

DEFENSE CONTRACT MANAGEMENT AGENCY



DCMA

ACQUISITION INSIGHT  GLOBAL ENGAGEMENT

DCMA Update to NDIA IPMD

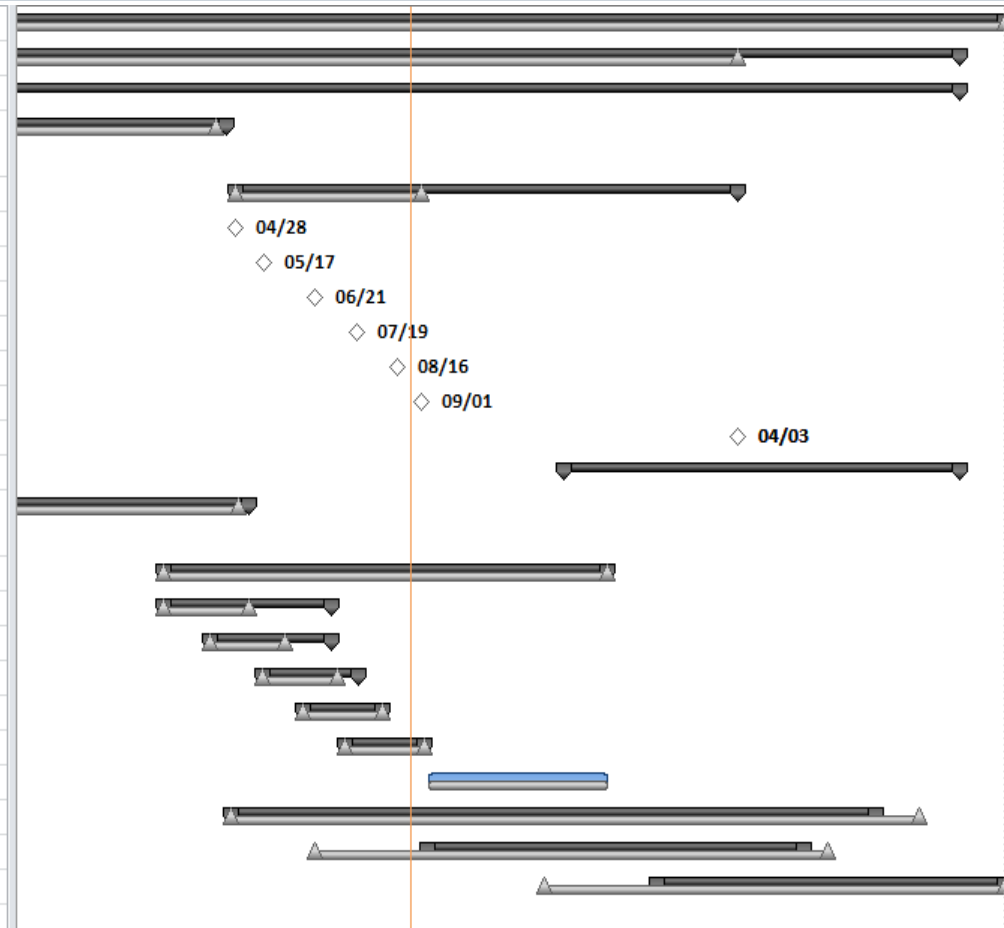
August 31, 2016

- **EVMS Pilot**
 - Current results from test
 - Way ahead

- **Centralization**
 - Current Status
 - EVMS Center Org layout

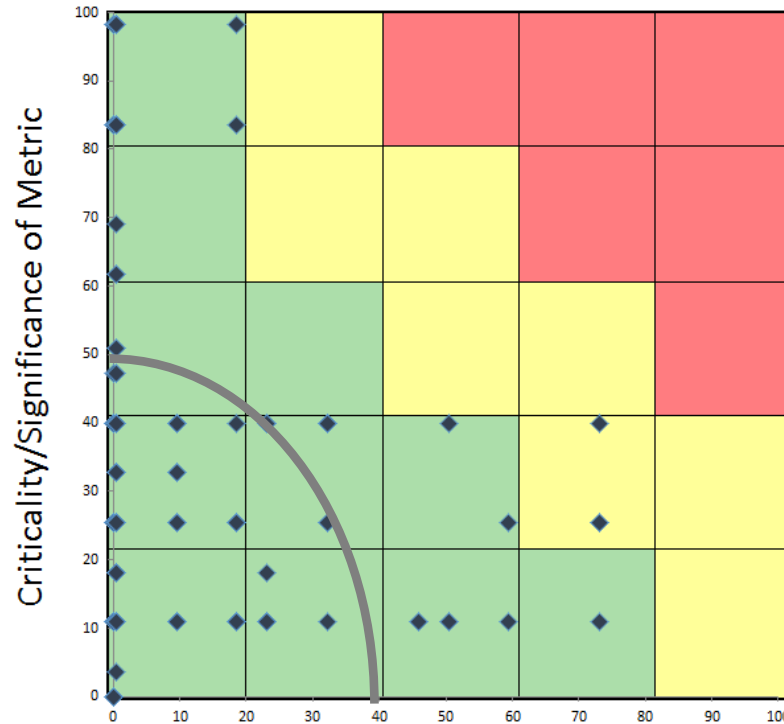
- **Reduce Information Asymmetry between DCMA and Industry**
 - Key principle is transparency of what we are testing and why
 - Allow contractors to incorporate this methodology as part of their internal control processes
 - We can leverage internal surveillance results to better assess risk
 - Changes the focus from “detection to prevention” providing contractors the ability to self correct and focus on continuous process improvement
- **Utilize system data and manual process sampling to assess system risk**
 - Focus on trends to identify process issues, not just occurrence of error!
 - Utilize the data outputs to determine a standard variance across industry
 - Utilize data regression runs to determine process control thresholds
 - Focus DCMA surveillance activity according to analysis / risk indicators
- **Improve impact analysis to provide better programmatic insight**
 - Focus reports of non-compliance on the impact to the program data
 - Correct the system, control for the deficiency in our program analysis

