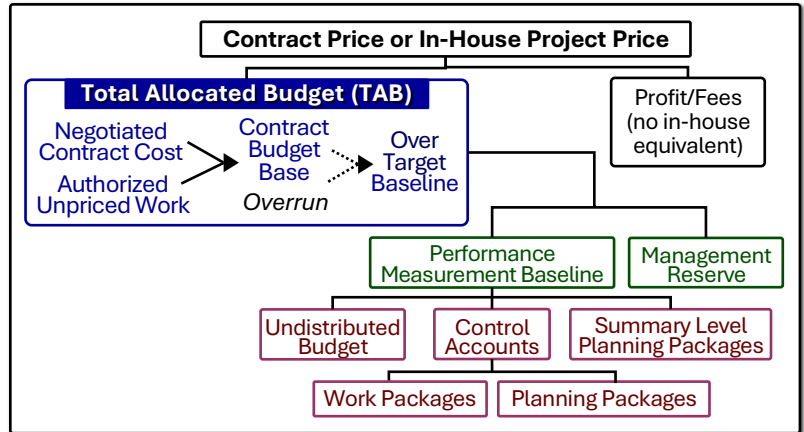
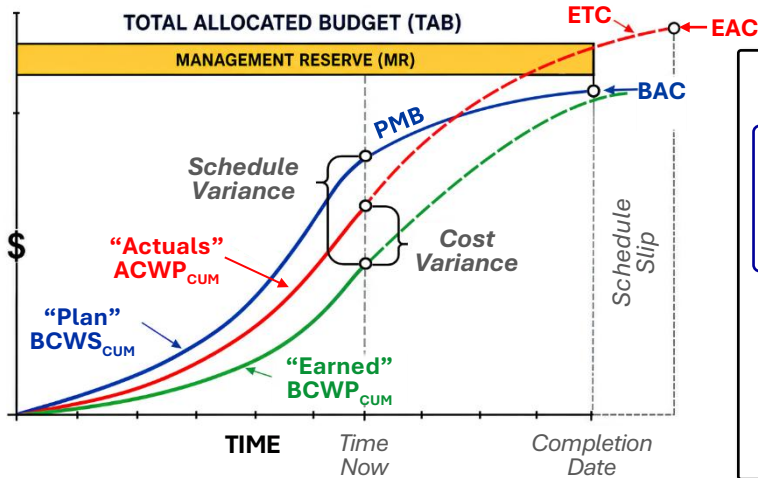




Integrated Program Management Reference Card

For policy, guidance, handbooks, and training resources scan or visit:
nasa.gov/ocfo/ppc-corner/evm/



Overall Status	
% Schedule	$(BCWS_{CUM} / BAC) * 100$
% Complete	$(BCWP_{CUM} / BAC) * 100$
% Spent	$(ACWP_{CUM} / BAC) * 100$
Note: For total contract, BAC should include MR and Undistributed Budget	

Variances	
Cost Variance	$CV = BCWP - ACWP$ $CV\% = (CV / BCWP) * 100$
Schedule Variance	$SV = BCWP - BCWS$ $SV\% = (SV / BCWS) * 100$
Variance at Completion	$VAC = BAC - EAC$ $VAC\% = (VAC / BAC) * 100$
+ Favorable - Unfavorable	

Efficiencies	
Cost Efficiency	$CPI = BCWP / ACWP$ For every \$1 of actual cost, we earned \$X worth of work planned
Schedule Efficiency	$SPI = BCWP / BCWS$ For every \$1 of work planned (scheduled), \$X worth of work was accomplished or earned
Favorable > 1.0, Unfavorable < 1.0	

Forecasting	
Calculated Estimate at Completion = Actuals to Date + [(Remaining Work) / (Performance Factor)]	
Examples:	
$EAC_{CPI} = ACWP_{CUM} + [(BAC - BCWP_{CUM}) / CPI_{CUM}]$ – typically a best case	
$EAC_{Composite} = ACWP_{CUM} + [(BAC - BCWP_{CUM}) / (CPI_{CUM} * SPI_{CUM})]$ – typically a worst case	
To Complete Performance Index (TCPI)	
$TCPI_{Target} - Work Remaining / Cost Remaining = (BAC - BCWP_{CUM}) / (Target - ACWP_{CUM})$	
§ To determine TCPI for BAC/EAC; replace TARGET with BAC/EAC	
# To determine contract level TCPI for EAC, you may replace BAC with TAB	

Baseline Execution Index & Hit/Miss Task %	
BEI	$\frac{\text{Total baseline tasks complete}}{\text{Total tasks with baseline finish ON or PRIOR to current report period}}$
Hit/Miss Task %	$100 * \frac{\text{Tasks completed ON or PRIOR to baseline finish}}{\text{Tasks baselined to finish within current report period}}$
BEI: 1.0 on plan, ahead > 1.0, behind < 1.0	
Hit/Miss: 100% = on track	

Glossary	
Actual Cost of Work Performed (ACWP)	- Cost actually incurred in accomplishing work performed aka Actual Cost (AC).
Authorized Unpriced Work (AUW)	- Work formally authorized but not yet negotiated/definitized.
Budget At Completion (BAC)	- Sum of all budgets allocated to the project or a given control account.
Budgeted Cost for Work Performed (BCWP)	- Value of completed work measured against assigned budget aka Earned Value (EV).
Budgeted Cost for Work Scheduled (BCWS)	- Time-phased Budget Plan for work currently scheduled aka Planned Value (PV).
Control Account (CA)	- Lowest WBS element assigned to a single focal point to plan & control scope/schedule/budget.
Contract Budget Base (CBB)	- Sum of the negotiated project/contract cost plus the estimated cost of AUW. Includes the PMB & MR.
Estimate at Completion (EAC)	- The current estimated total cost for authorized project work.
Estimate To Complete (ETC)	- Estimate of costs to complete the remainder of work on project/contract.
Level of Effort (LOE)	- Support type activities that do not produce finite end products. EV measured by the passage of time.
Management Reserve (MR)	- Budget withheld for management control of in-scope risks. MR is not part of the PMB.
Negotiated Contract Cost (NCC)	- Contract Price Minus profit or fee(s). For In-house projects, the agreed to value.
Over Target Baseline (OTB) / (OTS)	- Sum of CBB + additional budget approved for remaining work.
Performance Measurement Baseline (PMB)	- The time-phased budget plan for authorized work.
Planning Package (PP)	- Far-term effort not yet defined into WPs.
Summary Level Planning Package (SLPP)	- Far-term contract activities not yet defined into CAs.
Total Allocated Budget (TAB)	- Sum of all budgets for work on in-house project or contract = NCC, CBB, or OTB.
Undistributed Budget (UB)	- Budget associated with specific work scope or authorized changes that have not been assigned to a CA or lower level WBS element.
Work Package (WP)	- Near-term, detail-planned activities within control account; unit of work at level work is performed.
Work Breakdown Structure (WBS)	- A product-oriented hierarchy that defines project scope and provides the framework for planning, managing, and reporting project work.