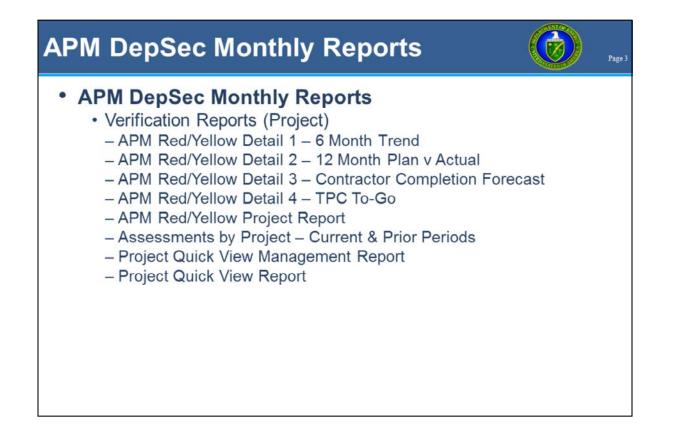


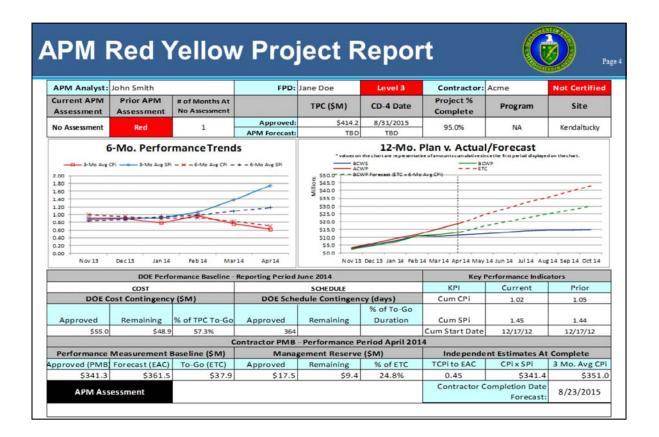
This EVMS Training Snippet, sponsored by the Office of Acquisition and Project Management (OAPM) is one in a series regarding PARS II Analysis reports. PARS II offers direct insight into EVM project data from the contractor's internal systems. The reports were developed with the users in mind, organized and presented in an easy to follow manner, with analysis results and key information to determine the status and health of the project. This particular snippet focuses on the content of the Acquisition and Project Management (APM) Monthly Report for the Deputy Secretary.



Reports that are used to prepare the information are located in the PARS II SSS Reports under the APM DepSec Monthly Reports folder, Verification Reports (Project) Subfolder.



The primary report is the APM Red Yellow Project Report. The Detail Reports 1 through 4 support the content for the APM Red/Yellow Project Report.



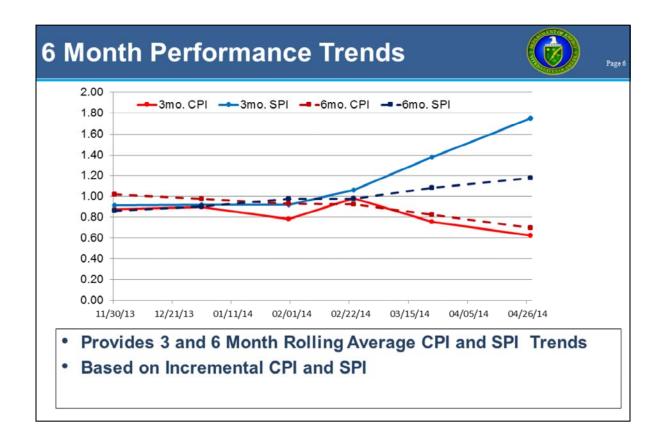
Red Yellow Project Performance Reports are included for all projects assessed Red or Yellow in the current reporting period. This is an example of the monthly APM Red Yellow Project Report. It provides valuable project related information at a glance and is available for the Deputy Secretary's review. The sections will be discussed in more detail in the following slides.

