



Over Target Baseline
and
Over Target Schedule
Handbook



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Introduction

Purpose:

This Handbook has been prepared to provide basic guidance on the concept of formal reprogramming, whether through the Over Target Baseline (OTB) or the Over-Target Schedule (OTS) process. It is anticipated that this guide will lead to more consistent and improved practices. The contents of this document are for guidance only and are not to be interpreted as either regulatory or mandatory.

The comments, guidance and procedural discussion in this handbook are designed to assist (1) the government project or program manager in an understanding of the processes and decisions that must be considered when implementing an OTB and (2) to assist the EVM community in general in the understanding and implementation of this important management tool.

Consistency with other guidance:

This guide has been prepared to be consistent with known related national and industry documents.

Purpose of Formal Reprogramming:

The primary purpose of an OTB/OTS is to improve managerial control over the execution of the remaining work in a project. A project manager may conclude that the baseline is no longer adequate to provide valid performance measurement information relative to the remaining work using the principles of earned value management. An OTB/OTS should therefore be considered where improved control of the project would result.

Effective performance management should always be a collaborative process between customer and industry. When a contractor deems it necessary to implement formal reprogramming, it should notify its customer early in the process. The process laid out in Chapter 3 of this guide is predicated on early customer notification.

But, there is a larger context that should be reviewed by the customer. There are two issues that should be considered independently: (1) The contractor's performance-to-date that led to the need for an OTB, and (2) The contractor system discipline to maintain baseline integrity, as well as compliance with the intent of the Industry Guidelines and the contractor's EVM system.

System discipline is often under-represented in the Pre-OTB discussions, decisions, and the formation of any necessary changes for a Post-OTB management philosophy. Often, and correctly, the Customer's focus during an OTB implementation is to ensure the requirement is real, the ETC is valid, risks remaining are identified and incorporated into the plan, consideration is given to management reserve strategy and / or Customer budget margin adequacy, and the new baseline is sufficient for meaningful performance measurement. However, for instance, if the Prime Contractor and / or major Subcontractors do not maintain baseline integrity, then the OTB may fail to be an effective plan for the work remaining, even if it were a great plan.

If the customer and contractor are committed to a significant undertaking such as implementing an OTB, then any system discipline inadequacies should be identified and discussed to ensure that they are corrected by the time an OTB is implemented. Although current period adjustments are not prohibited in the Industry Guidelines and many Contractor System Descriptions, if a project has experienced significant and frequent baseline changes (current period and / or near term) as a common practice up to the OTB, then the well-intended results of the OTB as a valid, one time, and unique event may be marginally effective in the long term.

Therefore, it is important that any systemic management and business practice issues not related to contract performance during an OTB implementation be considered. Joint surveillance activities and other venues should be considered during this time frame to ensure that system health will provide an environment to effectively maintain the OTB as a singular and unique occurrence, independent of contract performance.

Annual OTB's, frequent single point adjustments, and schedule slips, on the other hand, are a clear indication of lack of management discipline, unwillingness to generate realistic estimates, and attempts to hide true performance from decision makers. Abuses of the OTB/OTS process have resulted in unrealistic baselines and lack of credible performance trend data and will lead to loss of confidence in the project manager by higher management.

Chapter 1. What is Formal Reprogramming?

1.1 **Formal Reprogramming:** During contract execution, the contractor may conclude that the plan for completing the effort remaining on the contract is unrealistic. This may include both the performance measurement baseline as well as the associated contractual milestone schedule. Formal reprogramming refers to the comprehensive replanning of remaining contractual effort.

1.2 **Definitions:**

1.2.1 **Rebaselining:** Rebaselining is the general term used for describing a major realignment of the performance measurement baseline to improve the correlation between the work plan and the baseline budget, scope, and schedule. Rebaselining may refer to either reprogramming or replanning.

1.2.2. **Reprogramming:** Reprogramming is a comprehensive replanning of the remaining performance management baseline that results in a total budget and/or total schedule in excess of contractual requirements. Reprogramming is the process that results in an OTB, an OTS, or both.

1.2.2.1 **Over Target Baseline (OTB):** An OTB is a Contract Budget Base (CBB) that was formally reprogrammed to include additional performance management budget and which therefore exceeds the contract target cost. In EVMS terminology, the sum of the budgets allocated to work, plus undistributed budget and management reserve, known as Total Allocated Budget (TAB), exceeds the Contract Budget Base (CBB). The difference between the TAB and the CBB is the amount of the over-target budget. Establishment of an OTB entails adding budget for either future work or in-process work and possibly adjusting variances (cost, schedule or both). ANSI/EIA-748-1998 defines it as “a recovery plan, a new baseline for management when the original objectives cannot be met and new goals are needed for management purposes”. An OTB may not affect all of the work in the baseline. A partial OTB does not affect all work breakdown structure elements in the PMB and/or does not make across-the-board cost/schedule variance adjustments. However, because the total of all budgets assigned to the baseline is greater than contract value, the final result is still considered an OTB.

1.2.2.2 **Over Target Schedule (OTS):** Reprogramming may result in revised schedule activities/milestones and associated budgets being time-phased beyond contractual milestones. An Over-Target Schedule (OTS) is the term used to describe a condition where work is scheduled and the associated budgets are time phased beyond the contract completion date.

While an OTS may be implemented without adding additional budget resulting in an OTB, this is normally not the case. This is due to the fact that, historically, an increase in schedule will also require an increased allocation to budget. It is critical, in this situation, to ensure that both parties understand that implementing the OTS does not relieve either party of any contractual obligations concerning schedule deliveries and attendant incentive loss or penalties. An OTS may not affect all tasks and activities on the

integrated schedule. A partial OTS is a term that is used to define reprogramming that does not affect all tasks and activities.

1.2.3 **Replanning:** Replanning is a realignment of schedule or reallocation of budget for remaining effort within the existing constraints of the contract. In this case, the TAB does not exceed the CBB, nor is the schedule adjusted to extend beyond the contractually defined milestones.

1.3 **Considerations**

1.3.1 **Benefits:** Reprogramming can restore much needed control to a contract that has had poor execution or an unrealistic plan for the remaining work. The key benefits of a reprogramming are an executable and achievable baseline plan, renewed buy-in from the project team, meaningful performance indicators, and restored confidence. (See Chapter 4 for further discussion.)

1.3.2 **Drawbacks:** Reprogramming generally requires significant effort by both parties, can be time-consuming, expensive, and may result in the elimination of cost and schedule performance variances and trends used for making cost and schedule projections. These drawbacks should be weighed against the benefits of providing more reasonable budget or schedule objectives and improved management control. Details on the considerations for deciding on an OTB/OTS can be found in Chapter 2.

1.3.3 **What Reprogramming May Not Accomplish:** Implementing an OTB or OTS will not necessarily:

- ? Prevent future cost growth
- ? Contain cost or schedule overruns
- ? Improve management commitment
- ? Force the earned value management system to work properly

Reprogramming does not change the scope or nature of the work on the contract. Reprogramming and adjusting variances should not be done solely to improve performance for award fee or similar type evaluation.

1.3.4 **Performance Budget and Contract Funding:** Performance measurement budget represents a management target for the accomplishment of a given scope of work, and relates to the value of the contract target cost in the initial baseline. Funding, on the other hand, represents the actual money that will be obligated and expended on the contract. Therefore, while the initial budget baseline will relate to the expected contract funding at the beginning of the contract, this relationship is broken when an over target baseline is implemented. Contract type is a factor to consider when reprogramming, because different contract types have different funding implications.

1.3.4.1 **Fixed Price Incentive Contracts:** In this type of contract, the negotiated target cost plus the estimated cost of Authorized, Unpriced Work establishes the value of the CBB. A ceiling price is established which limits the amount of customer liability. Allocating additional performance budget during an OTB does not change the funding liability of the customer in any manner, nor does it change any contract terms. In this case, the liability for incurred actual costs over the ceiling price belongs entirely to the contractor, because the scope of the work has not changed, nor has the contract or face

value of the contract been modified. Establishing an OTB on a contract of this type is done without consideration for profit, cost sharing, or ceiling implications.

1.3.4.2 **Cost Reimbursement Contracts:** These types of contracts differ in funding liability for the customer. Generally speaking, the customer is liable for incurred actual costs, plus some type of fee. The initial cost target establishes the value of the CBB. When the contractor recognizes the need for an OTB, it must notify the customer of this new estimate because there are funding implications for the customer. The customer must have funding available to cover the new cost should it materialize, to avoid funding anti-deficiency. Because of this, the need to coordinate implementation of an OTB to this type of contract with the customer is critical.

On the other hand, a “cost growth” modification to a contract involves obligating additional funding without adjusting work scope. These modifications involve real dollars, not performance measurement budget. A cost growth modification does not authorize a contractor to increase the BAC by the amount of the modification.

