

READINESS CENTER OF EXCELLENCE (RCoE) INVESTMENT

Earned Readiness™

2011 ISPA/SCEA Conference



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Agenda

- ▶ Defining Earned Readiness
- ▶ Earned Readiness Metrics
 - Case Study: Navy Expeditionary Combat Command
- ▶ How Earned Readiness can be applied to other organizations

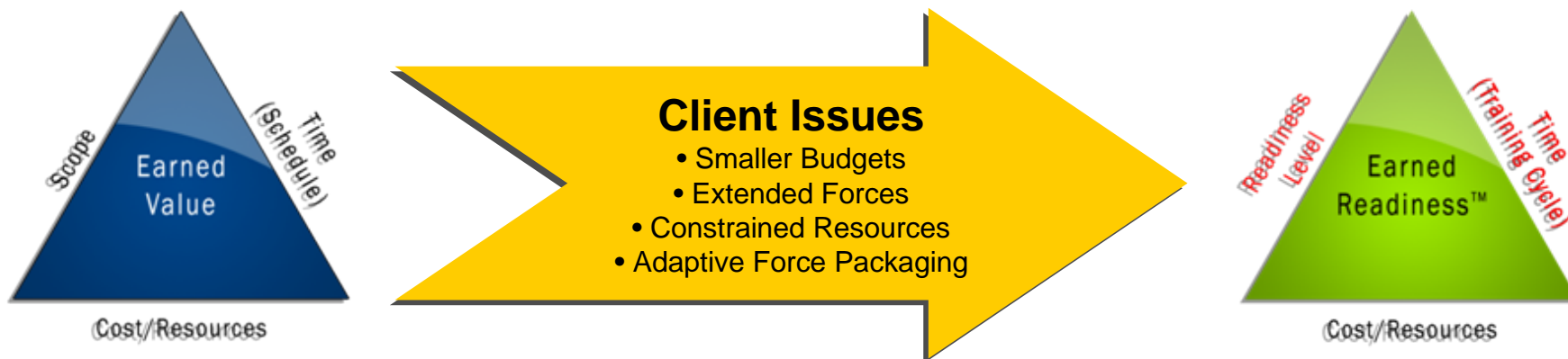
Earned Readiness addresses multiple, extremely common issues:

- ▶ How can I continue to operate effectively during periods of constrained funding and resources?
- ▶ How should I define the right readiness, at the right time, for the right cost?
- ▶ Where can I improve planning and develop measurable standards?
- ▶ How do I develop an early warning system for readiness of my organization?
- ▶ How can I define when to share or reallocate resources?
- ▶ How can I measure the cost of readiness?



Common issues
that many
organizations
are facing

Earned Readiness takes the concepts of Earned Value and applies them to the Readiness Spectrum



- ▶ By filtering Earned Value Management through our clients' most pressing issues, we have developed our Earned Readiness methodology
- ▶ Earned Readiness uses proven techniques from an industry respected practice to combine into a single integrated system measures of **Readiness Levels**, **Cost or Resources**, and **Time** as it pertains to a training plan
- ▶ We are able to plot out these Earned Readiness metrics over time in order to:
 - Evaluate organizational health at multiple levels
 - Forecast future trends in cost and readiness
 - Communicate risks to decision makers as an early warning system

Earned Value Management and Earned Readiness Comparisons

EVM	Earned Readiness
Focus on project success and completion	Focus on gradual build up of readiness over time
Time factor will reach an end-state	Time factor is cyclical (training plan)
Compares cost budgets to expenditures	Compares cost budgets to expenditures
Analyzes scope accomplishments	Analyzes readiness planned vs. achieved
Analyzes cost and scope performance	Analyzes cost and readiness performance
Enables forecasting	Enables forecasting – early warning system for operational units
	Enables comparison and aggregation of units in varying phases of training plan
	Provides tool to show where resources can be reallocated
Provides “one-stop shop” for health/performance	Provides “ one-stop shop ” for readiness and cost health/performance

