


**DEPARTMENT OF DEFENSE**  
**EARNED VALUE**  
**MANAGEMENT**  
**IMPLEMENTATION GUIDE**  
**(EVMIG)**

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## FOREWORD

Earned Value Management (EVM) is a widely accepted industry best practice for program management that is used across the Department of Defense (DoD), the Federal government, and the commercial sector. Government and industry program managers use EVM as a program management tool to provide situational awareness of program status and to assess the cost, schedule, and technical performance of programs. EVM is meant to be flexible and mirror the management practices of the contractor, not to impose burdensome requirements. Whenever possible, the Government should tailor management and EVM requirements to leverage the contractor's existing processes and data generated by those processes to obtain sufficient insight into program cost, schedule, and technical performance. An EVM System (EVMS) is the management control system that integrates a program's work scope, schedule, and cost parameters for optimum program planning and control.

To be effective, EVM practices and competencies must be integrated into the program manager's acquisition decision-making process. In addition, the data provided by the EVMS must be timely, accurate, reliable, and auditable. Finally, the EVMS must be implemented in a disciplined manner consistent with the 32 Guidelines contained in the Electronic Industries Alliance Standard-748 EVMS (EIA-748) (hereafter referred to as the "Guidelines").

The Guidelines represent characteristics and objectives of a management and control system for organizing, planning, scheduling, budgeting, performance measurement, forecasting, analysis, and baseline change control. As such, the guidelines are interrelated and foundational in the design, implementation, and operation of an EVMS. Therefore, a supplier has the opportunity to design a management and control system with the flexibility of applying these guidelines in a manner that uniquely meets the organization's needs in procedural guidance and implementation.

Part 1 of the Earned Value Management Implementation Guide (EVMIG) (hereafter referred to as "this guide") describes EVM Concepts and Guidelines. Part 2 provides guidance for Government use of EVM, including guidance for applying EVM requirements to contracts, an introduction to analyzing performance, and a discussion of baseline review and maintenance and other post award activities. The appendices contain additional reference material.

Note that DoD EVM policy applies to contracts with industry, as well as to intra-government activities. Throughout this document, the term "contract" refers to both contracts with private industry and agreements with intra-governmental activities that meet the DoD reporting thresholds. Similarly, the term "contractor" refers to entities within both private industry and government.

This document is intended to serve as the central EVM guidance document for DoD personnel. Throughout the Earned Value Management Implementation Guide (EVMIG), references are made to additional sources of information such as EVMS standards, handbooks, guidebooks, and websites. Consult these additional sources as appropriate (reference [Appendix A](#) for a list of these documents and hyperlinks to these resources).

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## **PART 1: EARNED VALUE MANAGEMENT CONCEPTS & GUIDELINES**

### **SECTION 1.1: EARNED VALUE MANAGEMENT**

#### **1.1.1 Concepts of Earned Value Management**

Earned Value Management (EVM) is a program management technique for measuring program performance and progress in an objective manner. It integrates the technical, cost, and schedule objectives of a contract to facilitate risk identification and mitigation. During the planning phase, a Performance Measurement Baseline (PMB) is developed by time phasing budget resources for defined work. As work is performed and measured against the PMB, the corresponding budget value is “earned.” From this Earned Value (EV) metric, Cost Variances and Schedule Variances may be determined and analyzed. From these basic variance measurements, the Program Manager (PM) can identify significant drivers, forecast future cost and schedule performance, and construct corrective action plans as necessary to improve program performance. EVM therefore incorporates both performance measurement (i.e., what is the program status and when will the effort complete) and performance management (i.e., what we can do about it). EVM provides significant benefits to both the government and the contractor.

#### **1.1.2 EVM and Management Needs**

Insight into the contractor’s performance (specifically program management and control) is a fundamental requirement for managing any major acquisition program. Contractor cost and schedule performance data must:

- Relate time-phased budgets to specific contract tasks and/or Statements of Work (SOWs)
- Objectively measure work progress
- Properly relate cost, schedule, and technical accomplishments
- Enable informed decision making and corrective action
- Be timely, accurate, reliable, and auditable
- Allow for estimation of future costs and schedule impacts
- Supply managers at all levels with status information at the appropriate level
- Be derived from the same Earned Value Management System (EVMS) used by the contractor to manage the contract
- Integrate subcontract EVMS data into Prime Contractor’s EVMS

#### **1.1.3 Uniform Guidance**

This document provides uniform guidance for Department of Defense (DoD) PMs and other stakeholders responsible for implementing EVM. It also provides a consistent approach to applying EVM based on the particular needs of the program that is both cost effective and sufficient for integrated program management. Application of this guide across all DoD acquisition commands should result in improved program performance and greater consistency in program management practices throughout the contractor community.

## **SECTION 1.2: EARNED VALUE MANAGEMENT SYSTEM GUIDELINES**

### **1.2.1 Earned Value Management System (EVMS)**

An integrated management system and its related sub-systems, an EVMS allows for the following:

- Planning all work scope for the program from inception to completion
- Assignment of authority and responsibility at the work performance level
- Integration of the cost, schedule, and technical aspects of the work into a detailed baseline plan
- Objective measurement of progress at the work performance level with EVM metrics
- Accumulation and assignment of actual direct and indirect costs
- Analysis of variances or deviations from plans
- Summarization and reporting of performance data to higher levels of management for action
- Forecast of achievement of Milestones and completion of contract events
- Estimation of final contract costs
- Disciplined baseline maintenance and incorporation of baseline revisions in a timely manner

Private companies utilize business planning and control systems for management purposes. Tailored, adapted, or developed for the unique needs of companies, these planning and control systems rely on software packages and other Information Technology solutions. While most of the basic principles of an EVMS are already inherent in good business practices and program management, nonetheless there are unique EVM guidelines that require a more disciplined approach to the integration of management systems.

### **1.2.2 EVMS Guidelines Concept**

EVM is based on the premise that the government cannot impose a single integrated management system solution for all contractors. The Guideline approach recognizes that no single EVMS meets every management need for all companies. Due to variations in organizations, products, and working relationships, it is not prudent to prescribe a universal system. Accordingly, the Guidelines approach establishes a framework within which an adequate integrated cost/schedule/technical management system fits. The EVMS Guidelines describe the desired outcomes of integrated performance management across five broad categories of activity: Organization; Planning, Scheduling, and Budgeting; Accounting Considerations; Analysis and Management Reports; and Revisions and Data Maintenance. Please reference [Appendix B](#) for the Guidelines – Process Matrix.

While the Guidelines are broad enough to allow for common sense application, they are specific enough to ensure reliable performance data for the buying activity. The Guidelines do not address all of a contractor's needs for day-to-day or week-to-week internal controls such as subcontractor status reports. These important management tools should augment the EVMS as effective elements of program management.

The Guidelines have been published as the [Electronic Industries Alliance \(EIA\)](#) standard EIA-748, Earned Value Management Systems. The DoD only recognizes the Guideline statements within the EIA-748 and periodically reviews the Guidelines to ensure they continue to meet the government's needs.

The Guidelines provide a consistent basis to assist the government and the contractor in implementing and maintaining an acceptable EVMS. The DoD [Earned Value Management System Interpretation Guide](#)

[\(EVMSIG\)](#) provides the overarching DoD interpretation of the Guidelines where an EVMS requirement is applied.

The Guideline approach provides contractors the flexibility to develop and implement effective management systems while nonetheless ensuring performance information is provided to management in a consistent manner.

### **1.2.3 System Compliance and Acceptance**

An EVMS that meets the “letter of the law” (i.e., the Guidelines) while failing to meet the intent of the Guidelines does not support management's needs.

It is the contractor’s responsibility to develop and apply the specific procedures for complying with the Guidelines. Current DoD policy (Department of Defense Instruction (DoDI) 5000.02 Table 8), EVM Requirements, requires contracts that meet certain thresholds use an EVMS that complies with the Guidelines standard. DoDI 5000.02 also requires the proposed EVMS to be subject to system acceptance under certain conditions (see Section 2.2 for information on thresholds for compliance and Section 2.3 for system acceptance). When the contractor’s system does not meet the intent of the Guidelines, the contractor must make adjustments necessary to achieve system acceptance.

When the government’s solicitation package specifies compliance with the Guidelines and system acceptance, an element of the evaluation of proposals is the prospective contractor's proposed EVMS. The prospective contractor should describe the proposed EVMS in sufficient detail to permit evaluation for validation with the Guidelines. Section 2.2, Pre-Contract Activities includes a discussion of both government and contractor activities during the period prior to contract award. Refer to the applicable [Defense Federal Acquisition Regulation Supplement \(DFARS\)](#) clauses for specific EVMS acceptance and compliance requirements for the contract.

### **1.2.4 System Documentation**

EVMS documentation should be established in accordance with systems documentation and communication of policies and procedures of the affected organization. Additional guidance for companies is contained in Section 4 of the EIA-748. Section 2.2.6.2 of this Guide discusses documentation guidance for contracts that require EVMS compliance.

Upon award of the contract, the contractor utilizes the EVMS process description and documentation to plan and control the contract work. As the government relies on the contractor’s system, it should not impose duplicative planning and control systems. Contractors are encouraged to maintain and improve the essential elements and disciplines of the systems and should coordinate system changes with the government. The [Administrative Contracting Officer \(ACO\)](#) approves system changes in advance for contracts that meet the threshold for the Guidelines compliance and system acceptance. Refer to DFARS Subpart 234.2 Earned Value Management System and Paragraph 2.2.6.2.1 of this Guide for more information on this requirement.

The government PM and EVM analysts are encouraged to obtain copies of the contractor’s System Description and related documentation and to become familiar with the company’s EVMS. Companies usually provide training on their systems upon request, enabling the government team to understand how company processes generate EVMS data, the impacts of EV measurement methodology, and the

requirements for government approval of changes. Government EVMS specialists should have the latest System Description and related documentation and familiarize themselves with the company's EVMS before beginning surveillance activities.

### **1.2.5 Cost Impacts**

The cost of implementing EVMS is considered part of normal management costs. However, improper implementation and maintenance create an unnecessary financial burden on both the contractor and the government. Contractors are encouraged to establish and maintain innovative and cost effective processes with continuous improvement efforts. Typical areas where costs could be mitigated include selection of the proper levels for management and reporting, the requirements for variance analysis, and the implementation of effective surveillance activities (see Part 2 of this guide for information on applying data items and constructing an effective surveillance plan).

The government and contractor should discuss differences arising from divergent needs (such as the level of reporting detail) during contract negotiations. While the Guidelines are not subject to negotiation, many problems concerning timing of EVMS implementation and related reporting requirements are avoided or minimized through negotiation. The contractor often uses the [Work Breakdown Structure \(WBS\)](#) and contract data requirements defined in the [Request for Proposal \(RFP\)](#) to establish its planning, scheduling, budgeting, and management infrastructure, including the establishment of [Control Accounts \(CAs\)](#), [Work Packages \(WPs\)](#), and charge numbers. The Government should seriously consider the WBS and reporting levels prior to RFP and during negotiations with the contractor. Decisions made prior to RFP have direct impact on the resources employed by the contractor in the implementation of the EVMS and data available to the government through the [Integrated Program Management Report \(IPMR\)](#). The government and contractor should also periodically review processes and data reporting to ensure that the tailored EVMS approach continues to provide the appropriate level of performance information to management.

### **1.2.6 Conclusion**

Application of the EVMS Guidelines helps to ensure that contractors have adequate management systems that integrate cost, schedule, and technical performance. This also provides better overall planning, control, and disciplined management of government contracts. An EVMS compliant with the Guidelines and properly used helps to ensure that valid cost, schedule, and technical performance information are generated, providing the PM with an effective decision making tool.

## **PART 2: PROCEDURES FOR GOVERNMENT USE OF EARNED VALUE**

### **SECTION 2.1: APPLYING EARNED VALUE MANAGEMENT**

#### **2.1.1 Overview**

The intent of this guide is to improve the consistency of EVM application across DoD and within industry. When PMs use EVM in its proper context as a tool to integrate and manage program performance, the underlying EVMS and processes become self-regulating and self-correcting. PMs should lead this effort, as the success of the program depends heavily on the degree to which the PM embraces EVM and utilizes it on a daily basis.