1.3.5 **Frequency of Reprogramming:** Normally, formal reprogramming should only be done once during the life of a contract. However, there may be rare instances where another reprogramming is warranted. Formal reprogramming is made necessary by significant problems with contract execution and involves a significant effort to implement properly. When reprogramming is accomplished in accordance with the procedures in this guide, with a realistic cost and schedule estimate established for the remaining work, it should not be necessary to undergo formal reprogramming again. It is vital to have a realistic cost estimate and schedule to support the new baseline. The seriousness of the reprogramming should be a wake-up call for project managers. The motto for this process should be:

“Do it once, and do it right”.

The parties should identify the problems that rendered the current work plan unrealistic, and implement measures that will prevent these problems in the future. This information should be captured as “lessons learned” and used to improve the implementation of the new baseline.

Experience shows that it is wise to separate any such contract change from the reprogramming exercise, and if at all possible, to wait to implement these contract changes until after the reprogramming is complete. Reprogramming can be complex enough without the added burden of additional contract changes, which may complicate matters and lead to planning errors.

Chapter 2. Recognizing the Need

2.1. How Do I Know That I Need One? The normal course of project planning involves work definition, scheduling, and resource loading. If these steps are done in a logical and rational way during the initial baseline development, performance data generated during the execution phase will be a leading indicator of the need for an OTB/OTS. The contractor should continually analyze performance data and compare the estimate of cost for the remaining work to the remaining baseline value. Recognition of a significant projected cost overrun or inability to achieve schedule normally indicates the need for formal reprogramming.

2.2 Useful Tools: Project managers must pay careful attention to the warning signs and closely monitor project performance using existing tools and processes. Useful tools include the network schedule, performance reports, system surveillance, and the Integrated Baseline Review. (IBR)

2.2.1 The Network Schedule: The network schedule is developed during the initial baseline process and must be kept current throughout the contract period of performance. The network schedule serves as a critical tool in monitoring project performance and indicating whether an OTS may become necessary. As the customer project manager reviews and analyzes the network, close attention should be placed on tasks on the critical path, tasks that are sub critical, near-term critical path effort, slack, float and margin. Any of these factors may indicate that the project is severely off schedule and is unlikely to recover. If these factors indicate that schedule margins have been reduced to the point where contract milestones will not be achieved, an OTS may be necessary to re-establish meaningful project monitoring. The integrated schedule is usually the primary tool for assessing the need for an OTS.

2.2.2 Performance Reports: Performance reports are essential tools in monitoring project performance. These reports provide the project manager with information on performance against the baseline plan, actual costs incurred, variances resulting from deviations from the plan, an estimate of projected final costs, and an analysis of cost, schedule, and technical impacts. The performance report is usually the primary tool for assessing the severity of the overrun and the necessity for an OTB.

2.2.3 System Surveillance: Project managers should use a comprehensive, risk-based system implementation surveillance strategy to assess the application of the contractor's EVM system and the effectiveness of its processes. System surveillance is a vital tool in understanding the problems, issues and concerns with EV data accuracy. System surveillance should be a joint activity of the contract administration office (CAO), the contractor, and the customer project office. Surveillance can be extremely important in determining the need for reprogramming.

2.2.4 The Integrated Baseline Review (IBR): The IBR is a proven tool to assess the technical, cost, and schedule risks associated with the integrated performance measurement baseline. While the IBR is normally initiated within the first six months after contract award, ongoing review of the project's baseline should be accomplished as part of normal project management throughout the life of the contract. The IBR provides

an integrated assessment of remaining work versus resources remaining at any stage of the project, a key to determining the need for an OTB/OTS.

2.3 **Indicators:** Examples of data that indicate the need for an OTB/OTS include, but are not limited to:

Cost indicators:

- ? Significant difference between the estimate of cost to complete and the budgeted cost for work remaining
- ? Significant difference between the cumulative Cost Performance Index (CPI) and the To-Complete Cost Performance Index (TCPI)_{LRE}
- ? Significant lack of confidence in the project's Estimate At Completion (EAC) or Estimate To Complete (ETC)
- ? Early, significant, and frequent allocation of the management reserve pool to the PMB for newly identified in-scope work
- ? Control account budgets for work remaining that do not represent a reasonable chance of success
- ? The existence of zero-budget work packages
- ? Inability to explain the basis for the EAC
- ? Optimistic EAC's that do not take risks into account

Schedule indicators:

- ? High level of concurrency in the remaining integrated schedule
- ? Significant negative float in the critical path in the integrated schedule
- ? Unrealistic activity durations
- ? Unrealistic relationship logic between tasks
- ? Significant number of fixed start or finish dates for activities
- ? Schedule not horizontally or vertically integrated
- ? Schedule reserve reductions having no basis/rationale except to absorb the effect of schedule delays in order to maintain the project's target completion date

Overall risk indicators:

- ? Significant changes in levels of risk as indicated by the project's risk management analyses
- ? Baseline schedule does not correlate to budget phasing
- ? Current schedule does not correlate to ETC phasing
- ? Project manager unable to effectively use performance data

Data accuracy indicators:

- ? Frequent or significant current period or retroactive changes
- ? EAC less than actual incurred costs for WBS elements
- ? Transferring work scope without budget
- ? Evidence of a front-loaded performance measurement baseline
- ? Lack of corrective action planning
- ? Variances not adequately explained or becoming repetitive
- ? "Management challenges" (unrealistic cost/schedule projections)
- ? Earned value not indicative of actual progress
- ? Lagging actual costs (late booking)
- ? Frequent or recurring data errors

2.3. **Rules of Thumb:** While any one of the indicators listed above may indicate the need for an OTB or OTS, the decision to establish a revised PMB incorporating a significant cost overrun or schedule slip sends a serious message to all levels of management. The following rules of thumb can be used to help evaluate whether the benefits of an OTB/OTS would outweigh the effort involved. The decision to proceed should be made only after careful consideration of these indicators and other aspects of the project's status such as percent complete, time remaining, percent overrun to work remaining, etc.

2.3.1 **Work Completion Percentage:** Before determining that a project should implement an OTB/OTS, the contract should be more than 20% but less than 85% complete using the formula: $BCWP/BAC$. Contracts that are less than 20% complete may not be mature enough (i.e., not yet through CDR) to make the time and expense of implementing an OTB/OTS worthwhile. Contracts that are more than 85% will provide management little opportunity to affect the final cost in a significant manner.

2.3.2 **Projected Growth:** Compare the estimate of cost to complete the remaining work with the budget allocated for the remaining work. This is accomplished by applying the following formula using cumulative-to-date information from the most recent CPR:

$$\text{Projected Cost Growth (\%)} = ((EAC - ACWP) - (BAC - BCWP)) / (BAC - BCWP)$$

If the resulting percentage is greater than 15%, an OTB/OTS may be warranted.

2.3.3 **Remaining Schedule:** If there are less than 12 months of effort remaining, the benefit of implementing an OTB/OTS will most likely be marginal, due to the length of time it takes to normally implement an OTB/OTS.

2.3.4 **Benefit Analysis:** Since the ultimate goal of implementing an OTB/OTS is to provide better information to manage a contract, a benefit analysis should be done. This will require a concerted effort on everyone's part to ensure that the benefits to be gained from implementing the OTB/OTS will outweigh the cost in both time and resources. If the project team is committed to managing within the new baseline, and better management information is expected to result, then the OTB/OTS should be implemented.

Chapter 3. The Reprogramming Process

3.1 Introduction: Reprogramming involves multiple steps and processes that should generally be followed in a certain order. The flowchart in Figure 3.1 depicts the ten steps of the process in a serial fashion. However, some of these steps overlap each other, and some can be conducted simultaneously. This chapter describes each step in the implementation process and assumes early involvement and frequent interaction with the customer.

3.2 Develop Approach: There are certain factors that should be kept in mind when developing the approach for a reprogramming:

- ? What circumstances led to this need for an OTB/OTS? Are they clearly understood such that the OTB/OTS process will adequately address them?
- ? Is the existing schedule still realistic or is an OTS likely? If an OTS is likely, what is the process?
- ? Is the existing estimate to complete sufficiently realistic or does it need to be updated? When was the last comprehensive ETC performed?
- ? Will the cost and schedule variances be retained or is some form of single point adjustment (SPA) required? If adjustments are needed, how should they be done?
- ? How will an adequate management reserve be established?
- ? What about major subcontractors? Can/should we require them to participate? Will subcontractor efforts need to be repriced and/or rescheduled?
- ? Have any system discipline issues that may have contributed to the situation been resolved?

3.3 Single Point Adjustments: In order to improve the value of the management information resulting from the new baseline, a determination about the elimination of variances will need to be made. A "single point adjustment" (SPA) refers to eliminating cumulative performance variances, replanning the remaining work, and reallocating the remaining budget to establish a new PMB. Either cost or schedule variances, or both, can be set to zero during a SPA. It is common to see OTB's with some form of SPA; however, it is possible to implement an OTB without adjusting past variances.