eport Date: 6/2/2014 A Status Date: 6/26/2014 PP Data As-Of Date: 4/27			Red - Yell	ow Project Statu June 2014	is Report			
APM Analyst:	John Smith		FPD:	Jane Doe	Level 3	Contractor:	Acme	Not Certifie
Current APM Assessment	Prior APM Assessment	# of Months At No Assessment		TPC (\$M)	CD-4 Date	Project % Complete	Program	Site
No Assessment	Red	1	Approved: APM Forecast:	\$414.2 TBD	8/31/2015 TBD	95.0%	NA	Kendaltucky
 Note: 								

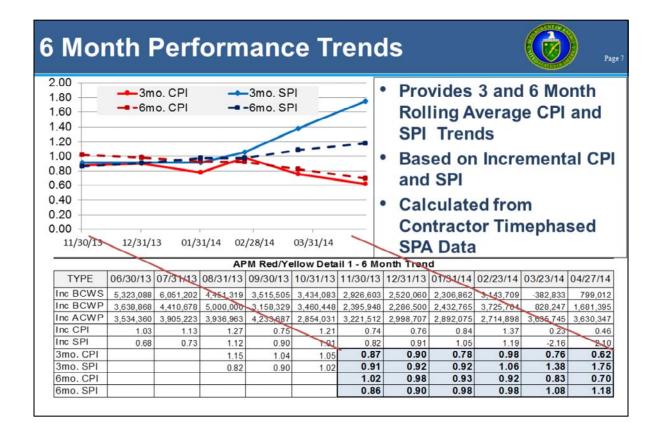
The header of the report contains much of the same information that was available in previous versions of the Monthly Report and consists of high-level project information such as key contacts (OAPM, FPD, Contractor), Location (Site), Ownership (Program). In addition, the report highlights current and prior period OAPM overall project assessments and indicators of the number of months the project was assessed at the current color. The FPD and Contractor certification fields will be highlighted Red if certification is not at the appropriate level.

The TPC and CD4 Date Approved values are those approved by the last approved baseline; that is either the CD2 baseline if the project never had a BCP approval on it, or the latest approved BCP. Note that only BCPs that affect the DOE Performance Baseline are considered here.

Finally, the Project % Complete values calculated by PARS II are based on the contractor uploaded project performance data. The calculation does not take into consideration whether the BAC reported by the contractor includes pre-CD2 items. The entire contractor-reported BAC and cumulative BCWP are used for the calculation.



The next section of the report contains two charts. The first chart is the Rolling Average CPI and SPI trend chart over the last 6 months. The report uses the contractor-uploaded incremental CPI and SPI to calculate 3 and 6 month rolling averages. To accomplish this successfully, contractor time phased data is used.

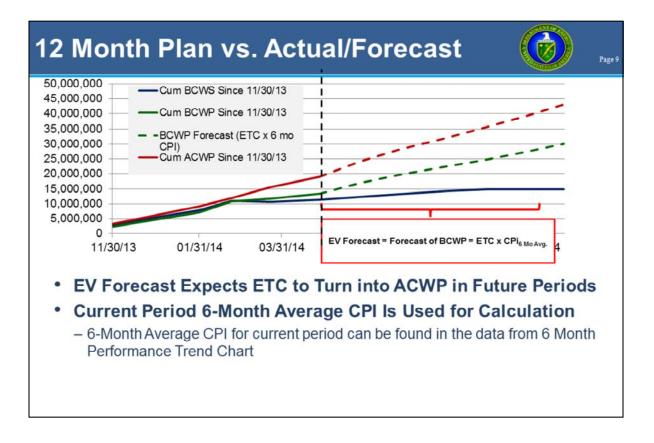


Because time phased data is used, the report will only be able to produce this chart on projects where the completed full CPP Upload includes time phased EV data. If there are questions or concerns regarding the validity of the chart, a supporting report was created called the OAPM Red Yellow Project Report Detail 1 – that allows users to see the data that was used to display this chart on the report. As demonstrated, the last 11 periods of contractor-reported incremental S, P, and A data are used to arrive at the 3 and 6 month averages. Values highlighted in blue are those used by the report to display the Performance Trends Chart. The supporting report also contains detailed information to help understand the report and chart.

