

Program Objective Memorandum (POM) Measures of Effectiveness (MOE) Working Group

WJTSC 12-2

**18 September 2012, 1600-1800
Colorado Springs**

**OSD (P&R) Training Readiness & Strategy (TRS)
Joint Assessment and Enabling Capability (JAEC)**



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Agenda

- ▶ 1600 – 1610 Welcome, introductions Dr. Shep Barge
- ▶ 1610 – 1630 MOEs in the POM Process Dr. Paul Thompson
 - History & context
 - Purpose & motivation
 - Data gathering and reporting
- ▶ 1630 – 1700 Crafting good MOEs Dr. Paul Thompson
 - Structure and elements of good MOEs
 - Aligning MOEs with program performance
 - MOE audience and use
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Introduction

▶ Issue

- Significant, ongoing changes in the strategic & fiscal environment
- CE2T2 POM process has evolved to place greater emphasis on program performance
- Closer scrutiny indicates need for MOEs that are mature with respect to both form and content

▶ Focus

- Developing useful and defensible MOEs for POM submissions
- Desired result is a thorough, shared understanding of how to develop high-quality MOEs

▶ Community of interest

- All programs and organizations that request funding from the CE2T2 account

▶ Points of Contact

- Dr. Shep Barge, JAEC Director, shep.barge@osd.mil, 703-575-2004
- Dr. Paul Thompson (contractor), JAEC, paul.thompson@osd.mil, 703-575-3746



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▶ Quadrennial Defense Reviews (QDR)

- “Further advances in joint training and education are urgently needed to prepare for complex, multinational, and interagency operations in the future. Toward this end, the Department will:
 - “develop a Joint Training Strategy to address new mission areas, gaps and continuous training transformation.
 - “revise its Training Transformation Plan to incorporate irregular warfare, complex stabilization operations, combating WMD and information operations.
 - "expand the Training Transformation Business Model to consolidate joint training, prioritize new and emerging missions, and exploit virtual and constructive technologies." (QDR 2006, pp. 77-78)
- “It is vital that the lessons from today’s conflicts be further institutionalized in military doctrine, training, capability development, and operational planning.” (QDR 2010, p. viii and p. 20)
- “To institutionalize the lessons learned over these years, DoD has made and will continue to make substantial changes to personnel management practices, professional military education and training programs, and career development pathways, and operational planning.” (QDR 2010, p. 21)

▶ Pentagon Program Budget Decision 709 “Building Partnership Capacities and Warfighting Initiatives” (7 Dec 2006)

- Established the CE2T2 account within a Defense-wide appropriation to realign & consolidate joint training funds from the Services, Combatant Commands (COCOM), and the Joint Staff
- Governed by OUSD(P&R), the CE2T2 account expanded the T2 Business Model and leads the effort to fuse a widely dispersed and disjointed joint training resource business model into a process that is collaborative, transparent, incentivized, and effective



History and Context

- ▶ FY08 Defense Appropriation combined the CE2 account and a large portion of the T2 account (JEP) under the newly formed CE2T2 portfolio
- ▶ FY09: DoD permanently aligned all of CE2 and T2 under the CE2T2 umbrella
- ▶ POM-13: Quality and strategic alignment assessment pilot
 - Delphi analysis of POM-13 submissions by JAEC analysts
 - Strategic alignment and quality rubrics
 - Initial calibration round and several iterations for QC
- ▶ POM-14: Expanded assessment effort
 - Self-assessment by submitting organizations: alignment with focus areas for joint training readiness, cross-cutting training goals, and CE2 program goals
 - Assessment by JAEC analysts: quality and gross classification area
 - Increased emphasis on quality of metrics
- ▶ FY12: MOE data collection and analysis for CE2T2 POM programs begins



History and Context

- ▶ “In addition to the POM evaluation, **progress towards stated program objectives** (as presented in the POM submission and subsequent Program Budget documents) **will be evaluated** during the year of funding execution. This review will commence for all CE2T2 programs with POM 2014 submission [...]. This process will be managed by the Joint Assessment & Enabling Capability office.”