This can be a time consuming process, as variances are adjusted at the lowest level (control account or work package). The project will need to allow sufficient time in the implementation schedule.

SPA's should not occur on a regular basis, nor should they be accomplished solely to improve contract performance metrics. Elimination of the schedule variance may be done in order to shift "unearned" budget out into future periods as part of a replanning exercise. Elimination of both cost and schedule variances is allowed when existing variances are very large and inhibit management efforts to effectively use EVM

metrics to manage the project. Large cumulative variances can often frustrate management attempts to focus on more recent performance trends.

3.4 **Responsibilities.**

3.4.1 **Joint Approach:** The contractor project manager should notify the customer early in the process of the need to implement an OTB/OTS. Teamwork between the customer and contractor project offices during this transition is best for long-term project results. The contractor needs to keep the customer informed of progress during the reprogramming process. Both customer and contractor need to be prepared for additional visibility and scrutiny once the OTB is implemented. Realism and open communication are imperative.

3.4.2 **Contractor:** The primary responsibility for ensuring that a meaningful performance measurement baseline is in place belongs to the supplier. Every control account manager, with help from the business office and project manager, is charged with developing executable work plans. These plans become the basis for the new baseline. Thus, the project manager and supporting business office staff must have open lines of communication and a clear review process to ensure the baseline is reasonably accurate and reflects known project risks, cost reduction opportunities, and challenges.

3.4.3 **Customer:** The project manager is encouraged to develop a team approach and seek support from earned value specialists, business and financial managers, technical managers, and the contract administration office. The customer project team should give priority status to its support for and, if invited, participation in the reprogramming process so as not to impede progress.

The customer project manager and business office will ultimately be held accountable for the significant changes an OTB/OTS can effect. Along with being an active participant in the process, the customer team must ensure that the ramifications of implementing an OTB/OTS on the project are considered and handled. This will probably require briefings to senior management, obtaining approval for any required contract modification, and programming additional funding to meet new fiscal year requirements.

3.5 **OTB/OTS Process:** The following paragraphs describe each of these steps in detail. Figure 3-1 portrays the process.

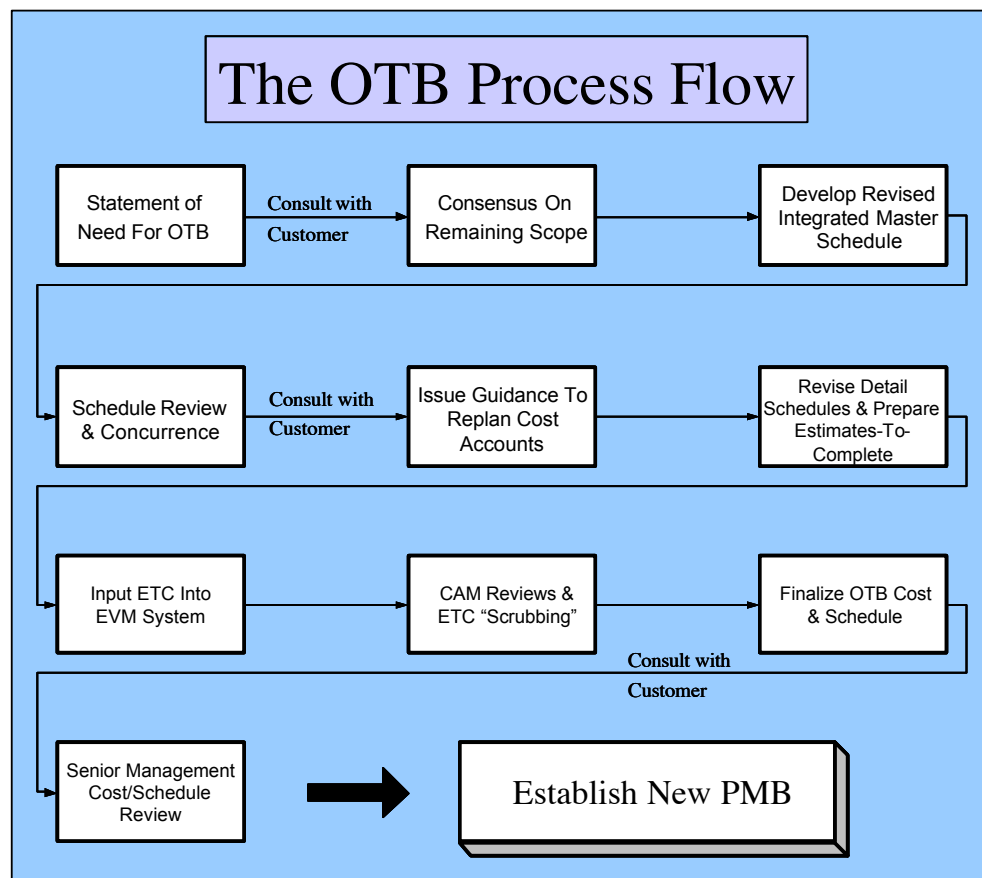


Figure 3.1

3.5.1 **Step One – Agreement on Need for OTB/OTS:**

3.5.1.1 Determine Need: The initial step is to decide if formal reprogramming is required. Simply put, evaluation of remaining budgets and schedule versus the remaining work scope will drive this decision. The primary reason for implementing an OTB/OTS is to improve the contractor's ability to manage and control ongoing work. Therefore, the decision to initiate an OTB/OTS is originated with the contractor. The customer project manager will not unilaterally determine the need for an OTB/OTS nor place a limit on the amount of over target budget.

3.5.1.2 Notify Customer: On government contracts, if an over target baseline is used for performance measurement reporting purposes, prior notification must be provided to the customer (reference DoD 5000.2R). Such notification should be in the form of a letter. The ANSI standard also calls for consultation with the government in advance, as does the Defense Federal Acquisition Regulation Supplement (DFARS) clause for Cost/Schedule Status Reports (C/SSR's).

While prior approval for an OTB is not required, it is essential that plans for implementing an OTB be fully coordinated with the customer and that the customer

concurs with the need for the OTB/OTS to ensure the contract remains executable. (Refer to paragraphs 1.3.3.1 and 1.3.3.2 for further discussion on customer funding liability.)

Implementation of an OTS should also begin only after consultation with the customer project manager. Since an OTS signals that the contractor will not be able to achieve contract milestones, the customer project office should coordinate the change in schedule with the operational end user of the system, and may also be entitled to consideration from the contractor.

3.5.1.3 Develop Plan: During this initial phase, the contractor should develop a plan and schedule for implementation. The plan should include ground rules, assumptions, scope, impact, plans to adjust variances, potential reporting changes, and documentation recommendations, as well as planned dates for implementation. The contractor's management control system description and/or program procedures should be followed when planning the reprogramming. Concurrently, the customer project office should document their expectations including any specific reporting or coordination requirements from senior management. These expectations should be discussed with the supplier and consensus reached.

3.5.2 Step Two - Consensus on Remaining Scope:

3.5.2.1 Work Within Scope of Contract: As part of the ground rules and assumptions for the comprehensive estimate to complete (ETC), the contractor and the customer project office should reach consensus on the scope of the remaining effort. The remaining work may need to be clarified or replanned, but only as a means to reach mutual consensus for the remaining baseline. This validation should not result in a scope change to the contract nor require a contract modification.

3.5.2.2 Work Outside The Scope of Contract: Frequently, contract changes may also be ongoing at the same time, resulting in changes to work scope, schedule, and to the CBB. Also, as part of the reprogramming process, additional scope requirements may be identified that will require contractual authorization. It is usually best to isolate and separately implement the changes associated with reprogramming.

3.5.3 Step Three - Develop a Revised Integrated Master Schedule:

3.5.3.1 Develop New Schedule: Some level of schedule development or analysis should always be performed during the OTB/OTS, even if it is apparent that only an OTB will be required. The supplier should base all revised planning on a valid and realistic schedule.

The revised schedule should be developed in accordance with the reprogramming plan, and incorporate realistic constraints and schedule reserve as appropriate. Facility and resource availability for the new schedule dates should be confirmed during the development of the schedule. The logic, durations, and completeness of the new schedule should be validated as well as any impact to the customer furnished equipment schedule or availability of customer test ranges. Ideally, the customer will participate in this schedule development effort, or, as a minimum, the project should keep the customer informed of progress.

The revised schedule should be complete, integrated, and realistic in duration, and should reflect a coordinated schedule among key vendors and subcontractors. This top down master schedule sets the planning guidelines for the more detailed scheduling and cost phasing effort in Step 6.