DCMA EVMS Pilot	566 days	Fri 07/31/15	Fri 09/29/17	0 days
Pilot Milestones	544 days	Fri 07/31/15	Thu 08/31/17	22 days
+ Start MS	544 days	Fri 07/31/15	Thu 08/31/17	22 days
+ Metric Development and Validation	109 days	Fri 11/20/15	Thu 04/21/16	0 days
Metric Validation CCB Events	242 days	Thu 04/28/16	Mon 04/03/17	130 days
Iteration 1	0 days	Thu 04/28/16	Thu 04/28/16	0 days
Iteration 2	0 days	Tue 05/17/16	Tue 05/17/16	0 days
Iteration 3	0 days	Tue 06/21/16	Tue 06/21/16	0 days
Iteration 4	0 days	Tue 07/19/16	Tue 07/19/16	314 days
Iteration 5	0 days	Tue 08/16/16	Tue 08/16/16	294 days
Delta / Planning Meeting	0 days	Thu 09/01/16	Thu 09/01/16	40 days
Metric Procedures Complete	0 days	Mon 04/03/17	<u>Mon 04/03/17</u>	130 days
+ EVAS Milestones	192 days	Tue 12/06/16	Thu 08/31/17	0 days
+ Decompose Metrics With Pilot Teams	141 days	Fri 10/23/15	Fri 05/06/16	0 days
Manual Metric Testing/Validation	214 days	Fri 03/11/16	Wed 01/04/17	192 days
+ Iteration 1: ORG	81 days	Fri 03/11/16	Fri 07/01/16	0 days
+ Iteration 2: PSB	60 days	Mon 04/11/16	Fri 07/01/16	325 days
+ Iteration 3: Accounting	47 days	Mon 05/16/16	Tue 07/19/16	313 days
+ Iteration 4: AMR	40 days	Mon 06/13/16	Fri 08/05/16	300 days
+ Iteration 5: RDM	40 days	Mon 07/11/16	Fri 09/02/16	280 days
PP: Rework / Backlog	88 days	Mon 09/05/16	Wed 01/04/17	192 days
+ Develop Risk Criteria	312 days	Mon 04/25/16	Tue 07/04/17	63 days
+ Procedure Development	182 days	Mon 09/05/16	Tue 05/16/17	38 days
+ Training Development	169 days	Tue 02/07/17	Fri 09/29/17	0 days



- Metric Decomposition Completed: 133 Metrics Put into Test
 - Reduction from 163 Baselined; some metrics combined
 - Ratio of Manual to Purely Automated is 3:2

Evaluation of Metric Quality



Measurement/Calculation Difficulty

Focus on Metrics with Criticality/Calculation Concerns

Items outside the arc are considered marginally effective

These drive conversation towards improvement or replacement of metrics

Area	Metric Type	Initial # of	Metrics		Pending	Metrics
		Metrics	Added	Deleted		Validated
ORG	Automated	9			1	8
	Manual	11	1	2	6	4
	Subtotal	20	1	2	7	12
PSB	Automated	41	3	11	6	27
	Manual	21	5	7	9	10
	Hybrid	2			2	0
	Subtotal	64	8	18	17	37
ACCT	Automated	13		5	2	6
	Manual	10	2	2	1	9
	Subtotal	23	2	7	3	15
AMR	Automated	19	2	14	2	5
	Manual	18	2	7	4	9
	Subtotal	37	4	21	6	14
RDM	Automated	8		5		3
	Manual	15	4	2	2	15
	Hybrid	1	1			2
	Subtotal	24	5	7	2	20
TOTAL		168	20	55	35	98

60 Metrics fully automated

Focusing on value vice "count of condition"

