

AFOTEC

AIR FORCE OPERATIONAL TEST & EVALUATION CENTER



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AFOTEC's Perspective on Operational Suitability Testing

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Overview



- **Myth Busters**
- **What's Changed?**
- **Suitability – An Afterthought?**
- **Operational Test Construct**
- **Acquisition Efficiencies**



Myth Busters



- **New rating scheme – no more E&S**



Myth Busters



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- **E only – it's all about effectiveness**



Myth Busters



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Myth Busters



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- **Stoplight chart – no objective analysis**



Myth Busters



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MYTHS BUSTED!



What's Changed?








- **Customer-focused reports**
 - **Accurate, balanced, complete, clear, concise, cogent, and timely**
 - **Warfighter community**
 - **Can a unit equipped with the weapon system accomplish the mission?**
 - **Acquisition community**
 - **Is the weapon system effective and suitable?**
- **Capability-based OT&E**
 - **No longer “Pass / Fail”**
 - **Effective / suitable with limitations impacting operations**
 - **Mission Capability Rating**



Mission Capability Ratings



MC RATING	DEFINITION
FULLY MISSION CAPABLE (FMC) 	Mission can be accomplished in the intended operational environment
MISSION CAPABLE (MC) 	Mission can be accomplished, but with increased operational cost
PARTIALLY MISSION CAPABLE (PMC) 	Only some aspects of mission can be accomplished <u>And/Or</u> Mission can only be accomplished under some conditions
NOT MISSION CAPABLE (NMC) 	Mission cannot be satisfactorily accomplished
NOT RESOLVED 	Insufficient information to support a resolution



Suitability – An Afterthought?



- **U.S. Code Title 10 requires AFOTEC to determine BOTH operational effectiveness and operational suitability**
- **Operational effectiveness is the overall degree of mission accomplishment of a system ... (DAG 9.4.4)**
- **Operational suitability is the degree to which a system can be satisfactorily placed in field use, with consideration given to reliability, ... (DAG 9.4.5)**
- **AFOTEC fulfills this mandate through the Operational Test Construct**



Operational Test Construct



- **Methodical, repeatable test construct is crucial for accurate, balanced, and complete reports**
 - Foundation for all follow-on planning, evaluation, and reporting activities
 - Must capture CONOPS, desired capabilities, and defined requirements found in capability documents
- **Extremely challenging test team activity**
 - Involves participants across acquisition community
 - Each brings own perspectives, priorities, and agendas
- **Test Constructs must use clearly defined terminology**

A poorly built test construct today will ultimately produce bad reports years down the road



DAG “OT&E Best Practices”



- 1. Focus on the mission(s) that will be accomplished**
- 2. Identify the operational capabilities**
- 3. Develop measures and data requirements**
- 4. Assess the degree of mission accomplishment**
- 5. Link mission accomplishment to the key operational capabilities**