3.5.3.2 **Comparison to Contract:** Comparison of the new schedule to the Integrated Master Plan or contract provisions will determine if contractual obligations will be affected by the new plan. If these new dates do extend beyond contractually mandated dates or the final completion date of the contract, then the reprogramming exercise may also require an OTS.

3.5.4 **Step Four - Schedule Review and Concurrence:** The project should assess the logical sequencing of work in the schedule and validate the activities, durations and logic based on historical performance and current ground rules. The project should also verify the horizontal and vertical schedule integration and traceability. Attention should be paid to evaluating the adequacy of reserve and the overall probability of achieving the new schedule.

The new schedule should be reviewed in partnership between the contractor and customer.

Establishing both scope content and the revised schedule should serve as an exit criteria before the project begins the detailed estimate to complete (ETC).

3.5.5 **Step Five - Issue Guidance to Replan Control Accounts:**

3.5.5.1 **Guidance to Control Account Managers (CAM's):** While this is not a mandatory requirement, issuance of replanning guidance is often included in the contractor's approved EVMS system, normally as preparation for the comprehensive estimate-to-complete. This document should define the following for the CAM's: remaining scope of work to be estimated, revised schedules, variances to be adjusted, and an overall schedule for completing the comprehensive ETC. The project should provide the contents of this document with the customer project office to ensure that it will support higher-level customer requirements for submission of the proposed final cost.

3.5.5.2 **Adjusting Variances:** A key consideration is implementing an OTB is to determine what to do with the variances against the pre-OTB baseline. There are essentially five basic options. This is a far more detailed effort than these simple descriptions imply, as these adjustments have to be made at the detail level (control account or work package). (See Appendix B for examples.)

3.5.5.2.1 **Elimination of all variances:** This eliminates cost and schedule variances for all WBS elements by setting Budget Cost for Work Scheduled (BCWS) and Budgeted Cost for Work Performed (BCWP) equal to the value of Actual Cost of Work Performed (ACWP). (This is known simply in EVMS terminology as "setting S and P equal to A".) This will normally generate an increase to BCWP and, in most cases, some adjustment to BCWS. This is the most common form of variance adjustment in an OTB situation.

3.5.5.2.2 Eliminate the Schedule Variance Only: After evaluating the cumulative information in the CPR or C/SSR, the two project managers may agree that the cost variance represents meaningful performance measurement information that the control account managers should continue to focus on and that only the SV should be eliminated. By preserving the CV information, a new performance measurement baseline can be established without losing visibility into ongoing cost performance.

This is accomplished by setting BCWS equal to BCWP. BCWS will show a current period adjustment. This will allow unperformed work and its associated budget that was scheduled in prior months to be replanned in the future. Appendix B, Figure 2, illustrates how the data elements are adjusted.

3.5.5.2.3 Eliminate the Cost Variance Only: While rare, there are situations where the cost variance element of performance measurement drives the need for an OTB, but the schedule information is valid. If, after evaluating the cumulative performance measurement information, the two project managers agree that the schedule variance contains valid performance measurement information, the OTB can be implemented by eliminating only the CV. The provisions of the CPR or C/SSR Data Item Description that addresses how an OTB will be reported will still apply, but only to the CV portion. By preserving the SV information, a new performance measurement baseline can be established without losing visibility into ongoing schedule performance.

The process to eliminate cost variance is to set BCWP equal to ACWP. The value of cumulative BCWP is thus modified by the amount of cum cost variance. Since BCWP changes, cumulative BCWS should be changed by the same amount in order to preserve the SV. There will therefore be current period positive adjustments to both BCWP and BCWS. (It should be noted that the final value of BCWS would not be equal to either BCWP or ACWP.) Appendix B, Figure 3, illustrates how the data elements are adjusted.

3.5.5.2.4 Eliminate Selected Variances: A situation may arise where only a portion of a contract may require an OTB. If, for example, performance on one or more WBS elements, a single CLIN, or possibly a single subcontractor is out-of-line with the baseline for that element, the two PM's may choose to implement an OTB for only that portion of the contract. In this case, all other variances and performance measurement elements would remain intact. The OTB reporting provisions would only apply to the items selected for OTB.

3.5.5.2.5 Retain All Variances: It is possible that a contractor may have been performing fairly well to the baseline plan and not incurring significant variances; however, the contractor needs additional budget to complete remaining effort. Alternatively, the contractor may have large variances, but the contractor and customer have agreed to retain all variances. In these situations, no adjustments are made to zero out variances, but additional budget is added during the OTB process for future work.

3.5.5.2.6 Actual Cost of Work Performed: It should be understood from the proceeding discussion that in no case is ACWP adjusted during these processes. ACWP should always reflect information from the actual accounting records.

3.5.6 **Step Six - Revise Detailed Schedules & Prepare Estimates to Complete:**

3.5.6.1 **Revise Detailed Schedules:** The control account managers (CAM's) should modify the detail schedules for their respective WBS elements, following the company's established procedures. These detailed schedules should reflect the revised master schedule as reflected in the program's previously issued guidance. This step should not start until the master schedule is firm.

3.5.6.2 **Prepare Estimates to Complete:** Using the modified schedule and previously established program assumptions, the CAM's should next prepare detailed estimates of the resources required to complete the remaining scope of work on the contract. This comprehensive estimate to complete (ETC) should be based on a bottoms-up estimate for staffing, material, travel, etc. The CAM's should also evaluate all remaining risk items, potential cost and/or schedule impact, and the probability of their occurrence. Based on guidelines established by the project manager, risk dollars may be included as either part of the ETC in the WBS elements or as management reserve budget at the total contract level.

As part of this process, the contractor may identify and generate estimates of additional work not currently on contract that may need to be completed as part of the contract. It is important that the estimates for these efforts be kept separate from the ETC, as formal approval is required for new work and eventual authorization may affect the fee structure on the contract.

Once the ETC is prepared at the control account level, the contractor will "scrub" the estimates to remove redundant effort, correlate estimates between managers and organizations, and ensure that proper rates and factors have been applied to generate the final ETC value. The CAM's may also review the ETC and schedules with functional, project, and business managers. During this process, the CAM's may be "challenged" to reduce their estimates through skill mix changes, resource reductions, or schedule adjustments.

If there is prior agreement by the contractor, customer program office personnel may participate in the evaluation of the new ETC.

3.5.6.3 **Management Reserve (MR):** One of the decisions to be made during the OTB process is the amount of MR that will be included as part of the final OTB value. There are a number of factors that must be considered in arriving at a reasonable and prudent amount of MR budget:

- ? Consideration of phase of project (% complete)
- ? Robustness of risk management processes and ability to identify risk
- ? Technical evaluation of future risks (probability and consequence)
- ? Amount of MR consumed to date as a percentage of cumulative BCWP may be important as historical factor

The contractor has the responsibility to identify and budget for a realistic management reserve. However, the customer also has a significant stake in understanding project risks and ensuring adequate MR for the remaining effort.

Recognition of the relative aggressiveness and risk content of the ETC is critical in determining adequacy of management reserve

3.5.7 Step Seven - Input ETC into EVM System: Once the ETC has been prepared, reviewed and accepted, the results are input into the contractor's management system as the new performance measurement baseline. While there are multiple approaches to doing this, the actual process is a function of the individual contractor's EVM System. This process can take anywhere from a few days to several months to complete. Factors such as size of contract, complexity, depth of WBS/Control Accounts, flexibility of the contractors automated system, and resources available to process the documents will determine the overall time to accomplish this activity. It is not unusual for the contractor to require two complete accounting periods to complete the input: one to input the information and another period to perform error correction on the output from the system.

The new ETC will be input as both the new ETC and the new budget baseline.

3.5.8 Step Eight - CAM Reviews and ETC "Scrubbing": Once the new baseline is in place, each CAM should review the new baseline to ensure that it has been laid in properly. The contractor's project office will then normally review the new baseline, ETC, and detailed schedules with each of the CAM's as a final scrub. The customer may be invited to participate in this review. Discussion of such topics as staffing, issues, and workarounds as necessary, if done at the appropriate level, may obviate the need for an integrated baseline review at a later date. This independent assessment by the customer technical team may often surfaces overlooked items or issues.

3.5.9 Step Nine – Finalize OTB Cost and Schedule: Based on Step 8 above, the contractor should then incorporate any final changes to the new baseline and schedule. A final project level review should then be conducted with the customer.

3.5.10 Step Ten - Senior Management Cost and Schedule Review: Once internal agreement has been reached on the OTB/OTS, senior management for both the customer and the contractor should review the final results and affirm their commitment to complete the effort within the cost and schedule plan. As part of this process, the parties should agree on the need for any further review of the plan; e.g. an Integrated Baseline Review (see paragraph 3.7).

