Surveillance Guide

Revision 3

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List of Abbreviations and Acronyms

The abbreviations and acronyms listed here are used in the main body of the guide. Additional abbreviations and acronyms are used in the appendices and are spelled out.

CAM	Control Account Manager
CAP	Corrective Action Plan or Control Account Plan
CAR	Corrective Action Request
CER	Compliance Evaluation Review
CFA	Cognizant Federal Agency
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DoD	Department of Defense
DDM	Data Driven Metrics
EIA	Electronic Industries Alliance
EVM	Earned Value Management
EVMS	Earned Value Management System
EVT	Earned Value Technique
IBR	Integrated Baseline Review
IOT	Inter-Organizational Transfers
IPMD	Integrated Program Management Division
IPT	Integrated Product Team
JSR	Joint Surveillance Review
NDIA	National Defense Industrial Association
PMB	Performance Measurement Baseline
QBD	Quantifiable Backup Data
RCA	Root Cause Analysis
WAD	Work Authorization Document
WBS	Work Breakdown Structure

1 Introduction

1.1 Overview of Surveillance

Surveillance is the continuous process of reviewing the health of the Earned Value Management System (EVMS). The purpose of surveillance is to ensure the EVMS is effectively used to manage cost, schedule, and technical performance, and that the performance data generated are accurate and reliable. An effective surveillance process ensures the key elements of the system are maintained over time and on subsequent applications.

The goals of surveillance are to:

1. Ensure that the organization's EVMS has been effectively implemented in accordance with the organization's EVMS documentation.

2. Ensure the EVMS provides timely, accurate, and reliable integrated project management information for internal and customer use.

3. Assess the project's commitment and ability to maintain and use its EVMS as an integral part of its project management process.

4. Effectively communicate surveillance findings/results to appropriate management and follow up to correct systemic problems.

Surveillance Reviews generally start once the Performance Measurement Baseline (PMB) is established on a newly authorized project and extend through the duration of the project. Appendix A provides an example of a typical surveillance process that can be used as a guide.

Surveillance Reviews should not be confused with a formal Compliance Evaluation Review (CER), which shares the above four goals with Surveillance Reviews and includes the unique goal of ensuring the EVMS is in compliance with the intent of the EIA-748 EVMS Standard's 32 Guidelines. During Surveillance Reviews, organizations are not expected to prove compliance with the intent of the 32 Guidelines, unless there are systemic issues or material reasons to question the compliance.

Surveillance Reviews should also not be confused with an Integrated Baseline Review (IBR). An IBR is a specific programmatic event focused on project risk and the adequacy and executability of the project's PMB.

It is acceptable and encouraged that observations and findings from one type of review be shared with team members of the other review types to provide insight into different areas, so the overall quality of the PMB and project management practices can be improved.

1.2 Definitions

CER	A Compliance Evaluation Review (CER) is the formal process used to verify the EVM system owner's proposed EVMS implemented on contract(s) complies with the EIA-748 32 guidelines, the system has been properly implemented by the system user in accordance with the requirements of the contract and system owner's policies, and the system produces reliable, timely, and actionable contract performance data. Refer to the NDIA IPMD Earned Value Management System Acceptance Guide for further information.
Customer	The government, commercial organization, or other entity for which one or more projects are being executed. Typically, the external

customer is the Government or a prime contractor.

Data Driven Metrics (DDM)	A defined set of automated and manual diagnostic metrics calculated from raw EVMS data using standard algorithms. The metrics are often calculated at set intervals such as monthly, quarterly, or annually. A given metric may have tolerance thresholds. The test results can assist a surveillance team to focus their attention on higher risk process areas.
EVM	Earned Value Management (EVM) is a project management methodology, which integrates a project's technical scope, schedule, and resources with project risk in a baseline plan, against which progress is measured to provide metrics indicative of progress and performance trends useful for management decision-making.
EVMS	An integrated set of policies, processes, procedures, systems, practices, and tools for managing projects that meets the intent of the 32 guidelines in the EIA-748.
EVM System Description	The set or series of integrated policies, processes, and procedures that describes how an organization implements their EVMS and manages projects using EVM practices that comply with the EIA-748 32 guidelines. The content is typically cross referenced to the 32 guidelines useful for all types of system reviews and training.
EVM System Owner	The organization or party responsible for the design and maintenance of an EVMS compliant with the EIA-748. In addition, the system owner is responsible for establishing policies regarding the implementation and use of the EVMS. The system owner may also be referred to as the EVMS process owner. Examples of EVM system owners include contractors, subcontractors, government program offices, and government activities.
EVM System User	The organization or party responsible for the implementation and use of the EVMS at the contract, program, or project level. In some cases, the EVM System Owner and EVM System User may be one in the same.
Organization	A customer or supplier entity, including agencies responsible for management of internal projects using EVMS, prime contractors, subcontractors and inter-organizational transfers (IOTs), with EVMS ownership and oversight responsibility for one or more sites.

Performance Measurement Baseline (PMB)	The total time-phased budget plan (Budget at Completion) against which project performance is measured. It is the schedule for expenditure of the resources allocated to accomplish project scope and schedule objectives, and is formed by the budgets assigned to control accounts and applicable indirect budgets. The PMB also includes budget for future effort assigned to higher level accounts, also referred to as summary level planning packages, plus any undistributed budget. Management reserve is not included in the PMB, as it is not designated for specific work scope. The PMB is traceable to the baseline dates in the Integrated Master Schedule (IMS).
Program	A major, independent part of a capital asset or system that involves a planned effort to achieve an outcome, the progress toward which is discretely measurable. A program may be comprised of multiple projects, delivery orders, task orders, or other recognized terms indicating a bilateral agreement between contracting parties.
Project	A project has defined technical scope, schedule, and budget to achieve a specific result. Generally, a project comprises all effort authorized by a contract or other authorization document received from a customer, (e.g., a subcontract or inter-organizational transfer (IOT)), but it may also be an internally defined and authorized effort. There may be multiple projects within a program.
Supplier	A government, commercial organization, or entity from which goods or services are required to complete a program/project. The entity may be internal or external to an organization. Suppliers can include prime contractors, subcontractors or sub-tier contractors, as well as inter-organizational transfers (IOTs), which are responsible for project execution.
Surveillance Plan	The plan that identifies the surveillance related activities to be conducted within the organization and by the Surveillance Review Teams.
Surveillance Procedure	This is an optional product documenting the organization's commitment to internal surveillance, if not already contained in the EVMS Policy or EVMS documentation. The procedure may also include other relevant surveillance related activities, such as how the organization engages in external reviews.
Surveillance Program	A surveillance program comprises an organization's people, practices, plan, tools, and training necessary to execute internal and subcontractor surveillance, independent of customer surveillance activities or requirements, for the purpose of ensuring that its projects are effectively managed to meet their cost, schedule, and technical objectives.
Surveillance Review	The process of reviewing an individual project's implementation and use of the organization's EVMS. Internal Surveillance Reviews may be conducted by a project or an organization. The customer and supplier conduct Joint Surveillance Reviews.