133 Current Metrics

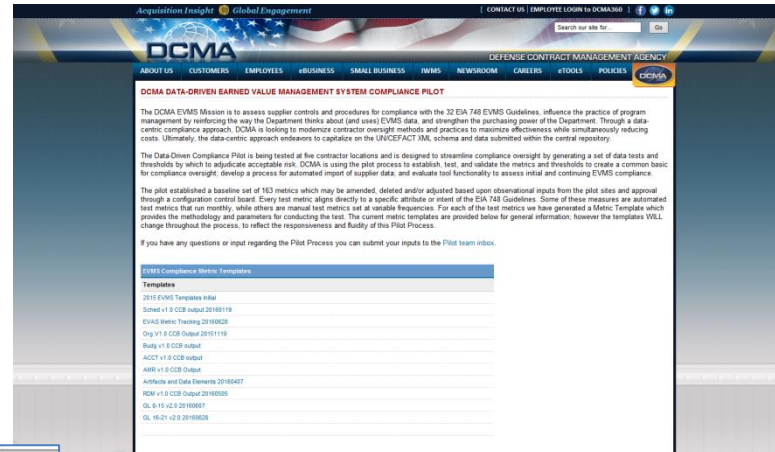


Pilot Program Communication

DEFENSE CONTRACT MANAGEMENT AGENCY

DCMA Home Page –

- Established as a one stop shop for all Pilot results
- Read access to all industry
- Test Metric Information:
- Initial Tests
- Revised/Validated Test Status
- Spreadsheet with Most Recent Status



Unique Test Metric ID	Attribute ID	Current Template Revision	Test Metric New Date	Test Steps	Test Metric Numerator (N)	Test Metric Denominator (D)	Metric Threshold	Min Freq	Artifacts	Test Type	Status	Date Validated
08A102a	08A1	v2.0	7-Jun-16	Does the accounting calendar align to the calendar used within the IMS?	X = Count of sampled accounting months where the beginning of period and end of period dates do not match between the accounting calendar and the IMS.	Y = Total count of sampled accounting months	X/Y < 0%	A	2, 11, 50	M	VALIDATED	17-May
08A201a	08A2	v2.0	7-Jun-16	Was customer authorization received before reporting an OTB in Cost Performance Report (CPR)/Integrated Program Management Review (IPMR)?	X = Occurrences where customer authorization was not received prior to reporting an OTB on IPMR/CPR.	N/A	X = 0	A	06, 11, 20, 25	M	VALIDATED	17-May
08A202a	08A2	DELETED	19-Jan-16	Does CA time-phased BCWS equal BAC?	X = \$ value of CAs where sum of all BCWS > BAC	Y = total BAC	X/Y < 10%	M	8, 13	A	DELETED	
08A203a	08A2	DELETED	19-Jan-16	Does SPPP time-phased BCWS equal BAC?	X = \$ value of SPPs where time-phased BCWS > BAC	Y = total BAC	X/Y < 10%	M	8, 13	A	DELETED	
09A102a	09A1	v2.0	7-Jun-16	Is authorization date prior to budgeted baseline start?	X = Count of sampled incomplete CAs where the baseline start date precedes the WAD authorization date (signature)	Y = Total count of sampled incomplete CAs	X/Y < 10%	Q	2, 9, 13	M	VALIDATED	17-May
09A102a	09A1	v2.0	7-Jun-16	Is work authorization date prior to the incurrence of actual costs?	X = Sum of ACWP incurred before the work authorization date for sampled CAs	Y = Sum of ACWP for sampled CAs	X/Y < 10%	Q	2, 9, 13	M	VALIDATED	17-May
09A103a	09A1	v2.0	7-Jun-16	Are elements of cost defined/identified for each control account?	X = Sum of BAC for sampled incomplete CAs with budgets that cannot be segregated by element of cost	Y = Total BAC of sampled CAs	X/Y < 10%	M	13	A	VALIDATED	17-May
10A101a	10A1	DELETED	7-Jun-16	Is performance greater than budget (BAC)?	X = BCWP _{total} for WPs where BCWP _{total} is greater than BAC	Y = Total BCWP _{total} for all WPs	X/Y < 0%	M	13	A	REMOVED/COMBINED	
10A102a	10A1	v2.0	7-Jun-16	Are EVTs assigned to WPs?	X = Count of incomplete WPs without an assigned EVT	Y = Total count of incomplete WPs	X/Y < 5%	M	13	A	VALIDATED	17-May
10A103a	10A1	v2.0	7-Jun-16	Are 0-100 EVTs applied to incomplete WPs with one accounting period of budget?	X = Count of 0-100 EVT incomplete WPs with baseline duration spanning more than one accounting period	Y = Total count of 0-100 EVT incomplete WPs	X/Y < 5%	M	13	A	VALIDATED	17-May
10A104a	10A1	v2.0	7-Jun-16	Are NStart-NFinish EVTs applied to incomplete WPs with two accounting periods of budget?	X = Count of incomplete WPs with NStart-NFinish EVTs	Y = Total count of incomplete WPs with NStart-NFinish EVTs	X/Y < 5%	M	13	A	VALIDATED	17-May
10A105a	10A1	v1.1	21-Jan-16	Does Quantifiable Backup Data (QBD) substantiate in-progress WPs with an EVT of N Complete?	X = Count of % Complete EVT in-progress tasks or WPs sampled with a recorded percent complete that is not supported by a predetermined and objective QBD	Y = Total count of % Complete EVT in-progress tasks or WPs sampled	X/Y < 5%	A	13, 32	A/M	RETURN FOR RETEST	23-Jun
10A106a	10A1	DELETED	19-Jan-16	Do you have LOE schedule variance?	X = # of LOE WPs where (BCWP _{total} - BCWS _{total}) > 0	Y = total # of LOE WPs	X/Y < 10%	M	13	A	DELETED	
10A107a	10A1	DELETED	19-Jan-16	Does each WP/PP have an OBS assigned to it?	X = # of WP/PPs where # of assigned OBS ≠ 1	Y = total # of WP/PPs	X/Y < 5%	M	13	A	DELETED	
10A108a	10A1	DELETED	19-Jan-16	Does each in-process WP/PP have an assigned budget value?	X = value of ACWP _{total} where BAC ≤ 0	Y = total value of ACWP _{total}	X/Y < 5%	M	13	A	DELETED	
10A109a	10A1	v2.0	7-Jun-16	Does each WP/PP have an assigned budget?	X = Count of in-process and remaining WPs and PPs with BAC ≤ 0	Y = Total count of in-process and remaining WPs and PPs	X/Y < 5%	M	13	A	VALIDATED	17-May
10A201a	10A2	v2.0	7-Jun-16	Are EVTs for material consistent with the manner in which material is planned?	X = Count of sampled material WPs with EVTs that are not consistent with the manner in which material is planned	Y = Total count of sampled material WPs	X/Y < 10%	A	03, 13, 29	M	VALIDATED	17-May
10A202a	10A2	v2.0	7-Jun-16	Is material segregated from other elements of cost within WPs?	X = Count of material work packages which contain a second element of cost	N/A	X = 0	A	13	M	VALIDATED	17-May