Government PMs recognize the importance of assigning responsibility for integrated performance to the [Integrated Product Teams \(IPTs\)](#). While PMs and IPTs are ultimately responsible for managing program performance, EV analysts should assist them in preparing, coordinating, and integrating analysis.



Cooperation, teamwork, and leadership by the PM are paramount for successful implementation and utilization. There are different support organizations that assist the program team with tailoring and implementing effective EVM on a program. This section of the guide defines the roles and responsibilities of the various organizations, offices, and agencies within the DoD.

## **2.1.2 Government EVM Organizations**

Many organizations depend on contractor-prepared and submitted EV information. It is important to acknowledge, recognize, and balance the needs of each organization. Those organizations include but are not limited to [Acquisition Analytics and Policy \(AAP\)](#), [Defense Contract Management Agency \(DCMA\)](#), Component EVM focal points, Systems Command EVM organizations, Service Acquisition organizations, procuring activities, [Contract Management Offices \(CMOs\)](#), and program offices.

## **2.1.3 Roles and Responsibilities**

### **2.1.3.1 Acquisition Analytics and Policy (AAP)**

AAP is accountable for EVM policy, oversight, competency, and governance across the DoD. One of AAP's goals is to increase EV's constructive attributes for the DoD firms managing acquisition programs by reducing the economic burden of inefficient implementation of EVM. AAP is dedicated to the idea that EVM is an essential integrated program management tool and not merely a contractually required report. AAP has formal cognizance over the EVMSIG, which is the basis for DoD's assessment of contractor EVMS compliance to the Guidelines.

#### **2.1.3.1.1 Role of AAP in the Appeal Process**

The AAP EVM [Interpretation and Issue Resolution \(IIR\)](#) process provides both industry and government a vehicle for formally submitting requests to AAP regarding existing DoD EVM policy and guidance. The process is available for when the requestor's natural chain of command cannot resolve a particular question or concern. Generally, the requestor should consult with their Service/Agency EVM focal point prior to initiating an IIR with AAP. Where appropriate, in order to promote a common understanding and consistent implementation of DoD EVM policy throughout the EVM community, IIR responses are available to the public via lessons learned on the interpretation of DoD EVM policy and guidance. Any information, guidance, or recommended resolutions provided by AAP EVM through the IIR process do not replace any contractual documents, requirements, or direction from the [Contracting Officer \(CO\)](#) on a given contract.

#### **2.1.3.2 Defense Contract Management Agency**

The DCMA is responsible for ensuring the integrity and effective application of contractor's EVMS. The DCMA has the responsibility to determine EVMS compliance (see paragraph 2.4.3.4.1) within the DoD. To this point, the DCMA works with various government and industry teams to develop practical EVMS guidance, administer contractual activities, and conduct [Compliance Reviews \(CRs\)](#), ensuring initial and ongoing compliance with the Guidelines.

#### **2.1.3.3 Component EVM Focal Points**

Component focal points coordinate and exchange information on EVM. Component focal points disseminate current policy, provide advice, ensure effective EVM implementation on new contracts, analyze contractor performance, facilitate [Integrated Baseline Reviews \(IBRs\)](#), assess risk, and support surveillance activities to assess the EVMS management processes and the reports the system produces.

The Departments of the Air Force, Army, and Navy and the [Missile Defense Agency \(MDA\)](#) all have component EVM focal points.

#### **2.1.3.3.1 Air Force EVM**

[Acquisition Integration \(SAF/AQXE\)](#) is the Air Force focal point for EVM implementation and policy. Additionally, the Air Force has multiple operating location focal points that provide direct support to programs at their respective location and/or center. The SAF/AQXE SharePoint site provides up to date information, points of contact, and Air Force policy and guidance.

#### **2.1.3.3.2 Army EVM**

Army Acquisition Reporting and Assessments (ARA) under the Deputy for Acquisition and Systems Management (DASM) is the focal point for EVM implementation within the Army Acquisition community.

#### **2.1.3.3.3 Navy EVM**

The Deputy Assistant Secretary of the Navy (Management and Budget) (DASN (M&B)) is the focal point for EVM implementation within the Department of Navy. The Naval Center for Earned Value Management implements EVM and other practices more effectively and consistently across all Department of Navy acquisition programs, functioning as the Department of Navy's central point of contact and authority for all matters concerning the implementation of EVM.

#### **2.1.3.3.4 Missile Defense Agency (MDA) EVM**

The MDA Director for Operations is the designated MDA EVM focal point, acting as the principal advisor to the MDA Director on all matters relating to implementation and use of EVM. The MDA/EV Director performs the MDA EVM focal point function. The EV Director, as functional lead for MDA EVM, provides EVM personnel, support, guidance, and assistance to MDA PMs and their staffs in executing their EVM responsibilities. The MDA EV Director furnishes senior MDA management with timely and accurate EVM information upon which to make informed decisions. The MDA EV Director coordinates with DoD, other Government Agencies, and industry in continuous EVM process improvement.

- Interprets and promulgates EVM policy from the DoD and higher authority and produces MDA directives and instructions for use by program offices to properly conform with EVM and IBR policies
- Develops MDA EVM tools and EVM training materials and presents them to the MDA work force. Responds to MDA management needs in the analysis, formatting, and display of EVM data.
- Through coordination with MDA COs, PMs, and Business/Financial Managers, ensures incorporation of proper EVM requirements on solicitations and contracts

#### **2.1.3.4 Procuring Activities**

The organization tasked with executing the procurement is responsible for implementing EVM on a contract. These organizations are generally referred to as Procuring Activities. For purposes of this guide, Procuring Activities are composed of the [Program Management Office \(PMO\)](#), the contracting organization, and the IPTs that support the PMO. The PMO and the PM help ensure that all solicitations and contracts contain the correct EVMS and/or [Integrated Master Schedule \(IMS\)](#) requirements, tailored as appropriate for the specific nature of the program in accordance with DoD policy. The PMO and PM also have the responsibility to conduct the IBR, perform integrated performance analysis, proactively manage the program utilizing performance data, and accurately report performance to decision makers.

### **2.1.3.5 Contract Management Offices**

CMOs are assigned to administer contractual activities at specific contractor facilities or regional areas in support of the PMO. Cognizant CMOs are a part of the DCMA and [Navy Supervisor of Shipbuilding; Conversion and Repair \(SUPSHIP\)](#), and CMOs may designate EVMS specialists. Additional guidance regarding CMO functions is provided in paragraph 2.4.3.4 of this Guide, DFARS Subpart 242, DCMA EVMS Compliance Review and Standard Surveillance Instructions and [Naval Sea Systems Command \(NAVSEA\)](#) Standard Surveillance Operating Procedure. The ACO is authorized to approve a contractor's EVMS, which recognizes the contractor's EVMS is acceptable and has been determined to be in compliance with the the Guidelines. The ACO is also authorized to withdraw this approval after certain procedures have been followed, as specified in section 2.4.5 of this Guide.

## **SECTION 2.2: PRE-CONTRACT ACTIVITIES**

### **2.2.1 Overview**

This section provides EVM policy and general guidance for pre-contract activities, including preparation of the solicitation and contract, conduction of source selection activities, and tailoring of reporting requirements. The information provided in this section supports the policy contained in DoDI 5000.02, IPMR DID, DFARS, and MIL-STD-881. It also supports the guidance contained in the Defense Acquisition Guidebook and the IPMR Implementation Guide.

### **2.2.2 Department of Defense Requirements**

#### **2.2.2.1 Policy**

DoD policy mandates EVM for major acquisition contracts that meet the thresholds and criteria contained in DFARS and DoDI 5000.02, Enclosure 1, Table 8, EVM Requirements (the thresholds are described below in Paragraph 2.2.2.2 and Figure 1). The term "contracts" includes contracts, subcontracts, intra-government work agreements, and other agreements. This is mandatory unless waived by the [Component Acquisition Executive \(CAE\)](#) or designee. This policy also applies to highly sensitive classified programs, major construction programs, automated information systems, and foreign military sales. In addition, it applies to contracts where the following circumstances exist: (1) the prime contractor or one or more subcontractors are a non-US source, (2) contract work is to be performed in government facilities, or (3) the contract is awarded to a specialized organization such as the Defense Advanced Research Projects Agency.

#### **2.2.2.2 EVMS Compliance and Reporting Thresholds**

Thresholds are in then-year or escalated dollars. When determining the contract value for the purpose of applying the thresholds, use the total contract value, including planned options placed on contract at the time of award. The term "contracts and agreements" in the following paragraphs refers to contracts, subcontracts, intra-government work agreements, and other agreements. For [Indefinite Delivery/Indefinite Quantity \(IDIQ\)](#) contracts, EVM is applied to the individual task orders or group of related task orders in accordance with the requirements in Table 8 of Enclosure 1, DoDI 5000.02.

As prescribed in DoDI 5000.02 and DFARS, compliance with the Guidelines is required for DoD cost or incentive contracts and agreements valued at or greater than \$20M. Compliance with the Guidelines and an EVMS that has been determined to be acceptable by the [Cognizant Federal Agency \(CFA\)](#) are required for DoD cost reimbursement or incentive contracts and agreements valued at or greater than \$100M. If the contract value is less than \$100M, then formal compliance determination of the contractor's EVMS is

not required; however, the contractor needs to maintain compliance with the standard. Contract reporting requirements are included in Table 9 of the DoDI 5000.02 shown below in Figure 1.

EVM should be a cost-effective system that shares program situational awareness between government and contractor. In an oversight role, a critical function of the government program office is to use all data, including cost, schedule, and technical performance metrics, to identify early indicators of problems so that adjustments can be made to influence future program performance. The decision to apply EVM and the related EVM reporting requirements should be based on work scope, complexity, and risk, along with the threshold requirements in the DFARS. Misapplication of EVM can unnecessarily increase costs for the program.

If the government program office does not believe the full application of EVM would be beneficial, it should contact its applicable Service/Agency EVM focal point to discuss options so that the program will still receive the necessary and desired insight into program status. If it is agreed that the full application of EVM is not necessary, the program office should then request a waiver and/or deviation as required by their Component policies.

<b>Contract Value</b>	<b>Applicability</b>	<b>Notes</b>	<b>Source</b>
< \$20M	Not required	IPMR should be used if cost and/or schedule reporting is requested by the PMO	IPMR DID DI-MGMT-81861A
≥ \$20M & < \$50M	Required monthly when EVM requirement is on contract	Formats 2, 3, and 4 may be excluded from the Contract Data Requirements List (CDRL) at Program Manager discretion based on risk	
≥ \$50M	Required monthly when EVM requirement is on contract	All Formats must be included in the CDRL	
<b>Additional Information</b>			
For ACAT I contracts, task orders, and delivery orders, IPMR data will be delivered to the EVM Central Repository.			
The IPMR can be tailored to collect cost and/or schedule data for any contract regardless of whether EVM is required. For information on tailoring the IPMR, refer to the DoD IPMR Implementation Guide.			
Formats and reporting requirements for the IPMR are determined and managed by USD(A&S) through the office of AAP.			
Reporting thresholds are in then-year dollars.			
DI-MGMT-81861A = Data Item Management-81861			

**FIGURE 1: EVM REPORTING REQUIREMENTS**

### 2.2.2.3 EVMS Options

#### 2.2.2.3.1 Contracts Less than \$20M

The application of EVM is not required on cost or incentive contracts or agreements valued at less than \$20M. The decision to implement EVM on these contracts and agreements is a risk-based decision, at the discretion of the PM, based on a cost-benefit analysis that compares the program risks versus the cost of EVM implementation. The purpose of the cost-benefit analysis is to substantiate that the benefits to the government outweigh the associated costs. It does not require approval above the PM; however, it may be included in the program [Acquisition Strategy \(AS\)](#) if desired. Factors to consider when making a risk-based decision to apply EVM on cost or incentive contracts or agreements valued at less than \$20M follow:

- **The total contract value including planned options.** If the value of a contract is expected to grow to reach or exceed \$20M, the PM should consider applying an EVM requirement on the contract.
- **EV implementation.** Evaluate the existence and utilization of the contractor's EVMS as a part of its routine business practices when considering implementation.
- **Type of work and level of reporting available.** Developmental or integration work is inherently risky to the government, and reporting should reflect how programs are managing that risk basis.
- **Schedule criticality of the contracted effort to a program's mission.** Items required to support another program or schedule event may warrant EVM requirements.