12 Moi	nth F	Plan	vs.	Act	ual/F	ore	cast			Pa
• 12 Mon	th	50	,000,000	1					Cum BCV	VS Since
Perforn		40	,000,000	6- <u></u>			-		Cum BCV 11/30/13	VP Since
Snapshot		30,000,000					- BCWP Forecast (ETC			
 Based (Contract 	- TANKIN	20	,000,000	6	/	1			Cum ACV	A. S.
		10	,000,000						-Cost Fore	ecast (ETC)
Timeph and ET			0	/30/13	03/31/	/14 _	07/31/14			
			0	/30/13		_	07/31/14	tual		
			0	/30/13		_		tua1 06/22/14	07/27/14	08/24/14
TYPE	C 11/30/13 2.926,603	SPA	0	/30/13	Yellow Deta	2 - 12 Mon	n Plan v. Ac 05/25/14			
TYPE	C 11/30/13 2.926.603 2.395 948	12/21/13 2.520.060 2.286.500	0 01/31/14 2,306,862 2,432,765	/30/13 APM Red/ 02/23/14 3.143,709 3.725,704	Yellow Deta 03/23/14 -382,833 828,247	04/27/14 799.012 1,681,395	n Plan v. Ac 05/25/14 893.090	06/22/14	07/27/14	08/24/14
TYPE Inc BCWS Inc BCWP Inc ACWP	C 11/30/13 2.926,603	12/21/13 2.520.060	0 01/31/14 2,306.862	/30/13 APM Red/ 02/23/14 3.143,709	Yellow Deta 03/23/14 -382,833	2 - 12 Mon 04/27/14 799.012	h Plan v. Ac 05/25/14 893,090	06/22/14 916,987	07/27/14	08/24/14 535,127
TYPE Inc BCWS Inc ACWP Inc ACWP	C 11/30/13 2.926.603 2.395 948	12/21/13 2.520.060 2.286.500	0 01/31/14 2,306,862 2,432,765	/30/13 APM Red/ 02/23/14 3.143,709 3.725,704	Yellow Deta 03/23/14 -382,833 828,247	04/27/14 799.012 1,681,395	n Plan v. Ac 05/25/14 893.090	06/22/14	07/27/14	08/24/14
TYPE Inc BCWS Inc BCWP Inc ACWP Inc ACWP Cum BCWS Since	C 11/30/13 2.926.603 2.395.948 2.21.512	12/21/13 2.520.060 2.998,707	0 1/31/14 2.306.862 2.432.765 2.892.075	/30/13 APM Red/ 02/23/14 3.143.709 3.725.704 2.714.898	Yellow Deta 03/23/14 -382.833 828.247 3.635.745	04/27/14 799.012 1,681.395 3,630.347	h Plan v. Ac 05/25/14 893.090 4.997,548	06/22/14 916.987 3,997,843	07/27/14 1.132,344 4,029,057	08/24/14 535.127 3,387,30
TYPE Inc BCWS Inc BCWP Inc ACWP Inc ACWP Cum BCWS Since 11/30/13	C 11/30/13 2.926.603 2.395 948	12/21/13 2.520.060 2.998,707	0 1/31/14 2.306.862 2.432.765 2.892.075	/30/13 APM Red/ 02/23/14 3.143.709 3.725.704 2.714.898	Yellow Deta 03/23/14 -382.833 828.247 3.635.745	04/27/14 799.012 1,681.395 3,630.347	h Plan v. Ac 05/25/14 893.090 4.997,548	06/22/14 916.987 3,997,843	07/27/14	08/24/14 535.127 3,387,30
TYPE Inc BCWS Inc BCWP Inc ACWP Inc ETC Cum BCWS Since 11/30/13 Cum BCWP Since	C 11/30/13 2.926.603 2.395.948 2.21.512	12/21/13 2.520.060 2.998.707 5.446,663	0 1/31/14 2.306.862 2.432.765 2.892.075 7.753.525	/30/13 APM Red/ 02/23/14 3.143,709 3.725,704 2.714,898 10,897,234	Yellow Deta 03/23/14 -382,833 828,247 3,635,745 10,514,401	2 - 12 Moni 04/27/14 799.012 1.681.395 3.630.347 11.313.414	h Plan v. Ac 05/25/14 893.090 4.997,548 12,206,504	06/22/14 916.987 3,997,843	07/27/14 1.132,344 4,029,057	08/24/14 535.127 3,387,30
and ET	C 11/30/13 2.926.603 2.21.512 2.926.603	12/21/13 2.520.060 2.998.707 5.446,663	0 1/31/14 2.306.862 2.432.765 2.892.075 7.753.525	/30/13 APM Red/ 02/23/14 3.143.709 3.725.704 2.714.898	Yellow Deta 03/23/14 -382,833 828,247 3,635,745 10,514,401	12 - 12 Mont 04/27/14 799012 1.681,395 3.630,347 11,313,414 13,350,558	1 Plan v. Ac 05/25/14 893.090 4,997,548 12,206,504	06/22/14 916,987 3,997,843 13,123,491	07/27/14 1.132,344 4,029,057	08/24/14 535.127 3,387,39 14,790,962
TYPE Inc BCWS Inc BCWP Inc ACWP Inc ACWP Inc ACWP Cum BCWS Since 11/30/13 Cum BCWP Since 11/30/13 BCWP Forecast	C 11/30/13 2.926.603 2.21.512 2.926.603	12/31/13 2.520.060 2.286.500 2.998.707 5.446.663 4.682.448	0 01/31/14 2.306.862 2.432.765 2.892.075 7.753.525 7.115.213	/30/13 APM Red/ 02/23/14 3.143,709 3.725,704 2.714,898 10,897,234	Yellow Deta 03/23/14 -382.833 828.247 3.635.745 10.514,401 11.669.163	2 - 12 Mont 04/27/14 799.012 1.681.395 3.630.347 11.313,414 13.350,558 13.350,558	1 Plan v. Ac 05/25/14 893.090 4,997,548 12,206,504	06/22/14 916,987 3,997,843 13,123,491	07/27/11 1.132,344 4,029,057 14,255,835	08/24/14 535.127 3,387,39 14,790,962