CE2T2 Programming and Administrative POM-13 Guidance, OUSD(P&R)/TRS

- ▶ “Measures of effectiveness (MOE) **progress data shall be provided** to TRS in spreadsheets as follows:
 - “1. For MOE data that corresponds to POM-12, there will be an annual wrap-up, and appropriate data shall be submitted to TRS not later than Oct 30, 2012.
 - “2. MOE data that corresponds to POM-13 shall be submitted on a quarterly basis starting in FY13 (o/a 30 Jan, 30 April, 30 July, and 30 Oct 2013).”

CE2T2 POM-14 Guidance, Attachment 6, OUSD(P&R)/TRS



MOEs: Purpose and Motivation

- ▶ Monitor the progress and success of your program
 - How do you know that your program is successful?

- ▶ Monitor the progress and success of the CE2T2 account
 - How do TRS and JS J7 know that the CE2T2 account is successful?
 - Alignment decisions by CE2T2 leadership

- ▶ Show the value and progress of CE2T2
 - What evidence would indicate to Congress that the CE2T2 account should be maintained at current levels? → President's Budget implications
 - E.g., Dec 2011 – JAEC provided 9 MOEs, including objectives but not performance data, for the 6 programs whose MOEs bridged FY12 and FY13
 - E.g. Aug 2012 – JAEC provided 109 MOEs (14 pages), including objectives but not performance data, for 17 POM-14 programs.



MOEs: Purpose and Motivation

Quality control (QC): Monitoring specific project results to determine if they comply with relevant quality standards, and identifying ways to eliminate causes of unsatisfactory results.
→ “operational” in nature

Program managers are responsible for performing quality control on their programs.

Quality assurance (QA): The planned and systematic activities implemented within the quality system to provide confidence that the project will satisfy relevant quality standards.
→ “strategic” in nature

TRS is responsible for quality assurance in the CE2T2 Program.



Data Gathering and Reporting

- ▶ Monitoring the progress and success of your program
 - How do you measure success for your own program?
 - What measures do you use?

- ▶ Monitoring the progress and success of the CE2T2 account
 - Provide data to TRS for the MOEs listed in your program's POM submission
 - POM-12 wrap-up: submit FY12 data to TRS by 30 Oct 2012
 - POM-13 and later: submit data on a quarterly basis starting in FY13 (o/a 30 Jan, 30 Apr, 30 July, 30 Oct 2013, etc.)



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Crafting Good MOEs

- ▶ No cookbooks, no recipes, no fill-in-the-blanks, no templates here
→ Every situation is different
- ▶ We can provide guidelines and direction, but not recipes and directions
- ▶ Have to craft MOEs, can't just produce them
- ▶ Person best suited to do this
 - ▶ Is close to the program
 - ▶ Has perspective on what the program is about – not just a technical view
- ▶ Need to align MOEs with program performance
- ▶ Need to consider the audience and how they use MOEs



Characteristics of Good MOEs

Category	Characteristic	Description
Structure	Single focus	Does the MOE describe one element or relationship of interest?
	Quantifiable	Is the MOE numerical, i.e. not categorical data and, if ordinal data, convertible to a numeric scale?
	Thresholds	Are upper and/or lower acceptability limits specified?
	Simplicity	Is the MOE easy for non-specialist to understand?
	Not anecdotal	Is the MOE a measurement rather than a story?
Language	Terms clear	Are all terms defined?
	Understandable	Is the MOE clear and concise? Can a non-specialist comprehend it?
Content	Measurable	Is the MOE an objective or anchored subjective measure?
	Credible	Is the MOE defensible, within a reasonable realm of influence, with clear cause-and-effect?
	Relevant	Does the MOE align with program goals?
	Comparable	Can one compare MOE results within and between processes?
	Valid	Is the MOE bias-free? Is it an accurate representation?
	Repeatable	Is the MOE verifiable and reliable? Do similar circumstances yield similar results?
	Cost effective	Is the MOE too expensive?
	Attainable	Is data on hand or collectible?
	Significant	Is the MOE important? Is it a measure that matters?
	Useful	Does the MOE provide actionable feedback to stakeholders and decision makers?
	Timely	Is information available in time to have value in decision making?
	Accountability	Are there clear areas of responsibility?
	Transparent	Are incentives clear?