#### 2.2.2.3.2 Contracts Less than 18 Months in Duration

EVM implementation for contracts or agreements of less than 18 months in duration including options may outweigh any benefits received due to the cost and time needed for EVM implementation. An approved DFARS deviation is not required for contracts or agreements of less than 18 months.

#### 2.2.2.3.3 Non-Schedule-Based Contracts

Consider the application of EVM to contracts that may be categorized as non-schedule-based (i.e., those that do not ordinarily contain work efforts that are discrete in nature) on a case-by-case basis. Non-schedule-based contracts include the following:

- Those compensated on the basis of [Time and Materials \(T&M\)](#)
- Services contracts
- Any contracts composed primarily of [Level of Effort \(LOE\)](#) activity, such as program management support contracts

Non-schedule-based contracts might not permit objective work measurement due to the nature of the work, most of which cannot be divided into segments that produce tangible and measurable product(s). The nature of the work associated with the contract is the key factor in determining whether there will be any appreciable value in obtaining EVM information. Paragraph 2.2.2.8 describes considerations when determining applicability of work scope.

#### 2.2.2.3.4 Intra-Government Work Agreements

The DoDI 5000.02 requires application of EVM on Intra-Government Work Agreements that meet the same thresholds as other contracts. While accounting systems used by the government may not have sufficient controls to comply with the Guidelines, they do not prevent generation of IPMR data. Government [Enterprise Resource Planning \(ERP\)](#) systems and good scheduling practices enable the agency to provide reliable performance management data. Recommended reports to place on Intra-Government Work Agreements include IPMR cost and schedule performance data, staffing data, and

variance analysis; Quarterly [Schedule Risk Assessment \(SRA\)](#); Quarterly [Contract Funds Status Report \(CFSR\)](#); and a [Cost and Software Data Report \(CSDR\)](#) as required.

It is appropriate to not apply the EVM requirement in cases where the nature of the work would not lend itself to meaningful EVM information. Exemptions from the EVM policy should be the exception, not the rule, as they are necessary only in cases where a cost or incentive contract is being used for non-schedule-based work. This type of work is typically accomplished using a [Firm Fixed Price \(FFP\)](#) contract. Program offices should follow the process to obtain an EVM applicability decision.

The DoDI 5000.02 requires that the appropriate authority dependent upon ACAT level (i.e. AAP, Component EVM focal points, CAE or designee) review and determine EVM applicability. If EVM is determined not to apply based on the nature of the work, then EVM is not placed on contract. If EVM is determined to apply, then EVM is placed on contract in accordance with established thresholds unless a waiver is obtained. The Services/Agencies have the ability to delegate waiver or deviation authority from the [Federal Acquisition Regulation \(FAR\)](#) or DFARS. PMs and COs should address waivers and deviations to their applicable Service/Agency focal point for guidance, documentation requirements, and processes.

#### **2.2.2.3.5 EVM in Production**

EVM methodology and system requirements are applicable to [Low-Rate Initial Production \(LRIP\)](#) contracts with remaining development or production risk unless the scope of work and risks do not lend themselves to the application. A tailored IPMR Format 1, 5, 6, and 7 may be used for reporting; Format 1 should address the entire program and include detail for high-risk WBS items.

Application of EVM methodology and system requirements for [Full-Rate Production \(FRP\)](#) contracts are based on risk and the contractual scope of work. FRP risks are generally low to the government; subsequently, EVM deviations are requested. If EVM is not applied, program management principles as well as cost and schedule reporting generally apply. The reporting should include cost information (such as actuals and top-level schedule information providing delivery dates of end products). Historical data integrity issues or performance risks may drive additional reporting requirements and/or the application of EVM.

The EVMS Guidelines provide the basis for determining whether contractors' management control systems are acceptable. As management control systems for development and production contracts tend to differ significantly, it is impossible to provide detailed implementation guidance that specifically applies to all cases for every contractor. Therefore, users of the guidelines should be alert for areas in which distinctions in detailed interpretation seem appropriate or reasonable, whether or not they are specifically identified. Interpretation of the guidelines must be practical as well as sensitive to the overall requirements for performance measurement. By applying the guidelines instead of specific DoD prescribed management control systems, contractors have the latitude to meet their unique management needs. This allows contractors to use existing management control systems or other systems of their choice, provided they meet the guidelines.

The same EVM reporting requirements in Figure 1 apply to production efforts. However, in more mature production efforts, the risk associated with the contract is not commensurate with the application of EVM.

Programs are encouraged to consult with EVM focal points to determine if a waiver and/or deviation is an option and to develop alternative program management and reporting strategies and approaches.

#### **2.2.2.3.6 Manufacturing/Enterprise Resource Planning (M/ERP) System**

M/ERP systems integrate planning of all aspects (not just production) of a manufacturing firm. They include functions such as business planning, production planning and scheduling, capacity requirement planning, job costing, financial management and forecasting, order processing, shop floor control, time and attendance, performance measurement, and sales and operations planning. [Material Requirements Planning \(MRP\)](#) and [Manufacturing Resource Planning \(MRPII\)](#) are predecessors of the Manufacturing/Enterprise Resource Planning (M/ERP) system. The intent of MRP and MRPII was centralizing and integrating business information in order to facilitate decision making for production line managers and to increase the efficiency of the overall production line. MRP is concerned primarily with manufacturing materials, while MRPII is concerned with the coordination of the entire manufacturing production line, including materials, finance, and human relations. The goal of MRPII is to provide consistent data to all members in the manufacturing process as the product moves through the production line.

Government EVM stakeholders recognize the significance of M/ERP systems in program management of production contracts requiring EVM implementation and compliance. The [National Defense Industrial Association \(NDIA\)](#) Integrated Program Management Division's white paper, "Earned Value Management in a Production Environment" indicates that an "MRP system is one example of a tool used in production that potentially drives differences in how an EVMS is used or explained versus development." Understanding these differences is paramount to confirming compliance with the Guidelines. M/ERP systems affect the operation and/or process of almost every EVMS applied on development contracts. Examples include work authorization processes, the way the IMS is used, how parts are moved both within and between contracts, how supplier or material cost and performance are recorded, [Control Account Manager \(CAM\)](#) involvement in baseline development and performance assessment, and WBS level.

As contractors are ultimately responsible for demonstrating compliance with the Guidelines, it is expected that their EVM System Description and related documentation include language that identifies and describes in detail areas where EVM processes differ for development and production contracts. In addition, contractors should explain how each process complies with the Guidelines. Contractors should refer to the DoD EVMSIG when describing guideline compliance in the differences section of their EVMS Description. However, there is no requirement for the differences section when contractors elect to have separate EVMS descriptions for production and development contracts.

#### **2.2.2.3.7 Alternate Acquisition Methods**

The same application rules in Figure 1 apply to alternate acquisition methods. With the Department's efforts to streamline the acquisition process in order to deliver capabilities faster, alternate acquisition instruments and methodologies, including Other Transaction Authorities (OTAs) and Middle Tier Acquisitions (MTAs) have been encouraged. Even with streamlining, programs must still be managed and Earned Value Management (EVM) should be used where applicable along with other management tools and processes to provide insight and actionable data to support proactive decision-making on programs. EVM applies when the work scope warrants it, the dollar value meets the thresholds in the DFARS, and there is risk to the Government. As described in the OSD Middle Tier of Acquisition Interim

Authority and Guidance memo and the DoD Other Transactions Guide for Prototype Projects, OTAs and MTAs have special considerations, but must still be managed and able to produce information needed for effective management control of cost, schedule, and technical risk.

#### **2.2.2.4 Contract Growth and Thresholds**

Determination of the applicability of EVM is based on the estimated contract value and the expected value of total [Contract Line Item Numbers \(CLINs\)](#) and options that contain discrete work at the time of award. For IDIQ contracts, EVM is applied to the individual task orders or groups of related task orders with discrete work. Most contracts are modified as time progresses; a typical result of these modifications is an increase in the contract value. In some cases, a contract that was awarded at less than \$20M may later cross the threshold for EVM compliance or a contract awarded for less than \$100M may later cross the threshold for formal system acceptance. Therefore, it is recommended that the increased total contract value be re-evaluated against the EVM thresholds for a new application of EVM. The PM should evaluate the total contract value, including planned options and task and delivery orders, and apply the appropriate EVM requirements based on that total value.

#### **2.2.2.5 Exclusions for Firm Fixed Price (FFP) Contract Type**

The application of EVM on FFP contracts and agreements is discouraged, regardless of dollar value. Since cost exposure is minimized in an FFP environment, the government may elect to receive only the IMS in order to manage schedule risk. If knowledge by both parties requires access to cost/schedule data due to program risk, the PM should re-examine the contract type to see if an incentive contract is more appropriate for the risk.

However, in extraordinary cases where cost/schedule visibility is deemed necessary and the contract type (e.g., FFP) is determined to be correct, the government PM is required to obtain a waiver for individual contracts from the MDA. In these cases the PM conducts a Business Case Analysis (BCA) that includes supporting rationale for EVMS application (see [Appendix C: Essential Elements of a Business Case Analysis](#) for guidance). When appropriate, include the BCA in the acquisition approach section of the program AS report. In cases where the contractor already has an EVMS in place and plans to use it on the FFP contract as part of its regular management process, negotiate EVM reporting requirements before applying an EVM requirement. However, government personnel should not attempt to dissuade contractors that use EVMS on all contracts irrespective of contract type from their use of EV processes to manage FFP contracts.

Some factors to consider in applying EVM in an FFP environment follow:

- Effort that is developmental in nature involving a high level of integration
- Complexity of the contracted effort (e.g., state-of-the-art research versus Commercial-Off-the-Shelf procurement of items already built in large numbers)
- Schedule criticality of the contracted effort to the overall mission of the program (e.g., items required to support another program or schedule event may warrant EVM requirements)
- Minimized cost risk exposure in an FFP environment (i.e., the government may elect to receive only the IMS in order to manage schedule risk)
- Nature of the effort (e.g., software intensive effort) is inherently risky
- Contractor performance history as demonstrated by prior contracts with IPMR data or documented in Contractor Performance Assessment Reports



See Paragraph 2.2.5.6.3.4 for guidance on tailoring EVM reporting on FFP contracts.

### 2.2.2.6 Hybrid Contract Types

Hybrid contracts may require tailored reporting. For example, a contract may be composed of [Cost Plus Incentive Fee \(CPIF\)](#), FFP, and T&M elements. The following general guidance applies to hybrid contract types: limit reporting to what can and should be effectively used. In some cases, it is advisable to exempt portions of the contract from IPMR reporting if the portions do not meet the overall threshold or contract type criteria. Generally, different contracting types are applied to different CLIN items, and these can then be segregated within the WBS. When determining the contract value for the purpose of applying the thresholds, use the total contract value of the portions of the contract that are cost reimbursable or incentive, including planned options placed on contract at the time of award.

Keep in mind the potential impact to the CFSR, which can be applied to all contract types with the exception of FFP. It may be advisable to call for separate reporting by contract type in the CFSR. The following examples illustrate these concepts.

**Example 1:** The planned contract is a development contract with an expected award value of \$200M. At the time of award, the contract type is entirely [Cost Plus Award Fee \(CPAF\)](#). Subsequent to award, some additional work is added to the contract on a T&M CLIN.

**Solution:** Apply full EVM and IPMR reporting at the time of award to the entire contract but exempt the T&M efforts from IPMR reporting at the time they are added to the contract. However, the T&M efforts extend over several years, and the PM wishes to have a separate forecast of expenditures and billings. The CFSR data item is therefore amended to call for separate reports for the CPAF and T&M efforts.

**Example 2:** The planned contract is a mix of development and production efforts with an anticipated value of \$90M. At the time of award, the development effort is estimated at \$10M under a CPAF CLIN, and the production is priced as FFP for the remaining \$80M.

