National Defense Industrial Association
Integrated Program Management Division

Guide to the Integrated Baseline Review (IBR)

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Abbreviations and Acronyms

ATP	Authority to Proceed
BAC	Budget at Completion
BCR	Baseline Change Request
BCWP	Budgeted Cost for Work Performed (earned value)
BOM	Bill of Material
C/SCSC	Cost/Schedule Control Systems Criteria
CAM	Control Account Manager
CAP	Control Account Plan
CBB	Contract Budget Base
CDRL	Contract Data Requirements List
CPG	Capital Programming Guide
CPR	Contract Performance Report
CWBS	Contract Work Breakdown Structure
DCMA	Defense Contract Management Agency
DID	Data Item Description
DoD	Department of Defense
EA	Estimated Actuals
EAC	Estimate at Completion
ECP	Engineering Change Proposal
EVMS	Earned Value Management Systems
EVT	Earned Value Technique
FAR	Federal Acquisition Regulation
G-CAM	Government Control Account Manager
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GFP	Government Furnished Property
IBR	Integrated Baseline Review
ID/IQ	Indefinite Delivery/Indefinite Quantity
IMP	Integrated Master Plan
IMS	Integrated Master Schedule
IPMD	Integrated Program Management Division
IPMR	Integrated Program Management Report

IPT	Integrated Product Team
KPP	Key Performance Parameter
LOE	Level of Effort
MR	Management Reserve
NDIA	National Defense Industrial Association
OBS	Organizational Breakdown Structure
OMB	Office of Management & Budget
OTB	Over-Target Baseline
OTS	Over-Target Schedule
PASEG	Planning & Scheduling Excellence Guide (NDIA IPMD)
PM	Project Manager (or Program Manager)
PMB	Performance Measurement Baseline
POC	Point of Contact
POP	Period of Performance
R&O	Risk and Opportunity
RAM	Responsibility Assignment Matrix
RFP	Request for Proposal
ROMP	Risk and Opportunity Management Plan
SAR	Subsequent Applications Review
SME	Subject Matter Expert
SOO	Statement of Objectives
SOW	Statement of Work
SRA	Schedule Risk Assessment
SST	Source Selection Team
Supplier	Vendor or prime contractor
TAB	Total Allocated Budget
TPM	Technical Performance Measurement
UB	Undistributed Budget
WAD	Work Authorization Document
WBS	Work Breakdown Structure

1 Introduction

Integrated Baseline Reviews (IBRs) are a critical part of the contract award and integrated program management process for major acquisitions and inter/intra agency or organization agreements. IBRs are required, either pre-award or post-award, to ensure authorized work is adequately planned and resourced, and to establish a mutual understanding of the risks and opportunities inherent in the Performance Measurement Baseline (PMB). As part of these efforts, both Customer and Supplier can agree on the contents of the risk register, the mitigations for reducible risks, and the margins for irreducible risks, as well as the integrated program management processes used during project execution. IBRs are performed on the initial contract baseline and whenever there is a significant change to the baseline. The Customer may require an IBR when the Customer Program Manager (PM) wants to review the PMB to assure both parties have a mutual agreement on the scope of work, resources, and schedule to meet the customer's needs.

1.1 Purpose of the Guide

The purpose of the NDIA Integrated Program Management Division (IPMD) IBR Guide is to provide guidance for Customer and Supplier PMs as well as their teams for the preparation and execution of an IBR. In addition, this guide identifies the need for an IBR, the types of IBRs, when and how each should be conducted, and the necessity to make the IBR an element of the ongoing project management process. This guide integrates the IBR process with risk and opportunity management practices and is intended to improve the consistency of the IBR process for all users.

PMs are strongly encouraged to use this guide, along with applicable agency instructions, during IBR training, in preparation for an IBR and during the IBR event, to achieve optimal results. Sections 2 through 6 provide a definition and description of the five phases of the IBR.

1.2 Terms

This guide uses the terms "contract" or "contractual" for any contract, subcontract, inter/intra agency or organizational transfer work agreement or other agreement. Broadly, these terms are used to refer to the legal document directing the Supplier to perform a defined scope of work. Some organizations may use the term "project charter".

"Project" and "Program" are used in this guide to identify all work authorized by a contract. Generally, a project involves a planned effort to achieve a specific outcome, the progress toward which is discretely measurable. A project has an established scope, schedule, and cost. Programs typically have a longer term and broader scope than projects. Programs usually consist of multiple projects, along with operations, sustainment, and maintenance functions However, context and size are important. That is, a major program in a small company might be a minor project in large corporation. This IBR Guide focuses on the IBR event irrespective of the doctrinal characterization of project versus program.

Although the IBR process occurs throughout the project/program life cycle, involving continuous assessment of the PMB's executability, the actual review typically is an event within this process. Unless otherwise stated, the use of the term Integrated Baseline Review (IBR) in this guide refers to the formal IBR event.

Position, job, and role titles are not standard between government and industry. This guide uses the term "Supplier CAM". However in another setting this person may be called a "project lead", "task manager", an "Integrated Product Team (IPT) lead", or "team lead". Use of the term

of “IPT Lead,” as the Customer counterpart to the CAM, is not widely used outside the Department of Defense and in some Federal agencies, the term “G-CAM” (Government CAM) is used to mean the Customer counterpart to the Supplier CAM.

1.3 Purpose of the IBR

The IBR is concerned more with the technical planning aspects and understanding how a contractor manages a project than other reviews that focus on audit and validation of a contractor’s total system compliance with the Standard for Earned Value Management Systems (EIA-748) 32 Guidelines. The purposes of an IBR are to confirm the contract Performance Measurement Baseline (PMB) covers the entire technical scope of work, the work is realistically and accurately scheduled, the reducible and irreducible risks are reviewed, and the proper amount and mix of resources have been assigned to accomplish all contractual requirements. A realistic PMB contributes directly to effective management of acquisition programs. While an IBR may produce disagreements, it is not a pass/fail event.

The traditional approach to IBRs is to conduct them after the award of a contract or a major contract modification (i.e., the post-award IBR). However, pre-award IBRs are also considered and may be applied, as appropriate, to meet Customer and Supplier needs (see Appendix B about pre-award IBRs). For some customers, a Program Level IBR is completed. The Program Level IBR is specifically associated with the Customer program office. Often work is completed in support of the contract by the Customer program office or related activities. This work needs to be evaluated against the program management baseline the same as a contract program management baseline. For further information on a Program Level IBR, see Appendix C. No matter what type of IBR is required, an IBR should be conducted as soon as practical to accomplish its intended purpose. A history of the IBR and its reason for implementation is discussed in Appendix A.

While the IBR itself is an event, the purpose and objectives should be viewed as a continuing process. The effort is one of collaboration and mutual respect between the Customer and Supplier, with the aim of achieving a shared understanding of the risks inherent in the PMB and the management control processes needed to execute the program. The key to a successful IBR is preparation and planning. Anything not supporting the direct aims of the IBR should be moved outside the IBR process.

1.4 IBR Benefits

The IBR process benefits PMs in the following ways:

- Promotes Customer PM and Supplier PM knowledge of the PMB.
- Improves communications by enabling a comparison of each PM’s understanding of technical/schedule/cost objectives and identification of any differences so they can be addressed.
- Determines the PMB covers the entire scope of work, is realistic, and supports achieving all technical/schedule/cost objectives.
- Provides PM teams with a thorough understanding of the PMB and its risks, enabling early intervention to mitigate risks, and to exploit opportunities.
- Verifies that technical performance goals or functional exit criteria are clearly defined, agreed upon, and documented.
- Ensures meaningful and reliable performance measurement techniques are employed.

- Assesses the PMB ability to provide timely, reliable, and actionable schedule, cost, scope, and risk reduction activities and associated costs.
- Provides the Customer PM with an understanding of the Supplier's processes for effective and integrated technical/schedule/cost management and measurement.

Review of the PMB often identifies management risks related to staffing, work sequence and durations, performance measurement methods, processes, and tools. The metrics resulting from the performance management system are intended to provide continuous insight into project performance and health. The management control processes established for the project use the principles of management by exception. This management approach improves problem traceability rather than requiring specific oversight of every task. Ideally, well planned projects coupled with adequate management control processes provide an early warning system to identify potential problems and allow a proactive response.

1.5 IBR Process Flow

Figure 1 illustrates a continuous IBR process for management and staff personnel to develop and maintain a mutual understanding of the project objectives, the PMB, the management processes, and the project risks and opportunities. The IBR process as shown in Figure 1 includes five phases: 1) the IBR Initiating Event; 2) IBR Preparation – Readiness Checkpoint 1; 3) IBR Preparation - Readiness Checkpoint 2; 4) the IBR Event; and 5) IBR Closure.

Figure 1. IBR Process Flow

1.5.1 IBR Initiating Event

IBRs are initiated at the discretion of the Customer PM or within a reasonable time after the occurrence of a major event in the life of a program. These events may be completion of the preliminary design review, completion of the critical design review, a significant shift in the content and/or time phasing of the PMB, or when a major milestone such as the start of the production option of a development contract is reached. A significant shift in the content or time phasing of the PMB can occur due to a re-planning, an Over Target Baseline (OTB) or Over Target Schedule (OTS), or the addition of a significant modification to the contract. The key point is that a continuous assessment of the PMB will identify when a new IBR should be conducted as part of the overall risk identification program.

1.5.2 IBR Preparation – Readiness Checkpoint 1

Preparation for the IBR should begin as soon as practical after determining the need for an IBR. The time and effort involved in the IBR depends on the project. Principal factors that influence time and effort include: the project management and risk planning, the authorization/negotiation process, the number, type, and severity of the risks identified during preparation for and execution of the IBR, the size and complexity of the project, and the number and experience level of the IBR team members. As a result, a number of artifacts need to be prepared and

ultimately delivered for use in the IBR. These artifacts are required by both the Customer and Supplier to perform the IBR. The data contained in the artifacts must be reliable, so they are usable during the IBR event. Readiness Checkpoint 1 ensures the artifacts required are identified and prepared for quality review.