Elements of Good MOEs

Element	Examples
State the Unit of Measure	<p>“The number ...”</p> <p>“The percent ...”</p> <p>“The ratio ...”</p>
Describe What is Being Measured	<p>“The number of minutes needed to load the launcher ...”</p> <p>“The percent of trainees achieving Level 4 Proficiency ...”</p> <p>“The ratio of equipment downtime to training hours ...”</p>
Provide the Reporting Cycle	<p>“The average number of minutes needed to load the launcher per unit per exercise-day.”</p> <p>“The percent of trainees achieving Level 4 Proficiency per course cycle.”</p> <p>“The ratio of equipment downtime to training hours per year.”</p>
Define Thresholds	<p>“At least 20” “Greater than 42” “More than 60%”</p> <p>“At most 80” “Less than 5%” “Fewer than 150”</p> <p>“Exactly 100%,” “Equals 8,” “is 6”</p> <p>“Between 15% and 25%,” “Less than 20 and more than 12”</p>



Examples of Good MOEs (notional)

MOE	Threshold
Number of service members JSTARs trained in FY	At least 20
Number of Navy contractor role-players hired in 1Q FY to support anti-piracy scenario development and training during Joint Task Force exercises	Equals 8
Number of SOF and GPF Personnel trained in joint SOF/GPF integration at the tactical and operational level in EMERALD WARRIOR, per fiscal year	SOF: at least 200 GPF: at least 150
Percent of Joint Calls for Fire training with JTACs done via virtual capability, per exercise	More than 60%
Percent of program defined/planned JMETS and unit-level defined METs that are not effectively accomplished and documented, per exercise	Less than 5%
Percent of assigned personnel that have, within 3 months of assignment, completed the Certified Service Provider for Windows, CISCO, and UNIX, and received a passing grade on all training, per calendar year	100%
Percent of Operations Center combat operations personnel rotated through DMO/LVC training capabilities, per quarter	At least 45%
Percent of unscheduled events that Services submit to the JTCC, that receive support, per year	92.5%
Percent of the 42 accreditation issues that are mitigated on the 15 Service programs assigned to the program center per FY	More than 80%
Percent of total exercise sorties flown via LVC capabilities, per quarter	Between 15% and 25%
Percent of USAFWC training programs and Training Ranges that are fully Certified and Accredited (C&A) for connection to the JTEN, per FY	100%
Percent increase over FY11 levels, in the fraction of planned SOF Specific JMSEL injections that are used/performed, per exercise	At least 25%



Examples of MOEs that Need Refinement

- ▶ “The program is evaluated in many ways such as feedback from the supported Combatant Commander and his primary staff via exercise surveys, end-of-exercise facilitated After Action Report, and internal post-exercise Hot-washes.”
- ▶ “The effectiveness of this program is determined by the sustained readiness of those service organizations designated to perform as JTF or Functional Component HQs as reported in the Defense Readiness Reporting System.”
- ▶ “Utility in enabling commands to effectively manage all facets of their joint training programs measured by command feedback.”
- ▶ “Cost avoidance metrics will also be estimated to demonstrate the value-added effect of leveraging [specified] capabilities associated with [specified] DoD organizations.”
- ▶ “Quality and utility of joint doctrine, pre-doctrinal products and allied joint doctrine are measured by recurrent Joint Staff surveys.”
- ▶ “MOE are derived from assessment and evaluation of training objectives, JMET criteria accomplishment, and lessons learned through exercise observations.”
- ▶ “Evaluate the achievement of annual measures of effectiveness for PBRs.”