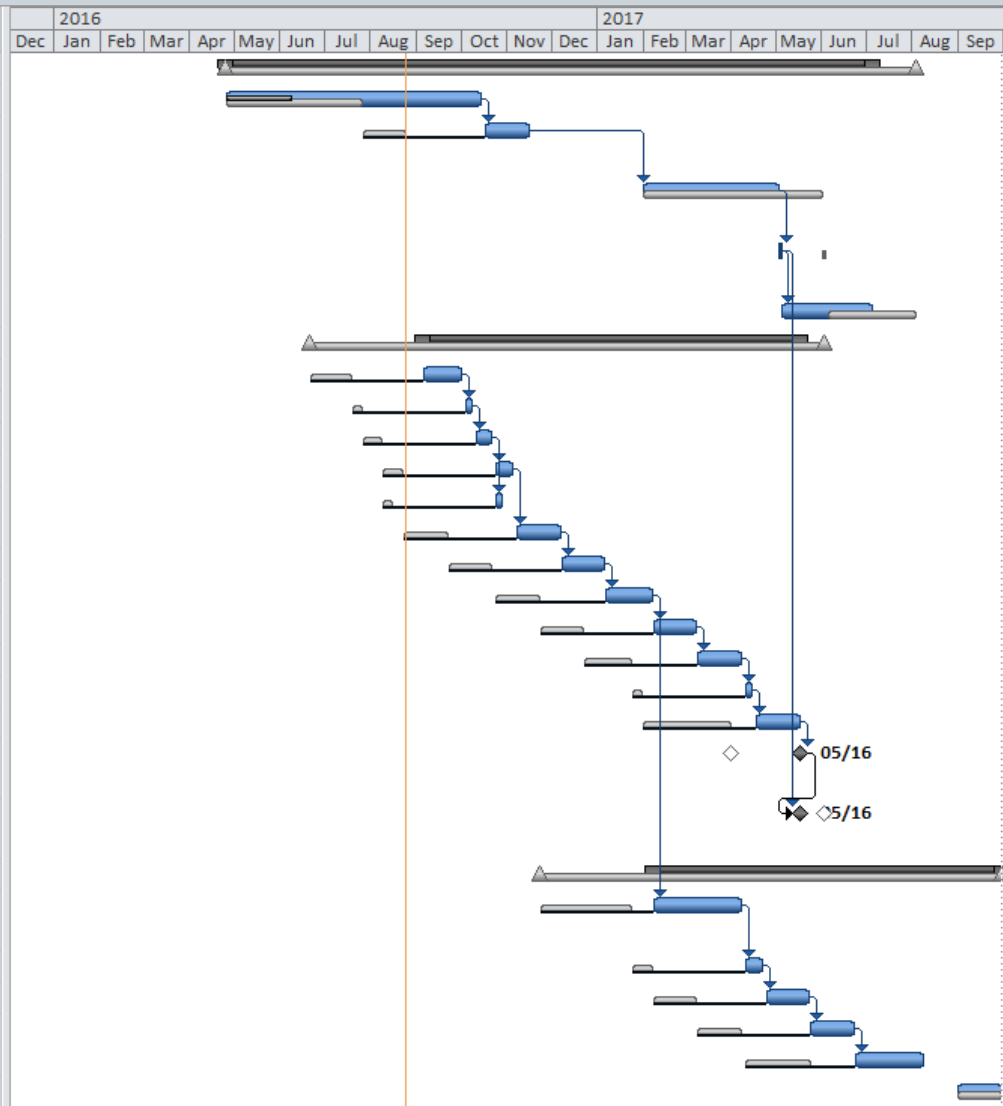
EVMS Test Metric Specification			
1. Guideline No:	2. Unique Test Metric ID	3. Test Type:	4. Frequency:
09	09A102a	Manual	Quarterly
5. Attributes:			
09A1: Work elements of period of 7 days			
6. Test Step:			
X = Sum of ACWP incurred before the work authorization date for sampled CAs			
Y = Sum of ACWP for sampled CAs			
7. Test Metric:			
X = Sum of ACWP incurred before the work authorization date for sampled CAs			
Y = Sum of ACWP for sampled CAs			
8. Metric Threshold:			
X/Y < 10%			
10. Data Elements:			
02 Accounting Fiscal Calendar			
09 Work Authorization Documentation (WAD)			
13 EV Cost Tool Data			
11. Assumptions:			
1. Initial determination of attribute risk is based on a sample of incomplete CAs.			
2. Applies to initial and current revised work authorization documentation.			
3. Dates are to be assessed according to accounting month of fact dates are not carried in the EV cost tool.			
12. Instructions:			
1. Sample incomplete CAs that have incurred actual costs.			
2. Sum ACWP _{total} for the sampled CAs; this is the denominator (Y) of the test metric.			
3. Identify the accounting fiscal month in which actuals were first incurred.			
4. Verify that the WAD for the sampled CAs were approved or pinto to the accounting fiscal month in which actuals were first incurred in the EV Cost Tool Data.			
5. Sum the value of ACWP incurred before the WAD authorization dates for each CA where actuals were incurred in an accounting fiscal month prior to work authorization approval; this is the numerator (X) of the test metric.			
6. Calculate the test metric (Block 7); X divided by Y.			
7. If the result is within the threshold (Block 8), the metric passes.			
13. Numerator Code:			
14. Denominator Code:			