The customer PM should seek support from his technical and support staff in evaluating the OTB, and he must ensure that inappropriate or unrelated issues do not inhibit the OTB process. In order for the Customer to make a determination that a project is affordable and executable after the OTB is implemented, the customer team should assess the relative aggressiveness of the comprehensive ETC and the reasonableness of the risks remaining on the project. Stated otherwise, the Customer must fully understand the in-scope risk that is not covered in the ETC, new MR strategy, and subsequently ensure that there is sufficient funding to address potential overrun to the new baseline.

3.6 **Contractual Actions:**

While the Contractor is not required to obtain Customer approval for an OTB, the Contractor's execution of an OTB must be affordable within the Customer's approved funding for the project. If the decision to implement the OTB is conducted unilaterally by the Contractor, with little advance notification to the Customer, the Contractor may have implemented an unexecutable project baseline. The Industry Guidelines, as stated in ANSI EIA 748-1998, requires advance notification to the government prior to executing an OTB. The actual advance notification should be reasonably early in the process with emphasis on collaborative and joint participation. The Customer plays a key role throughout the implementation process to determine whether the contract is executable within the constraints of the project baseline or whether modifications or work around plans are necessary.

The overriding goal should be to allow the contractor to implement in a timely manner a baseline that allows proper management control of the ongoing effort. Because OTB budgets and schedules do not supersede contract values and schedules and are implemented solely for planning, controlling, and measuring performance on already authorized work, a contract modification is not needed.

If the new schedule results in an OTS situation, both parties must recognize that the existing contract milestone schedule still remains in effect for purposes of contract administration and execution. The new dates in the OTS are for performance measurement purposes only and do not represent an agreement to modify the contract terms and conditions. The customer may wish to negotiate consideration via a contract change; however, no other contract modification is necessary.

3.7 Integrated Baseline Review: If the above process of teaming between the contractor and customer is followed, a subsequent Integrated Baseline Review should not be required. A cursory review of resulting data should verify that the value and associated schedule agreed to in the OTB/OTS process has, in fact, been established as the new baseline. However, if the contractor did not engage the customer in the early stages of work definition, schedule and cost replanning, or, if the resulting baseline does not equal the agreed-to value, then the customer project office should conduct an IBR.

3.8 Reporting during OTB/OTS Implementation: It is not uncommon for the contractor to request suspension of reporting during the time period required to implement the OTB/OTS. Depending on the length of time to implement the new OTB/OTS, the contractor and the customer must determine if, and to what extent, reporting requirements will be suspended or reduced. Reporting needs for senior customer levels must be considered when addressing this question. It may be difficult to ascertain the length of time it will take to implement a new baseline based on the scope of the effort.

The Customer should be cognizant of the Prime Contractor's coordination complexities and issues with its subcontractors. The time to implementation may be extended due to accounting calendar month overlaps, compressed reiterations of Contractor ETC updates, internal reviews, Subcontractor MR strategy negotiations, senior management approvals, etc. all while statusing the normal existing performance within a reporting cycle.

3.9 **Reporting Adjustments:** See Appendix C for illustrations and explanations of how CPR Formats 1 and 3 are adjusted for the OTB/OTS.

Chapter 4. What Do We Expect?

4.1 What Do We Expect from a Reprogramming? “Implementing an Over Target Baseline is like raising kids. It’s a lot of work, you have to know how to do it, and there’s no money in it. So do it for the right reasons, and then do it only once!” If the “reprogramming” team approached implementing the OTB with the attitude that it is a **GOOD THING** to do, there will be a significantly increased probability of experiencing some of the benefits of those **GOOD THINGS** in the post-OTB environment.

4.2 Executable And Achievable Baseline Plan: The ultimate goal of the reprogramming process is improved project management control. The CAM’s, IPT’s, and management will once again have an executable and achievable integrated scope, schedule, and resource baseline plan to work with and from which to measure performance. The detailed scope tasks in the networked integrated schedule will have better defined interrelationships, realistic start dates, and achievable durations that have been agreed to by those who developed the schedule from a more current understanding of the remaining work. The experience gained from the difficulties previously encountered will be reflected in a more appropriate level of resources, with the proper skills and competencies to accomplish the tasks.

4.3 Management Reserve Budget Pool: The project manager will re-establish an adequate pool of Management Reserve Budget that is based on a thorough analysis of the risk in the remaining work. An adequate amount of Management Reserve is essential in order to maintain the integrity of the Performance Measurement Baseline as any risks in the remaining work are encountered. OTB situations sometimes develop because the original Management Reserve Budget was not commensurate with the risk in the project or due to “management challenges” leading to under allocation of resources. Too often project managers are reluctant to draw a proper amount of budget from management reserve when additional in-scope effort is assigned to CAM’s to avoid depleting the available pool. The result is “budget-short” work packages or even “zero-budget” work packages in the baseline plan which begins to distort the performance analysis metrics and indices. An OTB should never include work packages without budget, as realistic budgets must be allocated to all remaining effort to prevent future requirements for additional OTB’s.

4.4 Renewed “Buy-In”: An OTB/OTS should result in a common understanding between all stakeholders of the remaining effort and resources required to complete the work. The CAM’s, IPT leaders and team members, project manager, corporate leadership, and customer management will have a renewed buy-in to the project baseline plan. Any tensions and contentious working relationships between contractor and customer IPT members and managers that may have developed in the pre-OTB days as the schedules slipped and costs grew should be alleviated by the teamwork required to plan and implement the OTB/OTS. All project team members will have a heightened awareness of the pre-OTB conditions and indicators that made the OTB necessary and will now be more vigilant for any sign of recurrence.

4.5 Meaningful Performance Indicators: As work is accomplished according to the new baseline plan, a more credible schedule, along with more accurate estimates of task value and data on resources consumed, will provide the basis for more reliable performance indicators. CAM’s and IPT leaders will be able to identify meaningful variances and trends in their performance against their plan and take corrective actions

as necessary. Management can readily identify schedule and cost trends in the higher-level aggregate data to make assessments of the overall health of the project and viability of the contract, including funding requirements.

4.6 Restored Confidence: Ultimately all parties should have confidence in the baseline that is established for the remainder of the effort. This confidence should extend to the resulting analysis as the post-OTB indicators begin to establish new and reliable performance variance trends. Analysis of trends in the Cost Performance Index (CPI) and To Complete Performance Index (TCPI) metrics will lead to dependable projections of estimated cost at project completion. The Schedule Performance Index (SPI) should once again correlate with the scheduling tool critical path analysis. Although the cost and schedule projections may be outside the bounds of the negotiated contract envelope, they represent a more credible basis for predicting the funds required for continuing the project and providing cash flow to the contractor.

Chapter 5. How Do I Manage After the OTB/OTS Is in Place?

5.0 Introduction: After implementation of the OTB/OTS, there are resultant changes to performance analysis that the project manager and analyst must understand. The contractor will be executing a revised performance measurement baseline that reflects the plan for the remainder of the project. This will impact the forecasting of final costs, trend analysis, management reserve, and potential risks associated with the new baseline. Visibility to performance against the negotiated contract value is masked.

5.1 Forecasting Final Costs: The value of the new performance measurement baseline will reflect the revised estimate. The adjusted Budgeted at Completion (BAC) should now be equal to the new EAC on the performance report. In some cases, individual elements may still have a variance at completion.

If a SPA eliminated both cost and schedule variances, the cost performance index (CPI) and schedule performance index (SPI) will equal 1.0 at this point. Statistical EAC formulas that rely on cumulative performance indices will not be meaningful for several months.

5.1.1 EAC Adjustments: There are two scenarios to consider when the customer project office generates new independent EACs after an OTB.

5.1.1.1 Cost and Schedule Variances Eliminated: Additional budget has been allocated and cost and schedule variances have been eliminated. Immediately after the OTB, the budget at completion should be based on the new EAC, which will reflect a realistic estimate for work to go and include all budget adjustments to eliminate variances. Example: $EAC = TAB$

When several months have gone by, the statistical EAC formulas that rely on various weightings of the cumulative performance indices can be used again. (Since the cumulative variances that existed before the OTB were eliminated, cumulative indices will only reflect performance since the new baseline was implemented.) Note that the new adjusted budget (TAB) is used in lieu of the original BAC in the formulas. Example: $EAC = TAB / CPI_{cum}$

5.1.1.2 Cost and Schedule Variances Retained: In this situation, additional budget has been allocated, but cost and schedule variances have been retained. Possible EAC calculations:

If the reprogramming is fairly recent, consider using the new BAC for work to go. Notice that in this case, adjustments were not made to eliminate variances, so the actual costs to date will need to be included. Example: $EAC = ACWP + (TAB - BCWP)$

If there at least three months of data, the TAB and the post OTB indices can be used in the EAC formula. Example: $EAC = ACWP + (TAB - BCWP) / CPI(3)$ where CPI (3) is the average of the CPI index for the last 3 months.

