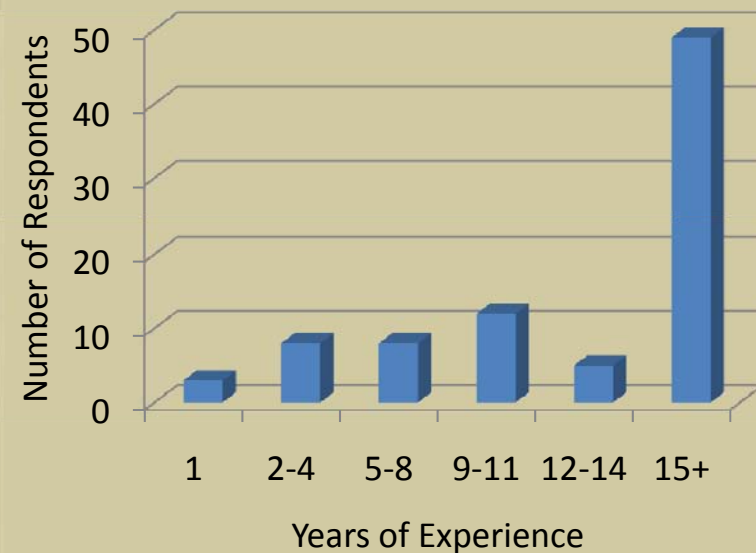


Who Participated In The Survey? Some Pretty Experienced People!

DAWIA Levels

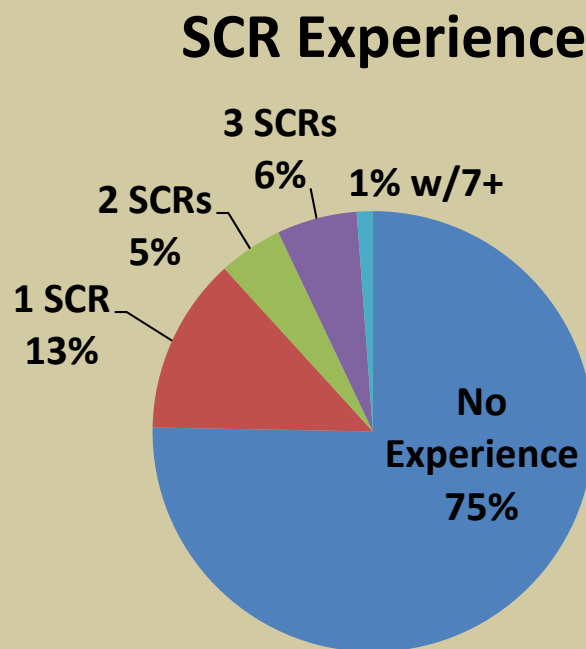


Experience



Who Participated In The Survey?

Not So Much SCR Experience



With Regard to Your SCR Participation...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Start-up Well Organized	6%	13%	14%	36%	27%
Expectations Sufficiently Communicated	3%	10%	13%	49%	25%
Training was Sufficient/Timely	1%	8%	32%	45%	14%
Important Information Flowed Freely	4%	11%	18%	46%	21%
My SCR team was correctly sized/staffed	3%	19%	29%	29%	19%
The SCR process was clear/straight-forward	2%	9%	13%	47%	27%
The Site Visits were useful	0%	0%	4%	28%	55%
My participation had a positive impact	0%	0%	4%	56%	40%
I would participate in another SCR	0%	2%	19%	32%	47%

Findings

Rating the Site Visits...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Were Useful	0%	0%	4%	32%	64%
Time Allocated was Adequate	3%	17%	23%	36%	21%
Interview process was Efficient	0%	5%	23%	53%	19%
Helpful Host Organization Support	0%	1%	4%	39%	56%



Findings

How do you feel?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
DoD programs could benefit from the process	1%	0%	11%	42%	47%
My time a good use of personnel resources	3%	1%	16%	58%	22%



Aggressive



Apathetic



Anxious



Apologetic



Arrogant



Bashful



Blissful



Obstinate



Optimistic



Pained

Conclusions

- **Significant results with near and long term utility for contract negotiations, budgets and acquisition strategies**
- **Comprehensive review was labor intensive but necessary**
 - Partial reviews may be more efficient but will be limited in scope
- **Methodology captured and documented fact-based efficiencies**
 - Added to credibility of results
 - Business process review strengthened SPO, DCMA and DCAA partnership
- **Senior leadership / stakeholder equity facilitated buy-in**
- **Government SCR skill sets must be developed**
- **Training is key**