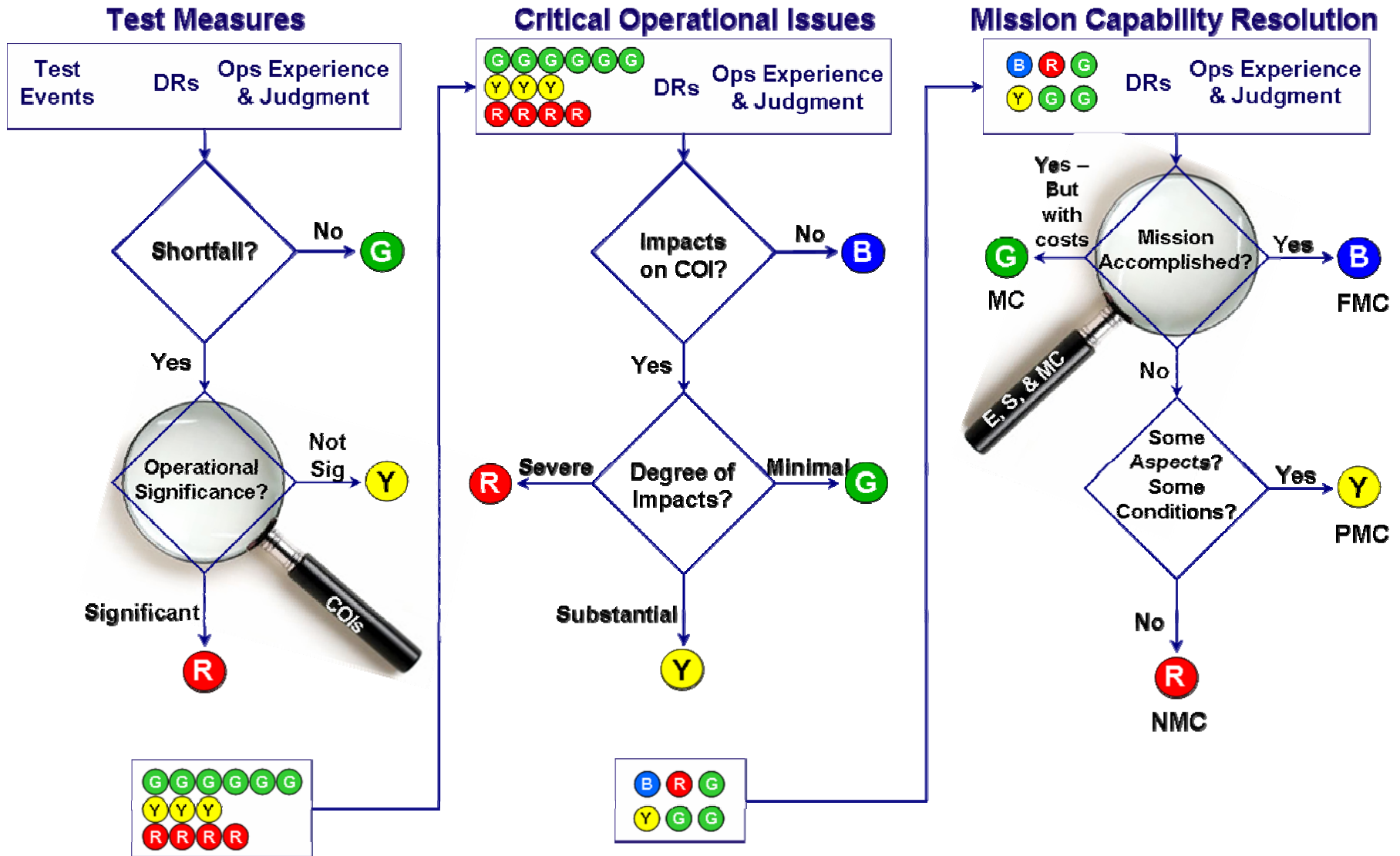
AFOTEC Test Construct



Operational Capability	Mission Statement			
	COI 1	COI 2	COI 3	
Timeliness		●		Effectiveness
Lethality			●	
Accuracy	●	●		
Survivability		●		
Maneuverability	●			
Capacity	●			
Transportability		●	●	Suitability
Sustainability	●			
Interoperability			●	
Maintainability	●			
Availability			●	
Reliability		●		

