

# **An Industry Response to the Acquisition Changes**

**27th Annual National T&E Conference  
Marriott Tampa Waterside  
March 15th, 2011**

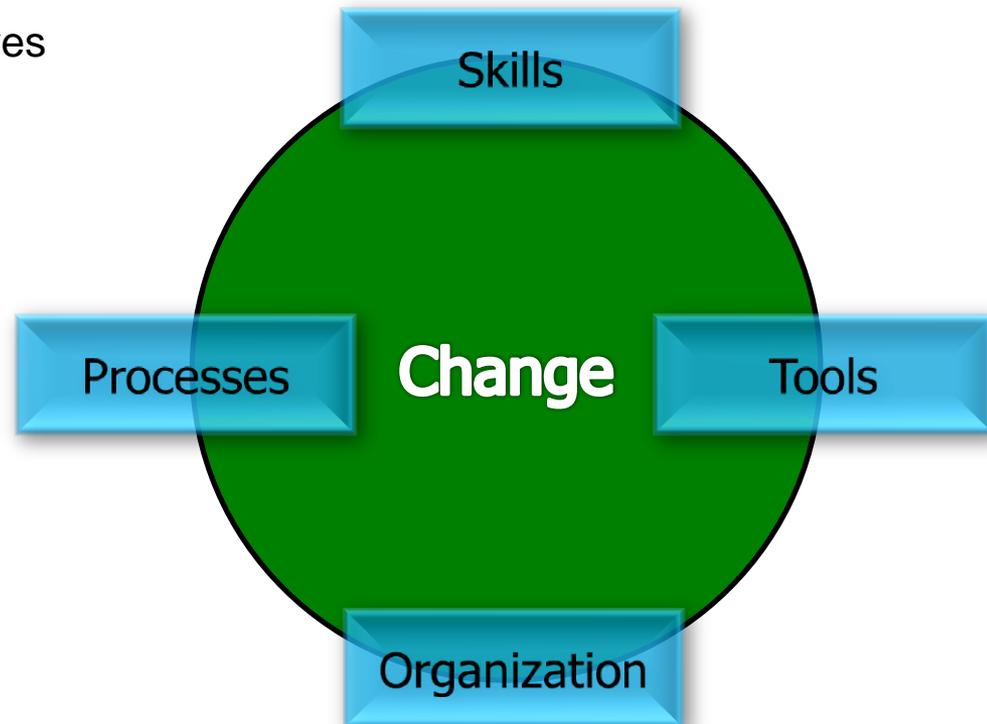
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# An Industry Response to the Acquisition Changes - Agenda

- Presentation Agenda

- The Acquisition Reform and Initiatives
- Change Analysis
- T&E Keys Acquisition Tenets
- The Transformation
- Conclusions



“Let our advance worrying become advance thinking and planning” -

Winston Churchill

# An Industry Response to the Acquisition Changes

## 5000.02 (2008)

Significantly Revised Acquisition Policy

Earlier definition of scope, risk and cost

Mandatory entry point

Special procedures for IT services over \$500 million

Risk Reduction

Competitive prototyping

Highly integrated T&E

Evolutionary acquisition (NOT spiral development)

Enhanced Oversight

More/more frequent assessments

Peer reviews

Configuration Steering Boards



Department of Defense  
INSTRUCTION  
NUMBER 5000.02  
DATE 12/11/07

SUBJECT: Department of Defense Acquisition System

1. PURPOSE: This instruction...

2. SCOPE: This instruction applies to all DoD acquisition programs...

3. REFERENCES: This instruction is based on the Department of Defense Acquisition Regulation (DoDAR)...

4. POLICY: This instruction establishes the Department of Defense Acquisition System (DoDAS)...

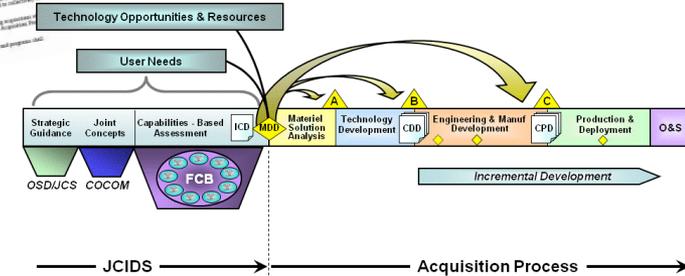
5. ASSIGNMENT OF RESPONSIBILITIES: This instruction assigns the following responsibilities to the Department of Defense Acquisition System...

