



# Chief Systems Engineers Panel

**Jim Thompson**

**ODDR&E/Systems Engineering**

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# Mission Context



Director, Systems Engineering  
Steve Welby

## Systems Analysis

### “Weapon Systems Acquisition Reform Act of 2009”

S.454-10; d.(1): The development and tracking of detailed measurable performance criteria as part of the systems engineering master plans...

S.454-10; d.(3): A system for storing and tracking information relating to the achievement of the performance criteria and objectives specified...

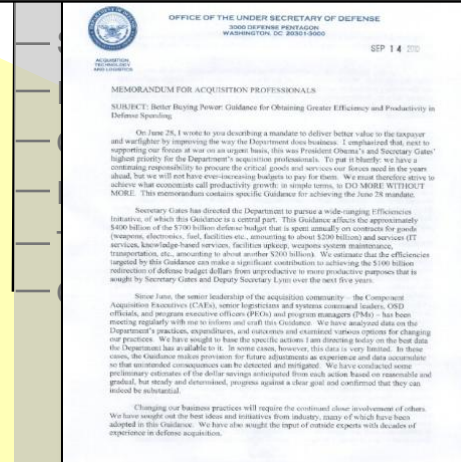
S.454-12; SEC. 103.b.(4): Evaluating the utility of performance metrics used to measure the cost, schedule, and performance of [MDAPS], and making such recommendations ...to improve such metrics.

## Major Program Support James Thompson

- Program Support Reviews
- Systems Engineering Plans
- Program Technical Auditing
- OIPT/DAB Support
- DAES Database Analysis and Support
- Performance Measurement
- Systemic Root Cause Analysis

## Mission Assurance

### AT&L Memo, 14SEP2010 Subject: Better Buying Power: Guidance for Greater Efficiency and Productivity in Defense Spending



ability  
cibility  
(HSI)  
ment  
essment

**“...Set shorter program timelines and manage to them...”**

**“...remain cognizant of our programs’ progress...and identify problems quickly...”**



# Themes



- **Metrics**

- Elegant systems engineering designs require us to augment intuition and judgment with quantitative means and effective analytical methods
- Harness the right measures to help inform decisions
- Industry, Academia, Agencies, Services have role in shaping quantitative methods and driving efficiencies into acquisition

**Initial focus:**

- Software
- Integration
- Reliability
- Manufacturing

- **Integration**

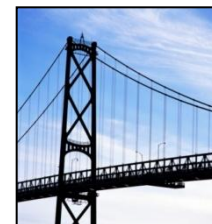
- Integrate the information for better domain management /problem solving

- **Communication**

- Effectively shape, share and disseminate results:
  - Updates to policy and guidance (e.g. SEP Prep Guide)
  - Conference, symposia, white papers, etc