5.2 Impact of Single Point Adjustment (SPA) on Trend Charts: If a SPA is done for all WBS elements, the CPI and SPI will be equal to 1.0 at the total contract level. The trend line will spike upward to 1.0 on trend charts. While it now appears that performance is now within normal tolerance, the key here is to monitor the trends in

subsequent months for indications of performance trends. If only some of the WBS elements were adjusted, the trend line will not return completely to I.O.

5.3 Monitoring Management Reserve: Following the process in Chapter 3 a realistic amount of budget has been added to management reserve. Furthermore, if realistic budgets were estimated for the remaining work, it is logical that one should not expect MR usage to a great extent in the near term. Monitoring the use of the new MR budget will quickly tell the project manager if the new estimates were realistic, or if new risks have occurred since the OTB. MR usage is a valuable trend to track and analyze after the OTB.

5.4 Monitoring Potential Risks and Their Impacts: It is important that the project managers recognize that a robust risk analysis for the remaining project has resulted in a realistic schedule and budget baseline. It is now more important than ever to have a risk management strategy that encompasses integrated risk analysis and risk mitigation. The entire project management team must stay focused on the new plan and be ever vigilant for developing risks. Proper risk identification and management is the main principle behind effective project management.

As the project executes the new baseline, previously unknown schedule and budget risks may affect the accuracy of the new baseline. This may create problems in forecasting an accurate estimate at completion. This puts the ability to identify future funding requirements and eventually, the project itself, at risk.

5.5 Final Considerations: The OTB is often viewed academically as a singular and unique event for rebaselining a contract that adds budgets, possibly resets variances and replenishes an adequate amount of management reserve for risks remaining on the project.

While this has the appearance of erasing the project's prior performance, these variances at the total level are retained in the Cost Performance Report in Block 9, Reconciliation to Contract Budget Base. Normally, when all variances are eliminated, this establishes a need not only for additional performance measurement budget for future work but performance measurement schedule, as well. Appendix B, Figure 1, illustrates how the data elements are adjusted.

Appendices

Appendix A PCO Letter Template

Appendix B Examples of SPA adjustments

Appendix C CPR Formats 1 and 3

Appendix D Glossary

APPENDIX A – SAMPLE PCOL LETTER

Office Symbol

Over-Target Baseline Review; Contract number

Contractor

Address

1. In accordance with the subject contract, a joint baseline review of the implementation of your Over-Target Baseline was conducted on (date). The purpose of this review was to determine if the Over-Target Baseline (OTB) had been implemented in accordance with your earned value system procedures and with the joint team's working agreement on ground rules and assumptions. This OTB is implemented for the purpose of improving the performance management of this contract, and does not constitute direction to change any contractual parameters.

2. Based on the findings of the review, we concur with your implementation of the OTB. The increase in value of \$xxM was properly documented and explained and should be reported in the contractually-required, earned value management report, using instructions contained in the applicable data item description.

3. This letter is considered within the current contractual requirements, target cost, terms and conditions. [\(For cost reimbursable contracts only\) The government recognizes the potential cost liability to the government caused by the OTB and underlying revised estimate.](#) The OTB amount is considered to be outside of the negotiated contract terms and is not subject to fee provisions, including award fee. If you do not concur and consider this letter as direction likely to change these and other contract provisions, notify the Contracting Officer immediately and delay implementing this letter until the matter has been resolved.

4. Please contact (contracting officer, phone #) if you have any questions concerning the results of the OTB Review.

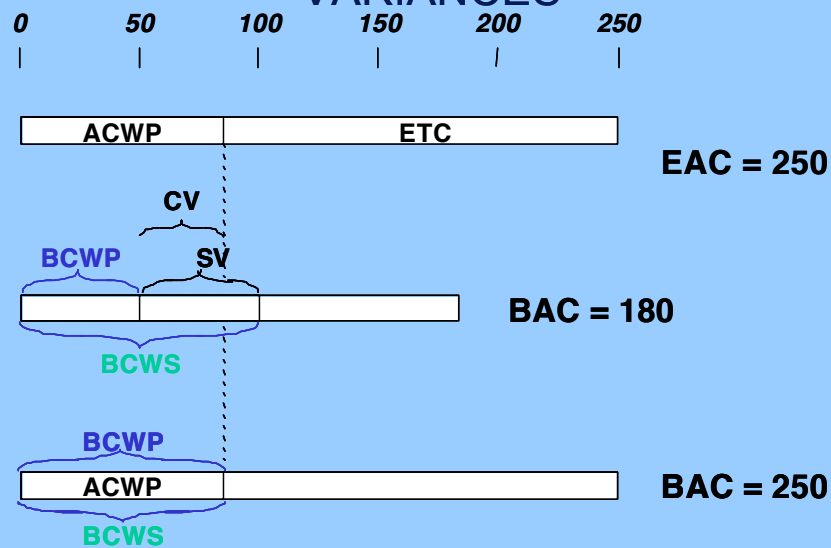
I.M. Warranted
Contracting Officer

CC:

Atchs:

REPROGRAMMING DATA ELEMENT ADJUSTMENTS

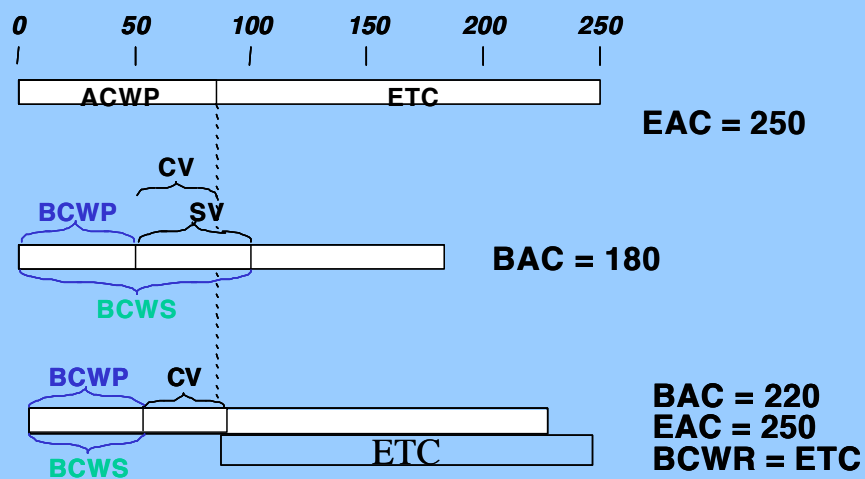
OBJECTIVE: ELIMINATE BOTH COST AND SCHEDULE
VARIANCES



APPENDIX B
Figure 1

REPROGRAMMING DATA ELEMENT ADJUSTMENTS

OBJECTIVES: (1) ELIMINATE SCHEDULE VARIANCE (SV)
(2) PRESERVE EXISTING COST VARIANCE (CV)

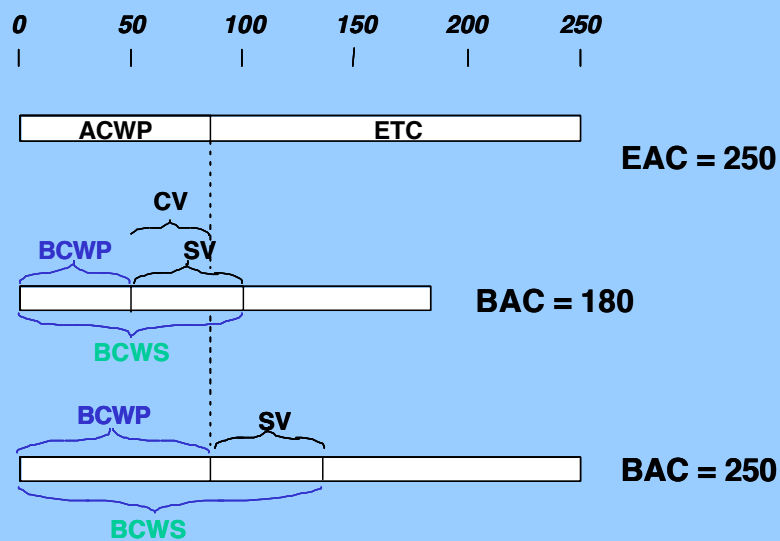


BCWR - Budgeted Cost for Work Remaining

APPENDIX B
Figure 2

REPROGRAMMING DATA ELEMENT ADJUSTMENTS

OBJECTIVES: (1) PRESERVE EXISTING SCHEDULE VARIANCE (SV)
(2) ELIMINATE COST VARIANCE (CV)