System Surveillance   Cross-project EVMS surveillance is used to assess an organization's capability to consistently implement and use its EVMS on all projects with EVMS requirements. Cross-project EVMS surveillance is also known as System Surveillance, because it can identify findings common to multiple projects, which are indicative of systemic problems. System Surveillance comprises a summarization of multi-project surveillance results rather than a separate system level Surveillance Review.

1.3 Purpose of the Guide

This document provides surveillance guidance and characteristics of successful EVMS Surveillance Programs. It is intended to assist suppliers in developing a robust surveillance plan that could be executed both internally and for oversight of subcontractors. This guidance may also provide customers and organizations with EVMS oversight responsibility a framework that can likewise be used to conduct surveillance of suppliers. Suppliers planning their Surveillance Programs should refer to the latest customer surveillance guidance for information on how the customer plans and conducts EVMS Surveillance Reviews to enable better coordination of their internal, subcontractor, and joint surveillance planning and execution.

A standard approach to effective surveillance benefits all parties. It ensures a common understanding of expectations, encourages efficiencies through the use of a uniform process, and gives consistent guidance to organizations responsible for EVMS surveillance. This NDIA IPMD Surveillance Guide is recommended for use by all stakeholders involved in EVMS surveillance.

1.4 Surveillance Responsibility

The organization's commitment to conduct internal surveillance and the identification of the responsible organization or party is referenced in the organization's EVMS policy, the EVMS documentation, or in a supplemental EVMS Surveillance Procedure.

If the EVM System Owner is responsible for the Surveillance Program, then the EVM System Owner must work diligently to balance the distinct responsibilities of maintaining the EVMS and in objectively executing the Surveillance Program. Furthermore, if the EVM System Owner also serves as the EVM System User on a project, then a person independent of the project should be engaged to conduct the Surveillance Review on that specific project. Similarly, if an organization or party, separate from the EVM System Owner, is responsible for executing the Surveillance Program and also served as the EVM System User on a project, then a person independent of the project should be engaged to conduct the Surveillance Review.

The independence of the organization or party responsible for the Surveillance Program is of the paramount importance. Examples of instances where this independence may be compromised include:

- Customer input drives the outcome of internal surveillance reviews.
- Management provides incentives or negative consequences based on the review results.
- The EVM System Owner conducts Surveillance Reviews based on "subjective" views of the intent of the EVMS documentation (an interpretation bias) versus the objective comparison of the documented EVMS as compared to the project's executed practices.
- The EVM System User or project team members participate on the Review Team evaluating the same project they are affiliated with, thus creating a conflict of interest.

For simplicity of subsequent references, this guide refers to the entity executing the Surveillance Program as the EVM System Owner. If the Surveillance Program is executed by another entity, it is expected the entity will provide the relevant insight, status, and results on the Surveillance Program to the EVM System Owner to maintain the organization's EVMS.

2   Organizational Surveillance Activities

The organizational surveillance activities include establishing and maintaining a Surveillance Plan, defining the review scope, selecting projects for review, establishing the review team, overseeing reviews, and learning from the results of the reviews.

2.1   Establish and Maintain the Organization's Surveillance Plan

The EVM System Owner establishes and maintains the organization's Surveillance Plan. The Surveillance Plan provides the specific activities the organization and the Surveillance Review Teams execute as part of the organization's Surveillance Program. Appendix B provides an example Surveillance Plan Structure. The content of the Surveillance Plan reflects the practices the organization has adopted from industry such as this guide and other source material. The expectation is that an organization adopts, scales, or tailors the practices as needed to support its Surveillance Program.

2.2   Define Review Scope and Select Projects for Surveillance Reviews

2.2.1 Establish a Surveillance Framework

Strategically, a surveillance plan should be based upon corporate sponsorship and ownership that assures the health and effectiveness of a management system. Establishing a standard surveillance framework translates management objectives into an executable process that recognizes the EVMS contains the elements of people, processes, tools, and data that are integrated and monitored through internal company surveillance. This framework assures a valid relationship exists between the EIA-748 32 Guidelines and the company's system description. It provides the traceability between the standard surveillance criteria used for measuring the system health and risk with cross-references to the system description and the 32 Guidelines. Appendix C provides an example of how this surveillance framework can be used to reflect a company's unique system-generated products, outputs, and reports to assess a project's implementation of the EVMS. Each organization should define its own surveillance framework and standard assessment criteria.

2.2.2 Define Review Scope

Surveillance Reviews are conducted on projects to ensure adherence to the organization's EVMS. Organizations may review a project against the entire EVMS or a subset of the EVMS. The scope of the EVMS included in a specific review is documented in advance. Organizations may also take different approaches as to how they execute the reviews. For example, some organizations include artifact data trace reviews and formal deliverable reviews in addition to the Surveillance Reviews as part of their Surveillance Program. Some organizations use data driven metrics (DDM) with or without an automated surveillance approach along with in-person interviews reserved as a follow up approach in a specific area only after data analysis has indicated a potential concern. Both of these examples are valid surveillance methods and the methodology should be included in the Surveillance Plan.

The review scope and projects selected are typically time phased (e.g., quarterly, annual cycle, three year cycle) with the goal of reviewing projects against the EVMS over the course of a specific time period. However, the frequency of reviews and the defined scope or selected projects may vary based on new project awards, project changes, EVMS practice updates, other reviews, and systemic findings during other reviews, or new material information.

2.2.3 Select Projects

The project selection process includes selecting projects, defining the frequency of the reviews, and the EVMS scope to be covered in each review. The project selection process is initiated by reviewing a list of potential candidate projects and considering the planned time phasing of the EVMS scope selected for review. Potential candidate projects may be determined by an additional down-selection process which identifies those projects with the greatest risks related to effective project management through the use of an EVMS. This provides the opportunity to select and focus on the projects that would benefit most from an EVMS Surveillance Review. Table A includes sample factors considered in making the project selection.

Table A: Sample Factors in Selecting Projects

Factor	Description
Contract value	The contract value is viewed in relative terms for the organization. The higher the dollar value of the contract, the greater the potential for the project will be selected for a review.
Type and phase of contract	The type and phase of a program may provide good indications of risk. Development and notable customer contracts (e.g., DoD ACAT I/ACAT II programs) are typically larger with more discrete effort using EVM scheduling and work/budget practices whereas production and operations and maintenance contracts are considered lower in risk due to the repetitive or level of effort nature of the project. High dollar Firm Fixed Price (FFP) contracts primarily hold significant risks to the contractor and may contain EVMS clauses containing reporting requirements on schedule performance. The contract phase may determine the type of program, for example, when transitioning from Development to Production. Development programs benefit from work definition, budget, and authorization practice reviews, whereas Production programs may lend themselves more readily for assessment of manufacturing scheduling and material management and control.
Value and nature of remaining work	The higher the dollar value of the remaining work, the greater the probability a project will be selected for a review. The technical content of remaining work is also reviewed to determine the level of performance risks on the contract.
Experience of organization project office	The project office's experience with implementing and using EVM processes may influence the selection of projects for surveillance. The lack of experience with EVM in the project office's personnel might allow project baseline planning to be accomplished without following documented procedures, thereby increasing the risk of poor applications with unreliable project data. Conversely, project offices that are more experienced with EVM applications and data use are more suited to maintain better data integrity required for project reporting, thus lowering risk.
Internal Surveillance	Some project teams engage in internal surveillance. In these instances, the organization may take into account the frequency, quality, and confidence it has in the project team's internal surveillance when determining the frequency and selection of the project for surveillance.

