In this lesson, you will learn about the processes used to make changes to the performance measurement baseline (PMB) and about the Earned Value Management System (EVMS) guidelines for implementing those changes.

The terminal learning objective for this lesson is to recognize contractor PMB maintenance processes, as documented in their EVMS.

This lesson includes two topics:

- **Topic 1:** EVM PMB Change Categories
- **Topic 2:** EVMS Revision Guidelines
Welcome to Lesson 6.1

Introduction to EVMS PMB Revision Processes

In this lesson, you will learn about the processes used to make changes to the performance measurement baseline (PMB) and about the Management System (EVMS) that tracks those changes.

The terminal learning objective is to recognize contractor PMB changes documented in their EVMS.

This lesson includes two topics:

- **Topic 1**: EVM PMB Change Categories
- **Topic 2**: EVMS Revision Guidelines

*Long Description*

Chart representing a performance measurement baseline, or PMB, over time, from contract start to contract end, measured in millions of dollars.
In this topic, you will:

- Identify three categories of changes to the Earned Value Management (EVM) performance measurement baseline (PMB):
  - Contract changes
  - Internal contractor replanning
  - Formal reprogramming (also known as over target baseline/schedule)
Categories of Changes

Changes occur throughout the life of any program, and the baseline should be adjusted and maintained to reflect the plan to achieve the contractual scope of work.

Changes fall under one of three categories:

- **Contract changes**—authorized changes in scope, directed by the Government, that typically *increase the target price of the existing contract*; these may or may not affect the schedule.

- **Internal contractor replanning**—a realignment of the schedule or reallocation of the budget for the remaining effort, *within the existing constraints of the contract*.

- **Formal reprogramming**—a comprehensive replanning of the remaining PMB that results in a total allocated budget that exceeds the contract budget base (CBB) and/or baseline schedule that exceeds contract milestones.

Replanning and reprogramming may also be referred to as *rebaselining*. 
Categories of Changes

Changes occur throughout the life of any program, and the baseline should be adjusted and maintained to reflect the plan to achieve the contractual scope of work.

Changes fall under one of the following categories:

- **Contract changes**—a change to the scope, directed by the contracting officer, that typically increase the target price of the existing contract; these may or may not affect the schedule.

- **Internal contractor replanning**—a realignment of the schedule or reallocation of the budget for the remaining effort, within the existing constraints of the contract.

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Categories of Changes

Changes occur throughout the life of any program, and the baseline should be adjusted and maintained to reflect the plan to achieve the contractual scope of work.

Changes fall under one of three categories:

- **Contract changes**—authorized changes in scope, directed by the Government, that typically increase the target price of the existing contract; these may or may not affect the schedule.

- **Internal contractor replanning**—a rebaselining

  The term *rebaseline* is widely used to refer to any change in the PMB. Because it can refer to many different concepts related to PMB revisions, this terminology can introduce confusion into the replanning or reprogramming processes.

  To avoid confusion, the more precisely defined terms *replan* or *reprogram* should be used instead.
Categories of Changes

Changes occur throughout the life of any program, and the baseline should be adjusted and maintained to reflect the plan to achieve the contractual scope of work.

Changes fall under one of three categories:

- **Contract changes**—alteration of the contractual scope, directed by the customer, typically increasing the contractual requirements of the existing contract; this may affect the schedule or budget for the remaining effort.

- **Internal contractor realignment**—realignment of the schedule or reallocation of the budget for the remaining effort, within the existing constraints of the contract.

- **Formal reprogramming**—a comprehensive replanning of the remaining PMB that results in a total allocated budget that exceeds the contract budget base (CBB) and/or baseline schedule that exceeds contract milestones.