<http://www.dcmahq.com/DCMAHQ/EVMS/index.cfm>

Questions? Contact John Christian 310-900-6651

DEFENSE CONTRACT MANAGEMENT AGENCY

Task Name	Duration	Start	Finish	Total Slack
Develop Risk Criteria	312 days	Mon 04/25/16	Tue 07/04/17	63 days
Investigate Sampling Criteria	125 days	Mon 04/25/16	Fri 10/14/16	117 days
Finalize Risk Procedures (Manual Tests)	22 days	Mon 10/17/16	Tue 11/15/16	117 days
Data Regression Analysis (EVAS DEPENDENCY)	66 days	Tue 01/31/17	Tue 05/02/17	63 days
Establish Final Metric Thresholds	1 day	Wed 05/03/17	Wed 05/03/17	63 days
Rework/Reassessment Period	44 days	Thu 05/04/17	Tue 07/04/17	63 days
Procedure Development	182 days	Mon 09/05/16	Tue 05/16/17	38 days
Develop Template	20 days	Mon 09/05/16	Fri 09/30/16	38 days
Obtain Feedback	5 days	Mon 10/03/16	Fri 10/07/16	38 days
Incorporate Changes	10 days	Mon 10/10/16	Fri 10/21/16	38 days
Staff For Consensus	10 days	Mon 10/24/16	Fri 11/04/16	38 days
Plan Iteration Content	5 days	Mon 10/24/16	Fri 10/28/16	240 days
Iteration 1	22 days	Mon 11/07/16	Tue 12/06/16	38 days
Iteration 2	22 days	Wed 12/07/16	Thu 01/05/17	38 days
Iteration 3	22 days	Fri 01/06/17	Mon 02/06/17	38 days
Iteration 4	22 days	Tue 02/07/17	Wed 03/08/17	98 days
Iteration 5	22 days	Thu 03/09/17	Fri 04/07/17	98 days
Delta Planning	5 days	Mon 04/10/17	Fri 04/14/17	98 days
Delta Iterations	22 days	Mon 04/17/17	Tue 05/16/17	98 days
Consolidate Procedure for publication	0 days	Tue 05/16/17	Tue 05/16/17	98 days
Procedure Updates (as required)	0 days	Tue 05/16/17	Tue 05/16/17	98 days
Training Development	169 days	Tue 02/07/17	Fri 09/29/17	0 days
Procedure Training Development	44 days	Tue 02/07/17	Fri 04/07/17	38 days
Mock Review	10 days	Mon 04/10/17	Fri 04/21/17	38 days
Training Edits	22 days	Mon 04/24/17	Tue 05/23/17	38 days
Finalize Training	22 days	Wed 05/24/17	Thu 06/22/17	38 days
Conduct Onsite Training	33 days	Fri 06/23/17	Tue 08/08/17	38 days
EVAS/Tool Use Training	22 days	Thu 08/31/17	Fri 09/29/17	0 days



Earned Value Analytics System (EVAS)

Earned Value Analytics System Future Capabilities:

- Singular ability to ingest multiple data sources and present it in a common format
- Consistent application of EVM system metrics and improved program analysis analytics
- Programmable automated metrics which identify risk criteria ensuring consistent and more transparent review criteria