1.5.3 IBR Preparation – Readiness Checkpoint 2

Once the artifacts have been prepared, it is important that both the Customer and Supplier understand their roles and responsibilities in the IBR and be prepared for the actual event. For example, before conducting the IBR, the Supplier must ensure that the PMB reflects the complete contractual scope of work and is documented at the appropriate level of detail. The Customer and Supplier PMs should establish a mutual understanding of the PMB and associated project risks and opportunities as early as possible. The ultimate purpose of Readiness Checkpoint 2 is to support a Go/No-Go decision regarding Customer and Supplier overall readiness to conduct the IBR. The adequacy of the decision is addressed by quality reviews, but also by making sure that both the Customer and Supplier have met the requirements necessary to support the IBR.

1.5.4 IBR Event

While there are many aspects to the IBR event, the key events are the Control Account Manager (CAM) discussions. These discussions focus on key risk areas of technical, schedule, cost, resources, and management processes. The discussions should also address topics identified during IBR preparation. Ultimately an IBR is one element of an iterative, continuous process that provides a structure for Customer and Supplier project management to openly discuss the project's work plans, their various strengths and weaknesses, and the identified risks/opportunities.

1.5.5 IBR Closure

The final phase of the IBR process is the closure of the IBR event. Key to this closure is ensuring all Customer and Supplier parties have identified actions addressing PMB risks and opportunities, as well as the mutual understanding of how to address these actions within the management processes the Supplier has implemented. Continuous communication between the Customer and Supplier is critical to ensure program success.

2 Initiation of the IBR Process

One of two events typically causes an IBR to be initiated. IBRs are initially contractually required, either pre-award or post-award. IBRs also are performed whenever there is a significant change to the project's baseline.

2.1 Pre-award IBR

The need for an IBR before contract award is determined by the Customer PM and Contracting Officer and depends on the risk associated with establishing an achievable PMB at the time of contract award.

Pre-award IBRs are recommended when there is significant risk. That risk could prevent the traditional source selection process from producing a contract likely to meet its cost, schedule, and performance goals without significant modification during the life of the contract. It is useful to think of a pre-award IBR as a way to mitigate the risk in source selection when a contractor with a relatively riskier approach may be selected. While it is not reasonable to expect an offeror to have a fully developed PMB, it is reasonable to expect a thorough proposal supported by many of the planning attributes one would see during a post-award IBR.

Pre-award IBRs are complicated by the care needed to avoid "leveling" of proposals through inadvertent sharing of contractor solutions, by the expense of performing parallel reviews for the down selected proposals, and by the added cost which should be borne by the Customer. Refer to Appendix B for more information on pre-award IBR.

2.2 New Contract Award, New Program or Project

An IBR is typically required by a new contract or project charter, which may specify unique IBR requirements and thresholds. The Project Plan should identify the contracts and in-house work that will require an IBR, including the flow-down of IBR requirements to major subcontractors. An IBR should be planned for efforts that have significant risk or require more management attention.

Including an IBR clause in a solicitation notifies potential offerors of the Customer's intent to conduct an IBR. In addition to that clause, it is a good idea to provide Suppliers with more details about the IBR to ensure clear expectations are established and any tailored IBR requirements are addressed.

Early in the process, the Customer and Supplier program or project manager should designate key team members to prepare, support, and document the IBR activities and results. The IBR may be phased over time to coincide with the Supplier's planning process and should occur no later than when the PMB is in place. Note: DoD usually mandates the post-award IBR Process be initiated not later than six months after contract award.

2.3 Significant Follow-on Change Actions

The IBR is not necessarily a one-time event in the program life-cycle. Any event that yields a substantive change to the PMB may require another IBR.

The Customer PM decides when a subsequent IBR is needed to ensure remaining work is adequately planned and resourced and to confirm there is a mutual understanding of the risks and opportunities inherent in that work. However, just because an event has occurred that led to a change in the PMB, it does not automatically mean an IBR is required. The respective

Customer and Supplier PMs may elect to continue reliance on the ongoing management processes.

The following events or actions may affect the PMB and may prompt a decision to conduct a subsequent IBR:

- **Baseline (PMB) Changes.** During contract execution, any number of events can cause a PMB change, for example, a customer-directed scope change. Only significant changes to the PMB would prompt another IBR. “Significant” is subjective and therefore warrants a conversation between the Customer and the Supplier PMs; however, the Customer PM is the ultimate decision maker.
- **Contract Execution Risk Changes.** Mutual identification and understanding of program risks is a primary purpose for an IBR; however, as program execution progresses, unknown risks may occur, as well as known risks that are not materializing as expected. As these events are realized, the Customer and Supplier PM must discuss alternatives, address a mitigation plan, and decide whether the events are significant enough to require another IBR. Small changes (e.g., rain delayed an outside activity by one day) would not require a major PMB change nor necessitate an IBR event.
- **Acquisition Strategy Changes.** Any significant changes to the acquisition strategy may require an IBR. The acquisition strategy affects technical, schedule, performance, and resources, so changes will flow throughout the program, affecting risks and opportunities.
- **Funding Profile Changes**. Shifts (i.e., delays or advances) in the availability of funds can lead to project de-scoping or affect the timing of when the work can be performed, resulting in contract changes. Another example is when multi-year projects are funded on an annual basis. An IBR may be required to confirm the changes to scope, schedule, and budget accommodate the revised funding profile.
- **Over Target Baseline (OTB)/Over Target Schedule (OTS)**. The normal course of project planning involves work definition, scheduling, and resource loading. If these steps are done in a logical and rational way, performance measurement data generated during the execution phase will be a leading indicator of the need for an OTB/OTS. The contractor should continually analyze performance measurement 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 and potentially an IBR.

3 IBR Preparation – Readiness Checkpoint 1: Identification of Key Program Elements

Preparation is the foundation for a successful IBR. The Customer and Supplier PMs need to work with their respective teams to prepare for the IBR. They also must communicate with each other extensively prior to the IBR to jointly determine the best approach for the review. The PMs must ensure the joint team is adequately prepared to conduct the IBR and to achieve its purpose.

The time and effort involved in the IBR will vary by program. A program's IBR timeline is driven by the program requirements (size, number of subcontractors or teammates, etc.) and is agreed upon by both the Customer and Supplier. Principal factors that influence time and preparation effort include the number of CAM discussions, the size and complexity of the project, the number and experience level of the IBR team members, and the overall risk of the project.

3.1 Supplier IBR Readiness

Readiness Checkpoint 1 is defined as IBR preparation that results in developing the Integrated Master Schedule (IMS) and the Performance Measurement Baseline (PMB) after contract award. In addition, both the Customer and Supplier PMs have a responsibility to provide a set of artifacts that support the IBR and a clear understanding of who will participate in the IBR. Joint activities occur during this checkpoint to ensure the Customer and Supplier are working to a common goal. When activities conducted by the Customer and Supplier are in parallel, competing demands are placed on the program's team. Clear communication and expectations by both the Customer and Supplier will enhance a greater probability of success.

3.1.1 Supplier Artifacts

At Checkpoint 1 the drafts of certain artifacts are available to support the preparation of the IBR. While the type and number of artifacts identified below are not all inclusive, they do represent the areas in which the IBR is typically focused. Both the Customer and Supplier coordinate to identify the artifacts required for the IBR. Once the Supplier has prepared the artifacts, the Customer should review them and provide any comments or questions to the Supplier no later than at Checkpoint 2. This helps the Customer and Supplier teams to clearly communicate the goals and expectations of the IBR, once it is conducted.

Examples of Supplier artifacts and short descriptions are as follows:

- **Contract Work Breakdown Structure (CWBS) and Dictionary.** A CWBS and CWBS Dictionary are key artifacts that describe the project. The CWBS outlines the scope of work down to the level needed to understand the deliverable elements of work. The CWBS Dictionary describes the attributes of the work with respect to how success is technically defined and measured, the resources needed to accomplish the work, the earned value technique, and other critical aspects that define the work. When a CWBS is not used, the Customer and Supplier must reach a mutual understanding of the method used to organize the project.
- **Organization Charts and Program Points of Contact**. The Supplier's Organizational Breakdown Structure (OBS) should provide a functionally-oriented breakdown of their organization established to perform the work on a specific contract. Each OBS element should have a responsible person identified. The organization can also be depicted in charts that show the reporting lines and identify the CAMs.

- **Responsibility Assignment Matrix (RAM)**. The RAM shows the relationship between the CWBS elements and the OBS, reflecting organizations assigned responsibility for ensuring the accomplishment of work. The RAM depicts the assignment of each control account to a single manager. Contracts normally require a list of all control accounts by WBS element, identifying which ones contain the level of effort (LOE) or discrete tasks as well as the hours and budget associated with each. A dollarized RAM also reflects the approved budgets associated with the identified control accounts.
- **Earned Value Management System (EVMS) Description.** The Supplier's EVMS description document that describes the Supplier's integrated system of program planning, management, and control that complies with the Standard for Earned Value Management Systems (EIA-748) 32 Guidelines.
- **Performance Measurement Baseline (PMB)** – A PMB is a key factor in ensuring the success of the program. The PMB has the following characteristics:
    - It represents only authorized work on the contract.
    - It includes a realistic schedule baseline.
    - It portrays a realistic time-phased spread of budget and resources to the baseline schedule.
    - It incorporates a methodology for determining the value of work accomplished.