Replanning and reprogramming may also be referred to as **rebaselinin**.
Change Management Process

The contractor should have a disciplined change management process to ensure that:

- Changes are:
  - Carefully tracked and controlled
  - Incorporated into the PMB in a timely manner
  - Incorporated simultaneously for budget and schedule
  - Documented and authorized prior to beginning new work
- **Retroactive changes** are used only for:
  - Routine accounting adjustments
  - **Definitization** of customer-approved contract actions
  - Rate changes
  - Economic price adjustments
  - Customer-approved changes
  - Correction of errors

- Work scope and the associated budget are always tied together, therefore budget is not transferred independently of the work scope
- **Management reserve (MR)** usage is clearly defined

This process should result in disciplined management of the baseline, but it should not be so strict as to prevent reasonable and necessary adjustments to the PMB.
Change Management Process

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- **Retroactive changes**
  - Routine accounting
  - Definitization of work
  - Rate changes
  - Economic price adjustments
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- **Retroactive changes** are used only for:
  - Routine accounting adjustments
  - **Definitization** of customer-approved contract actions
  - Rate changes
  - Economic price adjustments

**Management reserve (MR)**

MR is an amount of the total contract budget withheld for management control purposes and for unplanned events (within the scope of the contract). It is not part of the PMB. 

- **Management reserve (MR)** usage is clearly defined

This process should result in disciplined management of the baseline, but it should not be so strict as to prevent reasonable and necessary adjustments to the PMB.
Contract Changes

Contract changes, also called contract modifications, are written changes in the terms of the contract. Only contracting officers, acting within the scope of their authority, can execute contract modifications on behalf of the Government.

Earned Value Management (EVM) budgets in the PMB are goals or metrics for work performance and must represent a realistic plan to capture all scope on contract. This includes the original negotiated contract scope and scope changes in two categories:

- Negotiated contract changes
- Authorized unpriced work

**Negotiated Contract Changes**

Negotiated contract changes are changes on which contractual agreement has been reached. They are also referred to as definitized contract changes.

The EVM PMB must include all negotiated contract costs, including the original definitized contract and definitized contract changes.

For an incentive contract, the PMB reflects the definitized contract target cost. For a cost-plus-fixed-fee or award fee contract, the PMB reflects the estimated negotiated cost.

These types of contract changes must be incorporated into the PMB as soon as they have been definitized in the contract.

*You must select each tab to move on.*
Contract Changes

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- Negotiated contract changes
- Authorized unpriced work

Negotiated Contract Changes

Negotiated contract changes estimated negotiated cost has been reached. They are also referred to as definitized changes. The EVM PMB must include a separate row for definitized contract and definitized contract changes. For an incentive contract, the estimated negotiated cost is the original negotiated amount. For a cost-plus-fixed-fee or award fee contract, the PMB reflects the estimated negotiated cost.

These types of contract changes must be incorporated into the PMB as soon as they have been definitized in the contract.
Contract Changes

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Earned Value Management (EVM) budgets in the PMB are goals or metrics for work performance and must represent a realistic plan to capture all scope on contract. This includes the original negotiated contract scope and scope changes in two categories:

- Negotiated contract changes
- Authorized unpriced work

Authorized unpriced work (AUW) is approved work scope that has not been definitized.

The EVM budgets included in the PMB are goals for measuring performance, so they must represent a realistic plan to capture all scope on the contract, including AUW. The procuring contracting officer determines a best estimate of the AUW, and this should be included in the PMB budgets.

Note that AUW can never be negative.
Internal Contractor Replanning

Contractors typically perform replanning in one of two ways: rolling wave planning or replanning the PMB. Internal replanning does not change the final scope, cost, or schedule of the work.

The Government does not direct how the contractor performs replanning. The Electronic Industries Alliance Standard 748 (EIA-748) EVMS Guidelines do provide some direction on what internal controls should exist for managing PMB replanning and change. The Defense Contract Management Agency (DCMA) monitors contractor compliance with these guidelines.

Replanning should be consistent with the contractor's EVM process.

Rolling Wave Planning

The contractor may elect to plan the PMB in detailed work packages (WPs) for near term activities and hold the future budget in higher summary level planning packages (SLPPs). The contractor must periodically plan the next increment of work into detailed WPs.

This is known as rolling wave planning and typically provides more flexibility than laying out the complete baseline in detail at the beginning of the contract.
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The Government does not direct how the contractor performs replanning. The Electronic Industries Alliance Standard 748 (EIA-748) EVMS Guidelines do provide some direction on what internal controls should exist for managing PMB replanning and change. The Defense Contract Management Agency (DCMA) monitors contractor compliance with these guidelines.

Replanning should be consistent with the contractor's EVM process.

