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# **Developmental Test and Evaluation Committee: Collaboration and Alignment with Systems Engineering Division**

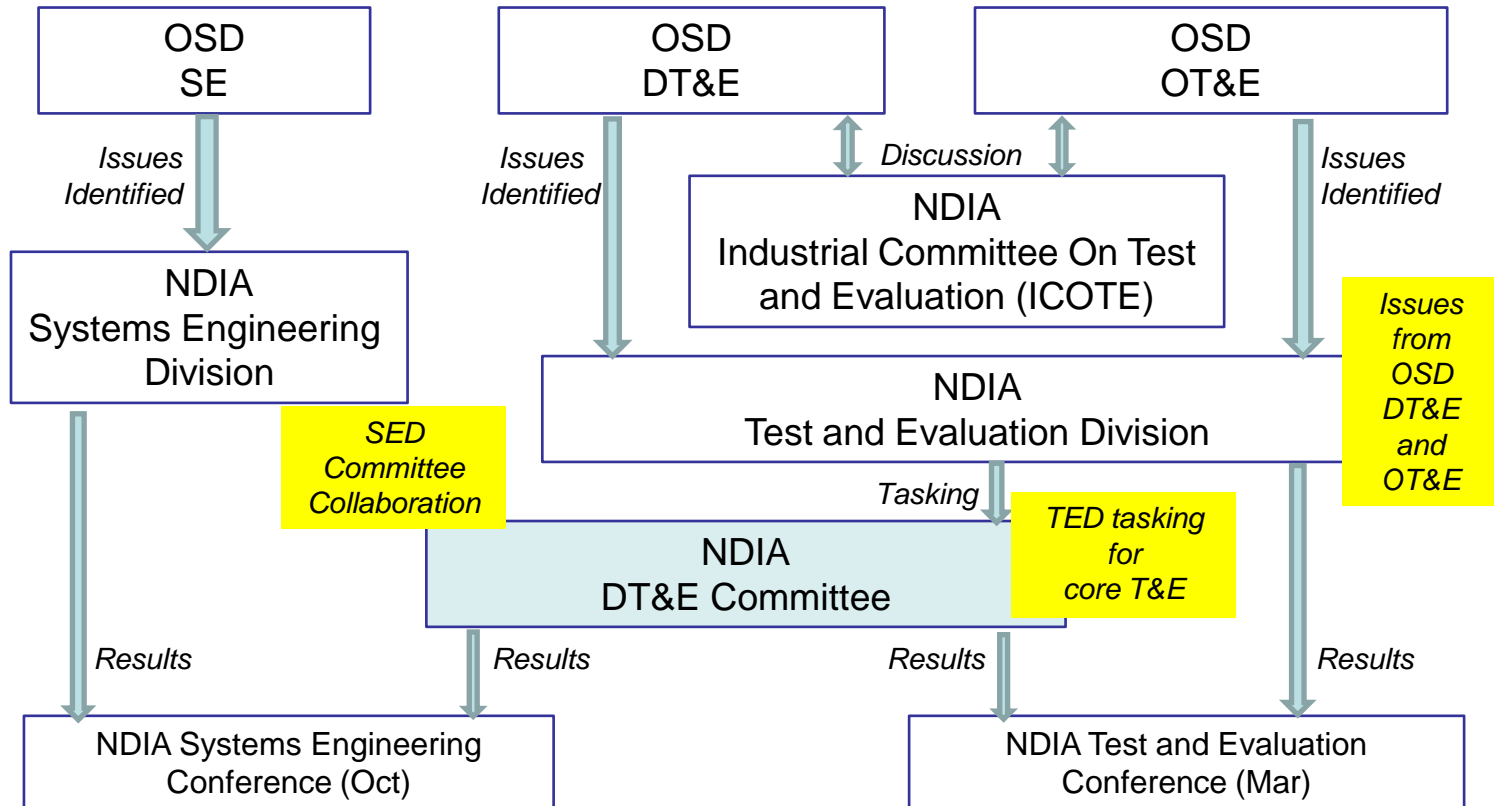
**Beth Wilson, Raytheon**  
**Steve Scukanec, Northrop Grumman**  
NDIA Developmental Test and Evaluation Committee