  Developing the PMB is a time-consuming process. The formulation of the PMB will be in accordance with the Supplier's formal and compliant Earned Value Management System (EVMS) process description.
- **Project Unique Process Documentation**. If the Supplier has defined unique processes specific to a contract, the Supplier should provide a description of these processes.
- **Budget Logs.** All program budget logs related to the contract. For example, the Contract Budget Base (CBB) log, Undistributed Budget (UB) log, Management Reserve (MR) log, Estimated Actuals (EA) Log, Baseline Control Log, and Change Control Log should each identify any changes to budgets and current balances.
- **Internal Re-planning Documentation**. Internal re-planning documentation should be in accordance with the Supplier's internal processes. If there have been internal changes since the IBR PMB was formalized, that documentation should be part of the artifact delivery.
- **Current Contractual Performance Reports**. For many Government programs, the Integrated Performance Management Report (IPMR)/Contract Performance Report (CPR) are the primary means of communicating program cost and schedule performance information between the prime Supplier and the Customer. If IPMRs/CPRs are available for the agreed upon month end data, the Supplier should provide that data to the IBR team. Other Customers may use a different report or format. The artifact list should include the program report defined to provide program cost and schedule performance. Because an IBR should be performed early enough in the planning process to preclude expensive and time-consuming schedule and PMB changes, customers should avoid the temptation to require submission of "good IPMRs/CPRs" before conducting an IBR.
- **Work Authorization Documents (WADs)**. WADs are used to document the formal commissioning of both definitized and undefinitized work. As a minimum, WADs should

assign a named CAM to manage the control account, the amount of budget (based on the dollarized RAM), period of performance (POP) dates, and CWBS elements of the control account down to work package level.

- **Time-phased Control Account Plans (CAPs)**. A CAP is an artifact that depicts the time-phased, resource-loaded, work in each control account. The CAP defines the work packages, the earned value technique (EVT) used to assess performance, POP dates for each work package, the specific resources assigned to each work package, and the calendar spread of labor hours in each work package.
- **Time-phased Staffing Plan by Resource Type at the Control Account Level**. A review of the Supplier's time-phased staffing plan by resource type for each control account assists the IBR team in ensuring that the required number of adequately skilled resources will be available in a specific timeframe to support the effort. Any spikes or drops in staffing in short periods should be addressed by the Supplier.
- **Initial Integrated Master Plan (IMP) and Integrated Master Schedule (IMS)**. An IMP (if required) and IMS are the cornerstones of good integrated program management. Both are "living" documents, and the formulation of a PMB may require an iterative process requiring multiple review cycles. Delivery of the IMP usually occurs before the IBR and may also be required after significant contract modifications or baseline changes. An IMS delivery is also required as an IBR artifact and considered in the IBR readiness evaluation. The NDIA IPMD Planning & Scheduling Excellence Guide (PASEG) as well as the DoD Integrated Master Plan (IMP) and Integrated Master Schedule (IMS) Preparation and Use Guide (2005) provide detailed information on the development and contents of the IMP and IMS.
- **Key Risks and Opportunities (R&O).** Throughout the proposal preparation and Request for Proposal (RFP) response period, risks and opportunities are identified and documented. Risks and opportunities that remain after completion of contract negotiations need to be accompanied by risk handling plans (mitigation or capture plans) with status provided on a periodic basis in accordance with the Supplier's Risk and Opportunity Management Plan (ROMP). The Supplier and the Customer need to understand the process used to identify and prioritize the risks and opportunities and how they will be elevated and communicated. The IBR may result in changes to the ROMP, confirmation of identified risks and opportunities, or addition/deletion of risks and opportunities.
- **Risk Register.** The Risk Register is an artifact (based on the ROMP), which identifies and tracks the program R&O, their likelihood of occurring, the cost and schedule impacts to the program, and the tracking of handling plans. The preliminary Risk Register should include identified risks in achieving program performance goals and objectives within defined cost, schedule, and performance constraints. Where possible, each risk should be assigned to a specific CWBS element or at the program level as appropriate.
- **Schedule Risk Assessment (SRA)**. The Supplier should conduct an SRA prior to the IBR. SRAs have two meanings. One type of SRA tests the logic of the schedule based on professional scheduling practices (e.g., the DCMA 14 point assessment or the GAO 10 point assessment). A second type of SRA uses statistical analysis (e.g., a Monte Carlo simulation) to estimate schedule risk, adequacy of schedule reserve, adequacy of management reserve, and reliability of the EAC. The NDIA IPMD Planning & Scheduling Excellence Guide (PASEG) can provide further information.

- **Critical Path Identification and Analysis.** The critical path assessment shows the duration needed to complete all required effort. Since the entire schedule may not be detail planned at the time of the IBR, the critical path to any major milestones or significant events within the agreed-to planning horizon should be assessed. Later, once the entire critical path is identified, the team can discuss the overall timeline and any actions that may need to be taken.
- **Engineering Bill of Material (BOM).** The engineering BOM defines the finished product as it was designed, and lists the items, parts, components, sub-assemblies, and assemblies in the product designed by engineering. For a finished product there may be more than one engineering BOM.
- **Manufacturing Bill of Material (BOM)**. The manufacturing BOM contains all the parts and assemblies required to build a complete product, including all the packaging materials required to ship the finished product to the Customer. The BOM also includes any processes that need to be performed on the item before it is completed and stores all the information required for manufacturing activities. This document is particularly critical for programs doing a Production IBR.
- **Material High/Low Dollar Threshold Breakdown.** If the Supplier has a robust high/low dollar threshold system within their material planning processes (the breakdown of parts considered “high” dollar value and those considered “low” dollar value), the contract should require an explanation of what constitutes the rating be provided as part of the IBR artifacts.
- **Critical Materials List.** This is a list that identifies the critical material on the program. It may include Government Furnished Information (GFI), Government Furnished Equipment (GFE), and Government Furnished Property (GFP).
- **Draft IMS and PMB.** To complete Checkpoint 1, the Supplier should provide the draft IMS and associated draft PMB to the Customer for review. These should be provided in the format identified in the contract or as mutually agreed upon.

3.1.2 Supplier IBR Team

The Supplier and the Customer each have a team of people who support the IBR. Identifying IBR participants is not a trivial task. The Customer and Supplier PMs lead the review and select team members from each of their organizations based on their program assignments or technical expertise, as required for the review. The Supplier team may also include subcontractors, where appropriate. Team member disciplines (Supplier or Customer) generally include project management, risk and opportunity management, business management, subcontract management, and technical management (e.g., system engineering, software engineering, manufacturing, integration and test engineering, and integrated logistics support). In addition, the team may include cost estimators, schedule analysts, and earned value analysts. The resulting size and composition of the team should reflect the PM’s objectives, expectations, and risk assumptions. Team member names and their contact information should be exchanged by Customer and Supplier organizations.

If the contract has a major subcontract effort or a critical materials list as noted above, the Supplier, as the prime contractor, must strategize on how the IBR will address the subcontract/GFE/GFI/GFP effort. For example, the Customer PM’s assistance may be needed to obtain participation from GFE/GFI/GFP providers. The Prime needs to determine the subcontract effort during preparation, identify the critical subcontractors, and provide the target definitization dates.

The Prime-Sub integration strategy depends on factors such as the type of effort, the EVMS flow down requirements, and how EVM data is integrated with the prime contractor's EVM data. If EVM requirements are flowed down to the subcontractor, the prime contractor may need to conduct an IBR at the subcontractor's facility prior to the prime contractor's IBR. If the subcontractor data is fully integrated at lower levels with the prime contractor's data, the prime contractor may choose to include the subcontractor as part of the prime contractor's IBR. It is critical for the Customer, Supplier, and subcontractor to discuss the most effective approach.

3.2 Customer IBR Readiness

Adequate Customer preparation is essential to ensuring a successful IBR. Much of the Customer efforts occur during the pre-contract award activities. These include ensuring proper program and financial management reporting requirements are part of the Request for Proposal (RFP). Additionally, a discussion of the contractor's proposed EVMS and how it will be used to manage the technical, schedule, and cost efforts of the procurement are included as source selection evaluation factors.

3.2.1 Customer Artifacts

The IBR process requires "up-front" involvement of the Customer Program Manager (PM) and their technical staff, as well as training support from the staff organizations. Program Office technical staff and other team members should be trained in the basics of earned value management, as well as the supplier's management control system, including live data examples. The training should also include an IBR preparation session prior to the contractor plant visit.

At Checkpoint 1, the Customer has its own set of artifacts, which must be made available to the Supplier in support of the IBR preparation. Examples of Customer artifacts and short descriptions are as follows:

- **Statement of Work (SOW).** As the document that defines the work scope requirements, the contract SOW becomes a standard for measuring contractor performance.
- **Basic Contract and Modifications, if applicable**. The original executed contract and all subsequently executed contract modifications related to contract cost, delivery schedule, schedule, fee, terms and conditions, and personnel are needed to ensure that the IBR team has a thorough understanding of the contract and the nature of any contract modifications.
- **Major Contractual Milestones.** The Supplier requires the identification of major contractual milestones as key input into the IMS planning process. Most contracts identify these milestones within the contract. If they are not specifically documented, it is important the Customer program office keep an open forum for communication regarding milestone events with the Supplier program office.
- **Program Funding Information.** The PMB must be sensitive to the Customer funding availability. Information about the timing and constraints of the Customer funding profile is essential to the Supplier, as they develop their PMB to ensure the baseline is executable. Any changes to the funding profile that may influence the development of the PMB should be discussed during the IBR joint preparation meetings. The Customer will determine the appropriate level of information to share with the Supplier.

3.2.2 Customer IBR Preparation and Participants

Each team should coordinate their activities using joint IBR preparation meetings (frequency as appropriate for the contract's complexity) so all parties understand the approach and expectations of the IBR. Should contract modifications occur immediately after contract award, the IBR team needs to agree on how the modifications will be incorporated into the IBR. This includes the specifics of how the IBR will be conducted, staffing availability, logistics, conference room requirements, computer connectivity, security, etc.