95%

Readiness
Factor



85%

**Expected
Readiness**

**Actual
Readiness**



\$ 750,000



**Expected
Cost**



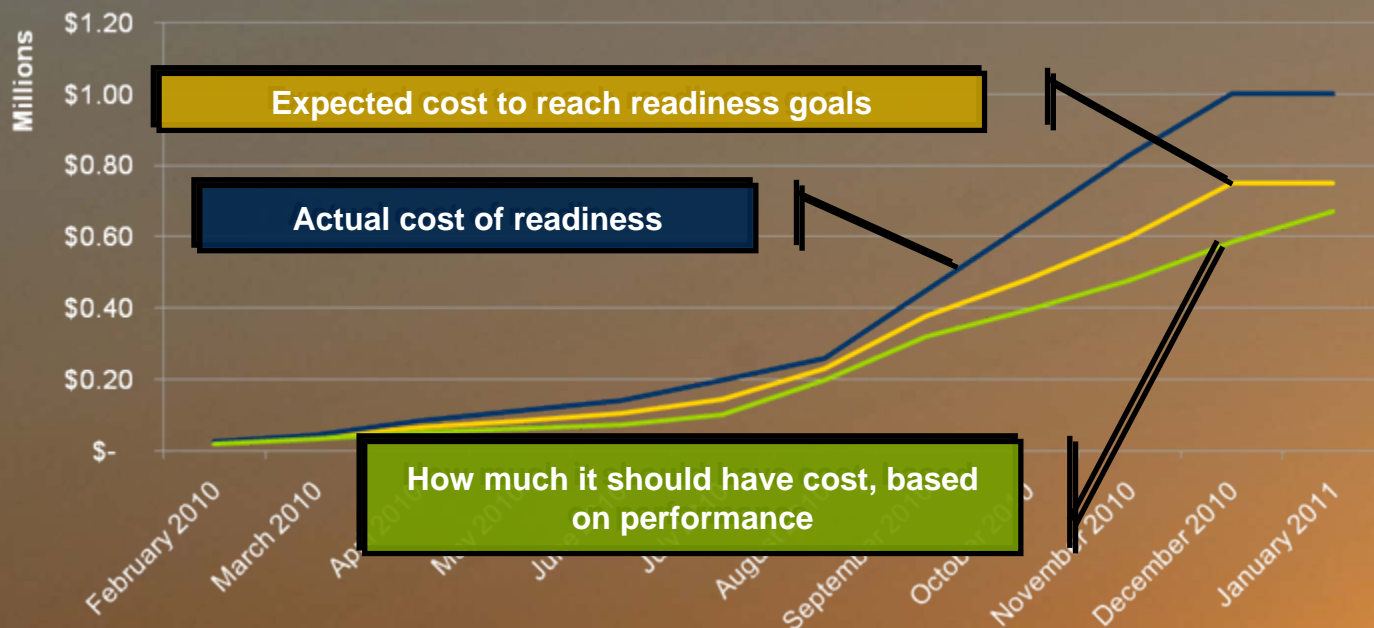
Cost Performance
Indicator

\$ 1,000,000



**Actual
Cost**

Earned Readiness Metrics Trend



— Budgeted Cost of Readiness Expected — Actual Cost of Readiness Achieved — Budgeted Cost of Readiness Achieved



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Earned Readiness Case Study

U.S. NAVY EXPEDITIONARY COMBAT COMMAND (NECC)

Who is NECC?

- ▶ Established in 2006
- ▶ Efforts include:
 - Realigning and modernizing existing expeditionary forces
 - Establishing critical new capabilities to meet shifting demands of irregular warfare
- ▶ Engage in:
 - Major Combat Operations
 - Maritime Security Operations
 - Maritime Homeland Security/Defense

NAVY EXPEDITIONARY COMBAT COMMAND

*Navy Expeditionary Combat Command Mission:
Organize, man, train, and equip NECC forces to execute combat, combat support, and combat service support missions across the spectrum of joint, combined, and multinational operations in the near-coast, inshore, and riverine environments to include irregular warfare and other shaping missions that secure strategic access and global freedom of action.*

NECC Executes the Navy's Maritime Strategy through:



Riverine



Explosive Ordnance Disposal



Maritime Expeditionary Security



Combat Camera



Maritime Civil Affairs



Naval Construction (Seabees)



Expeditionary Intelligence



Expeditionary Logistics



Expeditionary Combat Readiness

Readiness and Cost Reporting Program (RCRP) for NECC

- ▶ More than just a readiness program
- ▶ **Provide a single, standardized, enterprise-wide tool for:**
 - Dynamic asset/resource management and visibility (both NIPRNET and SIPRNET)
 - Provide readiness scores to Defense Readiness Reporting System – Navy (DRRS-N)
 - 5 PESTO Pillars (**P**ersonnel, **E**quipment, **S**upply, **T**raining, and **O**rdnance)
 - Requirements justification and resource planning (Cost Integration)
 - Decision support – Earned Readiness and Optimization
- ▶ **RCRP Supports Enterprise Activity:**
 - Stimulate **cost-wise behavior**: Improve Readiness and Cost Balance
 - Provide **metrics-based planning** support and shape future investment

RCRP enables detailed analysis of readiness, cost, and time

▶ Resource to Task Mapping

- RCRP uses Strengths of Association (SOAs) to determine the relative importance of resources to overall readiness impact, based on a scale of 0 (“Not Applicable”) to 4
 1. Supporting – Lack of resource causes minimal degradation to operations
 2. Core – Lack of resource causes moderate degradation to operations
 3. Critical – Lack of resource causes severe degradation to operations
 4. Go/No Go – Cannot achieve task without resource
- Enables **Marginal Readiness** calculations for each pillar (used to determine expected readiness values)

▶ Time captured in the Training Pillar – **Fleet Response Training Plan (F RTP)**

RCRP calculates the PESTO scores for each of the 4 levels of the Readiness Hierarchy

Commander's View

This page displays the overall Mission Area Computed Assessment for the Unit of Interest and any subordinate units. To view the entire Computed Assessment for a unit, click on the readiness score links.

FILTERS
Mission: Major Combat Operations

Ready
 Qualified Ready
 Not Ready
 Expected Data Not Provided
 No Data Expected

Unit	Date	Computed	P	E	S	T	O
MOBDIVSALU 2 (SEA)	12 Jul 2009	50	86	13	67	81	1

Home Admin **Readiness Analysis** Resource Management Rules/Metrics Planning Reports Unit of Interest: [MOBDIVSALU 2 \(SEA\)](#)

Home > Readiness Analysis > Computed Assessment [Get Help](#)

Computed Assessment

Ready
 Qualified Ready
 Not Ready
 Expected Data Not Provided
 No Data Expected

Mission Areas	Computed	P	E	S	T	O
<input checked="" type="checkbox"/> MCO - Major Combat Operations	50	86	13	67	81	1

Capability Areas	Computed	P	E	S	T	O
<input checked="" type="checkbox"/> C4ISR - Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance	52	86	24	67	82	3

Capabilities	Computed	P	E	S	T	O
<input checked="" type="checkbox"/> CC - Command and Control	52	86	16	67	83	9

NMETs	Computed	P	E	S	T	O
<input checked="" type="checkbox"/> 1.1.1.1 - Identify Lift Requirements	89	86	100	84	88	87

Earned Readiness for NECC

- ▶ Outputs from standard readiness reporting can be misleading for decision makers
- ▶ Scores as seen in most readiness reporting tools (SORTS/OARS, DRRS, etc.) provide a snapshot of how well a unit is performing across PESTO pillars
- ▶ However, the calculations and color schemes of these tools do not account for the training cycle buildup of readiness over time
 - Units reporting ‘Red’ may be on schedule with their progress along the training cycle
 - Units reporting ‘Yellow’ or ‘Green’ may be ahead of schedule, therefore using resources that could be distributed to others who may need them more

DRRS Key
100 - 80 = Green
79 - 60 = Yellow
59 - 0 = Red

	P	E	S	T	O	Overall
Unit 1	20	15	20	25	20	20
Unit 2	65	50	45	60	55	55
Unit 3	90	95	90	95	100	94
Unit 4	80	65	65	80	80	74