The second chart presented on the report is the 12-month plan vs. actuals and forecast. The chart provides information on contractor performance against the 12-month plan. While the report cumulates values over the 12 months displayed on the chart, it does not take into consideration any cumulative values prior to the first period displayed on the chart.

Similar to the Trends chart, this chart uses contractor-reported time phased data and will only be available on projects that upload full performance data including time phased data. Once again, a supporting report for those needing to validate the accuracy of the data presented on the chart was created and is called the OAPM Red Yellow Project Report Detail 2. The supporting report also contains detailed information that helps to understand the report and chart.



One data element on the report that is calculated by PARS II using contractor-reported data is the EV Forecast. When calculating the EV Forecast, or projected BCWP, the report makes two assumptions:

- Contractor-reported incremental time phased ETCs are an accurate representation of the contractor's estimate of work to be performed and ETCs will become actuals (ACWP).
- 2. 6-month Rolling Average CPI is the cost performance that will be sustained for the next 6 months.

If either of these assumptions is inaccurate or there is other qualitative information available that will impact project performance, it should be noted in the assessment narrative.

DOE Performance Baseline - Reporting Period June 2014							
	COST		SCHEDULE				
DOE C	ost Contingence	y (\$M)	DOE Schedule Contingency (days)				
		% of TPC			% of To-Go		
Approved	Remaining	To-Go	Approved	Remaining	Duration		
\$55.0	\$48.9	57.3%	364	5			

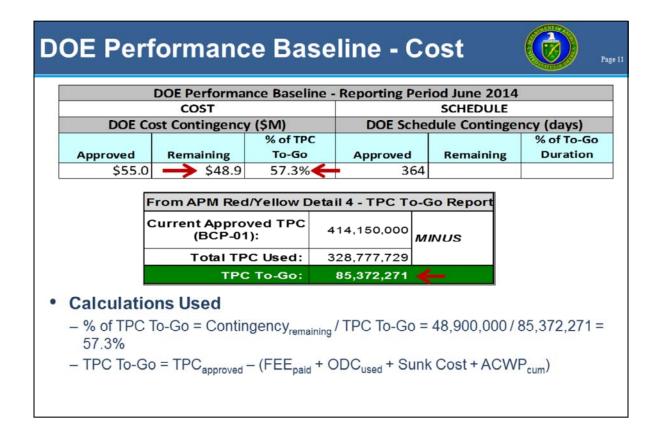
The next section of the report examines the DOE Performance Baseline as it relates to Cost, Schedule, and contingency usage on the project.