- **IBR Customer Participants**. The Customer IBR team typically consists of the Customer PM, who acts as or assigns the Team Leader for the IBR. The Supplier PM and the Customer PM are jointly responsible for the review. In addition, other team leads may be needed for the following areas: Risk Management, Performance Measurement or EVM, Technical, Scheduling, Cost Analysis, and Contract Administration such as the Defense Contract Management Agency (DCMA) in the case of DOD contracts. The size and composition of the team should reflect the Customer PM's objectives, expectations, and risk assumptions.
- **Supplier Artifact Data Call.** Data review and CAM discussions form the basis for the conclusions and action items resulting from the IBR. The success of the IBR is based on timely and sufficient data. The request for data should be a formal request that includes due dates and mutually agreed upon file formats. It is not necessary that these documents be complete as they can be reviewed in draft format.

3.3 Joint IBR Planning Activities

Preparation for the IBR works best when the Customer and the Supplier work together to achieve a successful end. The ultimate goal is to have well-established management processes, IMS, and PMB to ensure effective planning of the program. Preparation for an IBR is iterative and includes open and timely communication between both parties. Joint activities at Checkpoint 1 typically address or comment on various Customer and Supplier artifacts, identify schedules, and ensure planning meetings take place to initially prepare for the IBR. Examples of joint discussion and planning activities include the following:

- **Comments on CWBS**. For the most part, comments on the CWBS involve identifying the appropriate level of visibility for integrated program management purposes. While the program Work Breakdown Structure (WBS) has been established by the Customer and, in the case of DoD contracts, in accordance with MIL-STD-881 (current version) provided in the contract, the CWBS is the Supplier's extension of the WBS for lower-level management of the program. Open discussion provides assurance that these lower levels have the proper amount of visibility during the program's performance, particularly in high risk areas.
- **Comments on the IMP and IMS Deliverable**. The Customer will evaluate the draft of the Supplier's IMP/IMS to determine if it fully captures the scope associated with the contract Statement of Objectives (SOO) and/or SOW. Horizontal and vertical traceability should be demonstrable and the IMS should provide sufficient detail to support the PMB and ROMP analysis.
- **Joint IBR Planning Meetings**. Joint IBR planning meetings between the Customer and Supplier facilitates regular communication through the iterative process of reviewing documentation. These meetings help to manage the expectations of both parties and should minimize any surprises at the check points and the IBR. These meetings should establish the agreed upon ground rules to be followed by both parties during the IBR.

Both parties should also develop and agree upon an IBR preparation schedule. This schedule should include the dates for each activity leading to the IBR, including the due dates for data requests and submittals, training, and working sessions, if appropriate, along with the review dates themselves. Since coordination of the IBR should start either at Authority to Proceed (ATP) for the initial contract award (post-award IBR) or upon receipt of a pre-award IBR requirement, the first draft of the comprehensive IBR schedule should be prepared as far in advance as practical. Topics for discussion should include factors that influence time and preparation effort to include the number of CAM discussions, the size and complexity of the project, the number and experience level of the IBR team members, and the overall risk of the project. These meetings will help ensure the IBR review is conducted in a professional manner in a spirit of constructive assessment and discovery that increases the probability of success for the execution of the project.

- **Establish Entrance and Exit Criteria**. Prior to the IBR, entrance criteria should be established to ensure the readiness of the Supplier and the Customer teams for the IBR event. For example:
    - Has the PMB completion date been set?
    - Has the IMS completion date been set?
    - Has data submittal requirements and timing been specified?
    - Has the detail planning horizon been defined?
    - Have decisions been made regarding sub–tier Supplier involvement?
    - Is team training complete?
    - Has the IBR plan been coordinated, finalized, and disseminated?
    - Have initial risks and opportunities been identified and handled?
    - Is the Supplier ready to conduct the IBR?

  In addition, to facilitate IBR closure, exit criteria should be established, such as:
    - Has the risks and opportunities been identified, captured, and handled?
    - Has the IBR actions, recommendations, and suggestions been documented?
    - Has corrective action plans been developed and accepted?
    - Has the out-brief been conducted?
- **Establish IBR Documentation Templates.** As part of the pre IBR planning, the documents that will be used to conduct and document the IBR should be provided to the team members to ensure that all required elements are covered, all actions, recommendations, and suggestions are captured, and the IBR is properly documented and communicated as part of the out-brief. A list of typical templates includes:
    - Data Call Request including Artifact List
    - PM/CAM Interview Questions
    - CAM Discussion Risk Assessment
    - Action Item Log
    - IBR Exit Briefing

- **CAM Discussion Risk Assessment**. Each CAM discussion is evaluated for technical, schedule, cost, resource, and management risk. This activity is success-oriented, working toward having an IBR resulting in a program which has been adequately planned. Examples of standard risk assessment areas include:
    - Organization/Responsibility Assignment/Work Authorization
    - Technical Plan, Scope Decomposition/Completeness
    - IMS Technical Content Completeness/EVM Integration and Traceability
    - IMS Network Logic Sufficiency/Horizontal and Vertical Integration/Critical Path/SRA
    - Budget/Resources/Staffing
    - Baseline Maintenance/Change Control
    - Subcontract Management
    - GFE/GFP/GFI Material
    - Earned Value Techniques/Integrated Program Management Processes
    - Management Reserve and Risk Contingency
    - Risk mitigation plans against the baseline showing how they reduce cost, and schedule risk, as well as the residual risk after handling.

4 IBR Preparation – Readiness Checkpoint 2: Confirmation of Readiness for IBR

The efforts identified in Section 3 should have been finalized and are ready for pre-IBR review and support. However, there is still much to be accomplished to confirm the Customer and Supplier are ready to move forward. Readiness Checkpoint 2 activities ensure the adequacy of baseline planning artifacts prepared during Checkpoint 1 and support a Go/No-Go decision regarding Customer and Supplier overall readiness to conduct the IBR. Adequacy is addressed by quality reviews, but also making sure that both the Customer and Supplier have met the requirements necessary to support the IBR.

4.1 Supplier Readiness

The Supplier PM is responsible for Readiness Checkpoint 2 preparation and other IBR entrance criteria prior to conducting the on-site IBR. It is at this point the Supplier typically provides finalized IBR documentation and other baseline planning artifacts to the Customer ready for the IBR event. In most cases, specific baseline planning artifact requirements and an associated delivery schedule are included in the Request for Proposal (RFP) or contract SOW and/or the IBR Contract Data Requirements List (CDRL). However, if specific artifact deliveries and a delivery schedule are not included in the RFP or contract, reaching consensus on these IBR requirements should be a central topic at the contract Post Award Conference and the focus of early Supplier/Customer IBR planning and preparation discussions.

Since the IBR will assess the adequacy, effectiveness, and risks associated with integrated technical, cost, schedule, and quality performance measurement baseline planning, the mutual objective of the Customer and Supplier is a valid, integrated plan that:

- Is driven by work and deliverable quality requirements;
- Is executable within the available resources and schedule;
- Ensures a lean and cost-effective approach; and,
- Integrates risk and opportunity management with the PMB.

Because it is not possible or necessary to review all control accounts, the following guidelines for selection of control accounts may be used depending on the size and complexity of the program:

- High to moderate technical risk;
- High to moderate dollar or hour value;
- Tasks on the critical path; or
- Tasks associated with risks already identified in the program risk register.

Selection of control accounts ought to result in approximately 80% of the PMB dollar or labor hour value being reviewed during the on-site IBR. Low value control accounts or low level of effort (LOE) accounts may be candidates for exclusion. The responsibility assignment matrix (RAM), IMS, risk register, and Readiness Checkpoint 1 findings should be used in the control account selection process.

4.1.1 PM and CAM Preparation

As an introduction to the IBR, the Supplier PM will typically provide an in-brief that outlines the IBR schedule, the review agenda, rules of engagement, and the process for issues resolution (with emphasis on risk, not audits). The importance of open discussions should be stressed. The in-brief should include introductions of team members and their roles and responsibilities as they relate to the Customer.

CAMs or Project Leads should be prepared to discuss the IBR process, supported by the PM, subject matter experts (SMEs), and other technical staff on an as needed basis. SMEs may also be used to prepare the Project Leads by providing instructional guidance and rehearsing open ended questions in an IBR-like setting. The goal is to have the Project Leads explain and demonstrate how they plan and manages their work. The Customer and Supplier may determine other types of discussion may be a better fit for the program. In any case, the discussions during the rehearsal sessions and the actual IBR are intended to be interactive in nature, thus, providing all those involved the opportunity to conduct the discussion with the review team. This process ensures both the Customer and Supplier that the Project Lead understands the nature of the work and is capable of addressing key issues that may arise.

In today's technical environment CAMs often maintain on-line notebooks (i.e., eNotebooks) containing current key contract documents, baseline planning documentation and artifacts, and performance measurement data. The information contained in these notebooks provides the IBR team with pertinent insight into how the program, project and control accounts were established and how they will be managed.

The CAM notebook typically includes (but is not limited to):

- The CAM's applicable contract SOW paragraphs and CDRLs.
- The CWBS and the CWBS Dictionary.
- The Organizational Breakdown Structure (OBS).
- The Responsibility Assignment Matrix (RAM).
- The IMP or extracts from it that are pertinent to the CAM's control accounts.
- The IMS and all related schedules that the CAM uses to perform his/her job.
- Work Authorization Documents (WAD).
- Key Performance Parameters (KPPs), Technical Performance Measurements (TPMs) or other standards that establish how work will be measured and assessed.
- Control Account Plan (CAP) documents.
- Baseline Change Requests (BCRs).
- Any other supporting data used by the CAM to perform his/her responsibilities.

The Supplier should provide CAM notebooks, or an agreed upon subset of data from the online notebooks (the eNotebook), to the Customer prior to the IBR to facilitate understanding of Supplier processes and identify topics for discussion during Joint IBR training.

4.1.2 Supplier Team Training

All potential members of the Supplier IBR team should receive training to prepare them for meaningful participation in the IBR as well as for related post-IBR Integrated Program Management execution responsibilities.