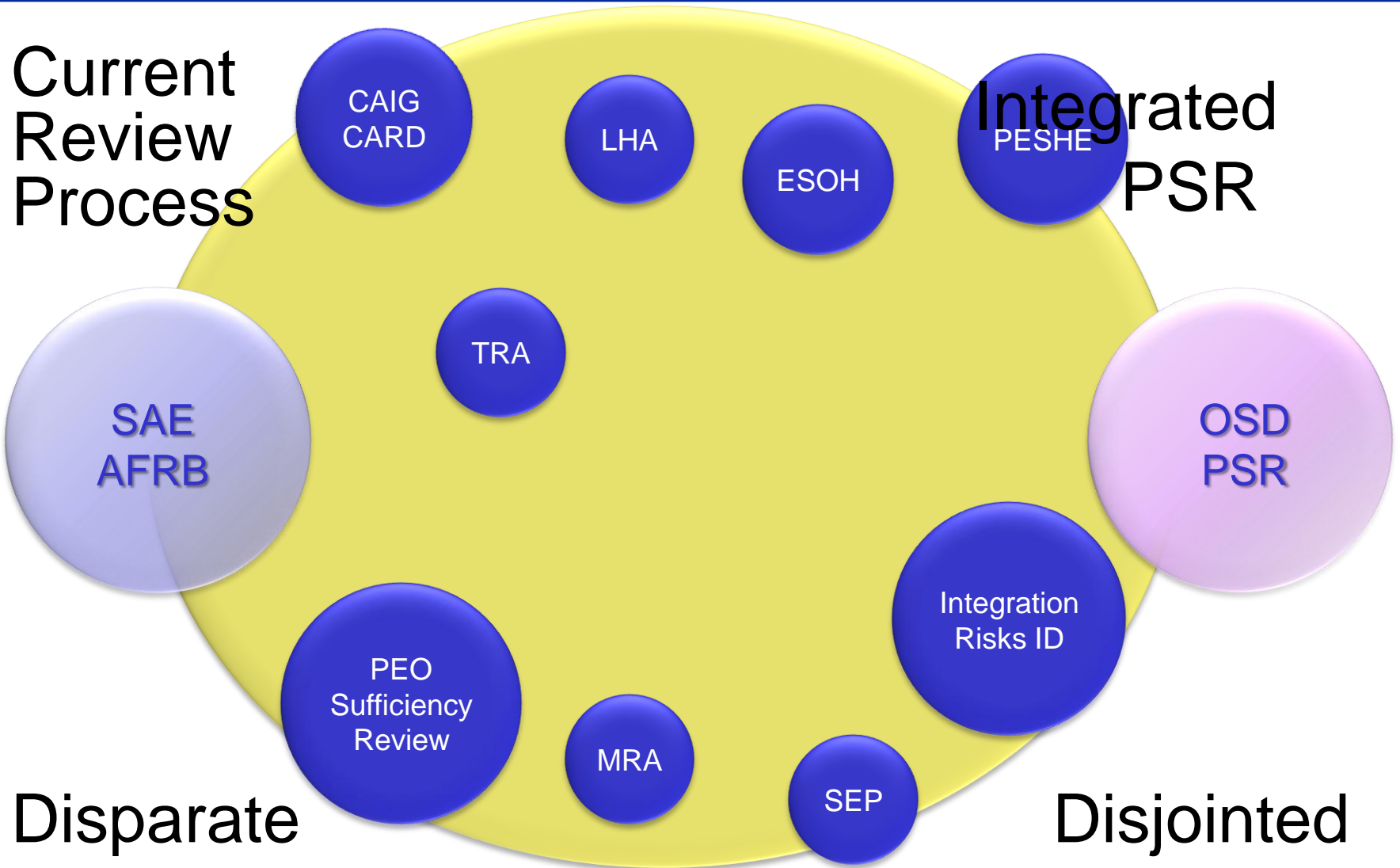
- **Building Bridges**

- Services, Industry, Acquisition Leadership, Academia
- Joint Program Reviews





# Program Review Process





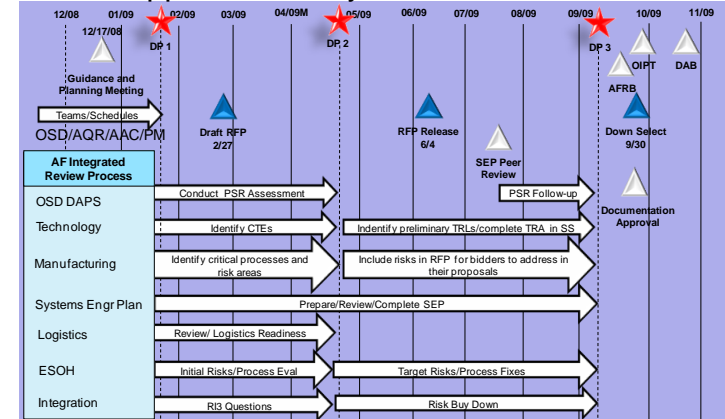
# Integrated OSD/AF PSR SDB II Example



- Integrated collaborative review**

- OSD, Army, Navy, AF, Product Center
- DDR&E/SE PSR methodology
- Technology Readiness Assessment (TRA)
- Risk Identification: Integration and -ilities (RI3)
- Manufacturing Readiness Assessment (MRA)
- Logistics Health Assessment (LHA)
- Environment, Safety, and Occupational Health (ESOH)

Approach - Early and Continuous



- Accomplishments**

- Continuous Engagement
- Constructive dialogue – site visits
- Inputs to Draft and Final Request for Proposal
- Preliminary Report to PM well in advance of DAB (planned ~6 months)

- Significant Benefits**

- Integrated and synchronized – (e.g. program impact 5 days vs. est. 38 days)
- Significant intellectual capital from across DoD
- **Early, actionable feedback to program office**

Early and robust technical engagement to mentor/advise collaboratively, independently assess and capture risk...so PMs can act



# Acquisition Efficiency Guidance Roadmap



## 5 Areas...

- **Target Affordability and Control Cost Growth**
- **Incentivize Productivity & Innovation in Industry**
- **Promote Real Competition**
- **Improve Tradecraft in Acquisition of Services**
- **Reduce Non-Productive Processes and Bureaucracy**



# For Additional Information



**Jim Thompson**

**ODDR&E/Systems Engineering**  
**(703) 602.0851 | James.Thompson@osd.mil**