Factor	Description
Current or cumulative cost or schedule variances or variances at completion	Projects experiencing difficulty in maintaining cost or schedule control increases the probability the project will be selected for a review. Variances may be indicators of possible issues and may be further investigated within work/budget, scheduling, managerial analysis, or change management practices.
Baseline volatility, resets or changes	The frequency of baseline resets or changes, especially when accompanied by elimination of cumulative cost or schedule variances, may be indicative of a number of situations: poor original baseline planning, a change in work approach, make or buy determinations, or significant schedule/technical changes. Projects reflecting a significant number of baseline resets increases the probability the project will be selected for a review.
Schedule risk analysis confidence level	The project schedule is a foundational element of the EVMS. The lower the confidence in the quality, analysis, or executability of the schedule as well as questionable outcomes resulting from schedule risk assessments increases the probability of selecting the project for review.
Risk and opportunity assessment	The management and maintenance of the risk and opportunity management process needs to be considered, to include: (1) the quality of the risk and opportunity assessment and the related risk and opportunity handling plans; (2) the extent of risk and opportunity management integration with EVMS, as well as adequate management reserves to address risks and opportunities not included in the PMB. Other factors to consider are the confidence level of the PMB and the project's risk and opportunity trends.
Findings or concerns from prior reviews	Past results may indicate the need for adjusting the frequency of the reviews. Latency in closing previous findings/action items could be a concern and may cause a project to fall out of compliance.
Customer or management interest	The degree of customer or management concerns or interest in the project may be a factor influencing the selection process.
Subcontractor considerations	The inclusion of subcontractors on the project can influence the selection process. Example considerations: the number of subcontractors, the degree of experience with EVMS, EVMS contractual requirements (e.g., formal EVMS flow-down, integrating the subcontractor into the Prime's EVMS, reporting only).

Appendix D provides an example of an approach to quantify a related set of factors using the results of the project's score as an element in the selection process. This example has a list of predefined risk factors, each with a weighting, and three potential selections with a score of 1, 2 or 3. Based on the project details, the appropriate selection for each risk factor is made. The resulting score is then multiplied by the weighting for that risk factor; the higher the score, the more associated risk. The individual weighted scores are summed for a total risk based score for the project to aid in objectively evaluating projects in the selection process.

2.3 Establish the Project Surveillance Review Team

The EVM System Owner or Team Leader should establish a well-qualified Review Team. A Review Team can be a single person or multiple people depending on the review. The EVM System Owner may also serve on a Review Team or as the Team Leader as long as they are not the EVM User on that particular project being surveilled.

2.3.1 Attributes of Review Team Members

Members of an effective Review Team should have the following general attributes:

- Independent of the project and management chain of the project under surveillance.
- Multi-disciplinary knowledge and experience (e.g., project control, scheduling, risk management, finance, specialized technical areas, understanding the integration of these practices).
- Practical experience implementing and using an EVMS.
- Knowledge and understanding of EVM methodology and applicable regulations.
- Knowledge of the EVMS and supporting toolsets.
- Knowledge of assessment techniques (e.g., examining, questioning, evaluating, reporting).
- Effective team skills.

Specific guidelines for selecting the Team Leader are:

- Understanding and experience in the development, implementation, and maintenance of an EVMS compliant with the EIA-748 EVMS Standard.
- Experience using assessment techniques and documents (e.g., examining, questioning, evaluating, and reporting).
- Knowledge and understanding of the review process.
- Previous experience as a member of Surveillance Review Teams.

Representatives from other projects or locations may be invited to observe the Surveillance Review. Individuals may also be included from the project under surveillance to facilitate communication and early problem identification and resolution. However, they may not actively participate or be assigned to any of the roles and responsibilities of the Review Team.

The role of customers and subcontractors on the project is determined by the EVM System Owner when establishing the Review Team. If the customer and EVM System Owner execute the review as a Joint Surveillance Review (JSR), then both parties would be participants of the review. Subcontractors may also be invited to participate or be observers on the Review Team. For example, if the EVMS requirement formally flows down to the subcontractor, the prime should consider executing JSRs with the subcontractor's EVM System Owner instead of conducting separate reviews. Additionally, if the prime serves in a mentor-protégé relationship with a subcontractor, the prime may invite employees of the subcontractor to observe the Surveillance Review as a way to improve the subcontractor's EVMS and experience.

2.3.2 Training of Review Team

The EVM System Owner is responsible for providing Surveillance Review training to Review Team members so they understand their roles as defined in the organization's Surveillance Plan.

2.4 Oversee Surveillance Reviews

Regardless of the degree of involvement in a specific review, the EVM System Owner still maintains oversight responsibility for the reviews.

This oversight includes:

- Reviewing draft Surveillance Review reports, including documented deficiencies, and providing feedback to the Review Team Leader.
- Reviewing the project's Surveillance Review deficiencies root cause analyses and proposed corrective action plans (CAPs) to correct the deficiencies as well as to agree upon the path forward.
- Validating the completion of corrective actions.

2.5 Learn from Results of Surveillance Reviews

The EVM System Owner provides the Review Team Lead authorization to finalize and distribute the Surveillance Review Report. The EVM System Owner is responsible for monitoring the project's progress in defining adequate corrective action plans (CAPs) and validating the closure of actions on behalf of the organization. The EVM System Owner examines the Surveillance Review Report observations to identify areas to improve the EVMS documentation, Surveillance Program, or other supporting practices. The EVM System Owner is responsible for ensuring the completion of any corrective actions outside the control of a single project. These actions may correct deficiencies that are systemic in nature, across multiple projects, or owned by an entity outside of the project (e.g., training department for improved training, finance for rate issues).

To facilitate the lessons learned process, records created as a result of surveillance activities should be retained in line with the organization's data retention policy. Retained records should include, but not be limited to, surveillance reports, data traces, corrective action requests, corrective action plans, and closure evidence.

