

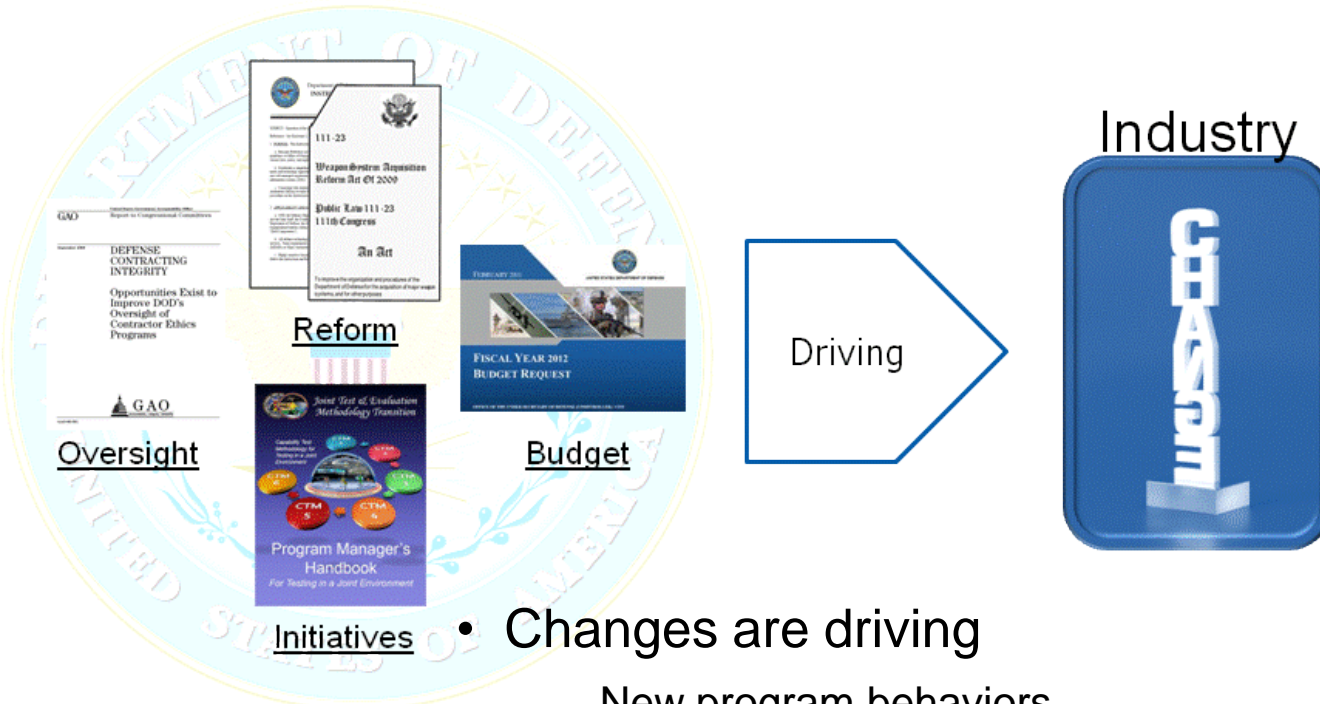
**An Industry Response to the
Acquisition Changes
14th Annual Systems Engineering
Conference
Hyatt Regency Mission Bay
October 26th, 2011**

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Initiatives

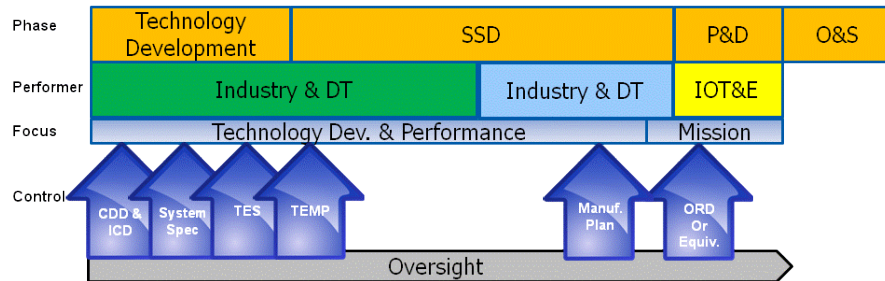
• Changes are driving

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

Better "Get it right" the first time

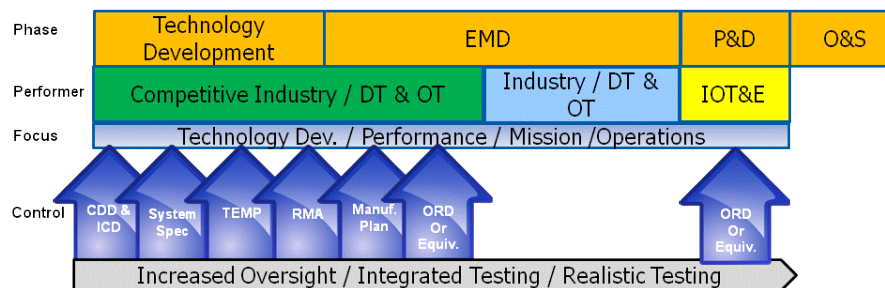
Industry Test Program Changes

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 SSD
- 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

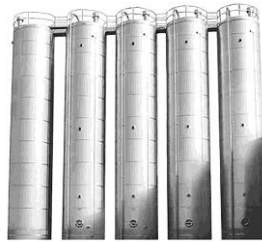


- Introduce T&E skill mix early in program to support requirements development – Early test skill presence
- Competitive Prototyping causes increased early testing, reduces risk in EMD phase
- EMD program assumes much lower risk in estimates – truer test program costs
- Assessment of Government Facilities 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