**Solution:** After conducting a risk assessment, the PM concluded that the risk did not justify EVM and IPMR reporting on the FFP production effort and that there was not sufficient schedule risk to justify an IMS. The PM noted that the development effort fell below the mandatory \$20M threshold and, based on a risk evaluation, determined that EVM was not applicable. However, a CFSR is determined to be appropriate for the development portion of the contract to monitor expenditures and billings. A CFSR would not be appropriate for production, as it is priced as FFP.

**Example 3:** A planned contract calls for development and maintenance of software. The overall value of the development portion is \$30M, and the maintenance portion is \$170M. Development is placed on a CPIF CLIN, while maintenance is spread over several [Cost Plus Fixed Fee \(CPFF\)](#) CLINs. It is anticipated that the majority of the maintenance effort should be LOE. The PM is concerned about proper segregation of costs between the efforts and has determined that there is significant schedule risk in development. The PM is also concerned about agreeing up front to exclude the maintenance portion from EVM reporting. Since there is a specified reliability threshold that is maintained during the operational phase, performance risk has been designated as moderate. There are key maintenance tasks that can be measured against the reliability threshold.

**Solution:** Place EVMS DFARS on the contract and apply IPMR reporting to the development portion at the time of contract award. Specific thresholds are established at contract award for variance reporting for the development effort. IPMR reporting is also applied to the maintenance portion of the contract. Format 1 reporting is established at a high level of the WBS, with Format 5 reporting thresholds for maintenance to be re-evaluated after review of the EVM methodology during the IBR. Variance reporting then specifically excludes WBS elements that are determined to be LOE. CFSR reporting is also required for the entire contract with a requirement to prepare separate reports for the development and maintenance portions, as they are funded from separate appropriations. Format 6 is required for the development effort but not for the maintenance effort. A CAE waiver is provided to allow for departure from the required 7 Formats.

**Example 4:** An IDIQ contract is awarded for a total value of \$85M. The delivery/task orders include four delivery/task orders for software development, each under \$20M, each with a CPIF or CPFF contract type. Each delivery/task order's scope is for a software iteration that culminates in a complete software product. There is also a material delivery/task order for material purchases of \$26M. The estimated contract values of the delivery/task orders are as follows:

Delivery/Task Order 1: \$26M FFP for material purchases (i.e., computers and licenses)

Delivery/Task Order 2: \$15M CPIF software development, iteration #1, 12 months

Delivery/Task Order 3: \$11M CPIF software development, iteration #2, 12 months

Delivery/Task Order 4: \$16M CPFF software development, iteration #3, 12 months

Delivery/Task Order 5: \$17M CPFF software development, iteration #4, 12 months

**Solution:** Each delivery/task order can have different contract types. An IDIQ contract can be awarded to a single vendor or multiple vendors. Per DoDI 5000.02, for IDIQ contracts, inclusion of EVM requirements is based on the estimated ceiling of the total IDIQ contract, and then is applied to the individual task/delivery orders, or group(s) of related task/delivery orders, that meet or are expected to meet the conditions of contract type, value, duration, and work scope. The EVM requirements should be placed on the base IDIQ contract and applied to the task/delivery orders, or group(s) of related task/delivery orders. "Related" refers to dependent efforts that can be measured and scheduled across task/delivery orders. The summation of the cost reimbursement software development delivery orders is \$59M (i.e., delivery orders 2-5). These are a group of related delivery orders. The EVMS DFARS should be placed on the base contract and each of the delivery orders within this group. IPMR reporting for all 7 Formats should be applied.

**Example 5:** A planned contract calls for discrete and LOE type CLINs and is CPAF. This effort is primarily to provide the execution of Post Shakedown Availabilities for four ships, which includes support for tests and trials and a relatively small amount of materials may be required. Each Post Shakedown Availability is a discrete effort that lasts for 12-16 weeks and the Independent Government Estimate states that on average each Post Shakedown Availability will cost about \$17.5M (i.e., \$8M under completion type CLINs and \$9.5M under LOE type CLINs). Altogether for four ships, the anticipated contract value is approximately \$70M, of which \$32M is completion type and \$38M is LOE type. The PM intends on tailoring IPMR in order to get insight into program status.

**Solution:** Using the calculations provided there is a total of \$32M of completion type CLINs on this CPAF contract. Using the contract type and dollar thresholds only, the EVMS DFARS would be applied

on the contract since \$32M is greater than \$20M. However, the scope as described is not the type of scope that would benefit from adhering to a compliant EVMS. Therefore, an EVM applicability determination from the cognizant official to not apply EVM should be pursued. The EVM applicability decision should describe the scope of work and the alternative approach planned to ensure insight into program status. In this case, the PM has decided to use a tailored IPMR. For the \$38M of LOE scope, an applicability determination from the cognizant official should also be pursued.

In conclusion, every contract is carefully examined to determine the proper application of reporting. The preceding examples were shown to illustrate the various factors to evaluate in order to determine the appropriate level of reporting. Every contract is different, and the analyst is encouraged to work with the PM and EV focal points to determine the appropriate requirements.

#### **2.2.2.7 Integrated Master Schedule (IMS) Applicability and Exclusions**

The IPMR, Format 6 (IMS) is mandatory in all cases where EVM is mandatory; however, the IMS may be required when there is no EVM requirement. To require an IMS without an EVM DFARS requirement, the PMO may use the IPMR, Format 6 to apply only the IMS. FFP contracts where there is schedule risk may consider application of the Format 6. However, since the IMS is a network-based schedule, an IMS may not be appropriate for FRP efforts that contain primarily recurring activity and are not suitable for networking. These contracts are generally planned and managed using production schedules such as [Line of Balance \(LOB\)](#) or M/ERP schedules, providing sufficient detail to manage the work.

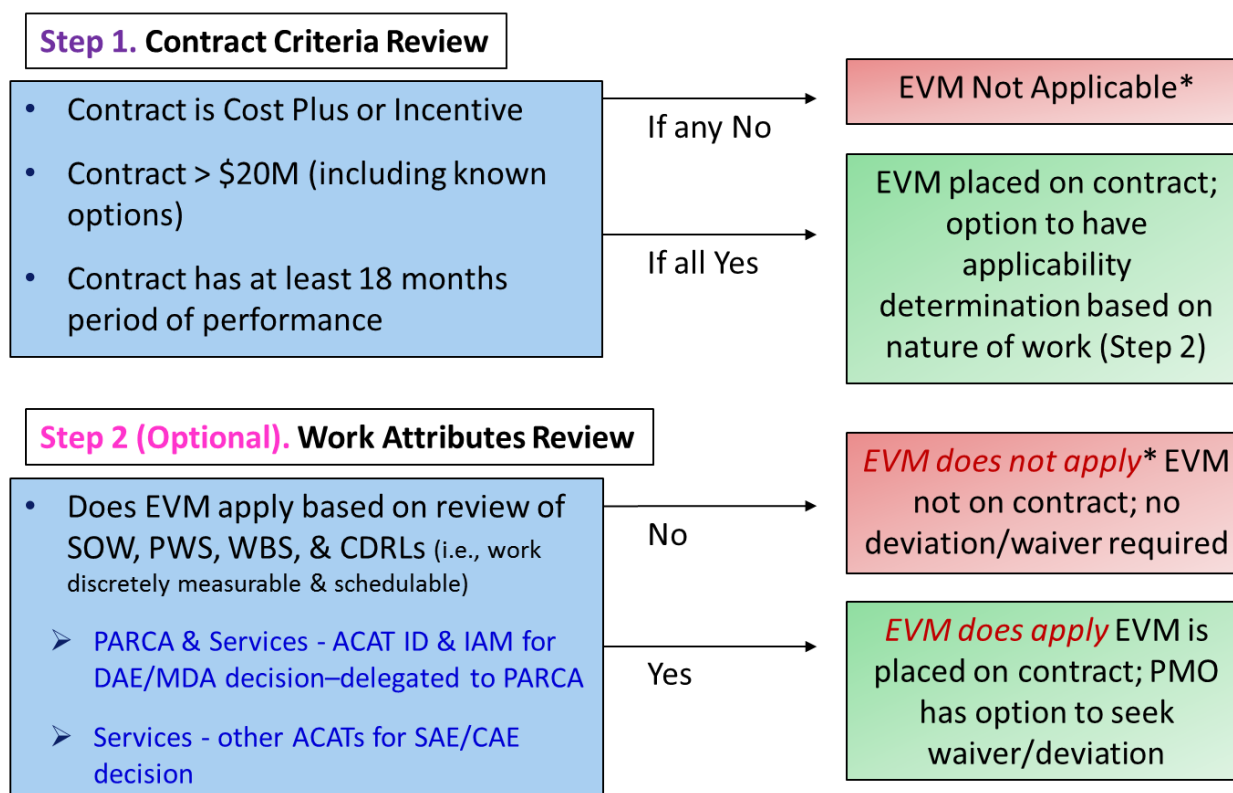
#### **2.2.2.8 EVM Applicability Determination and Exclusion Waivers**

Per the DoDI 5000.02, when a contract meets the contract criteria (type, dollar, duration) thresholds for EVM application, EVM is then applied. A work attributes review can be completed to determine the applicability of EVM to the work scope.. For contracts where USD A&S is the MDA/DAE, AAP reviews and approves EVM applicability in coordination with the appropriate Service/Agency EVM focal point. For all other [Acquisition Category \(ACAT\)](#) program contracts, the Service/Agency CAE or designee determines EVM applicability. If AAP, the CAE, or designee determines that EVM does not apply based on the nature of the work scope, then EVM is not required to be placed on contract (i.e., no DFARS deviation is required). See Figure 2 below for the decision process for EVM application.

In some cases, the contract may meet the contract criteria thresholds and EVM applicability determination based on work scope, but the PM still wishes to exempt EVM for other reasons. In those cases, the appropriate authority must review and approve the exclusion of DFARS clauses and waivers of mandatory reporting. A situational example is the award of a “Fixed Price Incentive” contract in a mature, production environment, which establishes an overall price ceiling and gives the contractor some degree of cost responsibility in the interim before a firm arrangement can be negotiated. The PM evaluates the risk in the contract effort and requests an EVM waiver through its component EVM focal point for appropriate authority evaluation to waive EVM. However, if a program has received a determination of non-applicability, then a DFARS waiver or deviation is not required.

#### **2.2.2.9 Support and Advice**

In structuring a procurement to include EVM requirements, those preparing the solicitation package should seek the advice and guidance of their component EVM focal point.



**FIGURE 2: DECISION PROCESS FOR EVM APPLICATION**

**\*NOTE ON FIGURE 2: DECISION PROCESS FOR EVM APPLICATION:** The PM has the option to make a business case to apply EVM outside the thresholds and application decision.

#### 2.2.2.10 Earned Value Management Central Repository (EVM-CR)/Format of IPMR Delivery

The DoD established a single [Earned Value Management Central Repository \(EVM-CR\)](#) as the authoritative source for EVM data on ACAT 1 programs. The EVM-CR business rules and processes control and provide timely access to EVM data for the [Office of the Secretary of Defense \(OSD\)](#), the Services, and the DoD Components. Accordingly, all DoD contractors for ACAT I programs with EVM requirements submit their IPMRs and CFSRs to the EVM-CR. The EVM-CR provides capability to upload, review, approve, and download all EVM reporting documents. To be the authoritative source of contract EVM data, the data is provided directly by the contractor and reviewed and approved by the Government PMO. Government EVM analysts reviewing contractor submissions should be knowledgeable of the EVM-CR and how to set up the reporting streams, which facilitate initial submissions made by the contractor. **Note:** The EVM-CR is an unclassified system.

All formats should be submitted electronically in accordance with the DoD-approved schemas as described in the IPMR DID. The [Contract Data Requirements List \(CDRL\)](#) specifies reporting requirements.

Any program with EVM reporting requirements regardless of ACAT level can use the EVM-CR to collect and store EVM reporting data.

## 2.2.3 General Guidance for Program Managers

### 2.2.3.1 Work Breakdown Structure (WBS)

Developed by the PM and the PMO staff early in the program planning phase, the [Program Work Breakdown Structure \(PWBS\)](#) is a key document. The WBS forms the basis for the SOW, SE plans, IMS, EVMS, and other status reporting (see MIL-STD-881, Work Breakdown Structure Standard, for further guidance).