As a matter of best practices, the EVM System Owner should conduct an annual review of surveillance findings. The results should be formally documented and distributed to all relevant EVMS stakeholders. The annual review should consider:

- Adequacy and completeness of the year's surveillance schedule.
- Findings from internal and external surveillance activities to assess the health of the EVMS.
- Effectiveness of surveillance metrics used to assess both the surveillance process and the EVMS.
- If Corrective Action Requests (CARs) are being closed in a timely and effective manner.
- If any CARs raised and trends indicate the existence of systemic issues or opportunities for continuous improvement not already identified.
- If training requirements identified are being conducted.
- Effectiveness of the risk-based project and process selection tool.

3   Project Surveillance Review Activities

The project surveillance review activities include planning the review, assigning Review Team responsibilities, scheduling the review, planning for subcontractor surveillance, issuing review notification, analyzing the artifacts, conducting the review, issuing the review report, and conducting root cause analysis and implementing corrective actions.

3.1   Plan for the Review

3.1.1 Assign Review Team Responsibilities

The Review Team Leader provides the Review Team the EVMS documentation to review and assign review responsibilities. Team members may be responsible for leading the review of specific EVMS scope or project artifacts. Appendix F provides a list of sample surveillance questions the Review Team can use to prepare for conducting interviews.

3.1.2 Schedule the Project Surveillance Review

Effective surveillance is planned well in advance to ensure it is conducted at an appropriate time in the project's cycle to minimize intrusion and disruption. For example, it should not be planned during planning package rollouts, major project milestones, or incorporation of significant contract changes. Surveillance schedules also need to be coordinated with all parties to ensure appropriate participation.

The Team Leader coordinates with the selected project's Project Manager to schedule the Surveillance Review.

3.1.3 Plan for Subcontractor Surveillance

The Review Team should consider the role of subcontractors and any implications for the Surveillance Review. Table B includes factors related to subcontractors to be considered while planning the review.

Table B: Factors to Consider Related to Subcontractors

Factor	Considerations
Formal flow-down of EVMS requirements to subcontractors	The prime contractor is responsible for providing oversight, which includes Surveillance Reviews, of the subcontractors. The Review Team works with the prime's Project Manager to execute this responsibility.
Integration of subcontractors into the prime contractor's EVMS	The Review Team will need to consider the representation of subcontractor data and personnel in the Surveillance Review. For example, to determine if a subcontractor employee who serves as a CAM is to be interviewed.
Integration of subcontractors EVMS reporting data into the prime's reporting	The Review Team needs to analyze the representation of the subcontractor data in the prime's artifacts and reports to ensure it is done in accordance with the EVMS documentation.

Prime contractors are responsible for performing surveillance on all subcontractors with contractual flow down of EVMS; however, the focus and frequency should be on higher risk and value subcontracts. Subcontractor surveillance follows the same practices involved in internal surveillance, but with consideration to the additional layer of ownership. The prime contractor's CAMs responsible for subcontractor oversight have the responsibility for using and validating the subcontract data while the subcontractor owns the data and the EVMS producing it. If, due to potential competitive issues, the subcontractor refuses the prime access to its proprietary or competitively sensitive data needed for EVMS surveillance, the prime may request assistance through its own Cognizant Federal Agency (CFA). The CFA then forwards the request to the subcontractor's local governing agency to conduct the surveillance of the areas of concern and report the results for use by the prime.

3.1.4 Notify the Project of the Review

The Review Team Leader provides written notification of the scheduled review to the selected project's Project Manager. The written notification includes the following:

- Date, time, and location of the review.
- Directions, hotel recommendations, and instructions for day of arrival, if applicable.
- Identification of any room or logistical items needed (e.g., size of room, number of rooms, projector, whiteboard, internet access, printing ability, special badging/escorting),
- Defined list of project information and artifacts to be delivered in advance.
- Due dates for project artifacts.
- Specific project team members to participate in the review.
- Information on the approach for the review and the review team members.
- Agenda for the review.

A list of example project information and artifacts that might be requested in advance of the review is available in Appendix E. Care should be taken to request only the information and artifacts needed for the scope of the specific surveillance review.

The notification should provide specifics as to when project team members are expected to be available for specific agenda items. There may be times when project team members are required to participate (e.g., they are the CAM to be interviewed or provide support to the CAM), encouraged to participate (e.g., In/Out-Briefs), or have an option to observe (e.g., are non-interviewed CAMs or project members allowed to observe other interviews).

When the data driven metrics methodology is used, surveillance may have a less project-intrusive approach which would require less formal participation by the project. Notification of the scope and schedule of the review should be provided to the project so appropriate personnel can make themselves available. If questions arise that cannot be addressed with the data driven metrics alone, formal interviews may be required.

3.1.5 Analyze Artifacts Prior to Project Interviews

The Review Team reviews the requested project information and artifacts prior to the Surveillance Review. Data driven metrics could be used as part of this process. The review includes analyzing the data within an artifact and tracing the data points across artifacts for consistency and for evidence the EVMS was followed appropriately. The EVM System owner and review team should to the extent possible identify and document test criteria that may be used to assist in determining EVMS compliance. The use of standard criteria ensures the Review Team remains objective and all projects are assessed equally and without bias. These checks are encouraged to be automated whenever possible.

It may be beneficial to have a supplemental meeting with the project team before the review to clarify perceived practice and data issues arising from the data analysis.

3.2 Conduct the Surveillance Review

The agenda defines the planned topics and timing of the activities included in the Surveillance Review. The typical topics planned are:

- In-Brief by the Review Team Leader.
- In-Brief by the project's Project Manager.
- An interview of the Project Manager.
- Interviews of Integrated Product Team (IPT) Leaders.
- Interviews of Control Account Managers (CAMs).
- Interviews of key functional support leads (e.g., scheduler, project control, business manager, deputy Project Manager, and systems engineers).
- Time for the Review Team to consolidate observations.
- Time for the Out-Brief by the Review Team Leader to the project team.

The In-Brief by the Review Team Leader typically includes:

- Introduction of the Review Team members.
- The goals and scope of the review.
- Discussion of data driven metrics, if applicable.
- How the interviews will be conducted.
- How observations and findings of the Review Team will be documented and shared with the project team.

The In-Brief by the Project Manager typically includes:

- Introduction of project team members.
- Overview of the nature of the project to understand its unique circumstances.
- Discussions of customer perspectives and concerns.
- New developments, issues or concerns, or other pertinent information.

Interviews typically include:

- Explanation by a Review Team member of how the interview will be conducted.
- Brief introduction and disclosure of any relevant context information from the person being interviewed.
- A series of questions, answers, and review and demonstration of supporting points from the artifacts by the Review Team and the person being interviewed.

The Out-Brief typically includes:

- A summary of the scope of the review.
- Listing of the Review Team members.
- Agenda.
- List of who was interviewed.
- General and specific observations from the data analysis, data driven metrics, and interviews including:
    - Areas in the scope of the review that were not evaluated;
    - Areas of adequate practices or any noted as "best practices";
    - Areas for improvement;
    - Deficiency findings;

- o Categorization of the observations (e.g., systemic, isolated, training related).
- Next steps to address/close any findings and close out the review.