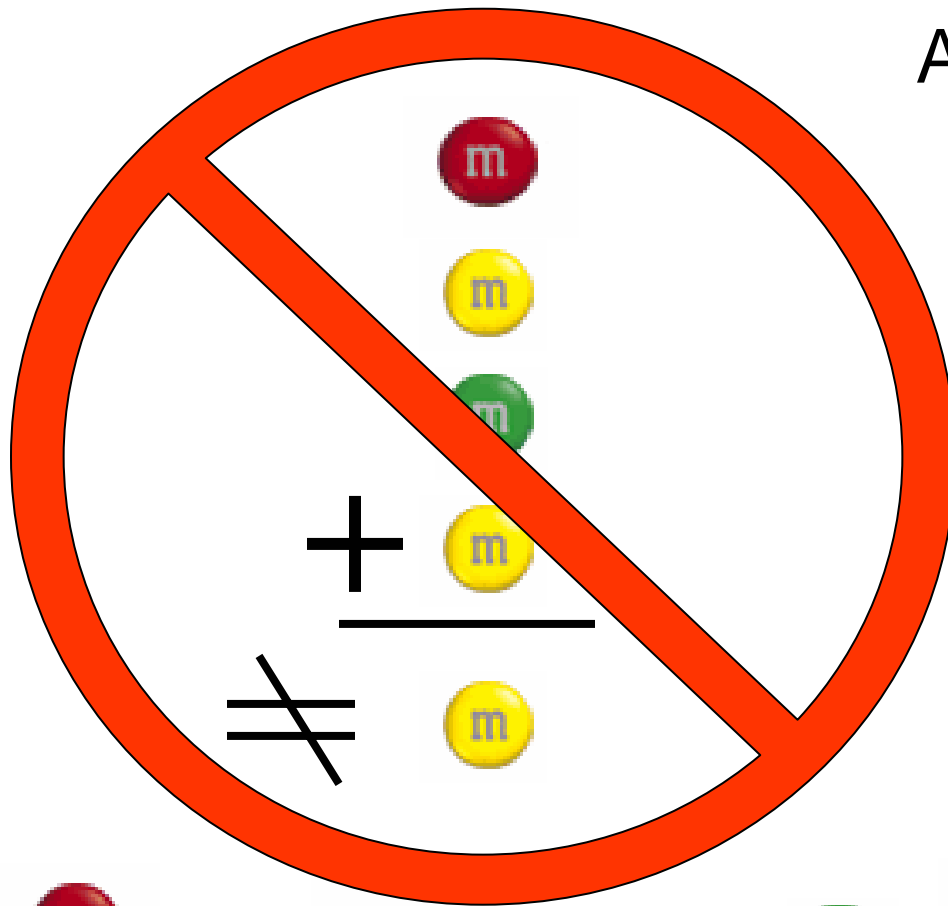


Evaluation Taxonomy





WARNING!



AFOTEC Construct is not designed to facilitate
m&m math



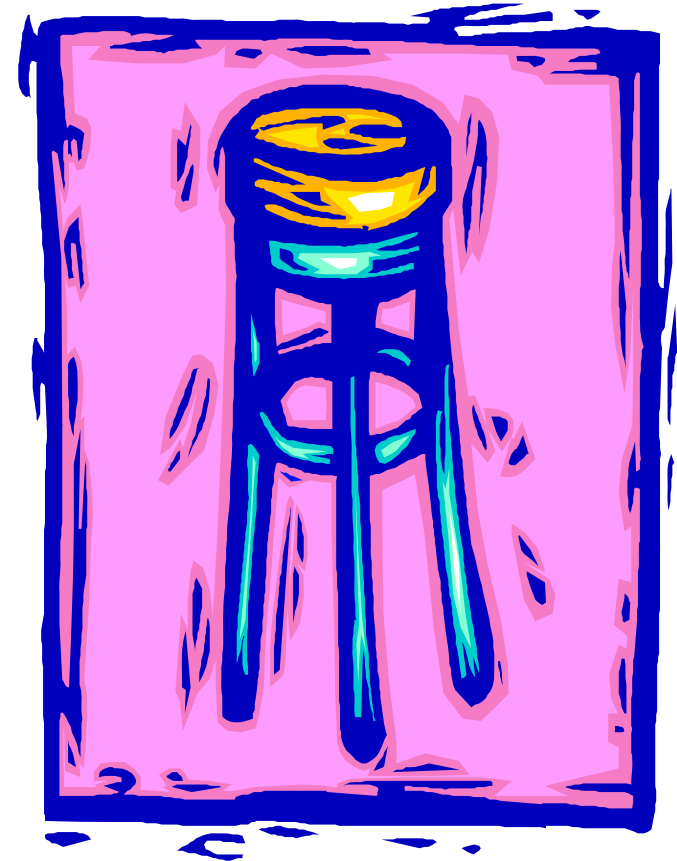
**Colors are intended to visually display
(1) significance of shortfalls, (2) degree of impact on COIs,
and (3) overall Mission Capability Resolution**