Rolling Wave Planning  Replanning

Maintaining a realistic PMB may occasionally require the replanning of some, or all, of the remaining baseline. Examples of when this type of internal replanning may be appropriate include when:

- A reorganization of work or people to increase efficiency becomes necessary
- The decision is made to use a different engineering or manufacturing approach
- Existing budgets for remaining work are deemed sufficient, but need to be re-phased to a different work plan or schedule
Formal Reprogramming

The contractor performs formal reprogramming when it determines that the budget and/or schedule is significantly insufficient to perform the remaining work.

Formal reprogramming may be appropriate when the original plan becomes unrealistic due to cost, schedule, or technical problems.

Formal reprogramming results in one or both of the following:

- **Over target baseline (OTB)**—A PMB that has been formally reprogrammed to include additional performance management budget in excess of CBB
- **Over target schedule (OTS)**—A replanned schedule that exceeds contract milestones and delivery dates

It is possible to have an OTS without a corresponding cost increase, but it is more likely that it is accompanied by an OTB. Similarly, it is possible to have an OTB without a corresponding schedule increase, but it is more likely that it is accompanied by an OTS.

A **single point adjustment (SPA)** is frequently instituted during an OTB.

The contractor must obtain Government approval prior to starting the formal reprogramming process.
Formal Reprogramming

The contractor performs formal reprogramming when it determines that the budget and/or schedule is significantly insufficient to perform the remaining work.

Formal reprogramming may be appropriate when the original plan becomes unrealistic due to cost, schedule, or technical problems.

Formal reprogramming results in one or both of the following:

- **Over target baseline (OTB)**—A PMB that has a single point adjustment (SPA)

An 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 an SPA depending on the program manager (PM) requirements to retain certain historical variances for visibility. It is expected that an OTB has some form of SPA; however, it is possible to implement an OTB without adjusting past cost variances. An SPA can be implemented for the total program or selected sub-elements.

A single point adjustment (SPA) is frequently instituted during an OTB.

The contractor must obtain Government approval prior to starting the formal reprogramming process.
Formal Reprogramming

The contractor performs formal reprogramming when it determines that the budget and/or schedule is significantly insufficient to perform the remaining work.

Formal reprogramming may be appropriate when the original plan becomes unrealistic due to cost, schedule, or technical problems.

Formal reprogramming results in one or both of the following:

- **Over target baseline (OTB)**—The budget and schedule is insufficient to perform the remaining work.

- **Over target schedule (OTS)**—A replanned schedule that exceeds contract milestones and delivery dates

It is possible to have an OTS without a corresponding cost increase, but it is more likely that it is accompanied by an OTB. Similarly, it is possible to have an OTB without a corresponding schedule increase, but it is more likely that it is accompanied by an OTS.

A single point adjustment (SPA) is frequently instituted during an OTB.

The contractor must obtain Government approval prior to starting the formal reprogramming process.
**Knowledge Review**

What does formal reprogramming typically result in?

Select all that apply.

- ✔ Schedule replanning that exceeds contract milestones
-   Approved work scope or scope changes that have not been definitized
- ✔ Adjustments to the performance measurement baseline (PMB) that include additional budget beyond the contract budget base (CBB)

Formal reprogramming results in one or both of the following: **schedule replanning that exceeds contract milestones** (over target schedule or OTS); **adjustments to the PMB that include additional budget beyond the CBB** (over target baseline or OTB).
What types of changes are considered contract changes?

Select all that apply.

- Replanned schedules that exceed contract milestones
- Contracting officer approved work scope or scope changes that have not been definitized
- Negotiated modifications to scope executed by the contracting officer

Contract changes may include **contracting officer approved work scope or scope changes that have not been definitized** and **negotiated modifications to scope executed by the contracting officer**.
When might a contractor replan the performance measurement baseline (PMB)?

Select all that apply.