3.3 Deliver the Formal Surveillance Review Report

The Review Team documents the key elements and results of the review in a report that is ultimately issued to both the Project Manager and the EVM System Owner. The content of this report includes the items in the review Out-Brief, along with additional details and supporting documentation of the observations. The Review Team Leader provides the draft report to the EVM System Owner to ensure a shared understanding and agreement on the content. The Review Team Leader provides the final report to the Project Manager, to the EVM System Owner, and other applicable stakeholders.

3.4 Root Cause Analysis and Corrective Actions by the Project Team

The Project Manager is responsible for conducting Root Cause Analyses (RCAs) and implementing appropriate corrective action plans (CAPs) to correct the deficiencies identified in the Surveillance Review Report. The Project Manager provides the draft CAPs to the EVM System Owner for discussion and agreement on the adequacy of the plans. The EVM System Owner should consider corrective action plans that have been implemented on other projects to successfully address similar findings and work with the Project Manager to incorporate those into the corrective action plan. The EVM System Owner has the responsibility for tracking actions and validating the closure of actions on behalf of the organization. For actions outside of the Project Manager's control, the EVM System Owner is responsible for ensuring the completion of corrective actions.

A CAP typically includes:

- Description of deficiency finding.
- Relevant context.
- Root cause analysis of the reason for the deficiency.
- Explanation of the impact of the deficiency.
- Corrective actions, schedule, and responsible persons to complete them.
- Preventive measures, schedule, and responsible persons to mitigate the potential of recurrence.
- Specification of objective evidence to be provided for closure.

Once the Project Manager and EVM System Owner agree on the CAPs, and the associated actions and measures are completed, it is common for the Project Manager to provide a revised CAP document containing evidence of the completion of the actions and measures. This revised document serves as objective support for the EVM System Owner to verify the closure of the CAP and becomes a project artifact.
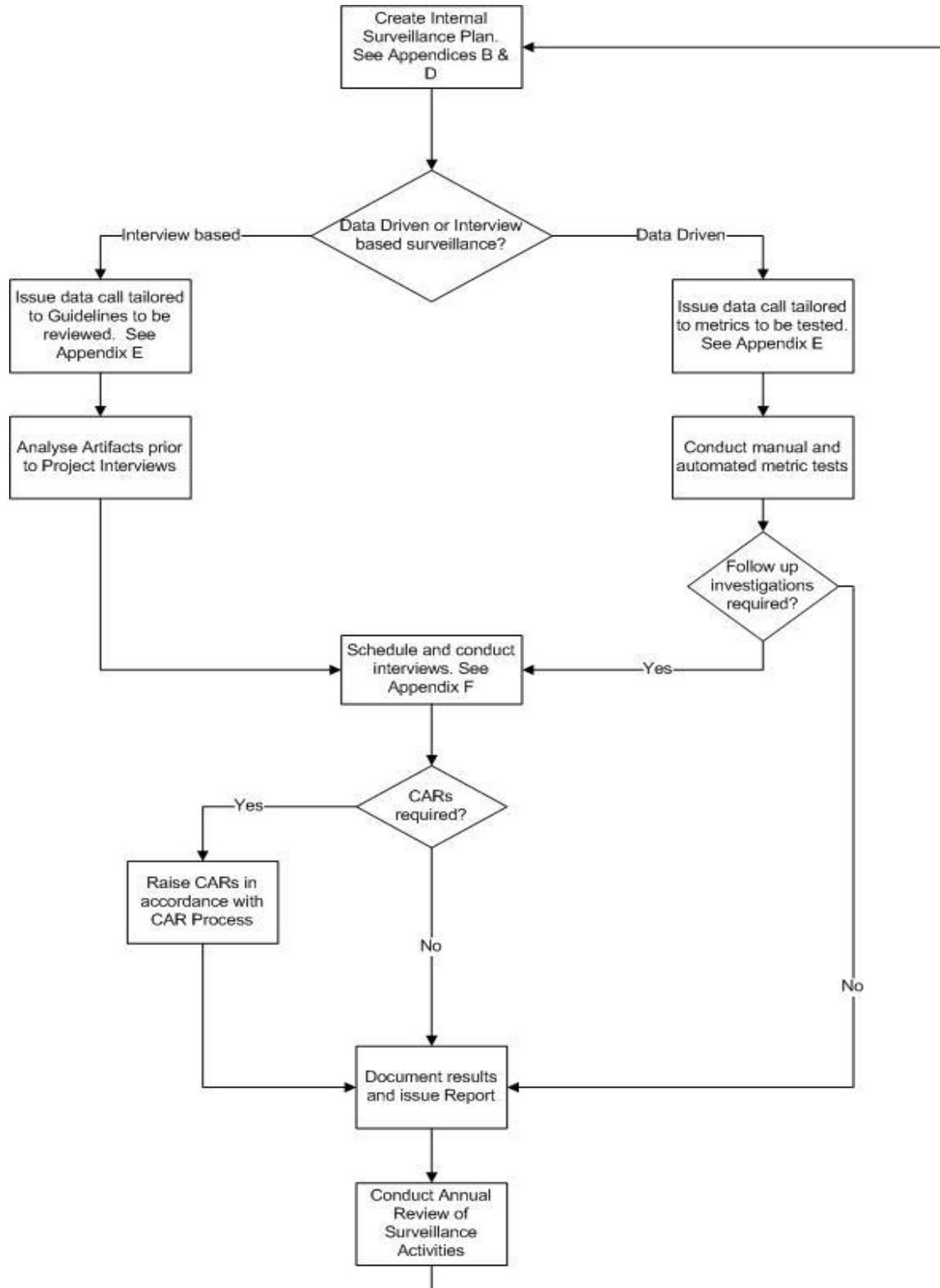
4 Customer Considerations

When defining the scope and selecting projects for specific reviews, the EVM System Owner should consider the customer's surveillance activities. For example, the EVM System Owner may define the scope and time of an internal surveillance review to occur before a customer's review, so an internal assessment is conducted first and any deficiencies are corrected prior to the customer review. The findings and corrective actions implemented as a result of the internal surveillance review could be shared with the customer or external reviewer to demonstrate that a deficiency was identified and has been corrected to prevent unnecessary focus or confusion on a problem that has been resolved. The EVM System Owner may coordinate with the customer and decide to execute a Joint Surveillance Review (JSR) in lieu of separate reviews.

The customer may consider the effectiveness of the supplier's internal Surveillance Program when deciding the scope and schedule of its reviews of the project. The customer may decide to observe or review the findings of internal surveillance reviews in lieu of conducting its own Surveillance Reviews. This is true whether the customer is a Government agency planning for prime contractor surveillance or a prime contractor planning for subcontractor surveillance. Each customer (government or prime) should consider the supplier's EVMS and Surveillance Program maturity and risk levels. In these cases, the customer would typically examine the supplier to determine if:

- The supplier's EVMS is in an accepted and approved status with its Cognizant Federal Agency (CFA).
- Internal surveillance is formal, routine, and effective.
- The supplier is willing or has a history of sharing surveillance outcomes and findings with the customer or external review authority.
- Internal surveillance outcomes are not influenced by stakeholders (e.g., customers, line management).
- EVMS information is reliable and used by the project.