Standard readiness reporting view does not take into account what a unit's readiness SHOULD be

Earned Readiness analyzes scores in respect to expected goals and status in training cycle

- ▶ Earned Readiness is concerned with performance to plan, therefore we analyze scores as they pertain to the Fleet Response Training Plan

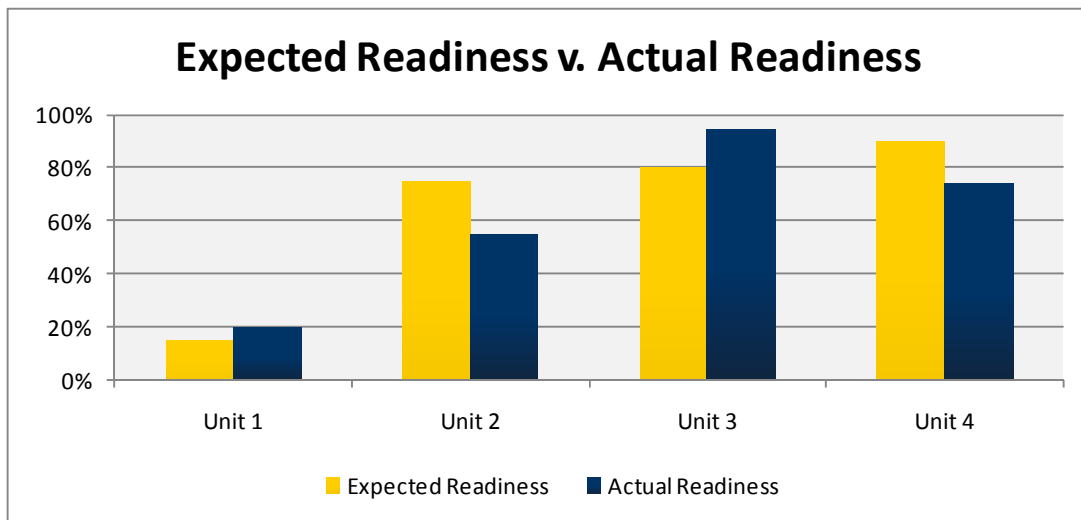
- **Expected Readiness v. Actual Readiness**

- ▶ **Readiness Factor**

- Calculated to allow for side-by-side comparison of units in different stages of the FRTP on a common scale

		Maintain	Basic	Advanced	Sustain	Adjusted Readiness Score	Readiness Factor	Unit Variance from Plan
Unit 1	Expected Readiness	15				133%	1.33	0.33
	Actual Readiness	20						
Unit 2	Expected Readiness		75			73%	0.73	0.27
	Actual Readiness		55					
Unit 3	Expected Readiness			80		118%	1.18	0.18
	Actual Readiness			94				
Unit 4	Expected Readiness				90	82%	0.82	0.18
	Actual Readiness				74			

We can also aggregate information to provide readiness performance metrics to upper levels of the enterprise