OAPM Analysts are now able to assign performance color not only to the overall project, but to individual components of the Performance Baseline – specifically Cost and Schedule. This provides additional information to senior management regarding issues encountered by the project. Some obvious rules are that cost and schedule color assessments can be different, but cannot be worse than the overall assessment.

Approved amounts reported for cost and schedule contingency are those established by the latest approved baseline (CD2 or latest BCP). Remaining amounts are a product of FPD usage reporting. On a monthly basis, the FPD reports usage of contingency through the Monthly Assessment screen in PARS II. Those usages are being subtracted from the amount approved by the latest baseline to arrive at the remaining amount. These two key elements highlight the importance of:

- 1. Accuracy of the approved amounts in PARS II
- 2. Accuracy and completeness of the FPD usage reporting
- 3. Reporting Contingency used for the contractor performance period that is being assessed

The percent of To-Go amounts are calculated by PARS II. In order to understand the calculation, we first must understand what To-Go means and how To-Go amounts are being calculated.



The To-Go TPC is simply a difference between the currently approved TPC (approved by latest baseline) and TPC Used. TPC can be used by DOE and by the contractor. The contractor uses TPC in a form of reporting actuals, or ACWP. The DOE uses TPC in a form of Fee payments, ODCs used (in other words actuals reported by support contractor(s) outside of the prime contractor's PMB), and Sunk (or unrecoverable) costs reported at the latest baseline that are not part of the prime contractor reporting. The sum of the two usages gives us the total TPC Used and the To-Go TPC can be calculated.

A Supporting report called the OAPM Red Yellow Project Report Detail 4 was created to demonstrate the data used by the report to calculate TPC To-Go. The Remaining Cost Contingency is expressed as a percent of the calculated TPC To-Go.

Key Performance Indicators – CPI & SPI



	Key Per	formance Ind	icators
Cumulative Cost	KPI	Current	Prior
and Schedule	Cum CPI	1.02	1.05
Performance	Cum SPI	1.45	1.44
Indices	Cum Start Date	12/17/12	12/17/12

- Current Reporting Period Compared to Previous Reporting Period
- Uses Sum of Incremental BCWS, BCWP, and ACWP since the Date Indicated as Cum Start Date
- Cum Start Date Currently Indicates Latest Approved Baseline; CD-2 or BCP
- Calculated from Contractor Time-phased Data
- Displays Total Project CPI and SPI if Cum Start Date Is Not Set or Time-phased Data Not Available

The Key Performance Indicators section of the report provides current and prior period values for cumulative CPI and SPI. CPI and SPI are calculated based on Cum Start Date. Currently, each project in PARS II was set up to have Cum Start Date as the latest approved baseline, that is, the CD2 Approval Date or Latest BCP Approval Date. What this means is that cumulative amounts seen on the report are those accumulated since the last approved baseline, or in other words the sum of incremental S, P, and A values for periods ending after the approval date of the latest approved baseline.

This calculation, similar to the charts, is also made possible with contractor-reported time phased data. Projects that provide time phased data as part of the upload and have a Cum Start Date configured in PARS II will have this information available. Projects without time phased data or those without a properly configured Cum Start Date will display Cum CPI and SPI for the entire project. Also important to note: if the contractor's incremental data for S, P, and A are not properly time phased (i.e. pre-baseline incremental values are summed in the first post-baseline performance period), these values may be skewed.