# DT&E Committee Collaboration and Alignment

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- **DT&E Committee Structure Within NDIA**
- **Update on SE Division Focus Area Topics:**
  - T&E for SoS Initiatives
  - T&E use of M&S
  - SE Conference (October 2011)
- **Update on T&E Division Focus Areas Topics:**
  - Integrated Testing
  - RFP Language for T&E
  - NCOIC T&E WG
  - T&E Conference (March 2012)
- **Summary**

# NDIA DT&E Committee Relationship to SE to T&E Divisions

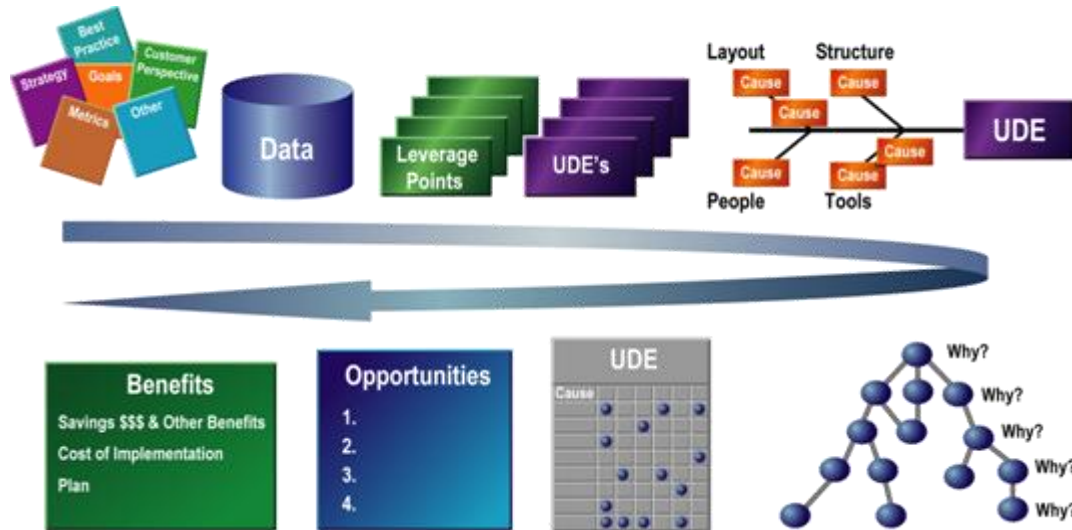


# DT&E Committee Activities

## Systems Engineering Division

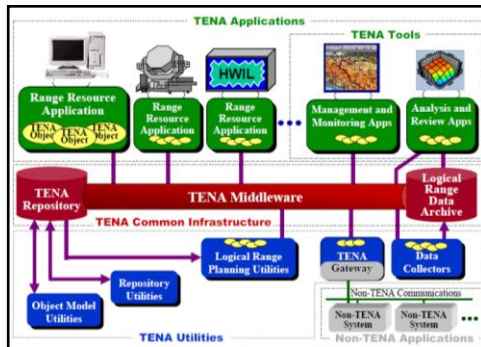
	SED Committee	Activity
SE Collaboration	System of Systems	T&E for SoS Workshop in 2010 T&E for SoS Initiatives Work in 2011 March 2011 NDIA T&E Conference progress report May 2011 OSD Webinar Joint track in SE Conference
	Modeling and Simulation	T&E Use of M&S Joint meeting in August 2011 Joint track in SE Conference
	Mission Analysis	Data for T&E data in mission thread analysis
	Software	SW T&E Summit Recommendations