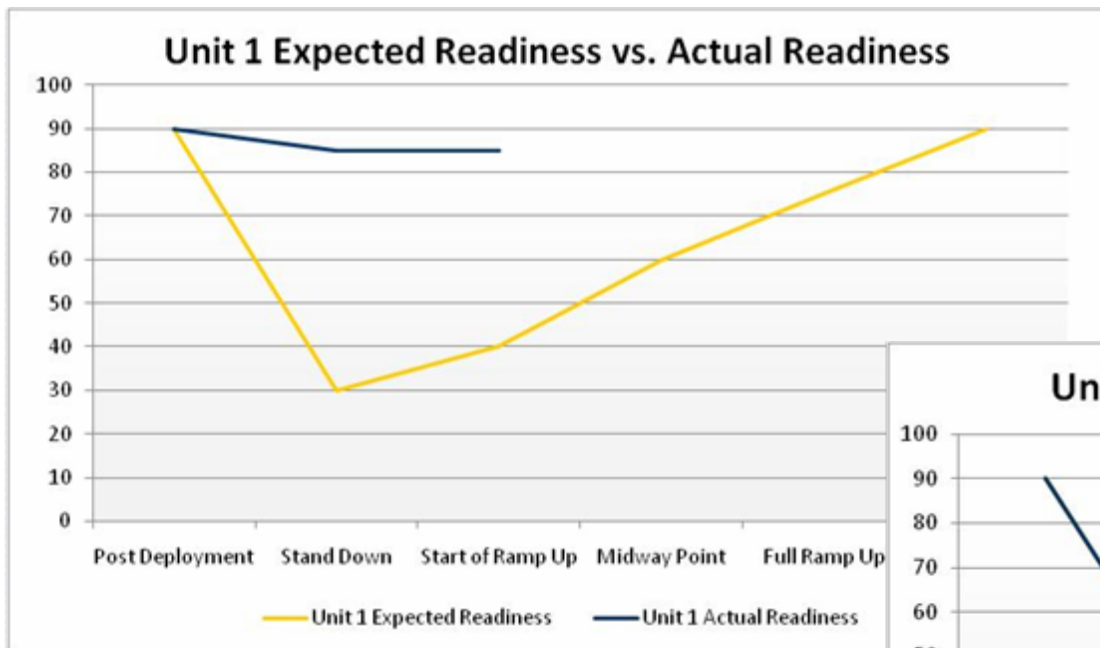
Commanders can see if any units are “over-ready”, are in risk of not being ready in time to deploy, or where resources need to be redistributed

UIC Name	F RTP Phase	Expected Readiness	Actual Readiness	Readiness Factor	Unit Variance
Unit 1	Maintain	15%	20%	1.33	0.33
Unit 2	Basic	75%	55%	0.73	0.27
Unit 3	Advanced	80%	94%	1.18	0.18
Unit 4	Sustainment	90%	74%	0.82	0.18

The Unit Variance and Individual breakdown provides visibility on the details when aggregating to upper levels of the hierarchy

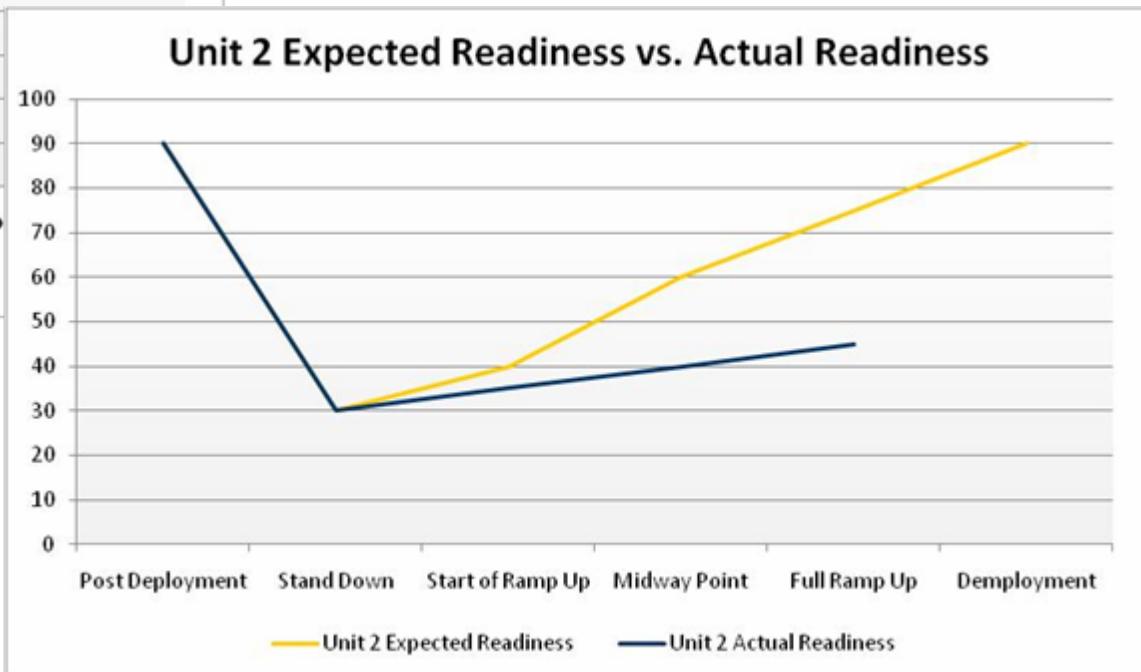
Group Performance		Individual Performance	
Unit Readiness Factor	1.02	ON PLAN	0
Unit Variance	0.24	ACCEPTABLE	2
		OUT OF RANGE	2