APPENDIX B
Figure 3

| CLASSIFICATION (When filled in) | | | | | | | | | | | | | | | | | | | | |
|--|--|---------------------------------------|----------------------------|---|--------------------|---------------------|-------------------------------|--------------------------------------|---------------|-----------|---------------|---------------------------------------|---------------------------|-----------|---------------|-----------------------------|-----------------------|-----------------------|---------|----------------|
| COST PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE | | | | | | | | | | | | | | | | | | | | |
| DOLLARS IN _____ | | | | | | | | | | | | | | | | | | | | |
| 1. CONTRACTOR | | | | 2. CONTRACT | | | | 3. PROGRAM | | | | 4. REPORT PERIOD | | | | | | | | |
| a. NAME | | | | a. NAME | | | | a. NAME | | | | a. FROM (YYMMDD) | | | | | | | | |
| b. LOCATION (Address and ZIP Code) | | | | b. NUMBER | | | | b. PHASE (X one) RDT&E PRODUCTION | | | | b. TO (YYMMDD) | | | | | | | | |
| | | | | c. TYPE | | | | | | | | d. SHARE RATIO | | | | | | | | |
| 5. CONTRACT DATA | | | | | | | | | | | | | | | | | | | | |
| a. QUANTITY | b. NEGOTIATED COST | c. EST. COST AUTHORIZED UNPRICED WORK | d. TARGET PROFIT/FEE | e. TARGET PRICE | f. ESTIMATED PRICE | g. CONTRACT CEILING | h. ESTIMATED CONTRACT CEILING | | | | | | | | | | | | | |
| | N/C | N/C | N/C | N/C | CHANGE | N/C | N/C | | | | | | | | | | | | | |
| 6. ESTIMATED COST AT COMPLETION | | | | 7. AUTHORIZED CONTRACTOR REPRESENTATIVE | | | | | | | | | | | | | | | | |
| MANAGEMENT ESTIMATE AT COMPLETION (1) | | | | CONTRACT BUDGET BASE (2) | | | | VARIANCE (3) | | | | a. NAME (Last, First, Middle Initial) | | | | | | | | |
| b. BEST CASE | | | | | | | | | | | | b. TITLE | | | | | | | | |
| b. WORST CASE | | | | | | | | | | | | c. SIGNATURE | | | | | | | | |
| c. MOST LIKELY | | | | CHANGE | | | | N/C | | | | d. DATE SIGNED (YYMMDD) | | | | | | | | |
| 8. PERFORMANCE DATA | | | | | | | | | | | | | | | | | | | | |
| ITEM (1) | CURRENT PERIOD | | | | | | CUMULATIVE TO DATE | | | | | | REPROGRAMMING ADJUSTMENTS | | AT COMPLETION | | | | | |
| | BUDGETED COST | | ACTUAL COST WORK PERFORMED | VARIANCE | | BUDGETED COST | | ACTUAL COST WORK PERFORMED | VARIANCE | | COST VARIANCE | BUDGET | BUDGETED | ESTIMATED | VARIANCE | | | | | |
| | WORK SCHEDULED (2) | WORK PERFORMED (3) | (4) | SCHEDULE (5) | COST (6) | WORK SCHEDULED (7) | WORK PERFORMED (8) | (9) | SCHEDULE (10) | COST (11) | | | | | | (12) | (14) | (15) | (16) | |
| a. WORK BREAKDOWN STRUCTURE ELEMENT | CURRENT AND CUM BCWS AND/OR BCWP WILL INCLUDE ADJUSTMENTS IF SCHEDULE OR COST VARIANCES ARE ZEROED OUT | | | | | | | | | | | | | | | SHOW CV CHANGES IF ADJUSTED | SHOW ADDITIONS TO BAC | NEW BAC (EXCEEDS CBB) | NEW EAC | SHOULD BE ZERO |
| b. COST OF MONEY | | | | | | | | | | | | | | | | | | | | |
| c. GENERAL & ADMINISTRATIVE | | | | | | | | | | | | | | | | | | | | |
| d. UNDISTRIBUTED BUDGET | | | | | | | | | | | | | | | | | | | | |
| e. SUBTOTAL (Performance Measurement Baseline) | | | | | | | | | | | | | | | | | | | | |
| f. MANAGEMENT RESERVE | | | | | | | | | | | | | | | | SHOW SV ADJ IF MADE | | TOTAL | | |
| g. TOTAL | | | | | | | | | | | | | | | | | | | | |
| 9. RECONCILIATION TO CONTRACT BUDGET BASE | | | | | | | | | | | | | | | | | | | | |
| a. VARIANCE ADJUSTMENT | | | | | | | | | | | | | | | | | | | | |
| b. TOTAL CONTRACT VARIANCE | | | | | | | | | | | | | | | | | | | | |
| TOTAL OF 8.g + 9.a | | | | | | | | | | | | | | | | | | | | |

CLASSIFICATION (When filled in)

| CLASSIFICATION (When filled in) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|------------------------|--------|--|-----|-----|-----|--------------------------------------|------|------|------|---|------|------------------|--------------------|---------------------------------------|--|--|--|---------------------------|--|--|--|-------------------------|--|--|--|
| COST PERFORMANCE REPORT FORMAT 3 - BASELINE | | | | | | | | | | | | | | DOLLARS IN _____ | | | | | | | | | | | | | |
| 1. CONTRACTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. NAME | | | | 2. CONTRACT | | | | 3. PROGRAM | | | | 4. REPORT PERIOD | | | | | | | | | | | | | | | |
| b. LOCATION (Address and ZIP Code) | | | | b. NUMBER | | | | a. NAME | | | | a. FROM (YYMMDD) | | | | | | | | | | | | | | | |
| | | | | c. TYPE | | | | d. SHARE RATIO | | | | b. TO (YYMMDD) | | | | | | | | | | | | | | | |
| | | | | | | | | b. PHASE (X one) | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | <input type="checkbox"/> RDT&E | | | | <input type="checkbox"/> PRODUCTION | | | | | | | | | | | | | | | |
| 5. CONTRACT DATA | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. ORIGINAL NEGOTIATED COST | | | | b. NEGOTIATED CONTRACT CHANGES | | | | c. CURRENT NEGOTIATED COST (a. + b.) | | | | d. ESTIMATED COST OF AUTHORIZED UNPRICED WORK | | | | e. CONTRACT BUDGET BASE (c. + d.) | | | | f. TOTAL ALLOCATED BUDGET | | | | g. DIFFERENCE (e. - f.) | | | |
| N/C | | | | N/C | | | | N/C | | | | N/C | | | | N/C | | | | CHANGE | | | | DELTA | | | |
| h. CONTRACT START DATE (YYMMDD) | | | | i. CONTRACT DEFINITIZATION DATE (YYMMDD) | | | | j. PLANNED COMPLETION DATE (YYMMDD) | | | | k. CONTRACT COMPLETION DATE (YYMMDD) | | | | l. ESTIMATED COMPLETION DATE (YYMMDD) | | | | | | | | | | | |
| 6. PERFORMANCE DATA | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ITEM | BCWS CUMULATIVE TO DATE | BCWS FOR REPORT PERIOD | BUDGET | | | | | | | | | | | | UNDISBURSED BUDGET | TOTAL BUDGET | | | | | | | | | | | |
| | | | + 1 | + 2 | + 3 | + 4 | + 5 | + 6 | | | | | | | | | | | | | | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | | | | | | | | | | | | |
| a. PERFORMANCE MEASUREMENT BASELINE (Beginning of Period) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| c. PERFORMANCE MEASUREMENT BASELINE (End of Period) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. MANAGEMENT RESERVE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | |

PLANNED COMPLETION DATE SUPPORTS NEW TAB IF DATES ARE DIFFERENT, MAY INDICATE OTS

SHOW BAC ADDITIONS FOR OTB AND EXPLAIN IN FORMAT 5

SHOULD MATCH NEW BAC IN FORMATS 1 AND 2

CLASSIFICATION (When filled in)

APPENDIX D

GLOSSARY OF TERMS

This Glossary is based on the definitions contained in Section 2 of ANSI EIA-748-1998, Earned Value Management Systems. The Terms and Definitions are taken from the standard whenever the term is included and defined in that document. The column for government terminology only contains those terms and acronyms that (a) are used in the handbook and are not defined in the Standard or (b) where the definition in the Earned Value Management Implementation Guide (EVMIG) differs in either terminology or definition. Only those terms and definitions from Appendix D of the EVMIG addressed in this Handbook are included.