# Test and Evaluation for Systems of Systems



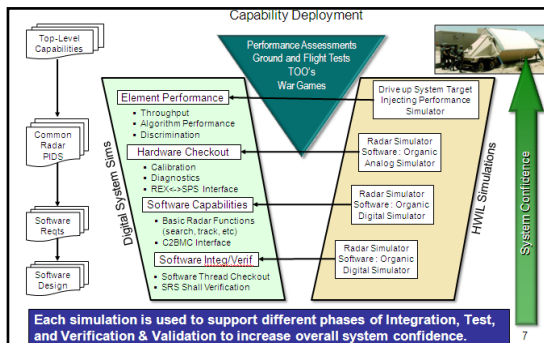
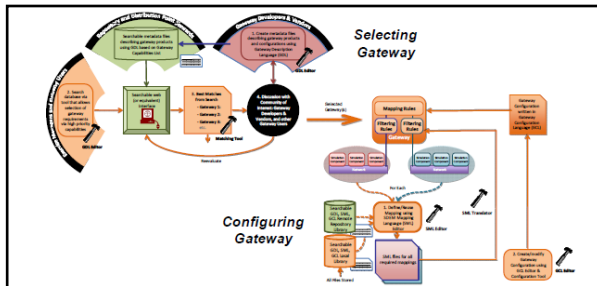
	Initiative Title	Action Plan
Strategic Initiatives	Best Practices Model for SoS T&E	Define a best practices model
	SoS Governance	Define characteristics of successful SoS T&E
	Radical Approach to SoS T&E	Define SoS capability test approach
Go-Do	SoS SE Policy and Guidance	Recognize and employ SoS SE Guide

# Effective Use of Modeling and Simulation for Test and Evaluation



## Joint Meeting in August 2011

- Distributed Testing, the Joint Mission Environment Test Capability (JMETC) and the Test and Training Enabling Architecture (TENA)
- DoD M&S Community of Interest Data Management Working Group
- LVC Architecture Roadmap Implementation (LVCAR-I) Gateways Effort Applicability to T&E
- OSD T&E Working Group
- Raytheon Presentation on M&S for T&E
- Potential Topics for November AMSWG Meeting



Each simulation is used to support different phases of Integration, Test, and Verification & Validation to increase overall system confidence.

# NDIA DT&E Committee SE Conference



- Test and Evaluation (Track 6):
  - Acquisition Policies
  - Integrated Test Strategies
  - Effective T&E
- Joint Tracks (Track 6):
  - Track 6 T&E/SoS/Net Centric
  - Track 6 T&E/M&S
- Related Tracks:
  - Track 2: Net Centric (Test Certification)
  - Track 7: ESOH (Safety Testing)
  - Track 10: Logistics (Built in Test)

# DT&E Committee Activities

## Test and Evaluation Division

	Topic	Activity
T&E Division	Integrated Testing	2008 – 2010: Integrated Test Study NDIA presentations and tutorial ITEA journal article 2011: Inputs into DAU Continuous Learning module
	RFP Language for T&E	Comments for update to OSD Guide: Incorporating Test and Evaluation into Department of Defense Acquisition Contracts
	Other Collaboration	Industrial Committee On Test and Evaluation (ICOTE) NCOIC T&E Working Group NDIA T&E Conference (March)



# Integrated Testing Implementation Framework



## Progress During 2009:



## 2009 ITEA Journal

NDIA Test and Evaluation Conference  
Paper #7847



### Walking the Line with Title 10: Implementation Strategies for Integrated Testing

NDIA Systems Engineering Conference  
Paper #8848



### Integrated Testing: We Can Do It

NDIA Test and Evaluation Conference  
Paper #9565



### Erasing the Line with Title 10: Best Practices in Integrated Testing

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Principal Engineering Fellow, Raytheon Company

**Darlene Mosser-Kerner**

Government Chair NDIA System Engineering Division, DT&E Committee  
OUSD(AT&L)/Developmental Test and Evaluation

**Tom Wissink**

Industry Co-Chair NDIA System Engineering Division, DT&E Committee  
Director of Integration, Test & Evaluation, Lockheed Martin Corporate Engineering & Technology

NDIA T&E Conference Mar 2010

### Integrating Test a

ITEA Journal 2009, 30: 375-380  
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### Integrated Testing: A Necessity, Not Just an Option

Beth Wilson, Ph.D.