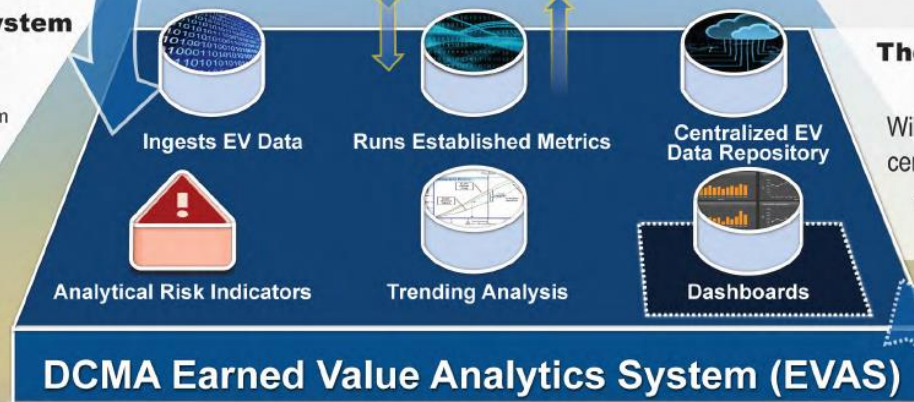
Earned Value Analytics System Benefits (High Level):

- Standardized EVM review process
- Improved analytics capability for program analysis and Major Program Support
- Enhanced flexibility in terms of addressing issues to reduce detection to correction
- Enhanced ability to understand root cause versus symptoms of system issues
- Ability to pinpoint impact of deficiency
- Provide factory floor perspective and programmatic execution



DCMA Users
Access All

DCMA has the responsibility for EVMS compliance, validation, and surveillance for DoD contracts, subcontracts, intra-government work agreements, or other agreements valued at or greater than \$100 million.



The Earned Value Analytics System (EVAS):

Will streamline compliance reviews and centralize EVMS competency to improve efficiency of DCMA surveillance and analysis from industry reporting.

Common
Operational
Picture (COP)

DCMA Leadership

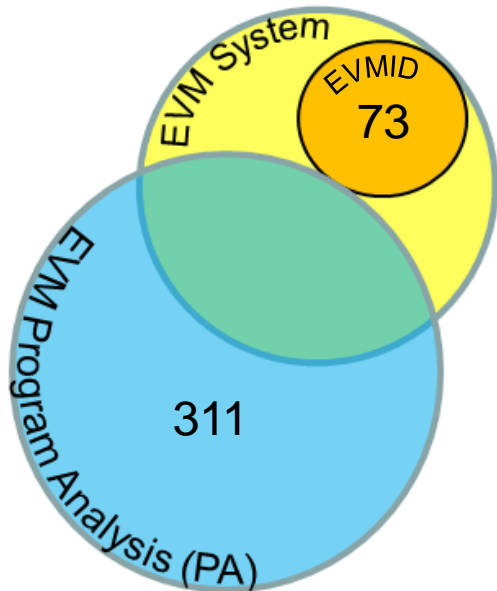
External Stakeholders

Access Dashboard
via Internet

- **EVMS Center CONOPS Approved 23 June 2016**
 - Establishes the EVMS Center as the singular DCMA organization performing EVMS system compliance review(initial and on-going)
 - Identifies EVMS CAR authority under the EVMS Center
 - Breaks out EV Program Analysis to the Major Program Support Division

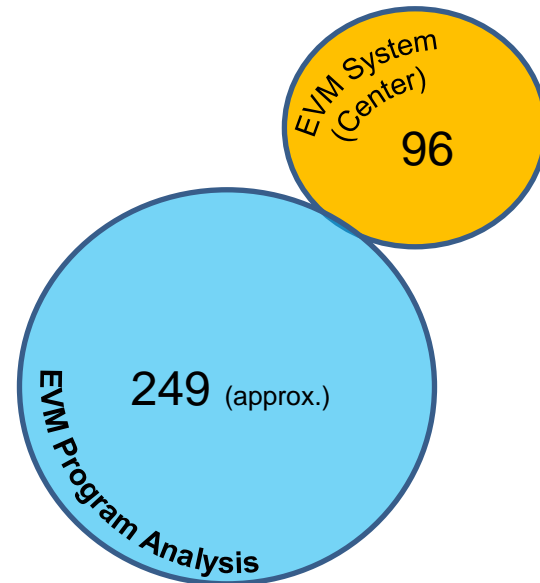
- **EVMS Center Stand-Up on 22 August 2016**
 - Reassigns the EVMID from DCMA Operations to DCMA PM&BI
 - Identifies Corporate Teams; reorg ongoing through 2 October 2016
 - Changeover at site level will occur as personnel transition

Getting From Here.....