6. EFFECTIVE DATE: This instruction is effective on the date of the Department of Defense Acquisition System...

7. SUPERSEDES: This instruction supersedes the following instructions...

8. ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE...

9. THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE...



## WSARA (2009) Key Areas Affecting T&E

Creates Director, Developmental Test & Evaluation

- Reviews and approves DT&E plan in the TES and TEMP for MDAPs and all programs on the OSD DT&E Oversight List
- Monitors and reviews DT&E of MDAPs
- Has access to all Component records and data necessary to carry out duties

## S.454 - Weapon Systems Acquisition Reform Act of 2009



Latest Action MAY 21 **May 22, 2009** Became Public Law No: 111-23.

DoDI5000.02&Implementation of the Weapon Systems Acquisition Reform Act of 2009 &New Changes to Policy Karen Byrd DAU Learning Capabilities Integration Center Learning Asset Program Manager May 2010



- Field new capability rapidly
- Engage early to improve requirements
- Integrate developmental, live fire, and operational testing
- Substantially improve suitability before Initial Operational Test & Evaluation (IOT&E)

MEMORANDUM FOR DOT&E STAFF 24-Nov 2009 - J. Michael Gilmore Director DOT&E

Wherever practicable, **IOT&E will be conducted using low-rate initial production (LRIP) systems assembled using the parts, tools, and manufacturing processes intended for use in full-rate production.** The system will also utilize the intended production versions of software. In addition, the logistics system and maintenance manuals intended for use on the fielded system should be in place.

Memo - Use of Production-Representative Test Articles for Initial Operational Test and Evaluation (IOT&E) J. Michael Gilmore Director OT&E 18-October-2010

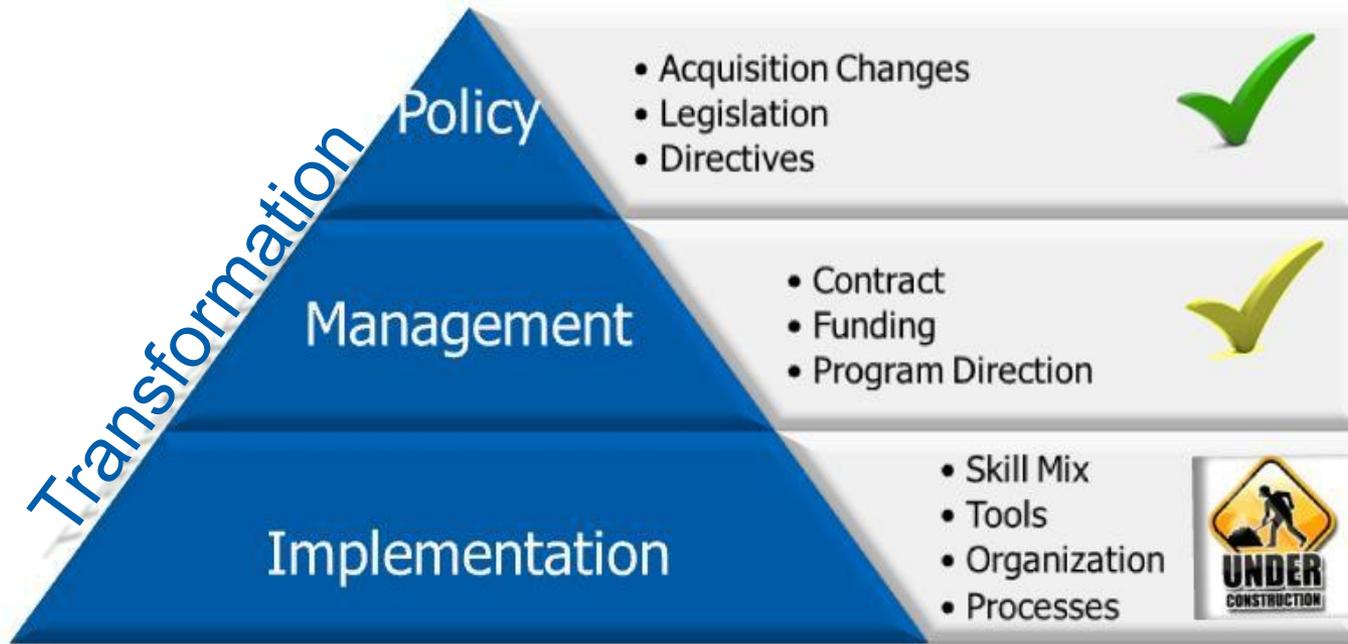
"single most important step.. .is to ... execute a viable systems engineering strategy from the beginning, including a robust reliability, availability, and maintainability (RAM) program"