- The original plan becomes unrealistic due to cost, schedule, or technical problems
- The decision is made to use a different engineering or manufacturing approach
- There is an unfavorable cost or schedule variance
- Existing budgets for remaining work are deemed sufficient, but need to be re-phased to a different work plan or schedule

A contractor might replan the remaining PMB when the original plan becomes unrealistic due to cost, schedule, or technical problems; the decision is made to use a different engineering or manufacturing approach; or existing budgets for remaining work are deemed sufficient, but need to be re-phased to a different work plan or schedule.
In this topic, you will:

- Recognize Earned Value Management System (EVMS) guidelines for making revisions to the Earned Value Management (EVM) performance measurement baseline (PMB)
EVMS Guidelines

The contractor’s management system should include procedures for the disciplined incorporation of changes into the PMB. Contractor PMB revision procedures are documented in their EVMS description, which typically includes a cross reference of how their system complies with the EIA-748 EVMS revision guidelines.

These procedures should ensure that:

- Necessary changes to the PMB are made in a timely manner so that the PMB represents a realistic plan for the contract scope
- Only approved changes to the PMB are made
- Budget is not transferred independent of work scope
- Budget and schedule changes are incorporated simultaneously
- Retroactive changes are strictly controlled

Contractors must maintain detailed documentation of changes to the PMB. These documents typically include logs of MR use and undistributed budget (UB) use. Contractors report all changes to the PMB in the Integrated Program Management Report (IPMR).

While these processes should result in disciplined management of the baseline, they should not be so strict as to preclude any adjustment to the PMB. Changes occur throughout the life of any contract, and the baseline should be adjusted to incorporate authorized changes or replanning as necessary.

Refer to the Office of the Secretary of Defense’s (OSD) Office of Performance Assessments and Root Cause Analyses (PARCA) EVM website and the the Defense Acquisition University (DAU) EVM Community of Practice to find the most up-to-date Department of Defense (DoD) guidance documents on EVM PMB revisions.
EVMS Guidelines

The contractor’s management system should include procedures for the disciplined incorporation of changes into the PMB. Contractor PMB revision procedures are documented in their EVMS description, which typically includes a cross reference of how their system complies with the EIA-748 EVMS revision guidelines.

These procedures should ensure that:

- Necessary changes to the PMB are made in a timely manner so that the PMB represents a realistic plan for the contract scope
- Only approved changes are incorporated
- Budget is not transferred, but only used
- Budget associated with specific work scope or with negotiated contract changes and AUW that have not been assigned to a control account or summary level planning package
- Retroactive changes are processed

Contractors must maintain logs of change requests and associated documents typically include logs of MR use and *undistributed budget (UB)* use. Contractors report all changes to the PMB in the Integrated Program Management Report (IPMR).

While these processes should result in disciplined management of the baseline, they should not be so strict as to preclude any adjustment to the PMB. Changes occur throughout the life of any contract, and the baseline should be adjusted to incorporate authorized changes or replanning as necessary.

Refer to the Office of the Secretary of Defense's (OSD) Office of Performance Assessments and Root Cause Analyses (PARCA) [EVM website](#) and the Defense Acquisition University (DAU) [EVM Community of Practice](#) to find the most up-to-date Department of Defense (DoD) guidance documents on EVM PMB revisions.
Knowledge Review

What does contractor compliance with the Electronic Industries Alliance Standard 748 (EIA-748) Earned Value Management System (EVMS) guidelines help ensure?

Select all that apply.

- Retroactive changes are strictly controlled
- Only approved changes are made to the performance measurement baseline (PMB)
- Budget is not transferred independent of work scope
- Necessary changes to the PMB are made in a timely manner
- Budget and schedule changes are incorporated simultaneously

Contractor compliance with the EIA-748 EVMS guidelines help ensure that: retroactive changes are strictly controlled; only approved changes are made to the PMB; budget is not transferred independent of work scope; necessary changes to the PMB are made in a timely manner; and budget and schedule changes are incorporated simultaneously.
Lesson Summary

Congratulations! You have completed the Introduction to EVMS PMB Revision Processes lesson.

You should now know the following key points.

Changes to the PMB fall under one of three categories:

- **Contract changes**—authorized changes in scope, directed by the Government, that typically increase the target price of the existing contract; these may or may not affect the schedule.

- **Internal contractor replanning**—a realignment of the schedule or reallocation of the budget for the remaining effort, within the existing constraints of the contract.

- **Formal reprogramming**—a comprehensive replanning of the remaining PMB that results in a total budget and/or total schedule that exceeds the existing contract requirements.

