

# CURRENT STATE OF ACQUISITION, TEST & EVALUATION ENTERPRISE

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PRESENTATION TO INCOSE  
ENCHANTMENT CHAPTER

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# WHAT HAPPENED?

- Congressional Cuts:
  - DoD Acquisition Personnel
  - T&E Budgets
- Faulty implementation of acquisition reform initiatives
  - Overemphasis on commercial products, practices
  - De-emphasis/elimination of Mil Specs, standards
  - Elimination of reliability growth requirement
  - Reduced government personnel and oversight
- Contractual practices
  - Use of contractual vehicles which minimize Government oversight
  - Limited Government access to data and models
- Frequent Rotation of Senior Government Managers
  - Tenure too short to deal with consequences of poor decisions
- Impact of Wars on Military positions and funding

# WHAT HAPPENED(Continued)

- Acquisition process lost discipline and stability
- Slogan-based processes
  - Simulation-based
  - Performance-based
  - Capability-based
  - Effects-based

# Additional Air Force Acquisition/Test Changes

- Consolidation of AFSC&AFLC in 1992: Creation of AFMC
- OEM given Total System Performance Responsibility
  - Trend: Give DT&E Conduct and Control to OEM
- Engineering Workforce Reduced as much as 60%
- Air Force Development Planning Funding and Function Eliminated
- Air Force Evaluation, Reporting Deemphasized

# Aggregate Effects of Changes Quantifiable Consequences

- Inadequate Requirements Definition
  - Increased Requirements Turbulence
  - Testability considerations deemphasized
- Inadequate attention to technology readiness
- Unprecedented cost overruns, Nunn-McCurdy breaches
- Developmental Timelines increased; unprecedented schedule slips
- Dramatic increase in suitability failure rates
  - Adversely impacts system availability
  - Increases sustainment costs
- Production increments increasingly funded prior to IOT&E or adequate DT

# Weapons Systems Acquisition Reform Act of 2009 (Public Law 111-23, May 22, 2009)

- Senate Armed Services Committee Hearing, 3 March 09
- Acquisition organizational realignments
  - Establishes director of cost assessment
  - Reestablishes director, DT&E
- Some key policy provisions
  - Requires trade-off analyses among cost, schedule, performance
  - Requires prototyping of critical technologies
  - Requires actions to address systemic problems

# Remedies: Government Workforce

- Reconstitute experienced & capable Government acquisition workforce: KEY TO ALL OTHER INITIATIVES
  - Contracting personnel
  - Program managers
  - Engineers/Technical staff
    - – Domain subject matter experts
    - – Systems Engineers
  - T&E Personnel
    - – Reconstitute field test organizations as Centers of Expertise to perform RTO function
- Reestablish pipelines (vice sporadic hiring)
- Reconstitute guidance documents
- Augment with expert interservice & FFRDC Teams

# Remedies: Requirements Process

- Requirements must be stated in terms that are measurable, testable, evaluable, reasonable in terms of technology and cost
  - Test community must be involved in definition process to insure testability
- Reassess emphasis on commercial practices
  - Insure relevance & adequacy of commercial criteria on a case-by-case basis
- Constrain Initial Technical, Operational Wish List
  - Insure Technical Maturity (TRL 6 or 7)
  - Develop basic platform, followed by block capability upgrades



# “Fly Before Buy”

- Prototype Demonstration in a Relevant Environment (Technology Readiness Level 6 (Minimum))
- Accelerate Initial Acquisition Integrated Testing
- Verify technical design throughout normal operating envelope ASAP
- Identify, correct major flaws

# Remedies: Reestablish/Reinvigorate Government Tester Involvement

- Designate a Test Organization as RTO
  - Insure testability/evaluability of requirements
- Participate in Source Selection
- Scope Test Program with OEM
- Periodically Report on Test Program Status
- Participate in Program technical reviews
- “Expert Cadres” for test process improvement/cycle time reduction studies

# CONCLUSIONS

- Warfighters, Taxpayers, Deserve Better Performance from DOD Acquisition
- Required Corrective Actions Underway
  - Implementation of Fixes Beginning
  - WSARA was Primary Forcing Function
- Congressional, Services, OSD Commitment??