Appendix A – Example Surveillance Process

Appendix B – Example Surveillance Plan Structure

Topics	Definitions
Purpose and scope	Includes a reference back to the governing policy statement. Discusses the Surveillance Review purpose and scope.
Overview and types of reviews	Outline of the goals for the reviews and also defines different types of reviews, if applicable. For example, some organizations include artifact data trace reviews and formal deliverable reviews in addition to the Surveillance Reviews as part of their surveillance program and note them as such in their Surveillance Plan.
Team responsibilities	Responsibilities of the EVM System Owner in relation to the specific project Surveillance Review Team Leader and Review Team.
Objectives	Objectives of the review.
Scope	Scope of the review.
Selection	Process used for selecting specific projects to be reviewed
Notification	Steps to formally notify the selected projects and stakeholders of the planned reviews.
Planning	Activities the Review Team conducts prior to the Surveillance Review.
Execution	Steps involved in executing the Surveillance Review.
Findings and resolution	Steps to document, report, and verify the completion of corrective actions.

Appendix C – Example Surveillance Framework – Guideline 28

REVISIONS & DATA MAINTENANCE (GLs 28-32)	Metric Frequency: Monthly Quarterly Annual P-IBR Initial > Annual

Guideline 28: **HR** Incorporate Changes in a Timely Manner	

Definition:	Incorporate authorized changes in a timely manner, recording the effects of such changes in budgets and schedules. In the directed effort prior to negotiation of a change, base such revisions on the amount estimated and budgeted to the program organizations.
Attributes:	**28X1:** Authorized work scope/budget changes are incorporated in the PMB and the Integrated Master Schedule (IMS) as soon as practicable.
	28X2: UB is distributed to or removed from control accounts or SLPP's as quickly as practicable.

Key Process: Change Incorporation	**Cross Process:** NA

Typical Sources of Objective Evidence:	
a.	Contract Modifications and amended Statement of Work (SOW)
b.	Baseline change documentation
c.	Work Breakdown Structure (WBS), Organizational Breakdown Structure (OBS), Responsibility Assignment Matrix (RAM), Work Authorization
d.	Program Change Control Logs
e.	Internal management reports
f.	Internal Contract level authorization (above control account work authorization)
g.	Integrated Program Management Report (IPMR) / Contract Performance Report (CPR)
h.	Integrated Master Schedule (IMS)

Attribute:	Verification Points	Documented Application:
28X1	a. Verify authorized contractual work scope/budget changes are accurately incorporated in the PMB and the Integrated Master Schedule (IMS) as soon as practicable per the system description.	**Check (i):** Authorized contractual change is documented in work authorization documents at the Control Account level. **Sample (i):** Exhibit (ai1) showing the contractor capability to associate authorized contractual change to a specific WBS / OBS convergence at the Control Account level. Exhibit (ai2) showing cost/schedule/technical detail planning by the CAM in relation to the authorized contractual change. **Check(ii):** Authorized contractual baseline change to the program schedule must be performed accurately and in a timely manner. Additionally, traceable documentation must exist which provides 'before and after' schedule change implications. **Sample (ii):** Exhibit (aii1) showing affected WPs before and after the baseline revision thereby making evident the effect of the change both in schedule and in resource implications (for resource loaded IMS). Exhibit (aii2) showing dedicated field(s) or other mapping tools that permanently identify those IMS ID elements that are affected by the change(s). **Check (iii):** Authorized contractual budget change must be traceable. Revised budget information from the EV engine must correlate with revised IMS tasking. Revised costs must be traceable to elements of cost. **Sample (iii):** Exhibit (aiii1) showing one-to-one relationship of hours and their distribution in the EVM engine (BCWS) in relation to IMS dates and hours (as applicable) distribution for the same WBS elements. Exhibit (aiii2) showing rate/usage (labor) price/quantity (material) before and after.
	Metrics	(see test metrics on next page)
	Supporting Documentation	System Description; Contractual Documents, and Baseline Control Logs
	Presentation	(Provide screen shots/documentation showing verification point is justified.)
	System Description Reference(s)	(Display System Description paragraph numbers to show how this is performed.)
	Process Reference	
	Business Rhythm: Single (X) Periodic ( ) Atypical ( ) NA ( )	(Check how often this verification point will be reviewed.)
28X2	b. Verify UB is distributed to or removed from control accounts or SLPP's as quickly as practicable per the system description.	**Check:** Following Authorization to Proceed (ATP) for change orders, letter contracts or negotiations and definitization of a supplemental agreement, UB is either decreased (to the PMB) or increased (from the PMB) as soon as practical. **Sample:** Exhibit (b1) Using the Program Change Control Log, show management of UB and the PMB as reflecting authorized contractual change. Exhibit (b2) showing Control Account work authorization documents that illustrate movement from or to Control Accounts to or from UB. Exhibit (b3) showing program documentation authorizing the movement from or to SLPPs to or from UB.
	Metrics	(see test metrics on next page)
	Supporting Documentation	System Description; Contractual Documents, and Baseline Control Logs
	Presentation	(Provide screen shots/documentation showing verification point is justified.)
	System Description Reference(s)	(Display System Description paragraph numbers to show how this is performed.)
	Process Reference	
	Business Rhythm: Single ( ) Periodic ( ) Atypical ( ) NA ( )	(Check how often this verification point will be reviewed.)

Test Metric Example

| Attribute ID | Testing and Metrics | | | | | | | |
	Test Steps	Test Metric Numerator (x)	Test Metric Denominator (Y)	Metric Threshold	Min Freq	Test Type	Status	Date Validated
28X1	Are authorized work scope/budget changes incorporated into the PMB as soon as practicable?	X = Count of sampled contract modifications that were not incorporated into the PMB in a timely manner in accordance with the Earned Value Management System Description (EVMS)	Y = Total count of sampled contract modifications	X/Y < 10%	Annual	Manual		
28X2	Is UB distributed in a timely manner?	X = Dollar value of UB not distributed within the timeframe specified the Earned Value Management System Description (EVMSD)	Y = Total UB dollar value of sampled contract mods or baseline change requests	X/Y = 0%	Quarterly	Manual		