### 2.2.3.2 Program Manager Responsibilities

The PM has the responsibility to follow current DoD policy in applying EVM and IMS requirements to the proposed contract. The contract SOW and the applicable solicitation/contract clauses define EVMS requirements (see Paragraphs 2.2.5.2 and 2.2.5.3 for additional guidance).

As previously stated, the CDRL defines EVM reporting requirements IAW DI-MGMT-81861 Integrated Program Management Report (IPMR). The PM should tailor reporting requirements based on a realistic assessment of management information needs for effective program control within the requirements prescribed in DI-MGMT-81861 and the IPMR Implementation Guide. The PM can tailor requirements that optimize contract visibility while minimizing intrusion into the contractor's operations. Government reporting requirements are to be specified separately in the contract using a CDRL (DD Form 1423-1 or equivalent). The solicitation document and the contract should contain these requirements. The PM is also engaged in the evaluation of the proposed EVMS during source selection. See [Appendix D: Sample Award Fee Criteria](#) for examples that can be used as a summary checklist of implementation actions.

## 2.2.4 Acquisition Strategy/Acquisition Plan

The AS describes the PM's plan to achieve program execution and programmatic goals across the entire program life cycle. A key document in the pre-contract phase, the AS details the process for procuring the required hardware, software, and/or services.

The Acquisition Plan reflects the specific actions necessary to execute the approach established in the approved AS and guiding contractual implementation. The procuring activity should explain in the management section of the Acquisition Plan the reason for selection of contract type and the risk assessment results leading to plans for managing cost, schedule, and technical performance. Refer to the FAR, Subpart 7.1.

## 2.2.5 Preparation of the Solicitation

### 2.2.5.1 Major Areas

Four major areas of the solicitation package should address EVM requirements: WBS, DFARS Clauses, SOW, and CDRL. Of these areas, determine the latest revision of the document to apply to the contract; each area is described in more detail in the following sections.

<b>WBS</b>	Describes the underlying product-oriented framework for program planning and reporting
<b>DFARS Clauses</b>	Requires the contractor to use a compliant EVMS and may require the contractor to use an approved EVMS
<b>SOW</b>	Describes the work to be done by the contractor, including data items
<b>CDRL</b>	Describes the government's tailored requirements for each data item

### 2.2.5.2 Work Breakdown Structure

As discussed previously in Paragraph 2.2.3.1 Work Breakdown Structure (WBS), the PM and PMO staff should develop the WBS very early in the program planning phase. The PWBS contains all WBS elements needed to define the entire program, including government activities. The [Contract Work Breakdown Structure \(CWBS\)](#) is the government-approved WBS for reporting purposes and its discretionary extension to lower levels by the contractor, in accordance with government direction and the SOW. It includes all the elements for the products (i.e., hardware, software, data, or services) that are the responsibility of the contractor. The government should speak to the contractor to ensure the WBS structure aligns with how the contractor will actually manage the work. The contractor's internal WBS may differ from the cost reporting structure; however, the internal WBS should be mapped to the cost reporting structure. Additionally, the WBS used for IPMR reporting may differ from the cost reporting structure.

### 2.2.5.3 Defense Federal Acquisition Regulation Supplement (DFARS) Clauses

Include the appropriate DFARS provisions and clauses in the solicitation and the resulting contract (see Figure 3). The same provisions and clauses go in the solicitation or contract regardless of dollar value. However, the offeror has different response options based on the dollar value of the effort. The figure shows these options when an RFP has the EVMS provision.

See <http://www.acq.osd.mil/dpap/dars/dfars/html/current> for the latest version of the clauses.

EVMS Provision and Clause greater than \$100M		
252.234-7001	Solicitation	Requires compliance with the Guidelines. Contractor shall assert that it has an approved system or show a plan to achieve system approval.
252.234-7002	Solicitations, Contract	Contractor shall use the approved system in contract performance or shall use the current system and take necessary actions to meet the milestones in the contractor's EVMS Plan. Requires IBRs. Approval of system changes and <a href="#">Over Target Baseline (OTB)</a> / <a href="#">Over Target Schedule (OTS)</a> . Access to data for surveillance. Applicable to subs.
252.242-7005	Contract	System disapproval and contract withholds may result if significant deficiencies exist in the EVMS as identified by the ACO.

EVMS Provision and Clause less than \$100M		
252.234-7001	Solicitation	Provides a written summary of management procedures or asserts the contractor has an approved system. RFP states that government system approval is not required.
252.234-7002	Solicitations, Contract	Contractor shall comply with the Guidelines in contract performance, but system approval is not required. Requires IBRs. Approval of OTB/OTS and notification of system changes. Access to data for surveillance. Applicable to subs.

252.242 -7005	Contract	System disapproval and contract withholds may result if significant deficiencies exist in the EVMS as identified by the ACO.
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**FIGURE 3: DFARS CLAUSES**

**NOTE:** Until there is a final rule on the new DFARS clauses, use the existing clauses.

For contracts valued less than \$100M, inclusion of the following paragraph in the SOW is suggested: *“In regards to DFARS 252.234-7001 and 252.234-7002, the contractor is required to have an EVMS that complies with the EVMS Guidelines; however, the government will not formally accept the contractor’s management system (no compliance review).”*

#### **2.2.5.4 Statement of Work (SOW)**

The SOW should contain the following requirements. See [Appendix F: Sample SOW Paragraphs](#) for sample SOW paragraphs.

- Contractor should develop the CWBS to the level needed for adequate management and control of the contractual effort.
- Contractor should perform the contract technical effort using a Guidelines-compliant EVMS that correlates cost and schedule performance with technical progress. The SOW should call for presentation and discussion of progress and problems in periodic program management reviews. Cover technical issues in terms of performance goals, exit criteria, schedule progress, risk, and cost impact.
- The SOW should also contain and describe the requirement for the IBR process. This establishes the requirement for the initial IBR within 180 days after contract award/[Authorization to Proceed \(ATP\)](#) and for incremental IBRs as needed throughout the life of the contract for major contract changes involving replanning or detail planning of the next phase of program. In case of Undefined Contract Actions, IBRs should be held incrementally and not delayed until the contract is fully definitized.
- Major subcontractors should be identified by name or subcontracted effort. If subcontractors are not known at time of solicitation, they should be designated for EVM compliance or flow down of EVMS compliance to subcontractors.
- Integrated program management reporting should require an IPMR, a CFSR, and a CWBS with dictionary. Data items are called out by parenthetical references at the end of the appropriate SOW paragraph. Specify if subcontractor IPMR reports are to be included as attachments to the prime contractor reports.

#### **2.2.5.5 Contract Data Requirements List (CDRL)**

While excessive cost and schedule reporting requirements can be a source of increased contract costs, careful consideration when preparing the CDRL ensures that it identifies the appropriate data needs of the program and the appropriate DID. In Block 16 of the DD Form 1423-1, pay particular attention to the items in DI-MGMT-81861, which require the PMO to define tailoring opportunities (i.e., variance reporting selection, Format 1 reporting, etc.). The CDRL provides contractual direction for preparation and submission of reports, including reporting frequency, distribution, and tailoring instructions. DD Form 1423-1 specifies the data requirements and delivery information.

The level of detail in the EVM reporting, which is placed on contract in a CDRL referencing the IPMR, should also be based on scope, complexity, and level of risk. The IPMR's primary value to the government is its utility in reflecting current contract status and projecting future contract performance. It is used by the DoD component staff, including PMs, engineers, cost estimators, and financial management personnel as a basis for communicating performance status with the contractor. In establishing the cost and schedule reporting requirements, the PM shall limit the reporting to what can and should be effectively used. The PM shall consider the level of information to be used by key stakeholders beyond the PMO. When established comprehensively and consistently with CWBS-based reports, EVM data is an invaluable resource for DoD analysis and understanding. Consider how the PMO is or may be organized to manage the effort, and tailor the reporting to those needs.

The government should consider the management structure and reporting levels prior to RFP and during negotiations with the contractor when the government identifies a WBS and contract data requirements. The contractor often uses the framework defined in the RFP to establish its planning and management infrastructure, including the establishment of CAs, WPs, and charge numbers. Decisions made prior to RFP have direct impact on the resources employed by the contract in the implementation of the EVMS and data available to the government.

When finalizing contract documentation, determine the last significant milestone or deliverable early and include it in the CDRL Block 16. Forward thinking minimizes required contract changes at the end of the program Period of Performance when it is time to adjust or cease EVM reporting on the contract.

**NOTE:** The EVM data provided by the contractor can provide a secondary benefit to the cost estimators during the CSDR planning process. IPMR reporting should be managed by the PMO to include considerations from the cost, engineering, logistics, and other Government communities in order to ensure the data will be of use in the future. While the PMO team manages the EVM data process, several other communities rely on this information to make data-driven predictions of future program costs and performance characteristics.

#### **2.2.5.5.1 Electronic Data Submission**

All formats should be submitted electronically in accordance with DoD-approved schemas posted on the EVM-CR website. The government may also require native scheduling formats in the CDRL down to the reporting level as part of the IPMR submissions.

#### **2.2.5.5.2 General Tailoring Guidelines**

All parts of DIDs can be tailored as necessary per the tailoring guidance contained in this guide. However, there are prohibitions against adding requirements beyond the standard DID. Tailoring is accomplished via the DD 1423-1, CDRL form. Any tailoring instructions, such as frequency, depth, or formats required, are annotated on the CDRL forms.

The program office should have an internal process to review and approve all CDRLs for the contract. The EVM analysts at each acquisition command should provide assistance in tailoring the IPMR. The IPMR is a program management report, and the CDRLs should be prepared by or discussed with the PM.

The IPMR applies to all contracts that meet EVM application requirements. However, for contracts valued at or greater than \$20M but less than \$50M, it is recommended that IPMR reporting requirements be



tailored. Tailoring to the specific needs of the program is highly encouraged and is described in greater detail below. Sample DD Forms 1423-1 for the IPMR are included in Appendix E: Sample CDRL Forms. In addition, refer to Service or Agency data managers of CDRL templates.

## **2.2.5.6 Tailoring Guidance for the Integrated Program Management Report (IPMR)**

### **2.2.5.6.1 Introduction**

As the IPMR conveys information about the performance of a program or contract, it should always be carefully tailored to meet the needs of the PM and the program team. As such, the IPMR is a useful means of communicating program status from the contractor to the government. It should reflect how the contractor is using EVM as a tool to manage contract performance. This section describes additional tailoring options beyond tailoring specific IPMR formats that may be considered when preparing contract data deliverable requirements.

The primary challenge for the joint team is to tailor the report so that it meets these primary needs and not allowing it to degenerate into a report that can only be used to analyze historical costs. Careful attention is therefore required during the proposal and contract definitization stages to tailor the IPMR DID (DI-MGMT-81861).

### **2.2.5.6.2 Risk Factors**

The government PM should carefully consider the following risk factors when tailoring the IPMR DID.

#### **2.2.5.6.2.1 Complexity**

Complexity factors can usually be attributed to technical risk, schedule risk, or cost risk. An Integrated Risk Assessment performed by the program team prior to contract award can help identify these risk factors and their interdependence. This analysis can pinpoint specific WBS elements with the highest risk that can be highlighted for more detailed reporting (i.e., reporting at lower levels of the CWBS on the IPMR cost and schedule performance by WBS, narrative of analysis and variances, IMS, and time-phased historical and forecast cost submission).

Schedule risk is often overlooked for its contribution to driving contract performance and cost overruns. The IMS requirement supports schedule assessment and identification of [Critical Path \(CP\)](#) impacts. Thorough SRA, focusing on integration efforts (e.g., hardware/software, subcontractor effort, material, etc.), should identify elements that require management attention. The PMO should conduct an SRA as early as possible in the planning phase to aid in refining the contract reporting requirements (see Paragraph 2.2.5.7.5 for related information on the requirement for the contractor to conduct SRA as part of the IMS).