Commanders can analyze the “Who” and “When” to share resources



Unit 1 appears to be “over-ready”

Unit 2 appears to be in danger of not being ready to deploy



Cost information is pulled to determine the planned budget and actual expenditures at various points in time

- ▶ Planned Budget figures for NECC Training Pillar are derived from resource package costs
 - Costs are estimated for a wide range of training resources and unit sizes and structures
 - Total expected costs are calculated as a sum of planned resource packages necessary for training sub-events in a given month

- ▶ Spent Budget figures are derived from post-training event cost summaries
 - Entered by the end user, will include cost adjustments if different from original estimates
 - Cost summaries are also added for events completed beyond requirements

Monthly Budget Figures and Actual Expenditures

Month	Phase	Budget Plan	Budget Spent
February 2010	Maint	\$ 313,000.00	\$ 349,676.99
March 2010	Maint	\$ 345,000.00	\$ 349,676.99
April 2010	Basic	\$ 473,000.00	\$ 461,691.55
May 2010	Basic	\$ 920,000.00	\$ 913,502.30
June 2010	Basic	\$ 521,000.00	\$ 893,451.70
July 2010	Basic	\$ 355,000.00	\$ 781,549.14
August 2010	Basic	\$ 301,000.00	\$ 669,422.56
September 2010	Basic	\$ 294,595.21	\$ 669,534.58
October 2010	Advanced	\$ 294,545.93	\$ 669,422.56
November 2010	Advanced	\$ 284,737.93	\$ 647,131.67
December 2010	Advanced	\$ 274,929.94	\$ 624,840.77
January 2011	Sustain	\$ 265,121.94	\$ 602,549.87