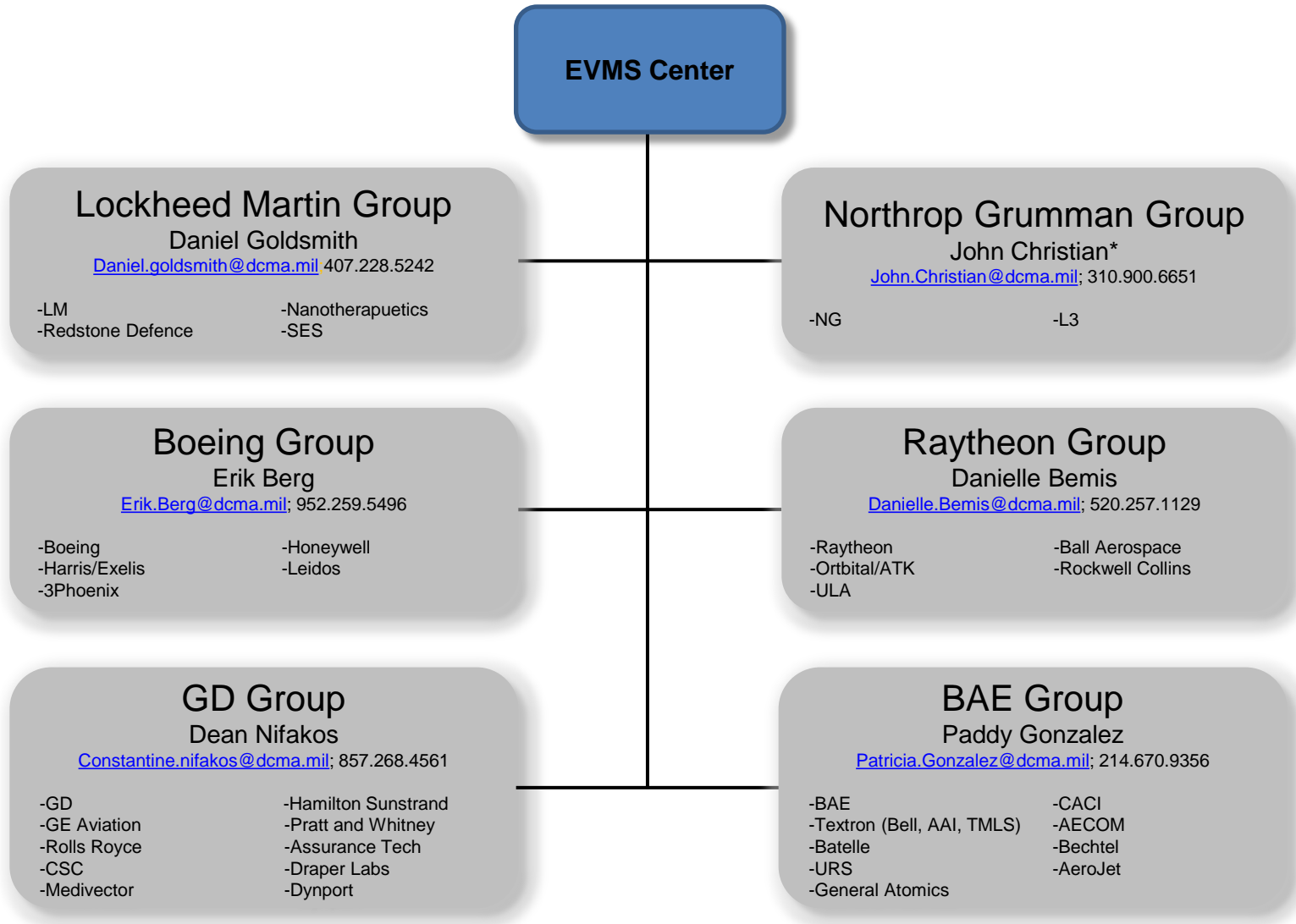


428 positions w/ EV duties

.....To Here



345 positions w/ EV duties

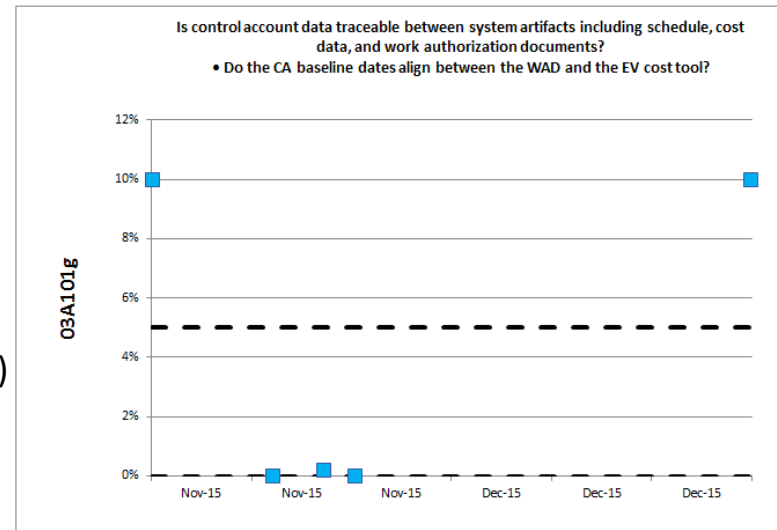


Questions?