Delivering Capability



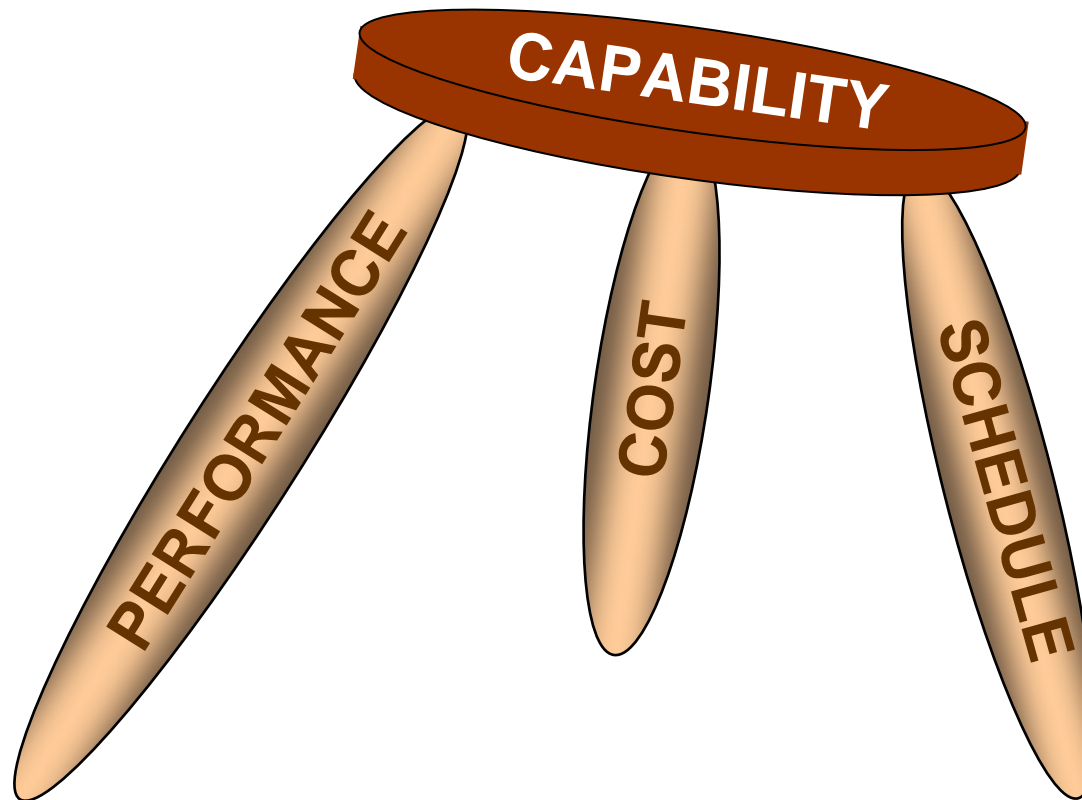
- **Capability stool is supported by three legs**
 - Cost
 - Schedule
 - Performance
- **Current acquisition philosophies make for a very shaky stool**
 - Promise the moon
 - Technology “creep” and “reach”
 - Get it now, fix it later
 - Fear of failure
 - Rush to failure