We know the problem persists. We know that it results in higher costs and less effective systems. We know more stringent engineering is required to deliver reliable products. To that end, **industry must be made aware that all our contracts will require, at a minimum, the system engineering practices of ANSI/GEIA STD-0009.**

MEMORANDUM FOR PRINCIPAL DEPUTY UNDER SECRETARY OF DEFENSE (ACQUISITION, TECHNOLOGY AND LOGISTICS) SUBJECT: State of Reliability J. Michael Gilmore Director OT&E 30-June-2010

T&E excellence requires active leadership, **sound planning, and realistic integrated developmental testing (DT) and operational testing (OT).**

Incorporating Test and Evaluation into Department of Defense Acquisition Contracts - MAY 2009 – OUSD , AT&L



- The New Policies Address The Hard Questions –
  - ✓ Provides Good Answers
- Management of New Policies are Just Coming –
  - ✓ Program Management (Customer & Contractor) Embrace the Changes
- Implementation Underway –
  - ✓ New Program Implementation a Mixed Bag, Change is Hard

Policy Alone will Not Effect Change

# Five (5) Acquisition Keys



## Prototyping

- Increase Modeling and Simulation
- Focus on Needed Technology Development
- Establish Operational Environment Early

## Operational Realism

- Establish WIPT Early
- Early Test Planning
- TEMP Alignment



## Integrated Testing

- Data Plans
- Proper Contract Language
- Early Identification of Data Needs
- Evaluate in Proper Environment

## Rapid Fielding

- Slow the Requirements Growth
- Test Operationally
- Collaborative Test Planning



## RAM

- Early Manufacturing Inputs
- Early RAM Simulations
- Still Under Work

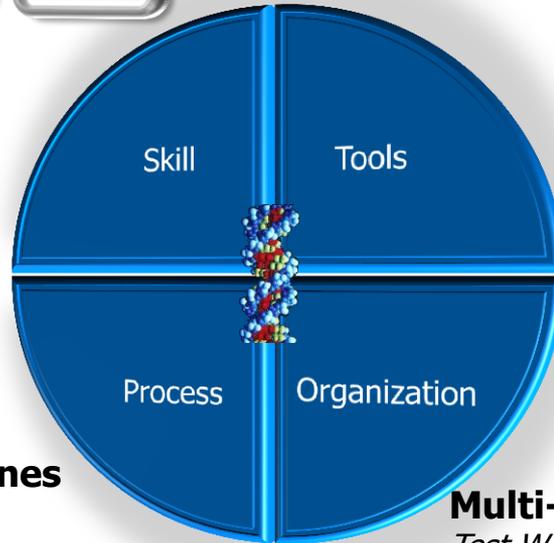
Key Acquisition Changes Which Drive T&E Change

# The Transformation



## Training Skill Mix Development Enhance Test Techniques

*Design Of Experiments  
Modeling and Simulations  
Develop RAM Test SME*

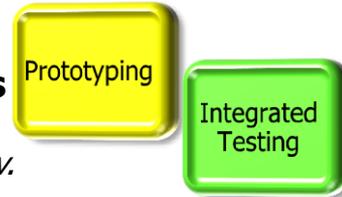


## Develop T&E Test Tools

*Test Plan Modeling  
Collaborative Test Program Dev.  
Optimized Test Program*

## Modeling and Simulation

*Physic Based , Dynamic  
Test Event Evaluations*



## Integrated Across Disciplines

*Developed to Support Integrated  
Testing Concept  
Establish RAM T&E Processes*

## Career Path Development

*Rotational Programs Enhance Lifecycle  
Experience*



## Multi-disciplined Team

*Test WIPT Established  
Processes Based  
Aligned / Coordinated & Integrated*

## Early Program Involvement

*Support Good Program Start  
Ensure T&E Needs Identified  
Integrated Disciplines From the Start*