The purpose of Pre-IBR training as part of the readiness Checkpoint 2 process is to emphasize the importance of the following:

- Are the technical quality, performance requirements, and scope understood?
- Are schedules developed and maintained at a size, level, and complexity that enable timely and effective decision-making?
- Do resources align with the cost and schedule baselines and forecasts to enable stakeholders to view and assess efforts required to achieve baseline and forecast targets within appropriate margins?
- Are budget targets realistic and achievable?
- Are Integrated Program Management responsibilities and processes working?

In some cases, the Supplier EVM Focal Point leads pre-IBR training sessions with participation from the Customer activity as needed.

4.1.3 Supplier IBR Team Finalization

Final IBR team participants should be selected based on their expertise related to the selected control accounts and other expertise required to complete the objectives of the IBR.

The IBR team typically includes program management, technical management (e.g., system engineering, software engineering, manufacturing, integration and test engineering, and integrated logistics support), contract/subcontract management, risk management, EVM, scheduling, and other personnel who may be beneficial to the review or may themselves benefit from participation. When appropriate, team membership should also include subcontractor personnel.

The resulting size and composition of the Supplier IBR team should reflect and support both the Supplier and the Customer PM's IBR objectives and expectations.

Timely administrative and security processing is important so arrangements can be made for Customer and Supplier team members visiting the facility.

4.2 Customer Readiness

Since the specific baseline planning artifact requirements and an associated phased delivery schedule are typically included in the RFP or contract SOW and/or IBR CDRL, the Customer should receive Supplier artifacts early enough to support a Go/No-Go decision regarding Supplier readiness to conduct the on-site IBR.

The Checkpoint 2 activities facilitate early:

- Management insight into Supplier baseline planning assumptions and resources.
- Identification of project risks and opportunities inherent in the Supplier's integrated PMB plans.

4.2.1 Planning Documentation and Artifact Review

Just as with the Supplier's preparation, the mutual objective of the Customer's assessment is a valid, integrated plan that:

- Is driven by work and deliverable quality requirements;
- Is executable within the available resources and schedule;

- Ensures a lean and cost-effective approach; and,
- Integrates risk and opportunity management with the PMB.

4.2.2 Risk and Opportunity Review

Most suppliers combine risk and opportunities management into a single process. Risk Management Plans, Risk Directives, or ROMPs usually outline the Supplier's processes. Risks and opportunities are often categorized as having technical, cost, or schedule impacts and may include reducible or irreducible risks. Technical opportunities may add capability to the system being developed or acquired and require an Engineering Change Proposal (ECP). Technical opportunities may also introduce new processes or procedures that favorably affect cost or schedule of the project or contract. The Customer needs to have a mutual understanding of how these risk and opportunities may affect project execution.

Management Reserve is a source of budget that may be used to mitigate realized risks. Therefore, identified cost and schedule risks should be quantified and prioritized to assess if the level of management reserve is sufficient.

4.2.3 Customer Team Training

Because IBRs are performed on a relatively infrequent basis, their purpose, importance, and expectations are frequently misunderstood. Too often the emphasis of the IBR is on EVM Systems compliance and processes, rather than identification, quantification, and documentation of integrated technical, schedule, and resource/cost planning risks and opportunities.

Training helps ensure that Customer IBR team members can identify, assess, and document technical, schedule, and cost/resource risks reflected in baseline planning documentation, as well as integrated management process risks.

Training for the Customer is typically provided in a phased series of sessions conducted in advance of the IBR, while the Supplier is developing the PMB and preparing for the IBR. While the Customer PM is normally responsible for acquiring IBR training, other training sources include service/agency EVM focal points, commercial providers, or even the Supplier. Having the Customer and Supplier trained separately at this point is useful given the roles and responsibilities each has in executing the IBR. Customer training should be tailored based upon the needs and experience of the individual IBR team. Training topics typically include:

- Integrated Program Management Overview;
- Relationship of EVM and Risk Management;
- Earned Value Management Overview;
- EVM Policy, Guidance, and Organizations involved in the Project;
- Earned Value Management System (EVMS) as implemented and used by the Supplier;
- Performance Measurement Baseline (PMB) Development Process Basics;
- IBR Process Overview; and
- In-depth IBR training (risk assessment techniques, documentation expectations, etc.)

Once the Customer and Supplier have individually trained their teams, joint training is a critical part of the process, so all participants (Customer and Supplier) understand how the process will work, their individual roles, and the type and level of interaction expected and desired.

4.2.4 Customer IBR Team Finalization

The core IBR Team should be available for the IBR process from contract award through IBR closure. As the IBR progresses, other personnel can be added as needed for document quality evaluations and CAM discussions. The Customer core team typically includes the Program Manager and representatives from Engineering, Finance, and Program Management. Advisors or subject matter experts (SMEs) with expertise in other areas (such as contracts, logistics, cost estimating, earned value management, and risk management) may augment the team, where needed.

4.3 Joint Requirements

Critical to the success of an IBR is the joint efforts by the Customer and Supplier to make the interaction of the two teams collaborative and synergetic. Joint training puts all members of the teams on equal footing, particularly if Customer and Supplier artifacts have been shared and reviewed. The result should be an IBR that meets all goals and expectations.

4.3.1 Joint Training

Training should be provided to both customer and supplier jointly to maximize communications. Joint training ensures the customer and supplier IBR teams understand one another's roles and responsibilities, and will be better prepared to perform them more effectively, leading to a better assessment of the project's PMB, risks and opportunities. Joint training also helps both teams organize the relevant information for mutual understanding of the cost, schedule, technical, and management processes used on the project. The documentation requirements noted below provide an excellent source of information to be used for this training.

The following topics should be included in joint IBR training:

- PMs' Expectations
    - IBR objectives; entrance and exit criteria
    - IBR approach and expectations
    - Risk and opportunity identification and documentation
- Management Processes
    - Baseline management (including change control)
    - Risk and opportunity management
    - Business management
    - EVM
    - Schedule management
    - Contract, subcontract, inter/intra agency or organization management
    - Technical management
- Documentation requirements
    - IBR process documentation, (e.g., forms that will be used by the team members to record their assessments, interviews, results of document/data reviews, recommended corrective actions, etc.)

4.3.2 IBR Scope and Coverage

The specific control accounts to be discussed during the IBR should be finalized in sufficient time to support conduct of the IBR. Refer to Section 4.1 for guidance in selecting control accounts.

4.3.3 Business Office Discussions

Business Office discussions are required prior to the IBR to focus on the management processes used by the contractor to implement and manage the program using earned value management. The management processes discussed should include those pertaining to CAM roles and responsibilities. Those typically involved with the business office discussions include the PM, finance, earned value management, program management, and contracts personnel. There are two advantages to having separate Business Office discussions. First, the processes and procedures provide a background for the CAM discussions. Second, the discussions do not need to be repeated during the CAM discussions, allowing the focus to be on control account-related risks. During the Business Office discussions, the contractor explains any program unique EVMS procedures, as well as a review of the information systems/software used for EVM. Remember the IBR is not an EVMS review. The intent is to use earned value management, where it makes sense for the type of work effort, to proactively manage and execute the contract.

5 The IBR Event

This section describes the events that occur during the IBR with a particular focus on the responsibilities of the Supplier PM and CAM (or person who performs this equivalent function). While face-to-face IBRs are more effective, virtual IBRs may be appropriate for some programs. Whether face-to-face or virtual, the expectations, agenda, roles and responsibilities, and other details for conducting the IBR event should be agreed upon.

5.1 IBR Introduction

Starting with an In-Brief and Welcome presentation through the discussion with the Supplier PM, CAM, and pertinent SMEs, it is expected that the Supplier team will openly and transparently communicate the key attributes of their assigned control accounts. It will cover the dimensions of the performance measurement baseline in terms of the technical, schedule, budget, resource assignment, performance assessment techniques, management processes, risk and opportunity management, and reporting processes with the Customer teams.

5.1.1 The In-brief and Welcome

The Customer and Supplier PMs should jointly brief and welcome the IBR teams at the outset of the IBR. When feasible, a representative of the end user (the ultimate user of the system, product, study, etc., for which the IBR is conducted) should join the Customer and Supplier managers to remind participants why the project is important and contribute the user's perspective. The main theme of the in-brief is to emphasize the purpose and objectives of the IBR. Both the Customer and Supplier teams must understand that the focus of the Customer team is to assess the executability of the PMB and to identify potential problems. The Supplier PM and his/her team should include the following topics:

- **Program overview.** A summary discussion on the purpose, structure, mission, and expectations of the program.
- **EVM System and System Description overview**. Status of system acceptance and any known deficiencies.
- **PMB status overview.** Current status of the WBS, OBS, RAM, control account and CAM assignments, changes incorporated and pending since the initial baseline, EVMS tools and processes unique to the program, percentage of LOE in the PMB, percentage of MR in the total allocated budget (TAB), and schedule margin.
- **Administrative details about the IBR**. Issues associated with the location of meeting rooms, facility access, timing, key meetings (i.e., caucuses, exit out-brief, etc.), and management discussions.
- **Detailed agenda (typical listing)**
    - Kick off meeting
    - Data reviews
    - Business Office discussions
    - CAM discussions
    - Project Leader discussions (as appropriate)
    - Management process owner discussions, as required

- Customer and Supplier PM discussion
- Daily caucus within the respective IBR teams and joint meetings
- Exit meeting out-brief, including identification of preliminary actions, recommendations, and/or suggestion items

- **Post review**
  - Develop action plans to address findings, as applicable and assign responsibilities
  - Update risk and opportunity register, including quantification (probability and consequence)
  - Update PMB as necessary
  - IBR closeout documentation

The PMs may structure the review process and timing to accommodate the availability of review team and supplier resources and the nature of the project. During the course of the IBR and at its conclusion, action items requiring follow up may be assigned as issues are identified.