“Siloed”

Acquisition Reform



Integrated Testing

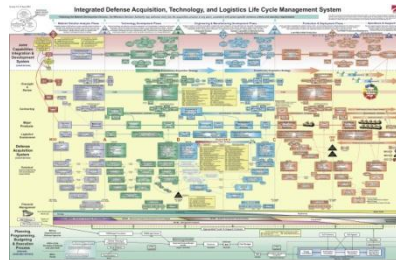
**EARLY
EVALUATIONS
&
DATA
SHARING**

Industry change to support reform



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

Culture



- Early Teaming CT/DT/OT
- Intellectual property issues resolved

Artifact



- Test WIPT
- Increased use of Gvmt. Facilities
- Shared Data

Acquisition Reforms Influencing Contractor Behavior – Scientific Methods

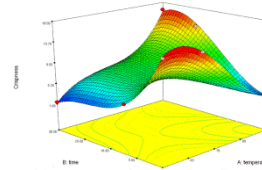
How we did things



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

Do what we did last time

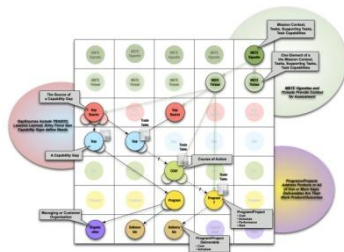
Acquisition Reform



Adapt scientific methods in addition to experience

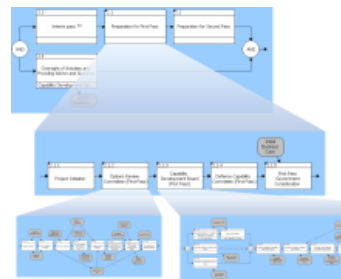
OPTIMIZED TEST PROGRAMS

Industry change to support reform



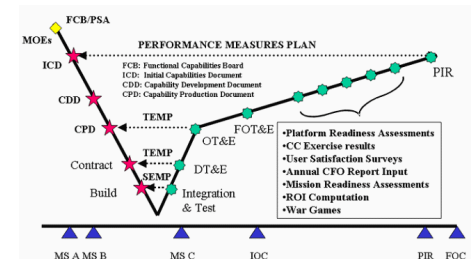
STED / DOE

Culture



- Modernize test techniques and tools / test program modeling

Artifact



- Mission based modeled
- Optimized Integrated Test Program

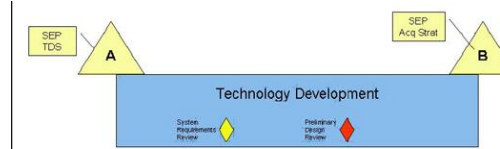
Acquisition Reforms Influencing Contractor Behavior – TDP and PDR

How we did things



High Risk

Acquisition Reform



PDR in TDP

**ESTABLISH
APPROPRIATE
PROGRAM
RISK**

Industry change to support reform



Culture



Artifact



- Low Risk Design TRL>6
- Utilize Proven Technology in Design
- Less Invented Technology

- Adapt TDP / EMD low risk approach
- Conduct design under competitive environment

- Appropriate contract types
- Quicker fielding,
- Achieve RMA Rqmts.

Acquisition Reforms Influencing Contractor Behavior – Realistic Testing

How we did things



Engineering based /
Design Compliance

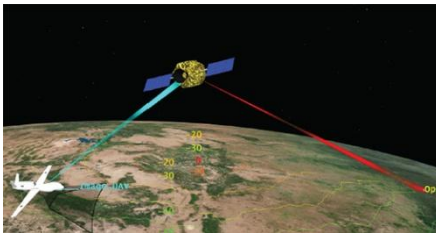
Acquisition Reform



Realistic / Mission Based
Testing

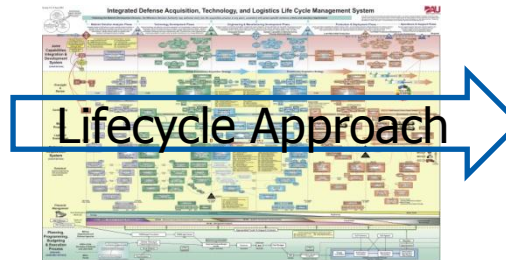
**FOCUS ON
MISSION NOT
JUST DESIGN**

Industry change to support reform



- Focus on mission based design compliance
- Model based design and test

Culture



- View product across the product lifecycle

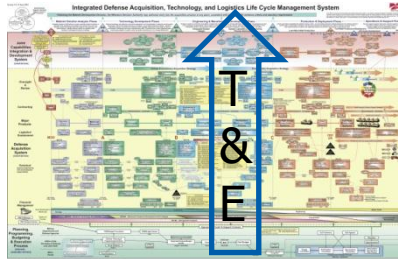
Artifact



- Realistic Testing
- Fewer OT “Discoveries”

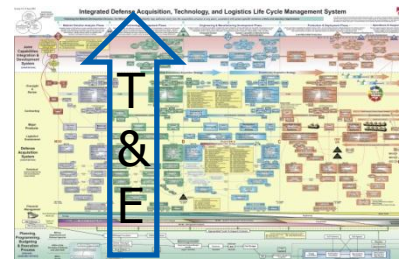
Acquisition Reforms Influencing Contractor Behavior – Early T&E

How we did things



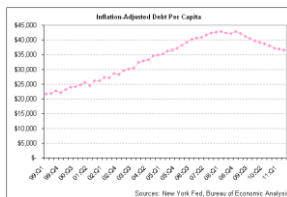
T&E in SDD

Acquisition Reform



T&E in TDP and earlier

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 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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NORTHROP GRUMMAN