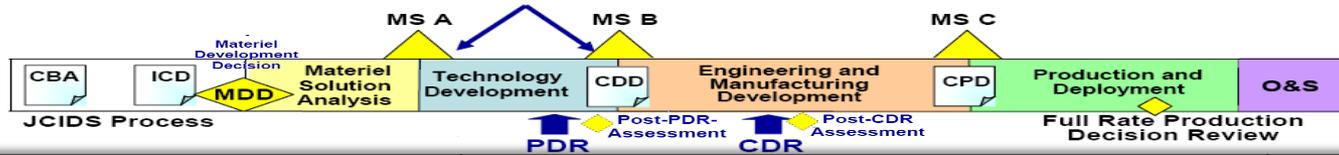
## Customer Aligned

*Enhances Communications*

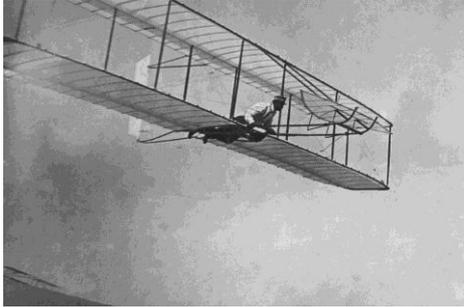


The T&E DNA Requires Change to Implement the Policies

# The Results



Phase	Task	Value	Product
MDD – M/S A	<ul style="list-style-type: none"> <li>•Execute Architecture Analysis *</li> <li>•Establish Long Lead Test Program requirements</li> <li>•Establish Integrated Test Team</li> <li>•Develop Test Strategy including Technology development activities</li> </ul>	<ul style="list-style-type: none"> <li>•Testable Architecture</li> <li>•Initial Test Plans and Facilities Definitions Established.</li> <li>•Initial Requirements Based on Tested Architecture</li> <li>•Architecture Streamlined Testable, Essential Requirements Identified Aiding in Rapid Deployment</li> <li>•Event Based Test Schedule Developed</li> </ul>	<ul style="list-style-type: none"> <li>•Integrated Architecture</li> <li>•Schedule</li> <li>•Major Test Assets Identified</li> <li>•TES</li> </ul>
TDP	<ul style="list-style-type: none"> <li>•Conduct Requirements Verifiability Assessment *</li> <li>• Conduct Verification Requirement Development *</li> <li>•Develop Test Unique Design Requirements *</li> <li>•Conduct Required Prototyping / Risk Assessments</li> <li>•Establish Reliability Program</li> <li>•Establish Test Program Plan</li> </ul>	<ul style="list-style-type: none"> <li>•Verifiable Requirements &amp; Verification Statements Development Avoids Requirements rework.</li> <li>•Test Unique Design Requirements Completes the Requirement Set.</li> <li>•Embedded <u>Operational Realism</u> in Test Program Helps Prove Product can meet its intended use</li> <li>•Support Technology Assessment / Maturation / Risk Reduction – Supply Valuable Decision Data</li> <li>•Support Operational Sustainment Assessment</li> <li>•Integrated Test Program Developed and Coordinated</li> </ul>	<ul style="list-style-type: none"> <li>•Solid Requirements</li> <li>•Integrated Test Program Identified and Planned</li> <li>•Prototyping data</li> <li>• Initial RMA Program Established (ANSI/GEIA STD-0009)</li> <li>•TEMP</li> <li>•Contractor Test Plan Draft</li> </ul>
EMD	<ul style="list-style-type: none"> <li>•Requirements Refined and Allocated</li> <li>•Integrated Test Planning</li> <li>•Facilities Planning and Development</li> <li>•Integrated Developmental Test Conduct</li> </ul>	<ul style="list-style-type: none"> <li>•Refined Verification Requirements</li> <li>•Conduct Consistent Test Program Through Development Cycle</li> <li>•On Time Establishment of Test Facilities</li> <li>•Coordinated Contractor /DT and OT Test Plans</li> <li>•Integrated and Verified Product</li> <li>•Initial Operational Assessments Supported</li> </ul>	<ul style="list-style-type: none"> <li>•Traditional Test Program Executed</li> <li>•Product Verification</li> <li>•Integrated DT / OT Data Available</li> </ul>
Production	<ul style="list-style-type: none"> <li>•Support Transition Support to Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>•Integrated and Tested Product</li> </ul>	<ul style="list-style-type: none"> <li>•Solid Manufacturing Process based on EMD Lessons Learned</li> </ul>



- The Acquisition Changes when implemented will make effective changes to the Warfighter products
- The DNA of the Test Community must change to accommodate the intent of these changes
- Industry is transforming, policies and initiatives are forcing functions
- Early T&E can help programs start right
- PMs must account for early T&E in achieve the policy / initiative intent
- Change is slow, RFP language changes can increase industry change



**IN LIFE  
QUESTIONS ARE GUARANTEED**



**ANSWERS  
NOT SO MUCH**

# An Industry Response to the Acquisition Changes



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