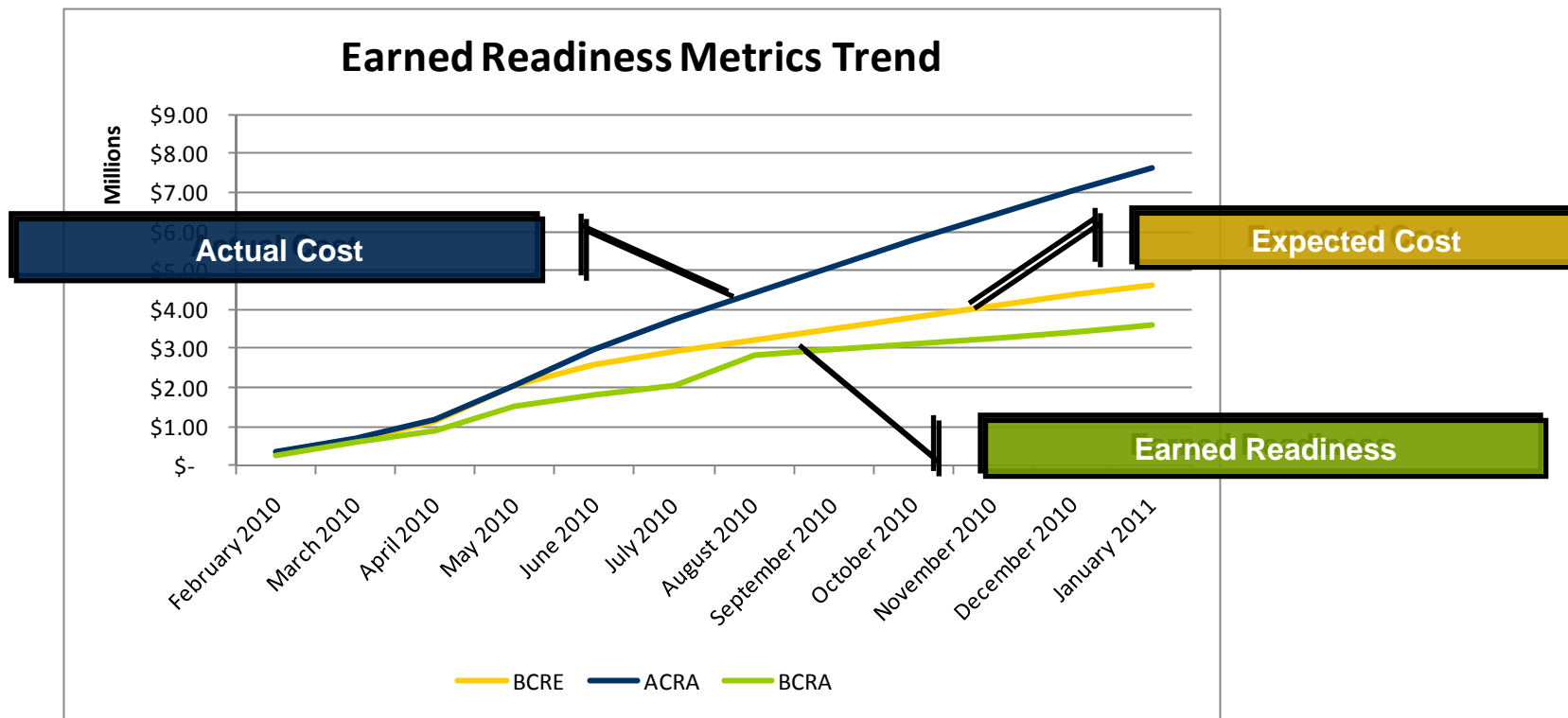
Earned Readiness metrics are developed to integrate readiness performance and cost performance in a single picture

BCRE	Budgeted Cost of Readiness Expected
ACRA	Actual Cost of Readiness Achieved
BCRA	Budgeted Cost of Readiness Achieved

Month	BCRE	ACRA	BCRA
February 2010	\$ 313,000.00	\$ 349,676.99	\$ 266,050.00
March 2010	\$ 658,000.00	\$ 699,353.98	\$ 592,200.00
April 2010	\$ 1,131,000.00	\$ 1,161,045.53	\$ 904,800.00
May 2010	\$ 2,051,000.00	\$ 2,074,547.83	\$ 1,538,250.00
June 2010	\$ 2,572,000.00	\$ 2,967,999.53	\$ 1,800,400.00
July 2010	\$ 2,927,000.00	\$ 3,749,548.67	\$ 2,048,900.00
August 2010	\$ 3,228,000.00	\$ 4,418,971.24	\$ 2,808,360.00
September 2010	\$ 3,522,595.21	\$ 5,088,505.82	\$ 2,994,205.93
October 2010	\$ 3,817,141.14	\$ 5,757,928.38	\$ 3,130,055.74
November 2010	\$ 4,101,879.08	\$ 6,405,060.05	\$ 3,281,503.26
December 2010	\$ 4,376,809.01	\$ 7,029,900.82	\$ 3,413,911.03
January 2011	\$ 4,641,930.96	\$ 7,632,450.68	\$ 3,620,706.15