#### **2.2.5.6.2.2 Program Phase**

Generally, development contracts contain much more risk than production contracts. It is usually more difficult to forecast accurately labor hour requirements and a realistic schedule for development efforts. As a result, the IPMR baseline and staffing information should take on more importance during development contracts to provide insight into the contract baseline and to help analyze performance identify potential future problems. While also important for production or operations and maintenance contracts, the reporting frequency of baseline and staffing information for these contracts less than \$50M may be tailored for lesser frequency (e.g., quarterly).

The type and number of risk elements also differ depending on program phase. It is critical for the PMO to identify any risk areas for the contract to ensure adequate reporting visibility prior to tailoring the CDRL. Specify areas of risk in the CDRL for more detailed reporting.

### 2.2.5.6.3 Specific Instructions

Consider the complexity factors discussed in Paragraph 2.2.5.6.2.1 when determining the degree of tailoring that is appropriate for the IPMR data item for a given contract. The risk inherent to the program should be the prime consideration for tailoring of the IPMR. Other factors to consider are the size of the contract, complexity of integration with other contract efforts, reliance on [Government Furnished Equipment \(GFE\)](#) / [Government Furnished Property \(GFP\)](#), technology maturity, and type of contract. The IPMR Implementation Guide contains additional IPMR tailoring guidance.

#### 2.2.5.6.3.1 DD 1423-1, Blocks 10, 12, and 13

**Block 10** (Frequency): Enter the frequency of the report. Normally, deliver the IPMR no less frequently than monthly. NOTE: If the contractor is using weekly EVM, weekly performance data may be provided as an adjunct to the submission of the full report. Normally weekly EVM data is for internal labor only and may be reported on the cost and schedule performance report. The contractor and government should discuss data availability and delivery and tailor the CDRL as appropriate.

**Block 12** (Date of first submission): Enter “See Block 16” and describe further in Block 16. Normally, the first submission is specified to be made no later than 12 working days after the end of the second full accounting period following the contract ATP.

**Block 13** (Date of subsequent submissions): Enter “See Block 16”; describe further in Block 16.

The IPMR DID specifies delivery timing of the IPMR. The default for negotiations should be the timing specified in the DID. This requirement may be tailored through contract negotiations to allow later submission as allowed in the DID, provided that the contractor and government agree that the program complexity and/or integration of subcontractor and vendor performance data warrant additional time and would yield more accurate performance data. Contractor justification should include reporting data integration as the primary reason for needing additional time. Highly complex contracts that require a high degree of integration of performance reporting from contractor partners or subcontractors may require additional time to integrate performance data. Contractors may also elect to attach subcontractor IPMRs and/or reference this analysis in the prime contractor’s narrative of analysis and variances to the government in order to gain time efficiencies and meet submission dates. In addition, the program office via CDRL language may explicitly require the contractor attach subcontractor IPMRs.

**Flash Data:** If desired by the government and agreed to by the contractor, specify that cost and schedule performance data should be delivered as flash data within seven working days and that remaining formats should be delivered later per the delivery timeframe specified in the DID.

**Final Submission:** Final submission should be specified within Block 16 as well and typically is specified as “when the last significant milestone/deliverable as defined by the contract has been achieved and remaining risk areas have been mitigated” with program office agreement/acknowledgement. If no significant milestone/deliverable can be identified, use 95% complete as the default stopping point, with

a final IPMR delivery at contract completion. Refer to section 2.5.6 for additional items to consider when pre-planning for final IPMR submission.

**Block 16.** This block is used to tailor the requirements in the DID. Tailoring can include WBS reporting levels, required formats, reporting frequencies, designation of time periods for baseline and staffing data, variance reporting thresholds, and delivery options. These are described below in more detail.

#### **2.2.5.6.3.2.1 WBS Reporting Levels**

The PM should carefully evaluate the CWBS reporting levels selected for routine reporting to ensure that the data necessary for effective management control and cost analysis requirements are obtained. The reporting level specified in the CDRL is normally at CWBS level three. Reporting may be specified at lower levels for complicated, high cost, or high risk items. It is not necessary for reporting levels in different legs of the WBS to be the same. For example, reporting in the Prime Mission Equipment leg of the WBS may be at WBS level four, while reporting in the Training leg may be at level three. Program management personnel should determine the appropriate level (refer to the guidance in Paragraph 2.2.5.6.2, Risk Factors, for aid in selection of reporting levels).

Evaluate and change the reporting level of WBS elements periodically, as necessary, to ensure that the IPMR continues to satisfy the PM's needs. Reviewing the amount or type of work remaining is imperative prior to making decisions to change reporting. Things to consider include type or amount of work remaining, whether or not remaining work includes risky GFE or contractor-supplied material, anticipated major modifications, schedule and cost trends, significant milestone completion, percent complete, risk/opportunities remaining, and phase of program. If the PM is comfortable with ceasing or reducing EVM reporting given the type and amount of work remaining on the contract, then ceasing or reducing EVM reporting should be considered.

If a CCDR requirement has also been placed on the contract, there may be a difference between the CCDR and IPMR as to the allocation and reporting of General and Administrative (G&A) indirect costs. CCDR requires G&A to be collected and reported separately as an "add" item on the CCDR reports. However, the IPMR DID allows the contractor flexibility in assigning responsibility and allocating costs for all indirect costs, including G&A, across the WBS elements. If the contractor does allocate G&A to the WBS elements in the IPMR, the program office may wish to ask for an additional IPMR cost and schedule performance data report by WBS coinciding with the CCDR report submission that mirrors the non-allocation of G&A. The purpose of this additional report would be to reconcile with the CCDR reports, but this should not drive additional variance reporting.

The time-phased historical and forecast cost submission is required at the same level as WBS cost and performance report. Optionally, the government may define reporting at a lower level.

#### **2.2.5.6.3.2.2 Selection of Formats**

Utilize Figure 4 to help understand the content and uses of each IPMR format. Figure 4 provides guidance on the selection of IPMR formats, per OSD policy.

Format Title	Frequency	Description	Use of Format	Selection
<b>1. Work Breakdown Structure (WBS)</b>	At least monthly. Shall be identified in the CDRL.	Reports performance data ( <a href="#">BCWS</a> , <a href="#">BCWP</a> , and <a href="#">ACWP</a> ) by WBS elements for the current period as well as cumulative to date data; cost and schedule variances; any reprogramming adjustment, <a href="#">BAC</a> , EAC, and <a href="#">VAC</a> by element; <a href="#">MR</a> and <a href="#">UB</a> ; and indirect costs if requested.	Isolate key cost and schedule variances, quantify the impact, analyze, and project future performance. Performance issues isolated at lowest level and analyzed for impact to overall cost and schedule variances.	<p>≥\$20M contracts: Mandatory</p> <p>Small contracts &lt;\$20M: Recommended</p>
<b>2. Organizational Structure</b>	At least monthly. Shall be identified in the CDRL.	Reports the same data as WBS report but identified by contractor functional labor categories, major subcontractors, and material.	Same uses as WBS report but provides for analysis of internal (labor) variances or external (subcontractor/material) variances.	<p>≥\$50M contracts: Mandatory</p> <p>≥\$20M but &lt;\$50M contracts: Optional but recommended for development contracts or contracts with significant outsourcing efforts</p>
<b>3. Baseline</b>	At least monthly. Shall be identified in the CDRL.	Budgeted time-phased baseline costs to end of program. This format shows significant baseline changes authorized during the reporting period. Data includes <a href="#">CBB</a> , <a href="#">TAB</a> , completion dates, and MR.	Determining if there has been a shift in the baseline curve since the previous report. Analysis can focus on the distribution of cost for authorized changes to the baseline during the period. Used to determine if OTB or OTS has been incorporated into the program	<p>≥\$50M contracts: Mandatory</p> <p>≥\$20M but &lt;\$50M contracts: Optional but recommended for development contracts</p>
<b>4. Staffing</b>	At least monthly. Shall be identified in the CDRL.	Staffing forecasts in months by functional category until the end of the contract.	Staffing data plotted over time and correlated to the estimated staffing required to support major milestones/activities on the contract schedule shows accuracy	<p>≥\$50M contracts: Mandatory</p> <p>≥\$20M but &lt;\$50M contracts: Optional but</p>

			of labor estimates. Analyze projected staffing levels for consistency with scheduled activities. Correlate this analysis with organizational structure and baseline data.	recommended for development contracts
<b>5. Explanation and Problem Analyses</b>	At least monthly. Shall be identified in the CDRL.	Narrative explanation of key cost and schedule variances and VAC. Contractor describes reasons, program impacts, and corrective action plans for significant drivers at the lowest specified level and at the total contract level. Includes analysis of MR, UB, and overall risk.	Correlated with WBS and organizational structure data to understand reasons for the variances. Helps the analyst prepare an integrated assessment of past/future trends and analyze overall ability to execute. PM can then make informed decisions.	≥\$20M contracts: Mandatory  Small contracts <\$20M: Recommended
<b>6. Integrated Master Schedule</b>	At least monthly. Shall be identified in the CDRL.	Defines the schedule for completing the contract. Is consistent with all other formats.	Used to schedule the project and determine the Critical Path. Contains both the baseline and forecast schedules and predicts the contract completion date and all interim milestones.	≥\$20M contracts: Mandatory  Small contracts <\$20M: Recommended
<b>7. Electronic History and Forecast File</b>	At least annually. May be specified in the CDRL.	Defines the time-phased historical and forecast cost data	Provides supplemental, historical, and time-phased information in the DoD approved electronic format specified in the CDRL by WBS.	≥\$20M contracts: Mandatory  Small contracts <\$20M: Recommended

**FIGURE 4: INTEGRATED PROGRAM MANAGEMENT REPORT (IPMR) DATA**

### 2.2.5.6.3.2.3 Reporting Frequencies

The normal reporting frequency for all formats is monthly. However, this can be tailored as appropriate. Some contractors may use weekly EVM data and offer to provide it to the government; this can be negotiated and specified in Block 16. Certain formats may lend themselves to tailoring to less frequent reporting under certain circumstances. Refer to Figure 4 for guidance.

### 2.2.5.6.3.2.4 Designation of Time Periods for IPMR Staffing and Baseline Data

The IPMR DID requires the contractor to provide IPMR staffing and baseline data by specified periods or periodic increments and as negotiated with the procuring activity. Those specified periods should be consistent between the two. The CDRL specifies that the next six months are separately identified and followed by quarterly, six-month, annual, or other increments specified by the program to complete. The following example demonstrates how the reports may be specified in the CDRL. EXAMPLE: The baseline data should contain the baseline at the beginning of the month and changes to that baseline during the reporting period, resulting in the baseline at the end of the month. The staffing data contains staffing forecasts in [Full Time Equivalents \(FTEs\)](#) that are consistent with the contractor's most likely [Estimate at Completion \(EAC\)](#).

### 2.2.5.6.3.2.5 Narrative of Analysis and Variances Reporting Thresholds

It is highly recommended that all requirements for narrative of analysis and variances contained in the IPMR DID (DI-MGMT-81861) be retained. Variance analysis should contain the following narrative elements:

#### **Contract Summary Analysis**

- Summary of Overall Contract Variances
- Differences Between EACs
- Summary of EAC assumptions
- Summary of Contract Modifications
- Changes in UB
- Changes in MR
- Significant Time-phasing Shifts in Baseline (BCWS). "Significant" should be defined in the CDRL and expressed as a percentage change from the prior report.
- Significant Time-phasing Shifts or Overall Changes in Forecasted Staffing. "Significant" should be defined in the CDRL and expressed as a percentage change from the prior report.
- Discussion of OTB and/or OTS Incorporation

#### **Analysis of Significant Variances (Identify and Describe Each)**

- Type and Magnitude of Variance
- Explanation of Significant Reasons
- Effect on Immediate Task
- Effect on Downstream Activities/ Milestones
- Effect on Total Contract
- Corrective Actions Taken or Planned
- Impact to Critical Path and EAC

The government should require the minimum amount of variance analysis that satisfies its management information needs but adequately addresses all significant variances. Excessive

variance analysis is burdensome and costly and detracts from the IPMR's usefulness, while too little information is equally undesirable. However, a formal record of performance issues and mitigation efforts is a means to maintain transparency and situational awareness. It is important to consider where there is risk in the program when determining what schedule variances to report; ideally variance reporting and risk management are aligned. Additionally, the use of contractor formats and informal means (e.g., regular performance meetings) should be maximized to gain the most useful insight and current insight into program performance.