Appendix D – Example Quantification of Factors to Select Projects

Risk Factors	Weight	High = 3	Medium = 2	Low = 1	Score	Weighted Score
Contract Value	0.10	>= $100M	> $20M	< $20M	3	0.3
Type of Program	0.05	**Development or FFP** Organizing, Scheduling, Work/Budget, Managerial Analysis	**Production** Accounting, Material Management, Change Management	**O & M** Accounting, Material Management	3	0.15
Performance Value % Complete	0.10	**< 40%** Organizing, Work Budget, Scheduling, Managerial Analysis	**40% to 80%** Work Budget , Scheduling, Managerial Analysis	**> 80%** Scheduling, Managerial Analysis	3	0.3
CUM SV%, CUM CV%, CUM VAC%	0.10	**> (+/-) 10%** Work/Budget, Scheduling, Managerial Analysis	**(+/-) 5% to 10%** Managerial Analysis	**< (+/-) 5%** Managerial Analysis	3	0.3
Baseline Resets	0.10	**3** Work/Budget, Change Management, Scheduling, Managerial Analysis	**1-2** Work/Budget, Change Management, Scheduling, Managerial Analysis	**0** Work/Budget, Managerial Analysis	2	0.2
Baseline Volatility / Contract Modification	0.05	**> 10% of CV** Work/Budget, Change Management, Managerial Analysis	**5-10% of CV** Work/Budget, Change Management, Managerial Analysis	**<5% of CV** Work/Budget, Managerial Analysis	3	0.15
Schedule Risk Analysis Confidence Level	0.10	**< 80%** Scheduling, Work/ Budget, Managerial Analysis, Change Management	**80% - 90%** Scheduling, Work/ Budget, Managerial Analysis	**> 90%** Scheduling, Managerial Analysis	2	0.2
Subcontract BCWR %	0.02	**> 30%** Work/Budget, Scheduling, Accounting, Managerial Analysis	**10% - 30%** Work/Budget, Scheduling, Managerial Analysis	**< 10%** Accounting, Managerial Analysis	2	0.04
Subcontract BCWR Tasks on Critical Path	0.02	**> 30%** Organizing, Work/Budget, Scheduling, Managerial Analysis	**10 – 30%** Work/Budget, Scheduling, Managerial Analysis	**<10%** Work/Budget, Scheduling, Managerial Analysis	2	0.04
Material BCWR %	0.02	**> 30 %** Work/Budget, Scheduling, Material Management	**15 – 30%** Accounting, Material Management	**<15%** Material Management	1	0.02
MR% of Remaining Contract Risk	0.10	**< 75%** Work/Budget, Managerial Analysis, Change Management	**75% – 100%** Work/Budget, Managerial Analysis, Change Management	**> 100%** Change Management	2	0.2
Risk & Opportunity Management	0.10	**No R&O Management Plan** Work/Budget, Managerial Analysis, Change Management	**R&O Register Not quantified or EVMS integrated** Work/Budget, Managerial Analysis, Change Management	**R&O Plan/Register Quantified and EVMS Integrated** Managerial Analysis, Change Management	1	0.1
TCPI-CPI	0.10	**> (+/-) 0.1** Work/Budget, Managerial Analysis, Change Management	**(+/-) 0.05 to 0.1** Managerial Analysis, Change Management	**< (+/-) 0.05** Change Management	1	0.1
Prior Year CARs	0.02	**≥ 5**	**≥ 2 - 4**	**≤ 1**	1	0.02
Total EVMS Experience of Team	0.02	**< 2 years** Organizing, Scheduling, Work/Budget, Managerial Analysis	**2-5 years** Scheduling, Work/Budget, Managerial Analysis	**> 5 years** Work/Budget, Managerial Analysis	1	0.02
TOTAL	1					2.14

Appendix E – Examples of Project Artifacts for Review

Examples of the types of documentation that may be requested and analyzed prior to the Surveillance Review are as follows:

1. Contractual Documentation (e.g., Award, Modifications, Statement of Work (SOW), Contract Data Requirements List (CDRL))
2. EVMS documentation and supporting work instructions or practice documents
3. Project Management Plan (PMP) and EVM Plan, if separate
4. Subcontractor Management Plan and Statements of Work (SOWs)
5. Risk and Opportunity Management Plans including identification, mitigation and opportunities handling
6. Project EVM Training Record
7. Work Breakdown Structure (WBS) and WBS Dictionary
8. Organizational Chart and Organizational Breakdown Structure (OBS)
9. Integrated Master Plan (IMP), Integrated Master Schedule (IMS), other schedules, IMS Data Dictionary and IMS Supplemental Guidance
10. Bill of Material (BOM) and Other Direct Cost (ODC) Logs
11. Manufacturing Requirements Planning (MRP) or Enterprise Requirements Planning (ERP) Operational Schedules
12. Basis of Estimates (BOEs)
13. Responsibility Assignment Matrix (RAM) in hours and/or dollars
14. Control Account Plans (CAPs)
15. Work Authorization Documents (WADs)
16. Schedule Status Sheets
17. Estimate to Complete (ETC) documentation
18. Quantifiable Backup Data (QBD) for BOEs, EV assessment, and ETCs
19. Schedule Risk and Health Analyses and Reports
20. Cost Accounting Standards (CAS) Disclosure Statement
21. Indirect cost policies and procedures, indirect rate documentation and analysis
22. Charge Number Matrix
23. Actual Cost Reports
24. Timekeeping Reports
25. Purchase Orders
26. Subcontractor Invoices
27. Subcontractor Contract Performance Reports/Integrated Program Management Reports (CPRs/IPMRs)
28. Documented Reporting Thresholds
29. Performance Measurement Reports, including formal EVM reports (e.g., Contract Performance Reports (CPRs), Integrated Program Management Reports (IPMRs))
30. Direct and Indirect Rate Variance Analysis Documents
31. Comprehensive Estimate at Completion (CEAC) Documentation
32. Contract Funds Status Report (CFSR) or equivalent
33. Corrective Action Log
34. Baseline Change Requests (BCRs)
35. Project Baseline Log or Logs (e.g., BCRs, Management Reserve (MR), Undistributed Budget (UB), Contract Budget Base (CBB))
36. Reports from EVMS reviews and the status of corrective action plans (CAPs)
37. Other related system audit reports and findings (e.g., Defense Contract Audit Agency (DCAA) audit reports of the financial system)

38.   Accounting Calendar
39.   EVM System Description Document
40.   Agile Supplemental Guidance
41.   Estimated Actuals Log
42.   Data Driven Metrics reports/data

Appendix F – Surveillance Review Example Questions

Examples of questions for conducting surveillance review interviews are as follows.

Organize and Authorize Work

1. What is your job and how long have you had it? What are your responsibilities?
2. Do you or your manager appear on an organization chart? To whom do you report on project issues?
3. Have you been delegated authority over your control account resources?
4. If so, do you have an agreement between you and the functional managers? If so, please show me the agreement.
5. Please pull-up your WBS Dictionary and RAM to give me an overview of your control accounts.
6. How many control accounts do you manage and how many are currently active (open to charges)?
7. Please describe the work you are responsible for in this control account and where it is documented.