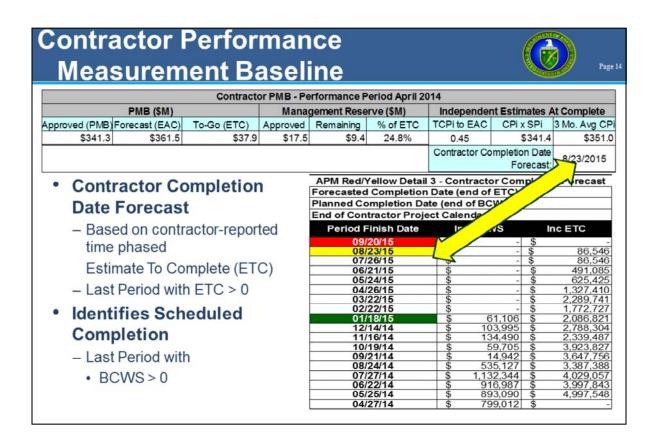
The Cumulative Start Date can be changed by the system administrator and does not have to reflect the latest approved baseline. Some other appropriate uses of this are:

- 1. Date when project was transitioned from one contractor to another
- 2. Date when major internal re-baseline was done that did not impact the DOE Performance Baseline, but significantly changed planned work
- 3. Date when contingency was used to significantly increase the Contract Budget Base with additional scope

Contractor PMB - Performance Period April 2014								
PMB (\$M)			Management Reserve (\$M) Approved Remaining % of ETC			Independent Estimates At Complete		
				Remaining	% of ETC	TCPi to EAC		3 Mo. Avg CF
\$341.3	\$361.5	\$37.9	\$17.5	\$9.4	24.8%	0.45 Contractor Co	\$341.4 mpletion Date Forecast:	\$351. 8/23/2015
 Approved Approved in CPP Up Calculation 	PMB bload	= Curren						
Approved in CPP Up	PMB bload	= Curren						
 Approved in CPP Up Calculation 	PMB bload ons U	sed:	t BAC	+ UB Am	nounts I	Reported		
 Approved in CPP Up Calculatio – TCPi to E 	PMB bload ons U	sed: (BAC – BC	t BAC	+ UB Am	nounts I	Reported		
 Approved in CPP Up Calculatio TCPi to E MR as % 	PMB oload ons U AC = of ET	sed: (BAC – BC) C = MR _{remai}	WP _{cum}), ning / ET(+ UB Am / (EAC - / C	nounts I	Reported		
 Approved in CPP Up Calculatio – TCPi to E 	PMB oload ons U AC = of ET	sed: (BAC – BC) C = MR _{remai}	WP _{cum}), ning / ET(+ UB Am / (EAC - / C	nounts I	Reported		
 Approved in CPP Up Calculatio TCPi to E MR as % Independ 	PMB oload ons U AC = of ET lent Es	sed: (BAC – BC) C = MR _{remai}	WP _{cum}), ning / ETC	+ UB Am / (EAC - / C e (IEAC)	ACWP _{cun}	Reported		

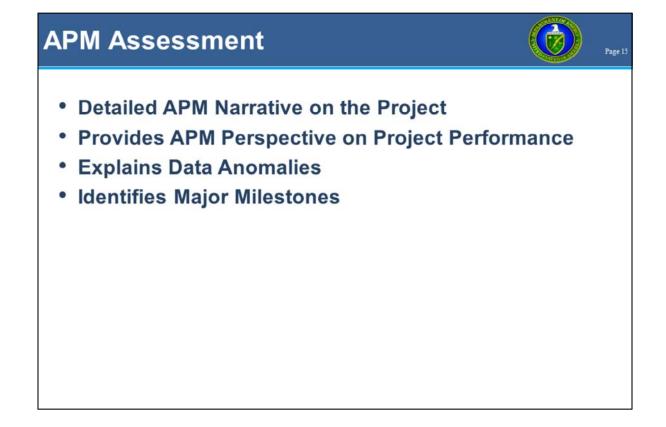
Data in the Contractor PMB section in its entirety, with the exception of the Approved Management Reserve amount, is either reported directly by the contractor or is calculated by PARS II based on the data reported by the contractor. The approved MR is the MR amount approved by the latest approved baseline, either from the original Critical Decision 2 or the latest BCP.

