An Industry Response to the Acquisition Changes

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Acquisition Reform

Better “Get it right” the first time

- Changes are driving
  - New program behaviors
  - Opportunities to engineer the across the program’s lifecycle
  - Mature / available technologies
  - Low risk program execution
  - Increased focus on operational constraints

Initiatives

Reform

Industry

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Industry Test Program Changes

Before Reform

- Test personnel introduced late in the program
- Cost plus contract type allowed for higher initial program risks and significant G&A's. Assumed 50% success rate
- Testing delays due to technology development during SDD
- Requirement creep caused constant test program churn
- Operational / Mission Evaluations left to OT&E
- Facilities unique to program to allow for program control

Reform changes can produce

- Introduce T&E skill mix early in program to support requirements development – Early test skill presence
- Competitive Prototyping causes increased early testing, reduces risk in EMD phase
- EMD program assumes much lower risk in estimates – truer test program costs
- Assessment of Government Facilities may lead to increase use of national assets
- Realistic Testing introduced during contractor test program
- Early data in realistic environment supports earlier OA’s

RFP language must be realized to institute industry change
Acquisition Reforms Influencing Contractor Behavior – Integrated Testing

How we did things

- Integrated teams & facilities
- IP contract language need to be developed
- “Siloed”

Acquisition Reform

- Integrated Testing
- Test WIPT
- Increased use of Gvmt. Facilities
- Shared Data
- Early Teaming CT/DT/OT
- Intellectual property issues resolved
- Early Evaluations & Data Sharing

Industry change to support reform | Culture | Artifact
--- | --- | ---
- Integrated teams & facilities | - | -
- IP contract language need to be developed | - | -
- “Siloed” | - | -
- Early Teaming CT/DT/OT | - | -
- Intellectual property issues resolved | - | -
- Test WIPT | - | -
- Increased use of Gvmt. Facilities | - | -
- Shared Data | - | -
Acquisition Reforms Influencing Contractor Behavior – Scientific Methods

How we did things

We cannot solve our problems with the same thinking we used when we created them.

Do what we did last time

Acquisition Reform

Adapt scientific methods in addition to experience

Industry change to support reform

Culture

Artifact

STED / DOE

• Modernize test techniques and tools / test program modeling

• Mission based modeled

• Optimized Integrated Test Program

STED / DOE

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OPTIMIZED TEST PROGRAMS
Acquisition Reforms Influencing Contractor Behavior – TDP and PDR

**How we did things**

- High Risk

**Acquisition Reform**

- PDR in TDP

**Industry change to support reform**

<table>
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<th>Industry change to support reform</th>
<th>Culture</th>
<th>Artifact</th>
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<tr>
<td>• Low Risk Design TRL&gt;6</td>
<td>• Adapt TDP / EMD low risk approach</td>
<td>• Appropriate contract types</td>
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<td>• Utilize Proven Technology in Design</td>
<td>• Conduct design under competitive environment</td>
<td>• Quicker fielding,</td>
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<td>• Less Invented Technology</td>
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<td>• Achieve RMA Rqmts.</td>
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Acquisition Reforms Influencing Contractor Behavior – Realistic Testing

How we did things

Engineering based / Design Compliance

Focus on mission based design compliance
Model based design and test

Acquisition Reform

Realistic / Mission Based Testing

• View product across the product lifecycle

Industry change to support reform | Culture | Artifact
---|---|---
• Focus on mission based design compliance
• Model based design and test

• Realistic Testing
• Fewer OT “Discoveries”

Lifecycle Approach

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Acquisition Reforms Influencing Contractor Behavior – Early T&E

How we did things

Industry change to support reform
- Include T&E early in TD phases
- Early evaluations

Culture
- PM Recognition of Role of T&E in early program

Artifact
- Appropriate contract wording, emphasis and scoring on early T&E
- Design maturation with test data

Acquisition Reform

T&E in SDD

T&E in TDP and earlier

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Conclusions

• Acquisition changes are driving behavioral changes in programs
• T&E culture is slow to change
• Programs must recognize role of T&E as an early necessary skill mix
• Both Industry and Customer must embrace the change

The U.S. Air Force will not push the envelope as it historically has when developing new technology for future weapons because declining defense spending will reshape the military's purchasing priorities. "Future development efforts will have to be less ambitious because we cannot assume the kind of risk that past acquisition strategies have incorporated in their development plans," Schwartz said. ... and industry "must bid according to realistic estimates and resist offering to sell more than what is operationally required because the success of the military and industry are now mutually related, perhaps more so than ever before," Schwartz said.

Gen. Norton Schwartz, the Air Force Chief of Staff 21 Sep 2011 – Defense News

Change is occurring, teaming is essential, recognition is essential
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