5.1.2 Overview of the IBR

Goals and expectations – the discussion between the Supplier CAM (or person who performs the equivalent function) and their Customer counterpart is the key event of the IBR. The objective is to assess the risk in each of the following five areas: Technical, Schedule, Cost, Resources, and Management Processes. Additionally, the team should assess the management reserve with respect to the project risk that is not mitigated within the PMB.

5.2 CAM Overview and Areas of Responsibility

It cannot be stressed enough that the joint discussion between Supplier CAM and their Customer Manager counterpart is the heart of the IBR process. This involves person-to-person discussions and collaboration. It is not sufficient to have a Supplier CAM give a one-way slide show presentation.

5.2.1 Technical Assessment

The technical assessment evaluates the degree to which the technical plan successfully meets the objectives of the Statement of Work (SOW) requirement or scope identified in the WBS. Technical risk includes areas such as the effects of available technology, software development capability, and design maturity. The Customer IBR team should ensure all authorized work is included in the PMB. The team should track work requirements and deliverables from the SOW tasks to the IMS and cost baselines. Any missing work or deliverables should be identified and the impact incorporated into updated cost and schedule projections. The team should also ensure that progress will be assessed by objective measures of accomplishment whenever possible. For instance, because the effort of conducting a test may not reflect the technical progress of the test; the measurement should be based upon successful completion of the test, successful completion of interim test objectives, or other objective measures.

If the Customer and Supplier teams have not already done so, they should discuss Key Performance Parameters (KPP) and Technical Performance Measures (TPM) to ensure that both parties understand their intent and how they will be defined and measured. This will ensure that KPPs and TPMs are measured consistently. The team should also assess the risks

associated with new technology development or use of sophisticated processes. These technical assessments may be the basis for updated cost and schedule projections.

5.2.2 Schedule Assessment

Schedule assessment relates to the adequacy of the time allocated for performing the defined tasks to successfully achieve the project objectives. Schedule risk includes the risks to the overall schedule of the interdependency of scheduled activities to achieve project milestones and the ability to identify and maintain the critical path (as applicable). A Schedule Risk Assessment (SRA) is typically conducted as part of the IBR preparation process. The SRA should focus on the IMS, its content, integrity, and the validity of the critical path it produces. The Customer IBR team must also ensure the IMS is adequately maintained with accurate activity progress and remaining duration forecasting.

The discussion about the schedule should include an understanding of the internal processes set up between the Supplier CAM and the scheduling organization to allow for task status progress, risk mitigation, and completion forecasts. This may be accomplished in the Business Management discussions if data is available. Additionally, the critical path to any major milestones or significant events should also be identified. Since the entire schedule may not be detail-planned by the time of the IBR, the team may focus on near-term milestones, as supported by the agreed-to planning horizon and the major milestone that it supports. After the critical path is identified, the team can discuss the acceptability of the timeline, risks to activities on the critical path and near-critical paths, and opportunities to improve or shorten the critical path and near-critical paths without increasing risk. While assessing the schedule, the team should consider:

- Is all discrete effort included in the schedule with reasonable durations?
- Is the effort properly sequenced?
- Are task interdependencies appropriate?
- Are resources planned to be available to support the plan as scheduled?

If any of these conditions are not met, the schedule should be updated to reflect the execution plan and another SRA should be conducted. The SRA conducted prior to the IBR will provide a basis of discussion for schedule risk and adequacy of schedule reserve/margin.

The following specific areas should be evaluated:

- Do the sequencing and period of performance of the control account activities and efforts support major milestones and the contract's period of performance?
- Is the duration for each task within the detail planning window (work packages) appropriate to allow for effective management and accurate critical/driving paths?
- Is the duration for each task beyond the detail planning window (work and planning packages) appropriate to reflect interdependencies and accurate critical/driving paths?
- Are all significant interdependencies and interfaces established for the effort?
- Are all constraints and leads/lags justified and appropriate?
- Are the total float and free float appropriate for the effort?
- Are the rules defined for establishing and using schedule reserve/margin?
- Are schedule margins used for risk or a buffer for accommodating risk contingencies?

- What is the likelihood of technical risks causing schedule delays?

5.2.3 Cost Assessment

The Customer IBR Team should review the adequacy of the control account budgets relative to the scope in the control account. Performing a Monte Carlo simulation of an IMS and cost model prior to the IBR helps to determine the amount of risk in the PMB. The Team should review the MR at the total allocated budget (TAB) level to assess its adequacy in relation to the collective cost of identified risks and opportunities. If there are significant disconnects between the allocated budget value and the anticipated cost once the detailed plan is established, a replanning effort may be required. Depending on the magnitude of the cost and schedule disconnect, an Over-Target Baseline (OTB) may be warranted.

5.2.4 Resource Assessment

Overall time-phasing of the PMB should be compared to the available funding levels to ensure the project is executable. The assessment of the ability of the PMB to meet program cost objectives takes into account the relationship between budget, resources, funding (time phasing), schedule, and scope of work. The quality of the estimates affects the cost risk, which includes the assumptions used for both estimates and resource allocation on the budgets for work items.

The Customer PM should determine whether the available resources are sufficient to cover the anticipated PMB resource requirements. The team should review the time phasing of the Supplier's baseline and projected resources to ensure that they align with the Customer's funds availability. If there are periods where resource requirements (labor and materials) will exceed resource availability, the baseline may need a revision to accommodate the resource constraint. The team must consider the adequacy of resources to meet the contractual requirements. The team needs to ensure that the required number of adequately skilled resources will be available in the timeframe to support the effort. During the CAM discussion, the team should assess the staffing plan and Bill of Materials and how it supports the baseline plan. The Supplier should address any tasks that may be over or under-resourced. Also, historical staffing trends, such as slow ramp up time, should be discussed.

Many suppliers share their resources across multiple contracts. Therefore, the team should understand the process for obtaining resources (labor, material, facilities, equipment, external dependencies, etc.) from the Supplier, the priority of this contract compared to other contracts within the organization, and overall staffing requirements. Resource availability should be addressed along with schedule, cost, and technical risks. Resource risk includes the effect of external factors such as loss of availability to competing programs or unexpected downtime that could preclude or otherwise limit the availability of the resources needed to complete planned work.

5.2.5 Management Processes

As stated in Section 5.3.2, Business Office discussions which address the Supplier's management processes can be accomplished prior to the IBR or separately from the IBR. Reviewing the management processes is important, particularly if those processes impede the ability to execute the PMB as planned. Examples of management processes that may affect the execution of the PMB might include:

- Material and subcontract management;
- Scheduling;

- Overall EVMS status;
- Work Authorization;
- Estimate at Completion (EAC) processes, including risk and opportunity management;
- Engineering management;
- Production management;
- Managerial analysis; and,
- The joint managerial oversight process between the Customer and Supplier.

5.2.6 Risks and Opportunities

The team should review the Supplier's EAC as well as the risk and opportunity management plan and associated risk and opportunity registers. Any risks or opportunities newly identified in the CAM discussions should be considered for addition to the register. Any risks identified during the IBR should be quantified to the best of the team's ability. The Customer should also develop risk rating criteria to characterize risk (for example, Low, Medium or High) and to ensure consistency in rating each CAM's risks.

6 Post IBR Actions and Closure

6.1 Overview of IBR Closure Concept

An important outcome of the IBR process is the mutual understanding of the project PMB by all parties, together with a plan to manage areas of identified risk or opportunity. To achieve IBR closure, both the Customer and Supplier have a responsibility to identify and address IBR actions in a timely and effective manner.

6.2 Customer Actions

It is expected that IBR actions will be focused on identified areas of risk (or opportunity), and that these actions can be managed within the Supplier's established action item and risk and opportunity management processes and systems. Wherever possible, IBR stakeholders are encouraged to sustain dialog and communication to resolve any areas of concern related to the PMB and sufficiency of MR not related to actionable risk.

6.2.1 Issue Actions to the Supplier

Although preliminary actions may be identified as part of the IBR out-brief, the Customer should issue formal actions to the Supplier within 10 working days after conclusion of the IBR event. This additional time is typically required after the on-site IBR to perform necessary due diligence (e.g., validate the need for the action, assess the relative magnitude or consequence of any risks or opportunities, and eliminate any duplicate actions) prior to action item issuance. Table 1 provides a sample format for summarizing the areas of risk related to the project work breakdown structure.

WBS Element	Technical Risks	Schedule Risks	Cost Risks	Resource Risks	Management Process Risks
1A					
1B					
2A					
2B					
2C					
3					

Table 1. Project Risk Summary (Sample Format)

6.2.2 Prepare the IBR Final Report

The Customer should prepare an IBR Final Report that summarizes key aspects of the IBR results and addresses satisfaction of IBR goals and expectations. An overview of the PMB should provide an assessment of its reasonableness, completeness, and ability to satisfy contractual objectives. The report should address PMB achievability and MR sufficiency in the context of identified risks and opportunities. The IBR Final Report should also address key management processes as well as any potential enhancements to the PMB that would yield a more "executable" implementation.

6.2.3 Ensure a Timely Response to "Action" Risks

The out-brief or final report issued to the Supplier should include all potential candidates for any identified risks and opportunities resulting from the IBR. The Customer and Supplier should jointly decide which risks and opportunities will be promoted, demoted, or modified in the existing program's formal risk and opportunity management system. Not all identified IBR "risks and opportunities" may be applicable or required in the program's formal risk and opportunity management process.

Any identified risks and opportunities should be "actionable" and ultimately closed through verifiable completion activity based upon the Supplier's formal risk and opportunity management process. Separate corrective action forms should not be required in documenting the IBR results, as all actions should be administered through the Supplier's risk and opportunity management processes or action item tracking database.

Any areas of concern or "watch actions" should be considered for inclusion in the risk and opportunity database to ensure visibility and monitoring. They should be made distinct from actions, and should not require a formal response by the contractor unless initiated as an action. Prior to conducting the review, both PMs should have an agreed upon method to transition any identified risks (action-oriented, watch, etc.) into the applicable and existing program governance and business rhythm activities without creating new ways of managing and tracking specific IBR follow-up actions.