Contractors must have a change management process in place to ensure a disciplined management of the baseline. However, the process should not be so strict as to prevent reasonable and necessary adjustments to the PMB.
Congratulations! You have completed the Introduction to EVMS PMB Revision Processes lesson.

You should now know the following key points.

Changes to the PMB fall under one of the following categories:

- **Contract changes**—authorized changes to the contract, including the target price of the existing contract.
- **Internal contractor replanning**—a re-planning of the remaining effort, within the existing budget and schedule constraints.
- **Negotiated contract changes**—changes on which contractual agreement has been reached (definitized).
- **AUW**—approved scope that has not been definitized (can never be negative).

Contractors must have a change management baseline. However, the process should not result in adjustments to the PMB.

Only the contracting officer can execute contract modifications on behalf of the Government.

Contract changes, or contract modifications, are written changes in the terms of the contract. They include:

- **Negotiated contract changes**—changes on which contractual agreement has been reached (definitized).
- **AUW**—approved scope that has not been definitized (can never be negative).

Select each type of change to learn more.
Lesson Summary

Congratulations! You have completed the **Introduction to EVMS PMB Revision Processes** lesson.

You should now know the following key points.

Changes to the PMB fall under one of the following categories:

- **Contract changes**—authorized changes that have affected the target price of the existing contract.
- **Internal contractor replanning**—a comprehensive plan to replan the remaining effort, within the existing work breakdown structure (WBS) and control account (CA) structure.
- **Formal reprogramming**—a comprehensive change to the baseline that will affect the existing budget and/or total schedule that requires replanning.

Contractors must have a change management process in place to address any changes to the baseline. However, the process should minimize the need for dramatic adjustments to the PMB.

**Internal contractor replanning**

Contractors typically perform replanning in one of two ways:

- **Rolling wave planning**—The contractor plans the PMB in detailed WPs for near-term activities, and holds future budget in higher level PPs, which are incrementally replanned into detailed WPs.
- **Replanning**—May occur when:
  - A reorganization of work or people to increase efficiency becomes necessary
  - The decision is made to use a different engineering or manufacturing approach
  - Existing budgets for remaining work are deemed sufficient, but need to be re-phased to a different work plan or schedule
Lesson Summary

Congratulations! You have completed the Introduction to EVMS PMB Revision Processes lesson.

You should now know the following key points.

Changes to the PMB fall under one of the following:

- **Contract changes**—authorized changes that increase the target price of the existing contract.
- **Internal contractor replanning**—a reevaluation of the remaining effort, where the contractor plans to complete the work within the existing contract budget and/or schedule.
- **Formal reprogramming**—a comprehensive change to the PMB that exceeds the contract baseline.

Formal reprogramming results in one or both of the following:

- **OTB**—a PMB that has been formally reprogrammed to include additional performance management budget in excess of the CBB.
- **OTS**—a replanned schedule that exceeds contract milestones and delivery dates.

Contractors must have a change management baseline. However, the process should not be so strict as to prevent reasonable and necessary adjustments to the PMB.
Lesson Summary, Cont.

Contractors' PMB revision procedures must comply with the EIA-748 EVMS revision guidelines. These procedures should ensure that:

- Necessary changes to the PMB are made in a timely manner so that the PMB represents a realistic plan for the contract scope
- Only approved changes to the PMB are made
- Budget is not transferred independent of work scope
- Budget and schedule changes are incorporated simultaneously
- Retroactive changes are strictly controlled

Contractors must document all PMB changes and explain significant PMB changes in the IPMR.
Contractors' PMB revision procedures must comply with the EIA-748 EVMS revision guidelines. These procedures should ensure that:

- Necessary changes to the PMB are made in a timely manner so that the PMB represents a realistic plan for the contract scope.
- Only approved changes are made to the PMB.
- Budget is not tracked in a manner not consistent with the PMB.
- Budget and schedule changes do not result in significant PMB changes.
- Retroactive changes are not made.

Contractors must document significant PMB changes.

**Long Description**

EVMS Guidelines, EIA-748 document with five categories associated with it. The categories are: Organization; Planning, Scheduling, and Budgeting; Accounting Considerations; Analysis and Management Reports; Revisions and Data Maintenance.
You have completed the content for this lesson.

To continue, select another lesson from the Table of Contents on the left.

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