The Promise

Give the warfighter the tools to get the job done



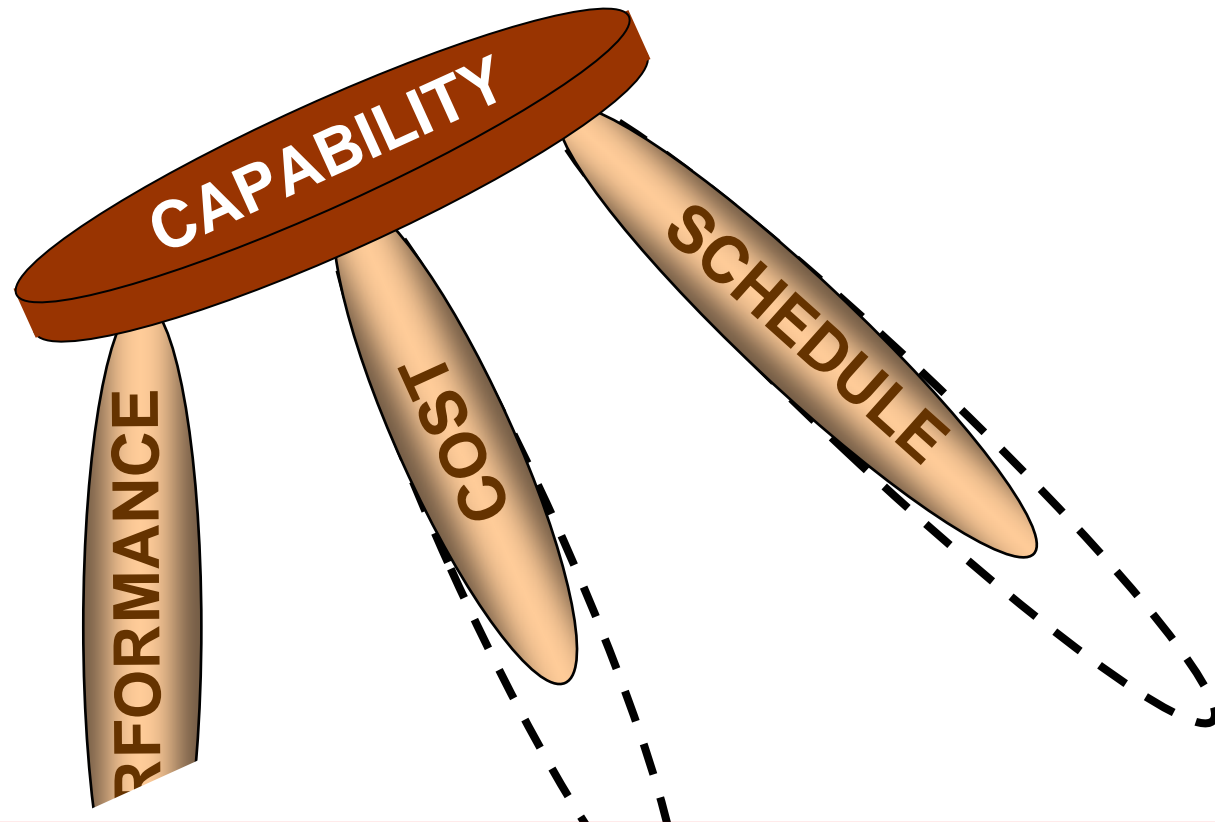
Desired performance, on time, on budget



The Reality



Schedule slips, cost overruns, performance deferred



BREACH!!!



Fail to Deliver



Fail to design, build, field, and sustain capable weapon systems



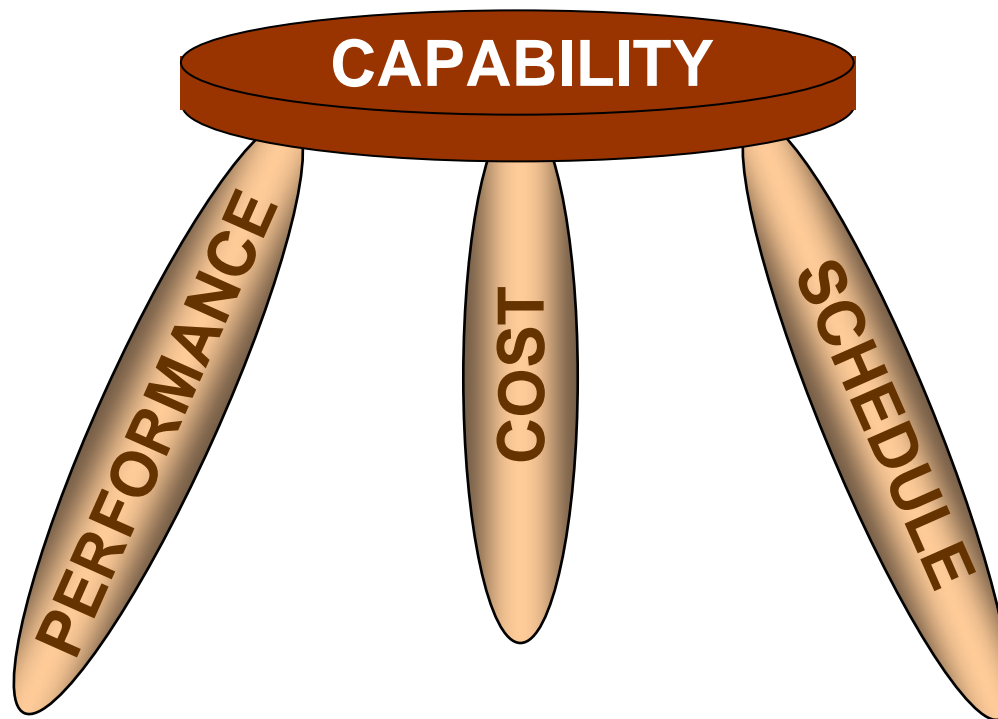
The Air Force weapons acquisition process is not credible



Truth in Advertising



Acquire weapon systems in attainable, capable increments



Under promise, over deliver!



Warfighter Focused!