6.3 Supplier Follow-up Actions

The Supplier should be responsive to and address any actions identified as a result of the IBR. The Customer should be provided periodic status and insight through closure of all related review actions based upon previously agreed upon responsibilities with supporting evidence as required. Risks (or opportunities) captured as actions should be incorporated within the contractor's risk and opportunity process for subsequent mitigation or minimization action.

6.4 Summary of the IBR Closure Effort

IBR closure should be focused on mitigating identified risk inherent in the execution of the PMB evaluated as part of the process. It is not the intent of the IBR to introduce an unnecessary administrative burden to the program. All actions should be administered in the Supplier's ROMP consistent with associated processes. Ultimately all parties have the same goal of ensuring a sound, executable PMB that meets Customer objectives and requirements. When IBR results are formally documented, the results are available to support future lessons learned, if or when program performance does not execute according to the original plan as evaluated at the IBR(s). The documented results serve to provide a verifiable basis of comparison to support why certain initial assumptions and risks were or were not predictive in nature to improve future estimates supporting replanning activities, as well as improving program advocacy and increased stakeholder confidence to better defend and fund the program.

Appendix A
Origin and Application of the Integrated Baseline Review Government Policy

The first DoD Integrated Baseline Review (IBR) policy was issued in 1994. Publication of this IBR Guide 20 years later is an occasion to reflect on and reaffirm the reasons the IBR came into being.

Students of government and experienced graybeards – some of whom on this IBR update team were there when the original policy was issued – appreciate that government acquisition regulation goes through unpredictable cycles. The cycles reflect powerful influences: differing philosophies of presidential administrations, changes in the industrial base (for example, from many to few competitors for defense contracts) and loss of experienced people on both sides of the contract negotiation table.

When the first IBR policy was issued, the Department of Defense (DoD) employed many well-trained, experienced people who understood program and project management both from Customer and Supplier points of view. Unfortunately over time military departments have eliminated headquarters organizations and, in many cases, cut their program management staffs at all levels.

The original purpose of the IBR was twofold: to reduce the number of Subsequent Application Reviews (SARs) being performed under Cost/Schedule Control Systems Criteria (C/SCSC), which was the precursor to Earned Value Management Systems (EVMS), and to improve management of DoD contracts. SARs had fallen out of favor with Defense leaders, because they often took years to complete, causing DoD and contractor managers to miss important insights into contract performance.

The IBR came into being to improve the timeliness and thoroughness of planning for the instant contract, regardless of the status of the contractor's C/SCSC system. Its purposes were to ensure that both sides – government and contractor – mutually understood the contract's scope, schedule, and technical performance requirements and had in place effective means to manage the associated risks. Any EVMS issues were to be noted and examined in detail later. However, the bottom line was to avoid the unnecessary delays that had become endemic in C/SCSC – delays that stretched to four years in one extreme example.

The IBR process has evolved over the last two decades, not always in a positive direction. Previous updates to the guide, coupled with more stringent contract requirements, made the IBR more like a formal review. This in turn encouraged counterproductive actions – for example, waiting to have "two good reports" in hand before conducting the IBR and introducing incentives to "complete" the IBR within a specified time and with no issues. Such actions, while they sound reasonable, actually are counter to the IBR's objective: to review as soon as practicable after the award (or before the award when appropriate) the adequacy of contract planning and risk management – and to do so openly, with no incentive to gloss over issues. An important corollary benefit was realized, as IBRs proved invaluable in creating an effective collaborative working environment between the Customer and Supplier.

Waiting until cost and schedule reports are considered acceptable to the Customer means that, should the baseline plan be flawed, expensive and time-consuming replanning will be needed. This update attempts to strike the proper balance between collaborative early planning activities and the "formal" event-type reviews that tend to be favored by government Customers.

A primary intent of this update is to remind participants on both sides that the IBR is a way to achieve mutual understanding of a contract's requirements. Those requirements often are not as clear as one would wish, so the IBR is an effective way to make sure that everyone understands what the contractor is planning to do. Discussions – not interviews, audits, or coercive demands – will lead to success. Any disagreements concerning the contractor's planning should be brought to the attention of the Customer and Supplier Project Managers (PMs) and incorporated in risk management planning.

The IBR is all about planning. Set aside, for the moment, the important question of whether the Supplier has an approved integrated program management system. Instead, put yourself in the Customer PM's shoes and ask the more compelling question, "Will the contractor's plan support the effective execution of my contract?" Exploring that question, with active participation from engineers, schedulers, planners, contract specialists, EVM specialists, and any others as needed, the goal is to look beyond "deficiencies" for the opportunities to improve the contract's prospects for program success.

An anecdote from a class at the Defense Systems Management College soon after the IBR policy was issued illustrates the point. When asked to describe their IBR experiences, one student proudly said it was "perfect – a total success." The contractor's plans were clear; there were no significant issues. Another student said his was a "failure" – planning was woefully inadequate. The lecturer said that the latter actually was a big success, because it revealed problems early enough to deal with them, rather than having them manifest later as wasteful delays and overruns.

Underlying all these discussions should be a mutual respect for affordability. We can't afford to throw money at programs without considering how well those programs and projects are performing. EVMS provides important insight, but the IBR is the first opportunity at the beginning of a contract to learn whether the project has planned with the necessary insight into integrated scope, cost, schedule, technical performance, risk management, and performance measurement.

Appendix B
Pre-Award IBR Process

Introduction to Pre-Award IBR

The Office of Management and Budget's (OMB) Capital Programming Guide (CPG) and the Federal Acquisition Regulation (FAR) (Part 34, Major Systems Acquisition) require all contracts with EVMS requirements conduct an IBR either pre-award or post-award to finalize the agreement on the baseline and ensure all risks are identified and understood. The use of an IBR before or after contract award is determined by the Customer PM and Contracting Officer depending on the risk to establishing an achievable PMB at contract award. While the post-award IBR is the traditional approach, a pre-award IBR can be an effective way to establish a baseline with the initial contract award. Since it is required that major acquisitions are expected to meet 90 percent of the cost, schedule and performance goals, a request for a baseline change after initial award that exceeds 10 percent or requires additional funding will therefore need the agency head to review and OMB to approve before the new baseline may be included in the contract.

The federal government has placed an increased emphasis on pre-award IBRs. In fact, the CPG expresses a preference for pre-award IBRs as a way to ensure that both Customer and Supplier in a major acquisition share a common understanding of the project's requirements and risks, and have adequately estimated the cost and schedule required to achieve the project's cost, schedule and technical goals.

Why Use a Pre-Award IBR

Unlike Post Award IBRs, the pre-award IBR is recommended when there is significant risk that the traditional source selection process will not result in an awarded contract that is likely to meet the cost, schedule and performance goals without significant modification during the life of the contract. As a result, a pre-award IBR can confirm whether or not the Customer's statement of work clearly defines the requirements, such that potential suppliers can understand them, identify the project's risks, and can adequately estimate the cost and schedule required to achieve project requirements given those risks. In addition, the pre-award IBR is used to identify deficiencies in Supplier proposals that can be fixed, thus improving the probability of successful performance. The estimated cost or price of any resulting contract must include the cost of correcting the deficiencies identified by the evaluation team during a pre-award IBR.

When to Use a Pre-Award IBR

A pre-award IBR is typically conducted when one of the following situations occur:

- Prior to the award of any sole source major acquisition contract or task order issued under major acquisition Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts to ensure the cost, schedule, and performance goals have been thoroughly reviewed and agreed to by both parties.
- For competitive acquisitions, including the initial award of an ID/IQ contract through multi-source competition, using a multi-step acquisition process, which has advantages in increasing competition for large contracts regardless of the amount of development necessary. The solicitation should provide that subsequent to the receipt and evaluation of competing technical and cost proposals in the second step, there will be a third step that provides for a down-select to the two best value offerors where separate contracts

will be awarded. These contracts will provide funding and time for the two offerors to prepare for a pre-award IBR, which will be conducted on each proposal to finalize the cost, schedule and performance baselines, complete the risk management plan, and select the best value offeror for award of the contract.

- For the purpose of reducing risk in ID/IQ contracts for major acquisitions, agencies should use competitive prototype contracts or define the first task order in the solicitation and conduct a pre-award IBR on the two most qualified offeror's proposals, before awarding the contract or contract with the first task order. Either of these methods will maintain competition through a detailed review of the proposed solution, provide a clear set of risk adjusted cost, schedule, and performance goals, and a PMB the government and supplier believe can be achieved without major changes. The award of this competitive contract will provide the Customer with realistic cost information to be used as a basis to evaluate the IBR of the follow-on task orders.
- When competing prototype contracts are awarded, which limit the total costs to be reimbursed by the Customer, and the Customer decides that a pre-award IBR is necessary to establish a firm baseline with high probability of achieving the cost, schedule, and performance goals for the contract or module before proceeding to award for subsequent phases (e.g., full scale development and initial production).
- When a pre-award IBR was not contemplated at the time of the solicitation, but the Source Selection Team (SST) determines that the proposals received do not clearly demonstrate the cost, schedule, and performance goals have a high probability of being met, an IBR can be conducted before award on the two best proposals, provided the solicitation includes this possibility and the criteria for determining when a pre-award IBR will be required as part of the proposal evaluation process.

The best practice among those just described is the second approach, which is the multi-step acquisition process. It includes the third step of issuing contractual authorization and funding to selected suppliers for the development of a baseline and subsequent preparation, conduct and closeout of a pre-award IBR. The Suppliers will be incentivized to gather the necessary resources to develop a baseline with a high probability of achieving success. The Customer will have the opportunity to identify the best value solution and award the contract to the Supplier with the most fair, reasonable and realistic schedule and price, given the identified risks and opportunities and the Supplier’s plans for their handling.