Plan and Status the Schedule

8. Do you use Schedule Visibility Tasks (SVTs)? Are they used to represent non-PMB activities? How do you status an SVT?
9. Are there any Hard Constraints (Must Start, Must Finish) in your schedule? Please justify.
10. CAMs with subcontractor responsibilities – discuss the method of integrating the subcontractor effort in the IMS and how the linkages are represented for those interfaces CAMs with material or equipment deliveries – discuss how the deliveries are represented and linked in the IMS.
11. If there are activities with float greater than the prescribed thresholds (for example 44 days):
    a. Why is this task required to be planned on that date?
    b. Why can it not slip X days (where X is the excessive float value)?
12. If Start-Finish (SF), Start-Start (SS), or Finish-Finish (FF) relationships are used, please provide justification for these relationships.
13. What role do you play when significant logic changes are required to the IMS? Do you provide input or approve these changes?
14. Do you use any lags? If so, what is the reason for the lag?
15. Can you demonstrate horizontal traceability to work within other control accounts?
16. Can you demonstrate vertical traceability to major program milestones or events?
17. Have you ever had to reverse a previously reported status of a scheduled activity?
18. Is any of your work tracked outside of the IMS? How is this effort reflected in the IMS? Is LOE included in the IMS? If so, how is it prohibited from being on the critical path?
19. Are any of your activities on the critical path? How do you know?
20. Can you demonstrate the total float for your schedule activities?

Budget the Work

21. What was your basis of estimate for the initial budget allocation?

22. How was the budget established? Does it reflect an achievable value for the resources to fully accomplish the control account scope of effort? What risks were factored into your budget? Are these in the Risk Register? Show me.
23. What tools did you use to time-phase your budgets?
24. How do you ensure that you will have sufficient resources to accomplish the work?
25. How do you know that the work packages within your control accounts to be performed by other organizations have been properly planned?
26. If there is any material or other direct costs (ODC) in your control accounts, how did you estimate the budget and time-phase it? How and when is the actual cost for material or for ODC recorded?
27. What document authorizes you to begin work on a control account?
28. Do you have any planning packages?
     a. How did you plan the duration and value of the planning packages?
     b. What is your rolling wave window?
29. How do you know which EVM measurement technique is best when planning your work packages? What techniques are available to you?
30. If you have control accounts that contain a mixture of LOE and discrete effort, what is the % LOE for each control account? What is the limitation on the mix per the System Description?
31. How and when do you provide the actual and forecast schedule updates for your control account?
32. If there are work packages using the % Complete Earned Value Technique (EVT), do you have a quantifiable backup data (QBD) to support it?
33. Can you change the underlying QBD once the work has started?
34. If the apportioned effort is used for an EVT, where is the base effort and relationship to the apportioned effort documented? Please show me.
35. What are the date parameters (start and finish) of your control accounts on the Work Authorization Document (WAD)?
36. Can you demonstrate to me that your schedule baseline is consistent with the WAD date parameters?
37. How are control accounts opened or closed?

Monitor and Manage Actual Costs

38. What actual cost information is reported to you for verifying correct cost charging to your control account (labor, material, and ODC)? When incorrect charging is found, what is the procedure for having it corrected and verifying the correction?
39. Are the accounting system actual costs loaded consistently in time to allow for quality analysis and reporting?
40. What reports do you review to verify actual costs charged to your control accounts/work packages are correct? How often do you review these reports?
41. Are corrections made in the accounting system in a timely manner (before performance reports are run)?
42. What is the procedure for closing charge numbers?

Analyze and Report on the Work

43. Ask the CAM to pull-up a report which displays the cost, schedule, and at completion performance for their control accounts and work packages. Have them walk you through their current cumulative and current period performance.
44. What reports does your manager receive and how does he/she use them?

45. How are you notified that your control accounts have exceeded variance thresholds? How often does this occur? What are the thresholds?
46. Have you written any Variance Analysis Reports (VARs)? Show how your variance analysis includes the identification of cost and schedule impacts and how you relate ongoing cost variances to future EAC impacts? Has the CAM properly addressed:
    a. Labor / Rate Cost Variance for Labor;
    b. Material / Price Cost Variance for Material;
    c. Schedule Dates;
    d. Critical Path and Total Float;
    e. Corrective Actions;
    f. EAC Justification.
47. Describe how you are able to analyze cost and schedule variances by element of cost, e.g., labor, material, etc.
48. Is the time scheduled for completing VARs for your control accounts adequate?
49. Does your functional manager review and approve your VAR? Do you discuss the VAR and corrective actions with your Project Manager each month (if applicable)?
50. How do you monitor approved corrective action plans and report progress against them?
51. Please walk through a corrective action plan, to include schedules, validation, and implementation of corrective action.
52. Material CAM: Please explain the planning and process to avoid variances because of discrepancies in material timing.

Forecast Costs

53. What is your current Estimate at Completion (EAC) for each of your control accounts?
54. Please show us your ETC resource plans. Can you provide evidence that the resources are adequate to perform the remaining scope? Are any significant spikes/dips justifiable?
55. Please explain the process of updating your EACs, how often you update them, and the approval process.
56. When would you change your control account EAC?
57. Can you justify why you believe the EAC is reasonable? What IEACs are used to validate the monthly/comprehensive EAC?
58. Do you include risks or opportunities in determining the EAC and if so, how?
59. Material CAM: How do you develop the EAC for your assigned material items? Have you made any EAC adjustments to planned purchase orders that have not yet been committed?
60. CAM with subcontract responsibilities: How do you evaluate subcontractor performance when developing the EAC? Do you make any adjustments to the subcontractor's reported EAC? If so, explain.
61. CAM with subcontracts: Are supplier EAC updates included in monthly communication and reports for IMS performance updates or for ACWP progress payment requests?

Maintain the Baseline

62. When and how are control account budget changes implemented?
    a. Discuss in scope and out of scope changes to the contract.
63. What document is used to make changes to your control account?
64. After a Baseline Change Request has been approved, what other baseline documents must be amended, and which ones are you responsible for amending? How do you follow up to ensure that all baseline documents have been amended?
65. Can you make any current period or retroactive changes to your data?

66.   What is your "Freeze Period"?
67.   What do you do if you need to change an open work package?
68.   Can you perform an internal re-plan of your data?
69.   Have you made any changes to your control account planning (definition of scope, schedule or budgeted resources)?
70.   Have any internal baseline change proposal/request approvals resulted in a reduced budget, and how did you make any adjustments?
71.   Can you re-phase or re-plan work? In process work? Completed work? Unopened work packages?
72.   How do you transfer budget between control accounts?

Understand Risk Management
73.   Describe the project's risk management process as it applies to you.
74.   What technical items are currently producing the greatest risk to achieving technical, schedule or cost goals? Are these items periodically reviewed as part of a risk assessment or risk management plan? How are they reviewed?
75.   Which control accounts contain these major risks?
76.   If a risk within your responsibility should be identified for tracking, how would you implement a mitigation plan?