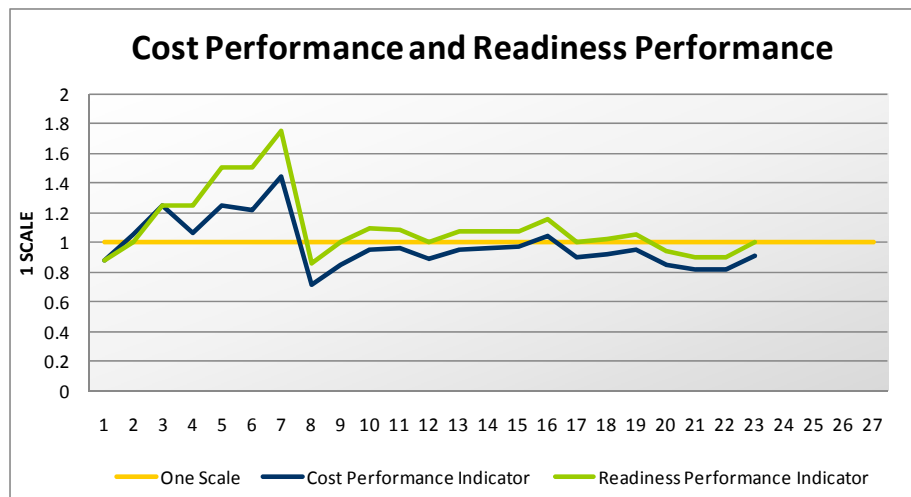
- ▶ We cumulate the cost information for each month along the unit's training plan to develop:
 - Budgeted Cost of Readiness Expected: **planned** cost to reach a unit's readiness goals
 - Actual Cost of Readiness Achieved: **money spent** to reach current readiness levels
 - Budgeted Cost of Readiness Achieved: how much it **should have cost**
 - *These three figures and the Readiness Factor allow us to measure **Readiness and Cost Performance***

The graphical representation of Earned Readiness metrics allows decision makers to easily evaluate a unit's true performance



In this example, the unit expected to spend \$4.6M to reach its readiness goals but actually spent \$7.6M. Based on the unit's readiness performance, however, it should have only spent \$3.6M. This means that the unit earned far less readiness per each dollar spent than had been expected.

Earned Readiness Metrics



	Variances (Smaller is Better)	Indicators (Equal to 1 is Favorable)
Cost Performance	$CV = BCRA - ACRA$ $CV\% = (CV/BCRA)*100$	Cost Performance Indicator (CPI) $CPI = BCRA / ACRA$
Readiness Performance	$RV = BCRA - BCRE$ $RV\% = (RV/BCRE)*100$	Readiness Performance Indicator (RPI) $RPI = BCRA / BCRE$
Forecasting	BAR_D - Budget at Readiness [Deployment] (Budget required to attain estimated readiness levels prior to Deployment)	
	EAR_D - Estimate at Readiness [Deployment] $EAR_{CPI} = BAR_D / (CPI * RPI)$	

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- ▶ Earned Readiness Metrics
 - Case Study: Navy Expeditionary Combat Command
- ▶ How Earned Readiness can be applied to other organizations

Earned Readiness is an adaptable methodology which can be applied to many of our clients' organizations

- ▶ Earned Readiness can assist any organization that:
 - Needs/wants to improve planning (define goals and develop measurable standards)
 - Employs dynamic movement of resources within their community
 - Is tasked with responding to a particular mission
 - Is operating with a limited budget
 - Conducts training cycles
 - For example:
 - Other branches of the military
 - Department of Homeland Security (preparation for and response to terrorist activities)
 - FEMA (preparation for and response to natural disasters)
 - Intelligence agencies

- ▶ Earned Readiness has also been developed for or socialized to:
 - Naval Aviation Enterprise (NAE) Carrier Readiness Team (CRT) - Personnel readiness
 - NAE – Air Wing Readiness based on the flying hours model
 - Commander, Naval Air Forces (CNAF) Air Launched Weapons Team - understanding effects of non-combat ordnance on readiness

Wrap-up

- ▶ **Continue to operate effectively during periods of constrained funding and resources**
- ▶ **Improved planning** - develop measurable standards
 - Improved budget planning, justification, and execution
 - Improved development, support to, and execution of training cycles
 - Smarter sharing and allocation of resources
- ▶ **Early warning system**
 - Identify units that are in danger of not meeting readiness goals
 - Identify units that are overspending based on readiness achieved
 - **Enables forecasting of readiness and cost**
- ▶ Readiness and cost measured together – easy access to metrics – **“one stop shop”**
- ▶ Promote “Effective Readiness” – the right readiness, at the right time, for the right cost
- ▶ Focus Optimization efforts

Why Earned Readiness?

The right readiness

The right time

The right cost



Questions?

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