All pre-award IBR activity should be authorized, as applicable, via the solicitation, which enables estimated costs for pre-award IBR preparation and participation to be included in the Supplier’s proposal, or via a contract. Contract values and funding for contracts requiring a pre-award IBR must provide funding for all contractually authorized effort, including pre-award IBR effort.

Pre-Award IBR Objectives

The objectives for the pre-award IBR are identical to those of a post-award IBR. The objective of the Pre-Award IBR is for the Customer and the Supplier to jointly assess technical areas, such as the Contractor’s planning, to ensure complete coverage of the contract requirements, logical scheduling of the work activities, adequate resources, methodologies for budgeted cost for work performed (BCWP), and identification of inherent risks.

Pre-Award IBR Process

Since the process is also essentially the same as a post award IBR, the key differences are associated with pre-award timing, (e.g., the availability and handling of proposal data, the

absence of management reserve, staffing of the IBR teams, and the maturity of the data to be reviewed due to the timing of the pre-award IBR). Management reserve is not included in a proposal cost estimate, which forms the basis for the execution plan reviewed in a pre-award IBR. The probability of success for the execution plan at this stage should be greater, because the risks and opportunities are built into it. The initial post-award PMB is generally more challenging, because management reserves are identified and set aside prior to budgets being allocated for PMB planning.

The timing and conduct of the IBR should follow Customer procedures. If a pre-award IBR will be conducted, the solicitation must include the procedures for conducting the IBR and address if offerors will be reimbursed for the associated costs.

- For sole source procurements, both for full contracts and task orders, the solicitation must clearly specify that the Supplier's proposal should be presented with all documentation needed for the conduct of an IBR by a specified date. Although there will be only one supplier, the IBR should be as rigorous as a competitive IBR to ensure the awarded contract has a high probability of achieving the cost, schedule, and performance goals.
- For competitive procurements the solicitation should include a process for selecting the two best value offers for the IBR phase. The solicitation should also require offerors to include in the proposal an estimate of the time and cost of preparing for and conducting the IBR, and to identify which major subcontractors should be included in the IBR process. It must also specify the time after selection of the two offerors necessary for the Customer to prepare two contracts for the pre-award IBR, and specify that the Customer will negotiate the time and cost of the pre-award IBR with both offerors before award of those contracts, which should be firm-fixed price (FFP). Each offeror's contract should receive the same price and time to prepare for the pre-award IBR.

The negotiation on the time and cost of pre-award IBRs must recognize that pre-award IBRs add significant time and resource requirements as compared to the traditional source selection process. The Suppliers must be given adequate time to form a complete team, develop the PMB, and prepare for the IBR, comparable to the time and cost of post-award IBRs conducted on projects of similar size and scope The ultimate objective is a contract that will not require frequent baseline changes after contract award. The time allowed should generally range from 90 to 180 days from award of the pre-award IBR contract to the award of the acquisition contract.

For competitive procurements, the Customer must decide to use either one or two Customer teams to conduct the IBR. It is essential that the IBR teams on both the customer and supplier side exercise caution to protect the integrity of the competition. Customers who elect to use different IBR teams should ensure complete confidentiality of each competitor's data and must also ensure each team is adequately trained and prepared to execute the IBR in a consistent manner by using the same process and evaluation criteria. Maintaining an equal footing between competitors during a separate pre-award IBR is extremely important. A flawed pre-award IBR can result in a re-solicitation, which can be a very costly proposition. It is recommended that two Customer teams be used as this will speed the process and ensure that one team when conducting the second IBR is not influenced by the results of the first IBR.

After the respective IBRs are completed the two Customer teams should meet to select the best value offeror for award of the contract.

Although a pre-award IBR is encouraged, most pre-award IBRs are used for Sole Source contracts due to the cost of performing a pre-award IBR on a competitive contract.

Appendix C
Program Level IBR Process

A Program Level IBR is conducted for the same reasons and follows the same basic process as a contractor IBR. However, although similar in nature, differences exist in both the extent of the review and the responsibilities and assignments of the participants. This appendix will highlight the differences between a Program Level IBR and a contract IBR.

The Program Level IBR is a program review that verifies:

- The total program technical, schedule, resource, and cost baselines are achievable and risks have acceptable risk handling plans.
- Program management control processes and systems are in place to achieve program objectives and the agency commitments.

The objective of the review is to improve total program performance by ensuring that adequate planning and risk consideration have been performed at the program level in conjunction with an established performance measurement baseline (PMB) created after a program has been baselined or re-baselined. The IBR also serves to verify that the program management processes are integrated and an adequate and appropriate metrics management plan is in place to manage, monitor, and report total program performance.

Program Level IBRs are an integral part of an overall program management process. The Program Level IBR will consider the results of prior program reviews as well as the detailed planning of the PMB based on the Customer approved program baseline. The Program Level IBR involves agency program management teams, independent subject matter experts who validate the program baseline and performance management processes, and the prime contractor program management team as necessary. Validating the total program performance baseline provides:

- Mutual understanding of the plans that will be used to measure the program technical progress, schedule, and cost performance.
- Mutual understanding of the program risks and mitigation plans.
- Valid comparison of program manager's (Agency and prime contractor) expectations for the program baseline to address differences and issues as early as possible.
- Increased confidence by all stakeholders in the program's technical, schedule, and cost PMB and program management processes.
- Verification that the program work breakdown structure (WBS) identifies or links to assets that will be capitalized.

The Program Level IBR is designed to assist the Agency program management team in:

- Establishing and maintaining a mutual understanding of the risks inherent in the program PMB, and;
- Identifying improvements to management processes used during program execution.

Program Level IBR should be conducted:

- Early in the program to ensure adequate planning has occurred to identify corrective actions necessary to improve the probability of program success, and;

- Periodically, as needed, to establish and maintain understanding and provide visibility of the PMB.

The timing and duration of an IBR may vary based on the scope of the review and the complexity of the program. The Program Level IBR scope includes review of the program cost, schedule, and technical baseline, as well as program risk and program management processes. In addition to CAM interviews, the program management staff is interviewed to establish an understanding of the program baseline, current performance, future performance plans, functional processes, and program risks.

A typical Program Level IBR Process flow is depicted below in Figure C1.

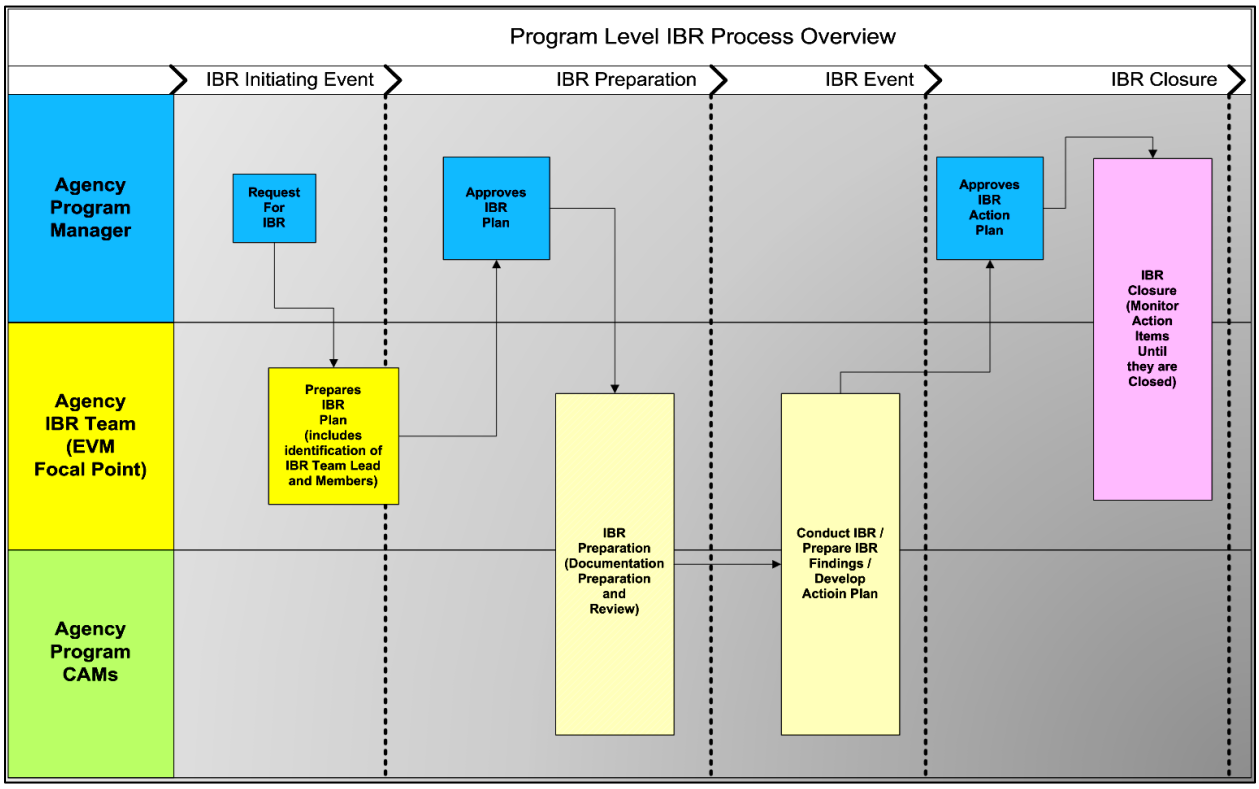

Figure C1. Program Level IBR Process Flow

This figure captures the key process steps of the Program Level IBR and their relationship to the IBR Process steps (e.g., IBR Initiating Event, IBR Preparation, IBR Event, and IBR Closure) as discussed in the main body of this document. Also identified in this figure are the primary participants in the Program Level IBR, that is, the agency's program manager, the agency's IBR Team – typically led by the Agency's EVM Focal Point – and the Agency's Program CAMs.

A Program Level IBR is conducted by an agency and focused on the agency personnel. Supplier personnel do not generally participate in a Program Level IBR.