The CDRL should be explicit as to how the government is notified of the variance pool reportable, and optionally how the government will notify the contractor of the reportable variance WBS elements.

Block 16 should include a statement that cost and schedule variance analysis thresholds be reviewed periodically (normally semiannually) to determine if they continue to meet the government's information needs. If they do not, change the thresholds at no cost to the government. There is no prescribed basis via OSD policy for identification of significant cost and schedule variances for reporting. The government may specify any one of several ways to identify such variances, including but not limited to the following:

Fixed Number of Variances. Specify the number of variances to be analyzed. The significance of these variances can be based on any of the following: current month, cumulative to date, at-completion estimates, or assessments of risk areas as identified through the government/contractor management review process. Any number of significant variances may be selected, but the government should be careful to select only the number needed for effective program management. Government leads are accountable for all data received and should take action as appropriate.

Percentage or Dollar Thresholds. Select variances to be analyzed based on percentage or dollar thresholds or a combination of both. For example, all current month, cumulative or at-completion variances +/- 10% may be selected for analysis. If selecting variances based on dollar thresholds, specify the variances as plus or minus some dollar amount (e.g., +/- \$25K). The dollar amount selected should be appropriate for the value of the effort involved. A variation of this method is to select variances based on both percentage and dollar thresholds. For example, all current, cumulative, or at-completion variances +/- 10% and +/- \$50K may be selected for analysis. Review the thresholds periodically to ensure they continue to provide a reasonable amount of useful information. If the variances collected over the period of the contract may change, it is prudent to place verbiage on the contract that states the government will require a specific number of variances; a subset of which are mandatory for the period of the contract and another subset of which the government has the option to change or increase over the life of the contract. Ensuring such verbiage is placed on contract prevents additional charges later. Another option is to use the Specific Variances methodology discussed below, which should also be indicated in the contract.

Specific Variances. In this methodology, the PMO selects elements for variance analysis only after reviewing cost and schedule performance data. Using this method, the IPMR is delivered promptly after the contractor's accounting period ends with all required information. Once the government has reviewed this performance data, it selects specific variances for analysis by the contractor.

These variances should align to the risk management process where the PMO sees risk. Notification will be provided within an agreed upon timeframe prior to the CDRL delivery date. Given risk and critical path may change over the life of the contract, this method may be the most efficient, allowing the government to pinpoint areas to be analyzed. As there may be some months when a review of the performance data yields few or insignificant variance analysis candidates, it is also the most flexible. When using this methodology it is important to consult with the PMO and keep the PMO informed of the variance reports. One of the key areas of EVM, variance analysis and reporting facilitates true integrated program management. However, this method should only be used if the government is certain it has sufficient resources to review each monthly IPMR promptly to select the variances for which explanations are needed.

Contractor-determined Significant Variances. Using this methodology, there are no predetermined variance thresholds, as the contractor selects the significant variances for reporting each month. The government reserves the right to modify the CDRL and to designate specific variance thresholds should the contractor continue to select too few variances for analysis and reporting.

#### **2.2.5.6.3.2.6 Dollars and Hours Reporting**

The default IPMR reporting is in dollars. Optionally, separate reporting may be required in hours. If separate hours-based cost and schedule performance reporting is required, the CDRL will specify the basis for variance analysis (hours or dollars).

#### **2.2.5.6.3.3 IPMR Tailoring on Cost or Incentive Contracts Valued at Less Than \$20M**

There is no EVM requirement for contracts valued less than \$20M (see section 2.2.2.3.1). However, in cases where the IPMR CDRL will be utilized, there are more options available in tailoring the IPMR. IPMR cost and schedule performance data, narrative of analysis and variances, IMS, and time-phased historical and forecast cost submission are recommended, and variance analysis can be scaled down to include the top variances. The level of reporting is dependent on the contract risk regardless of value. The following tailoring options are available depending on the level of risk:

- Significant variances can be identified and defined by the contractor
- IPMRs may be submitted entirely online
- Formal variance analysis may be replaced with internal reports or status meetings.

#### **2.2.5.6.3.4 IPMR Tailoring Guidance for Firm Fixed Price (FFP) Contracts**

Only the MDA can grant a waiver allowing application of the EVMS DFARS to an FFP contract (see Paragraph 2.2.2.1). However, a waiver from the MDA is not needed if the government wishes to receive the IMS only and will not be applying the EVMS DFARS.

Once granted, apply only the minimal EVM reporting requirements necessary to provide the government team with the desired visibility into program performance. Since cost exposure is minimized in an FFP environment, the government may elect to receive the IMS in order to manage schedule risk.

In addition to the tailoring guidance described in the preceding paragraphs, the following guidance should aid in tailoring the IPMR for FFP contracts:



#### **2.2.5.6.3.4.1 Cost and Schedule Performance by WBS and Organizational Structure**

The contractor may wish to preserve the company's competitive edge for future contracts by not divulging the costs (and therefore profit margin) of an FFP contract. The government may consider allowing the contractor to report cost and schedule performance data by labor hours (not dollars) and may further roll up reporting to a high level of WBS reporting. Reporting of labor hours would preclude inclusion of material dollars on either format. Alternatively, the government may consider performance reporting at the price level (fees included) for cost and schedule performance data. Under this option, the contractor develops a cost to price factor and applies it evenly across all data in all reporting periods. The CDRL should specify that independent checks of the correct application of this factor be conducted at various points throughout the contract. The CDRL should also specify that the cost to price factor be baselined, uniformly applied, and not modified during execution in order to prevent front loading or restriction of actual costs to the capped price level.

**NOTE:** These exceptions from standard IPMR reporting do not apply to contracts that have CCDR requirements. These contracts report costs by CWBS and the total profit/fee as a separate line item in accordance with DoD 5000.4-M-1, CSDR Manual, and the CWBS DID (DI-MGMT-81334D).

#### **2.2.5.6.3.4.2 Baseline**

This report is optional for FFP contracts but may be required when there is a high potential for significant changes in requirements or sequence of activities. It may be important for the PMO to understand the changes to time phased resources in the baseline.

#### **2.2.5.6.3.4.3 Staffing**

Not recommended for FFP contracts.

#### **2.2.5.6.3.4.4 Narrative of Analysis and Variances**

In addition to the standard recommendations for selection of significant elements, the government should consider the nature of the contract work and the rationale for applying EVM to the FFP contract. Completion of the BCA should help the PM target the risky elements of the contract for variance reporting.

If concerned more about schedule performance than cost performance, the government may limit or eliminate variance analysis of the significant cost and VAC, focusing attention on schedule variances. Another alternative is to eliminate the narrative of analysis and variances altogether and to rely on the written analysis provided as part of the IMS data item.

The narrative of analysis and variances may be optional if the contractor and government agree on alternate methods of understanding performance (e.g., weekly team status meetings, online access to contractor internal reports, or line of balance schedules).

### **2.2.5.7 Tailoring Guidance for the IPMR IMS**

#### **2.2.5.7.1 Introduction**

The CDRL for the IPMR IMS submission should focus on the requirements needed for schedule management. These schedules contain an integrated network of tasks, subtasks, activities, and milestones with sufficient logic and durations to perform the SOW. The contractor develops the IMS in conjunction with the CWBS and, if applicable, the [Integrated Master Plan \(IMP\)](#).

The IMS shows “how” and “when” the IMP is accomplished. It should be an extension of the information contained within the IMP or high-level program plan, reflecting not only the events, significant accomplishments, and criteria identified in the IMP but also the tasks subordinate to the criteria. IMS quality should be such that it provides a key tool for ensuring consistency of actions and unity of purpose among program team members. The IMS should describe a realistic and supportable schedule consistent with the IMP and the EVM PMB as applicable. The network should determine the flow of the IMS.

The IMS is an integrated, networked schedule containing all the detailed discrete WPs and [Planning Packages \(PPs\)](#) (or lower level tasks/activities) necessary to support the events, accomplishments, and criteria of the IMP (if applicable). The IMP events, accomplishments, and criteria are duplicated in the IMS. Detailed tasks are added to depict the steps required to satisfy each criterion. The IMS should be directly traceable to the IMP and should include all the elements associated with development, production, and/or modification and delivery of the total product and/or program high level plan. Durations are entered for each discrete WP and PP (or lower level task/activity), along with predecessor/successor relationships and any constraints that control the start or finish of each WP and PP (or lower level task/activity). The result is a fully networked “bottom-up” schedule that supports CP analysis. Note that although durations are assigned at the WP and PP (or lower level task/activity) level, these durations roll up to show the overall duration of any event, accomplishment or criterion. When LOE WPs or tasks/activities are included in the IMS, clearly identify them as such. LOE should not drive the Driving Path(s)/CP.

**NOTE:** When the work is being done in an Agile environment, visibility to lower level detail (e.g., stories) is not in the IMS; therefore, there is no network logic applied to the lower level details. The lower level details are contained in the contractor’s Agile toolset and are necessary for determining the appropriate percent complete of the capability or next higher level where IMS visibility lies. The government team must be an integral member of the vendor team in daily/weekly scrum meetings, using the Agile metrics, as a measure of progress. See Appendix A for a link to the Agile and Earned Value Management: A Program Manager’s Desk Guide.

#### **2.2.5.7.2 Complexity Factors**

The complexity factors discussed in Paragraph 2.2.5.6.2.1 also apply to tailoring of the IMS data item. The risk inherent to the program should be the primary consideration for tailoring of the IMS. Other factors to consider are the size of the contract, complexity of integration with other contract efforts, reliance on GFE/GFP, technology maturity, and type of contract.

#### **2.2.5.7.3 DD 1423-1, Blocks 10, 12, and 13**

**Block 10** (Frequency): Submit the IMS no less frequently than monthly. The IMS shall reflect data as of the end of the contractor’s accounting period.

**Block 12** (Date of first submission): Tailor the first submission to reflect a higher level of planning or a detailed IMP and detail subsequent submission of the IMS to the DID specifications.

**Block 13** (Date of subsequent submissions): Enter “See Block 16” and describe further in Block 16. In order to align with the IPMR submissions, deliver the IMS in accordance with the required

IPMR delivery requirements. Please note that the most current schedule should be available as soon as the statusing process is complete. Additional efforts may be needed to integrate schedule data with cost performance data.

If specified in the CDRL, the contractor may be required to submit subcontractor IMS reports. Subcontractors with an EVM flowdown should status twice, once according to their accounting calendar and once according to the prime contractor's accounting calendar, if different. As a minimum, the prime contractor would have to work with the subcontractor to provide current status for the parallel tasks that are in the prime contractor's IMS. It is also recommended that, if the government requires, the subcontractor IMS reports should specify the status date. All schedules on the same status date support comparison and development of the program critical path(s). However, subcontractor schedules not statused on the subcontractor date will not integrate with the subcontractor's cost performance data in the IPMR.

#### **2.2.5.7.4 DD 1423-1, Block 16**

IMS tailoring can include level of detail, reporting frequencies, variance reporting, and SRA. These are described below in more detail.

##### **2.2.5.7.4.1 IMS Tailoring Guidance for Contracts Valued At or Greater Than \$20M, But Less Than \$50M**

The government monitors the progress of contracts valued at \$20M - \$50M with the IPMR IMS. As with the rest of the IPMR, requirements for variance reporting and the SRA can be tailored. While there is no "standard" size for an IMS, the contractor should strive to build the IMS of sufficient detail to describe the program for the government's evaluation and to manage its own day-to-day execution and monthly control of the program/project and the PMB. The identification of workflow interdependencies at the appropriate level is of prime importance and basic to all network schedules. The analysis should include a narrative describing the current CP to the program and the Driving Path to the next planning block milestone (e.g., Preliminary Design Review, Critical Design Review, 1st Flight, etc.), changes to the CP and IMP, and/or major program milestone impacts. The contractor may wish to eliminate the requirement to monitor and report [Near-Critical Path \(NCP\)](#) or Driving Path progress. Variance reporting, including thresholds, may be adjusted to reflect the size and complexity of the contract. The contractor may wish to perform the SRA on a less frequent basis prior to the start of selected critical milestones like Preliminary Design Review, Critical Design Review, Flight Test, etc.

