Aurora Management Services

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Common Terms

Work Breakdown Structure (WBS) represent a hierarchical breakdown of the project work scope. Identifying the major elements of work, aligning to the product and the requirements. It forms the foundation for estimating, planning, cost control and reporting.

Control Account (CA) management control point at which budgets and actual costs are accumulated and compared to earned value for management control purposes.

Work Package (WP) sub-division of the WBS below a Control Account, where labour and material costs are collected.

Critical Path activities in the schedule that have the longest total duration. Activities along the critical path have the least amount of float/slack, normally zero or less.

Statement of Work (SoW) The document that defines the work scope within a control account.

Progress Measurement Types

Percent Complete achievement is awarded on the objective substantiation of activity progress.

Milestone achievement is awarded only on 100% completion of the work scope.

Fixed Formula (50-50) 50% of the work packages budget is earned when the work package starts, the remaining 50% when it is completed.

Apportioned Effort (AE) value is earned in proportion to a related work package.

Level of Effort (LOE) value is awarded in relation to time.

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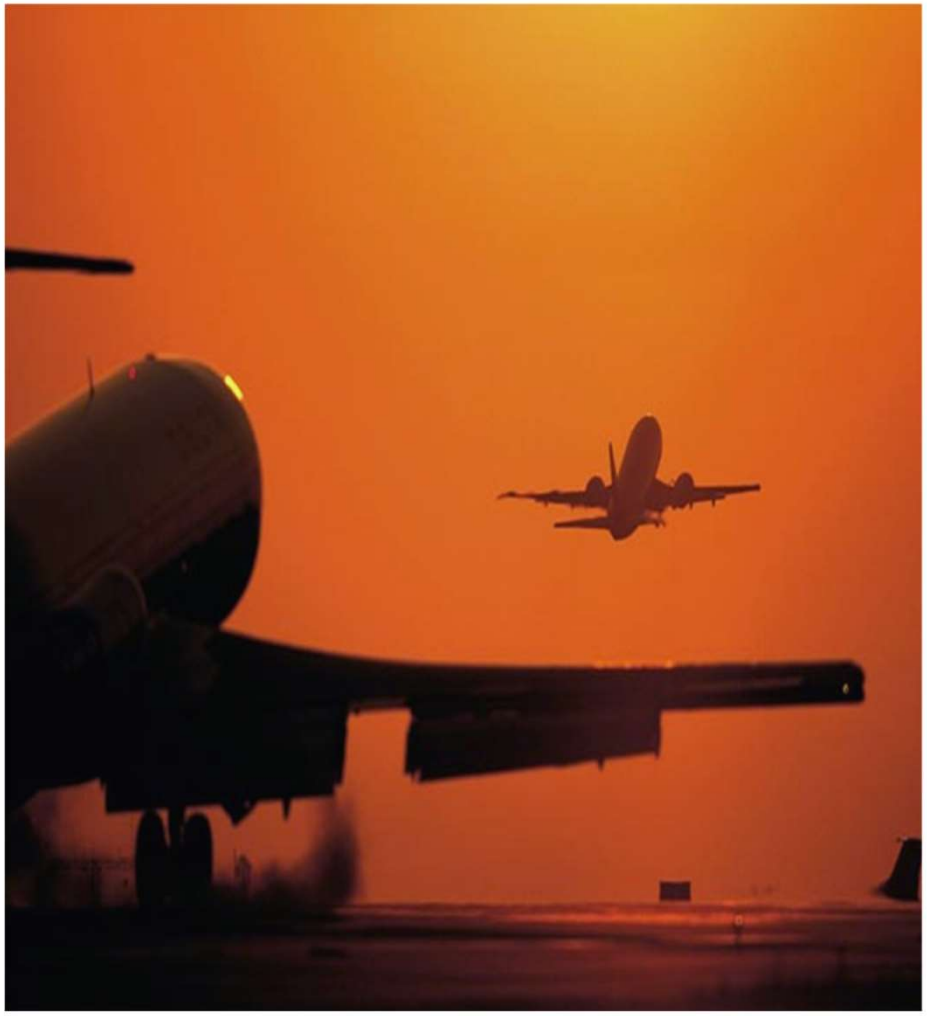

Earned Value Management Reference Guide

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Earned Value Quick Reference Guide

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Earned Value Calculation

PV **Planned Value** The time phased project budget.
EV **Earned Value** The progress the projects really achieved.
AC **Actual Cost** The actual project cost incurred.
BAC **Budget At Complete** Total project budget

SPI **Schedule Performance Index:** measure of Schedule Efficiency.

Calculated as: SPI = EV / PV

A result equal to or greater than 1 indicates on or ahead of schedule, a result less than 1, indicates behind schedule.

SV **Schedule Variance** shows if the project is ahead or behind schedule, and is assessed by comparing the (PV) and the (EV). Needs to be reviewed alongside programme critical path.

Calculated as: SV =EV – PV

Negative	SV is unfavourable
Positive	SV is favourable

CPI **Cost Performance Index**: measure of Cost Efficiency.

Calculated as: CPI =EV / AC

A result equal or greater than 1 indicates favourable cost performance, the cost of completing the work is equal to or less than planned. A figure less than 1 indicates an unfavourable performance as work is costing more to deliver than planned.

CV **Cost Variance** shows if the project is Under or Over Spending, and is assessed by comparing the AC and the EV. Needs to be reviewed along side the amount of unapproved change to really determine if a real overspend exists.

Calculated as: CV =EV – AC

Negative	CV is unfavourable
Positive	CV is favourable

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Earned Value Forecasting

EAC **Estimate at Completion** is the bottom forecast of the authorised work scope. Includes trends, change, risk, programme changes, etc.

ETC **Estimate to Complete** is estimated cost of completing the authorised remaining work scope.

Calculated as follows: ETC = BAC - EV

iEAC **Independent Estimate At Complete** is a statistical forecast of the costs at completion, factored by the current reported levels of performance as expressed by the CPI and SPI. Its aim is to assess the 'reasonableness' of the bottom up .

Calculated as follows: IEAC = AC + ((BAC-EV)/CPI*SPI)

If the CPI/SPI is equal to 1, the formula shows the EAC equal to the budget for the remaining work (the ETC) plus the actual costs to date.

If the CP/SPI is less than 1, the formula states that the EAC will be greater than the budget for the remaining work (the ETC) plus the actual costs to date.

VAC **Variance At Complete** indicates the predicted (or ultimately the actual) cost over-run or under-run.

Calculated as follows: VAC = BAC – EAC

Negative VAC is unfavourable
Positive VAC is favourable

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