Raytheon Company, Sudbury, Massachusetts

*Department of Defense policy states that developmental and operational test activities need to be integrated whenever possible to improve overall test and evaluation efficiency with increased emphasis on operational relevance. The National Defense Industrial Association Systems Engineering Division Developmental Test and Evaluation Committee has been evaluating existing integrated testing policies, methods, and practices to identify an implementation framework with best practices for sharing data, involving developmental test and operational test stakeholders in integrated test planning, and collaboratively executing an integrated test program. Barriers to integrated testing were identified looking at the cultural constraints placed on planning, people, and data. While the definitions and mandates are recent, the practice of integrated testing is not new. The framework described focuses on existing policy and captures best practices.*

**Key words:** Collaborative planning; collaborative execution; shared data; DT&E; OT&E; Army; Navy; Air Force; contractor support; resource planning.

NDIA Systems Engineering Conference  
Paper #8818



### Integrated Testing: Tutorial

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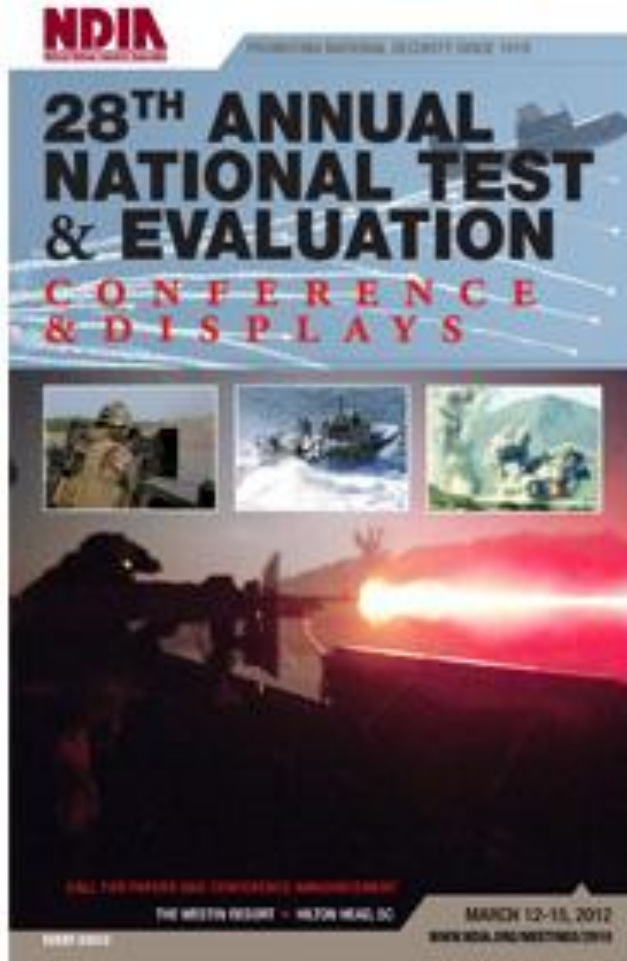
Government Chair NDIA System Engineering Division, DT&E Committee

Developmental Test & Evaluation

OUSD(AT&L)/Systems & Software Engineering

NDIA SE Conference Oct 2009

# NDIA DT&E Committee T&E Conference



**Test and Evaluation Conference:**

**Event Number**  
2910

**Event Date**  
3/12/2012 to 3/15/2012

**Event Location**  
The Westin Resort Hilton Head Island

# DT&E Committee Summary

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- **Developmental Test and Evaluation**
  - Test and Evaluation Division focus on core T&E issues
  - Systems Engineering Division focus on enabling SE solutions
- **Participate in Both Divisions:**
  - Attend SE Division meetings and share progress
  - DT&E Committee meetings with T&E and SE Division events
  - Tracks in both T&E and SE Conferences
- **Current Collaboration**
  - T&E for SoS
  - Effective M&S for T&E
  - Inputs to other efforts
  - May expand at December 2011 SE Division planning meeting