The “S-M-A-R-T” Framework

- ▶ The S-M-A-R-T framework is commonly used in performance appraisals of individuals and groups
- ▶ It addresses categories in the “Content” section of the “Characteristics of Good MOEs”
- ▶ It does not address elements in the “Structure” or “Language” sections

Is the performance measure attribute related to the intent of the objective?	Specific
Is the performance measure attribute directly linked to what is required for monitoring or is it a surrogate?	
Is data currently collected and/or readily available?	Measurable
Is monitoring easy and practicable?	
Can monitoring be repeated reliably?	
Is current research sufficient?	Achievable
Is monitoring cost-effective (i.e. benefits outweigh costs)?	
Is the effort realistic?	
Who will do the monitoring (agency, councils, NGO, contractor)?	
Who will analyse the information (agency, councils, NGO, contractor)?	Relevant
Is the information being collected relevant to other reporting requirements (state-wide target, SoE)?	
Is it a leading or lagging performance measure?	Timely
What is the lag time? (Short = 1 year, Medium = 5 years, Long = 10 years)	
Is the attribute a measure of pressure (P), state (S) or response (R)?	



Aligning MOEs with Program Performance

- ▶ Ask the key questions:
 - What are the overall goals of my program?
 - If I make progress towards these goals, how will I know?
 - If my program is successful, how would I know?
- ▶ AKA...
 - What could I measure that would prove I've made progress toward these goals?
 - What could I measure that would prove I've attained these goals?
- ▶ These questions are not trivial for outcome-related goals
- ▶ Examples
 - Outcome: readiness (ability to respond in a timely manner)
 - Output: number successfully trained
 - Efficiency: percent improvement over previous year



MOE Audience and Use

- ▶ T2 Community (internal audiences)
 - DASD(R) and Director, TRS
 - DJ7/VDJ7
 - Staffs in the T2 Community
 - Service, COCOM, and Joint staffs

- ▶ Strategic Communications (external audience)
 - DoD Comptroller
 - GAO
 - Congress
 - President's Budget committee



MOE Audience and Use

1. Looking for due diligence: Congress
 2. Looking for perfection: GAO
 3. Looking for efficiency: Financial overseers
 4. Looking for outputs: Program managers, T2 community
 5. Looking for outcomes: Senior execs and flag officers
 - The goal in Case 5 is to provide the tools and information that are necessary to build a picture of the outcome – to combine the MOEs with many other indicators to build an overall idea of the outcome –generally one can't measure outcomes directly
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- Tailor a program's MOEs to the intended audience
 - Align MOEs with program goals
 - A given MOE with generally not interest all stakeholders
 - No one-size-fits-all recipe for MOEs



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Backup



Types of Measures

- ▶ **Output Measures:** Outputs describe the level of activity that will be provided over a period of time, including a description of the characteristics (e.g., timeliness) established as standards for the activity. Outputs refer to the internal activities of a program (i.e., the products and services delivered).
- ▶ **Process Measures:** Process measures, such as timeliness, accuracy, completeness, and customer opinion, provide a picture of how well key processes are working.
- ▶ **Efficiency Measures:** Efficiency measures reflect the resources used to achieve outcomes or produce outputs. Measuring the cost per unit of outcome or output tends to be most useful for similar, repeated practices. Efficiency measures are not appropriate for every program, project, or goal but every agency, program, and goal-focused effort should continually search for practices to accomplish more with the same resources or the same value with fewer resources after effective actions have been identified.
- ▶ **Outcome Measures:** Outcomes describe the intended result of carrying out a program or activity. They define an event or condition that is external to the program or activity and that is of direct importance to the intended beneficiaries and/or the public.
- ▶ **Indicator** (contextual or otherwise): Quantitative indicators that provide context helpful to understanding trends related to the broader outcome associated with the goals. Agencies do not provide targets for indicators, as their ability to directly influence these indicators is often limited.