| INDUSTRY TERM | DEFINITION | GOVERNMENT TERM |
|----------------------|---|--------------------------------------|
| ACTUAL COST | The costs actually incurred and recorded in accomplishing work performed. | ACWP – Actual Cost of Work Performed |
| ACTUAL DATE | The date on which a milestone or scheduled work task is completed. | |
| APPORTIONED EFFORT | Effort that by itself is not readily measured or divisible into discrete work packages but which is related in direct proportion to the planning and performance on other measured effort. | |
| AUTHORIZED WORK | Effort (work scope) on contract or assigned by management. | |
| BUDGET AT COMPLETION | The total authorized budget for accomplishing the program scope of work. It is equal to the sum of all allocated budgets plus any undistributed budget. (Management Reserve is not included.) The Budget At Completion will form the Performance Measurement Baseline as it is allocated and time phased in accordance with program schedule requirements. | |
| CONTROL ACCOUNT | A management control point at which budgets (resource plans) and actual costs are accumulated and compared to earned value for management control purposes. A control account is a natural management point for planning and control since it represents the work assigned to one responsible organizational element on one program work breakdown structure element. | |

| INDUSTRY TERM | DEFINITION | GOVERNMENT TERM |
|--------------------------|--|---|
| | A contractually required report, prepared by the contractor, containing information derived from the internal EVMS. Provides status of progress on the contract. | COST PERFORMANCE REPORT (CPR). |
| | A performance measurement report established to provide information on smaller contracts | COST/SCHEDULE STATUS REPORT (C/SSR). |
| COST VARIANCE | A metric for the cost performance on a program. It is the algebraic difference between earned value and actual cost (Cost Variance = Earned Value - Actual Cost.) A positive value indicates a favorable position and a negative value indicates an unfavorable condition. | COST VARIANCE = BCWP - ACWP |
| CRITICAL PATH ANALYSIS | See NETWORK SCHEDULE. | |
| DIRECT COSTS | The costs or resources expended in the accomplishment of work which are directly charged to the affected program. | ACTUAL DIRECT COSTS (ADC). Those costs identified specifically with a contract, based upon the contractor's cost identification and accumulation system as accepted by the cognizant Defense Contract Audit Agency (DCAA) representatives |
| DISCRETE EFFORT | Tasks that are related to the completion of specific end products or services and can be directly planned and measured. (Also may be known as work packaged effort.) | |
| DUE DATE | The date by which a milestone or task is scheduled to be completed. | |
| EARNED VALUE | The value of completed work expressed in terms of the budget assigned to that work. | BCWP – BUDGETED COST FOR WORK PERFORMED |
| | An integrated management system which uses earned value to measure progress objectively. | EARNED VALUE MANAGEMENT SYSTEM (EVMS). |
| ESTIMATE AT COMPLETION | The current estimated total cost for program authorized work. It equals actual cost to a point in time plus the estimated costs to completion (Estimate To Complete). | In some cases, may be referred to as the Latest Revised Estimate |
| ESTIMATE TO COMPLETE | Estimate of costs to complete all work from a point in time to the end of the program. | |
| ESTIMATED COST | An anticipated cost for specified work scope. | |
| EXPECTED COMPLETION DATE | The date on which a scheduled milestone or task is currently expected to be completed. | |

| INDUSTRY TERM | DEFINITION | GOVERNMENT TERM |
|------------------------|--|--|
| INDIRECT COST | The cost for common or joint objectives that cannot be identified specifically with a particular program or activity. Also referred to as overhead cost or burden. | |
| INTERNAL REPLANNING | Replanning actions for remaining work scope. A normal program control process accomplished within the scope, schedule, and cost objectives of the program. | |
| LEVEL OF EFFORT | Unmeasured effort of a general or supportive nature usually without a deliverable end product. Examples are supervision, program administration and contract administration. | |
| MANAGEMENT RESERVE | An amount of the total budget withheld for management control purposes rather than being designated for the accomplishment of a specific task or set of tasks. | |
| MILESTONE | A schedule event marking the due date for accomplishment of a specified effort (work scope) or objective. A milestone may mark the start, an interim step, or the end of one or more activities. | |
| NETWORK SCHEDULE | A schedule format in which the activities and milestones are represented along with the interdependencies between activities. It expresses the logic of how the program will be accomplished. Network schedules are the basis for critical path analysis, a method for identification and assessment of schedule priorities and impacts. | |
| ORGANIZATION STRUCTURE | The hierarchical arrangement for the management organization for a program, graphically depicting the reporting relationships. The organizational structure will be by work team, function, or whatever organization units are used by the company. | OBS – ORGANIZATIONAL BREAKDOWN STRUCTURE |
| OTHER DIRECT COSTS | Usually the remaining direct costs, other than labor and materiel, like travel and computer costs. | |

| INDUSTRY TERM | DEFINITION | GOVERNMENT TERM |
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| OVER TARGET BASELINE | Replanning actions involving establishment of cost or schedule objectives that exceed the desired or contractual objectives on the program, An over target baseline is a recovery plan, a new baseline for management when the original objectives cannot be met and new goals are needed for management purposes. | |
| PERFORMANCE MEASUREMENT BASELINE | The total time phased budget plan against which program performance is measured. It is the schedule for expenditure of the resources allocated to accomplish program scope and schedule objectives, and is formed by the budgets assigned to control accounts and applicable indirect budgets. The Performance Measurement Baseline also includes budget for future effort assigned to higher Work Breakdown Structure levels (summary level planning packages) plus any undistributed budget. Management Reserve is not included in the baseline as it is not yet designated for specific work scope. | BCWS – Budgeted Cost for Work Scheduled. The PMB is the sum of all the time-phased BCWS on a contract. |
| PERFORMING ORGANIZATION | The organization unit that applies resources to accomplish assigned work. | |
| PLANNING PACKAGE | A logical aggregation of work, usually future efforts that can be identified and budgeted, but which is not yet planned in detail at the work package or task level. | |
| PROGRAM BUDGET | The total budget for the program including all allocated budget, management reserve, and undistributed budget. | BAC – BUDGET AT COMPLETION |
| PROGRAM TARGET COST | The program cost objective based on the negotiated contract target cost, or the management goal value of the authorized work, plus the estimated cost of authorized unpriced work, | Contract Budget Base (CBB). The negotiated contract cost plus the estimated cost of authorized unpriced work. Negotiated Contract Cost (NCC). The estimated cost negotiated in a cost-plus-fixed-fee contract or the negotiated contract target cost in either a fixed-price-incentive contract or a cost-plus-incentive-fee contract. |

| INDUSTRY TERM | DEFINITION | GOVERNMENT TERM |
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| RESOURCE PLAN | The time phased budget, which is the schedule for the planned expenditure of program resources for accomplishment of program work scope. | |
| | The redistribution of budget for future work. Traceability is required to previous baselines and attention to funding requirements needs to be considered in any replanning effort. | REPLANNING. |
| RESPONSIBLE ORGANIZATION | The organizational unit responsible for accomplishment of assigned work scope. | |
| SCHEDULE | A plan that defines when specified work must be done to accomplish program objectives on time. | |
| SCHEDULE TRACEABILITY | Compatibility between schedule due dates, status, and work scope requirements at all levels of schedule detail (vertical traceability) and between schedules at the same level of detail (horizontal traceability). | |
| SCHEDULE VARIANCE | A metric for the schedule performance on a program. It is the algebraic difference between earned value and the budget (Schedule Variance = Earned Value less Budget). A positive value is a favorable condition while a negative value is unfavorable. | $SV = BCWP - BCWS$ |
| STATEMENT OF WORK | The document that defines the work scope requirements for a program. | |
| | The sum of all budgets allocated to the contract. Total allocated budget consists of the performance measurement baseline and all management reserve. The total allocated budget will reconcile directly to the contract budget base. Any differences will be documented as to quantity and cause. | TOTAL ALLOCATED BUDGET (TAB). |
| UNDEFINITIZED WORK | Authorized work for which a firm contract value has not been negotiated or otherwise determined. | AUTHORIZED, UNPRICED EFFORT |
| UNDISTRIBUTED BUDGET | Budget associated with specific work scope or contract changes that have not been assigned to a control account or summary level planning package. | |

| INDUSTRY TERM | DEFINITION | GOVERNMENT TERM |
|-------------------------------------|--|---|
| | The difference between the total budget assigned to a contract, WBS element, organizational entity or cost account and the estimate at completion. Variance at Completion = Budget at Completion - Estimate at Completion. It represents the amount of expected overrun or underrun. | VARIANCE AT COMPLETION (VAC). |
| WORK BREAKDOWN STRUCTURE | A product oriented division of program tasks depicting the breakdown of work scope for work authorization, tracking, and reporting purposes. | CONTRACT WORK BREAKDOWN STRUCTURE (CWBS). The complete work breakdown structure for a contract. It includes the DoD approved work breakdown structure for reporting purposes and its discretionary extension to the lower levels by the contractor, in accordance with MIL-HNDBK 881(latest version) and the contract work statement. It includes all the elements for the hardware, software, data or services which are the responsibility of the contractor. |
| WORK BREAKDOWN STRUCTURE DICTIONARY | A listing of work breakdown structure elements with a description of the work scope content in each element. The work descriptions are normally summary level and provide for clear segregation of work for work authorization and accounting purposes. | |
| WORK PACKAGE | A task or set of tasks performed within a control account. | |