Frequen	Data Month	Contract ID	Test Result %	OOT/NoOOT	Contractor Estimate Time	Government Time to Review Metric	Validity - Does the Metric test the intent of	Definitive - Did the Test Metric produce results that	Meaningful - Did the results of the test metric	Proposed Change: (Content)
M	Mar-16	3	0%	Within Threshold	0 - 2 hours	0 - 2 hours	Completely Covers	Definitive results -	Supports determination,	Data Elements
Monthly	Feb-16	2a	0%	Within Threshold	0 - 2 hours	0 - 2 hours	Partially covers	Definitive results -	Metric result standing	none
Monthly	Feb-16	4	0%	Within Threshold	0 - 2 hours	0 - 2 hours	Partially covers	Definitive results -	Metric result standing	none
Monthly	Nov-15	1	10%	Out of Threshold	0 - 2 hours	0 - 2 hours	Completely Covers	Definitive results -	Supports determination,	Data Elements
Monthly	Oct-16	5	10%	Out of Threshold	0 - 2 hours	0 - 2 hours	Partially covers	Supports determination,	Supports determination,	Data Elements and

- Evaluated metrics with results from the 5 pilot sites:

- Each site ran independently
- Gathered data on key items:
 - Time required to gather data (contractor)
 - Time required to run metric (DCMA or joint effort)
 - Proposed changes
 - Content Recommendations
 - Data Element Recommendations
 - Other Notes

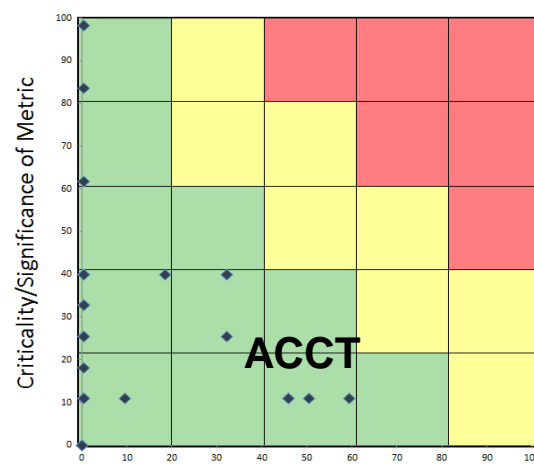
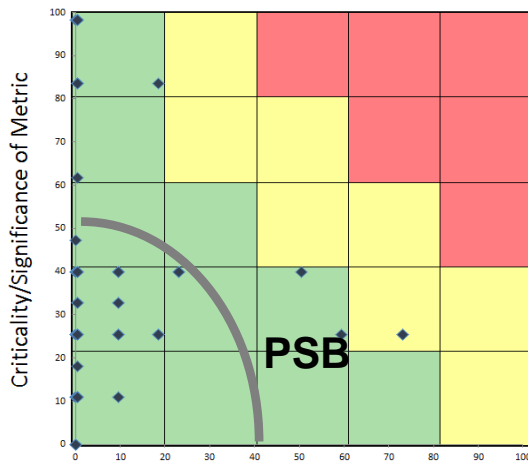
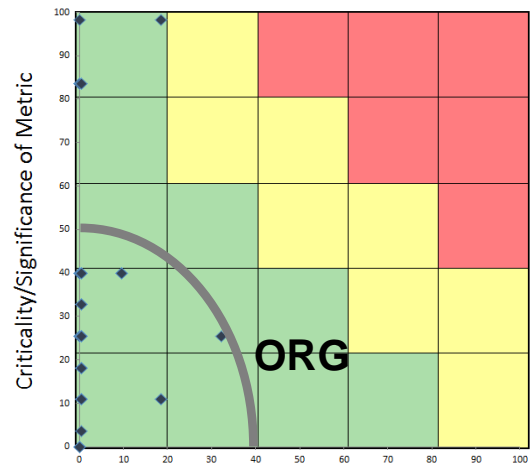


Example of chart for Guideline 3

Evaluation of Metric Quality

Evaluation of Metric Quality

Evaluation of Metric Quality



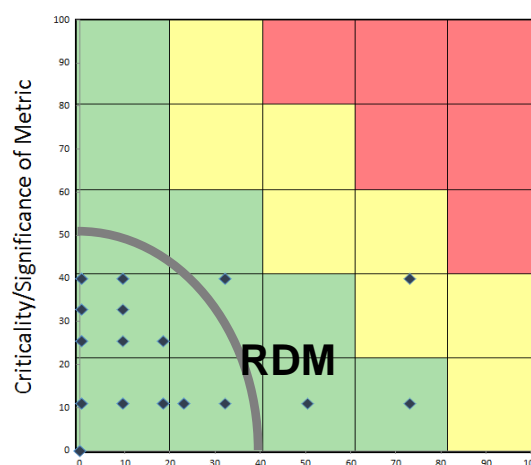
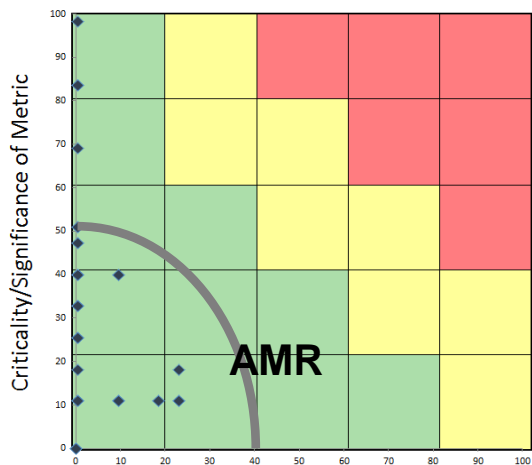
Measurement/Calculation Difficulty

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Evaluation of Metric Quality

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Measurement/Calculation Difficulty

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