The Performance Measurement Baseline, Estimate At Completion, Estimate To Complete, and Remaining Management Reserve are all data elements reported by the contractor through the CPP Upload. Remaining MR is expressed as a percentage of the Estimate to Complete; that is how much MR is remaining compared to the estimated cost of work remaining. The Independent Estimates At Completion section provides a measure of reasonableness of the contractor-reported EAC based on three industry-standard formulas displayed in the slide.



A data element on the report that is being reviewed is the Contractor Completion Date Forecast. As many other data elements on the report, this forecast is based on contractorreported time-phased data. Currently, the performance period end date of the last period in the contractor time phased data, where the Estimate To Complete (ETC) is greater than zero, is the date displayed on the report. To verify that this is what was reported by the contractor, a supporting report called the – OAPM Red Yellow Project Report Detail 3 was created to demonstrate contractor-reported time phased BCWS and ETC.

Management realized that on some projects, post-CD4 activities managed by the contractor are also included in the contractor baseline (PMB). As such, they will drive the Completion Forecast Date to go beyond the Approved CD4 date, creating an impression that the project is expecting to complete behind schedule. While the data element is currently on the report, everybody understands that there are projects where this date may not be valid and treats this piece of information accordingly.



The OAPM Analyst composes the APM Assessment narrative. The narrative is OAPM's perspective of project performance indicators and includes both qualitative and quantitative analysis completed by the analyst. Any significant issues or anomalies are explained. Just like all other assessments, the purpose of the OAPM assessment is to be forward looking, add value to the data displayed on the report, and provide insight into issues, concerns, and risks (not just restate the data).

Summary



- High level decisions are based on the data in the APM Monthly DepSec report
- To ensure that the data provided is as accurate as possible, everyone must do their part
- If the data is not accurate or if the full story is not represented by the data, narrative comments can tell the rest of the story

In summary, it is important to remember that high level decisions are based on the data in the APM Monthly Deputy Secretary report. Not only do the contractors have a responsibility to ensure the data is timely, accurate, and reliable, but the FPD, PMSO, and OAPM have oversight roles to verify the data. If the data is not accurate or if the full story is not represented by the data, narrative comments can tell the rest of the story, such as what actions are being taken to ensure the data is more meaningful as well as what are the future projections of project performance.

DOE OA	PM EVM Home Page
ENERGY.GOV Office of Manageme SERVICES OPERATION	About Up OFFICES -
Home = Operational Management =	Project Management + Earned Value Management
EARNED VALUE	MANAGEMENT
Aviation Management Executive Correspondence Energy Reduction at	Earned Value Management (EVM) is a systematic approach to the integration and measurement of cost, schedule, and technical (scope) accomplishments on a project or task. It provides both the government and contractors the ability to examine detailed schedule information, critical program and technical milestones, and cost data.
HQ Facilities and Infrastructure	EVMIS Surveillance Standard Operating Procedure (ESSOP) - 26 Sep 2011 (pdf) EV Guideline Assessment Templates - (MS Word)
Freedom of Information	DOE EVMS Cross Reference Checklist - (pdf) DOE EVMS Risk Assessment Matrix - (MS Word)
Financial Assistance Information Systems Procurement and Acquisition	Formulas and Terminology "Gold Card" - Sep 2011 (pdf) Sildes from the OECM Road Show: Earned Value (EV) Analysis and Project Assessment & Reporting System (PARS II) - May 2012 (pdf) DOE EVM Guidance
Project Mensoement	EVM TUTORIALS
Earned Value Lessons Learned Reviews and Validations Documents and Publications HICA and CAP	Module 1 - Introduction to Earned Value (pdf 446.86 kb) July 17, 2003 This module is the introduction to a series of online tutorials designed to enhance your understanding of Earned Value Management. This module's objective is to introduce you to Earned Value and outline the blueprint for the succeeding modules. This module defines Earned Value management. It looks at the differences between Traditional management and Earned Value management, examines how Earned Value management fits into a program and project environment, and defines the framework necessary for proper Earned Value management implementation.
http://energy.gov/manage	ment/office-management/operational-management/project-management/earned-value-management
Real Estate History	

For information relative to EVMS procedures, templates, helpful references, and training materials, please refer to OAPM's EVM Home page. Check back periodically for updated or new information.