##### **2.2.5.7.4.2 Statusing the IMS**

The IMS is statused at least as often as the IPMR is generated. It is time-synchronized in accordance with all stakeholder updates/status (i.e., vendors, subcontractors, and government activities). The IMS status cycle should consider all organizational calendars and a common status date should be established for the integration of schedule data.

##### **2.2.5.7.4.3 Analyzing and Reporting the IMS**

The IMS is analyzed and reported on a monthly basis (at a minimum) in accordance with the DID as tailored by the CDRL. Perform analysis at the lowest level (i.e., the level at which tasks are linked/constrained and where durations are estimated). The primary focus of the analysis is on the CP/NCPs, and Driving Path(s) to identify schedule risk and opportunity. The CP/NCPs, and

Driving Path(s) should report all progress and exceptions (e.g., missed baseline starts and finishes) to date by WBS to facilitate traceability to the IPMR Format 1. The 'lowest level' must be defined, and a requirement linking to the WBS must be established.

The analysis should explain changes to CP/NCP/Driving Path WPs/PPs (or lower level tasks/activities) from submission to submission as well as any changes to the IMP. The impact of CP changes on major program milestones or other major schedule risk areas should also be discussed. Work around, recovery schedules/plans, and associated impacts due to program changes should also be provided. The schedule narrative should address progress to date and discuss any significant schedule changes (e.g., added/deleted WPs, PP, or tasks/activities; significant logic revisions; and changes in programmatic schedule assumptions).

The IMS may also include the use of Schedule Visibility Tasks, which represent tasks that are not part of the budgeted program scope but could potentially impact the logic driven network. Schedule Visibility Tasks are tasks with durations but not resources that could potentially impact the critical path. The Schedule Visibility Tasks typically represent external elements, such as GFE, Customer Furnished Equipment, capital equipment, hardware shipping spans, "Wait" times or "Scheduled Maintenance" times for equipment or Government activities such as review of submitted CDRL items per the contract. Schedule Visibility Tasks can also provide insight into activities being done by subcontractors with an FFP contract.

Additional information on the use of Schedule Margin and Schedule Visibility Tasks may be found within the NDIA Planning & Scheduling Excellence Guide (PASEG).

Finally, the analysis should be able to forecast future potential delays and problems. This type of analysis should be done as needed and provided to the government and the program team to assist in the schedule risk mitigation process.

#### **2.2.5.7.4.4 IMS Reporting Levels**

The reporting level of the networked schedule should be commensurate with the assessed level of risk in the contract. High-risk efforts should drive the requirement for the most detail in the IMS with documented mitigation/recovery plans, ground rules, and assumptions. Place all mitigation/recovery plans within the IMS upon proper approval. High-risk schedules, including development and LRIP efforts, should be in the form of a networked schedule that allows calculation of a CP. As the program progresses through the acquisition phases, risk typically decreases, and the level of detail and oversight may be reduced.

The Program Critical Path is the sequence of discrete tasks/activities in the network that has the longest total duration through the contract. Accordingly, discrete tasks/activities along the CP have the least amount of float/slack. The standard for a networked schedule means that all discrete contractual tasks or activities are logically networked both horizontally and vertically with predecessor/successor logic, duration, and resources (when available) such that an accurate CP can be electronically calculated by the scheduling software application. (NOTE: Far term activities may be held at a higher level of definition but should still be included in the network calculation.) The CP also includes the associated CP program milestones, key tasks/activities, and IMP events. Schedule logic should exist at the lowest level within the schedule and minimize the use of

constraining dates. Following these general principles should result in a valid schedule network and CP. A fully networked schedule is always advisable.

The driving path is the longest sequence of discrete tasks/activities from now to a selected interim contract milestone. Discrete tasks/activities on the driving path have the least amount of total float/slack to the interim contract milestone. If a task on a driving path slips, the interim contract milestone will slip. Driving path may not be part of the contract critical path. The government may specify which driving path is currently reportable. Without government direction, the contractor reports the driving path to the next major event, at a minimum.

A detailed network schedule should clearly identify activities, product hand-offs, and deliverables from internal and external interfaces, from the lowest level of contract tasks/activities up to the summary level schedule activities and milestones. The determination of external significant and critical interfaces to be identified within the IMS requires agreement between the contractor and government and is documented accordingly.

LOE activities may be included or excluded in the network based on contractor standard procedures. LOE activities should not drive the CP, and this can be avoided by including LOE activities on the IMS without network logic. If LOE activities are included within the IMS, they are clearly identified as such. As a best practice, understand that LOE WPs (or lower level tasks/activities), by definition, cannot influence an event-driven schedule and are not required to be included in the IMS.

If inclusion is desired to maintain consistency with the cost system, include them in such a way that they do not yield erroneous CPs. LOE is required to be in the IMS whenever a resource-driven schedule is constructed utilizing resource limitations/constraints. In these cases, LOE is required to be included in the schedule along with the interdependencies with discrete work.

#### **2.2.5.7.4.5 IMP/IMS Level of Detail**

There is no “standard” size for an IMP/IMS. The contractor should strive to build an IMP and IMS of sufficient detail to fully describe the program work scope for the government’s evaluation and to manage its own day-to-day execution of the program after contract award. The contractor should succinctly describe the work required to complete the contract in sufficient detail to fully demonstrate an understanding of the scope and flow of the work. The size of the resulting IMP and IMS is dependent on numerous factors such as the length, content, and complexity of the contracted program; the amount of new development; the technical risk and associated risk mitigation activities; and the scope of required testing. An IMS summarized at too high a level may often result in masking critical elements of the plan to execute the program and fail to show the risk management approaches being used. Further, it may often result in long duration tasks and artificial linkages, which mask the true CP. Conversely, too much detail can make it more challenging to status and assess the IMS during execution.

The identification of workflow interdependencies at the appropriate level is of prime importance and basic to all network schedules. The IMS should consist of master and summary schedules and related subordinate schedules that provide a logical sequence, at a minimum, from the master to the detailed WP and PP levels. In doing so, the schedules can provide for the interdependent

sequencing of all work authorized on the contract in a manner compatible with IMP events and/or key milestones. Detailed subordinate schedules include, at a minimum, all discrete WPs and PPs (or lower level tasks/activities) as determined by the contractor's internal processes. If difficult to identify logical ties to other discrete work, the connection to the next succeeding IMP event and/or key milestone is recommended. The IMS should be defined to the level of detail necessary for day-to-day execution and monthly control of the program/project and the PMB.

#### **2.2.5.7.5 Schedule Risk Assessment (SRA)**

The IPMR DID contains a tailorable requirement for the SRA, which is a proven risk reduction scheduling practice. It is to be completed in accordance with the CDRL requirements (which can be used to tailor DID requirements) and in conjunction with the IBR. Complete the SRA on a recurring basis and/or at key points in a development contract (e.g., quarterly, semi-annually, and/or prior to selected critical milestones such as Preliminary Design Review, Critical Design Review, and Flight Test). LRIP contracts may only need to have an SRA performed at the start of the contract. The government may either perform the SRA in coordination with the vendor or separately.

##### **2.2.5.7.5.1 Purpose and Method**

The purpose of an SRA is to provide the program management team with an understanding of the potential schedule impacts associated with existing/emerging program risks. These assessments compute the probability of completing key milestones, events, WPs, PPs, or tasks/activities by specific dates.

The SRA employs software that uses Monte Carlo simulations for each of the WP and PP (or task/activity) given the range of remaining duration for determining a cumulative confidence curve. The software performs simulated "runs" of the entire program schedule many times while randomly varying the remaining durations according to a probability distribution. The results indicate a "level of confidence" for completing key milestones, events, WPs, PPs (or tasks/activities) by specific dates. The contractor uses its own SRA software to conduct its assessment; the government SRA is performed with the SRA software of its choosing.

##### **2.2.5.7.5.2 SRA for Assessments**

An SRA may be specified in the CDRL as a submission to the government, a review by the government, or both. It also documents the expectations for an SRA review by both the prime contractor and the government.

When an SRA submission is requested, the prime contractor performs the assessment and submits to the government at the required CDRL intervals. As part of its SRA requirement, the prime contractor reports most likely, minimum, and maximum remaining durations for each WP, PP, and/or task/activity on the CP/NCP and Driving Path/Near-Driving Path to selected major task(s)/milestone(s) with documentation of the assumption and rationale of the three-point estimates.

When an SRA is specified in the CDRL as part of the risk management process, the government conducts periodic SRA with the participation of the prime contractor to provide the program management team with an understanding of the potential schedule impacts.

The prime contractor conducts an SRA, and submits the assessment, three-point duration estimates, and rationale to the government. Government technical (or other qualified) personnel should review the three-point remaining duration estimates, supporting rationale, and assumptions. Where there are questions or differences in opinion, the government technical expert contacts the CAM to discuss and try to reach an understanding or agreement.

For purposes of efficiency, it is important that the review be completed in the shortest time possible. An SRA should then be performed again. If there are remaining differences in three-point duration estimates or assumptions and rationale, then the contractor and government should conduct separate SRAs.

#### **2.2.5.7.5.3 SRA Guidelines**

Use the following guidelines when performing an SRA:

- 1) For the risk assessment to be successful, the network schedule (or IMS) should be developed and maintained appropriately. Prior to performing the SRA, review the network schedule to ensure that it is accurate.
- 2) At a minimum, represent any program risk classified as “High Risk” in the IMS, including any key mitigation steps that have been identified. Code the Risk Identifier on each corresponding task/activity in the IMS (i.e., Risk ID Field) to provide traceability to the risk management process and provide additional visibility within the IMS.
- 3) Perform the assessment on the CP/NCP and Driving Path/Near-Driving Path to selected task(s)/milestone(s).
- 4) In cases where the schedule risk is known, the CAM should establish the three-point remaining duration estimates based on the likelihood of the risk occurring and the consequences if the risk is realized. The CAM establishes the minimum, most likely, and maximum remaining durations. Document the rationale used to establish the remaining durations. Use Global Weighting Values to establish minimum and maximum remaining duration estimates for tasks not identified as being on the CP/NCP and Driving Path/Near-Driving Path to selected major task(s)/milestone(s). Use the “current” remaining duration recorded in the network schedule as the most likely duration estimate.
- 5) The SRA is conducted in accordance with the CDRL. It may also be conducted when necessary to incorporate significant changes in the data or assumptions.
- 6) Track the results of each assessment to demonstrate that the overall schedule risk is decreasing over time.

#### **2.2.5.7.6 IMS Tailoring Guidance Without the EVM Requirement**

##### **2.2.5.7.6.1 Contracts Valued at Less than \$20M**

The IMS tailoring guidance for contracts valued at less than \$20M is similar to those valued at or greater than \$20M but less than \$50M. Consider the level of complexity when determining reporting levels, and consider the level of detail and variance analysis for adequate management insight.

##### **2.2.5.7.6.2 Firm Fixed Price Contracts**

The government may wish to monitor the progress of the FFP contract with the IMS. In these cases, consider the level of detail, reporting frequencies, variance reporting, and SRA tailoring.

While there is no “standard” size for an IMS, the contractor should strive to build the IMS that is adequately detailed to describe the program for the government’s evaluation and to manage its own day-to-day execution. The identification of workflow interdependencies at the appropriate level to identify the CP is of prime importance and basic to all network schedules.

The statusing and reporting of progress may be less frequent than that of cost type contracts, and variance reporting, including thresholds, may be adjusted to reflect the size and complexity of the contract. The contractor may wish to eliminate the requirement to perform an SRA or perform them on a less frequent basis. Alternative methods of monitoring schedules in an FFP environment include Line of Balance and MRP reporting. If an IMS is still desired, ensure that there is traceability between the IMS and the alternate methods.

### **2.2.5.7.6.3 Format of IMS Delivery**

#### **2.2.5.7.6.3.1 Contractor Format**

The IPMR specifies that the IMS be created using the contractor’s native IMS schedule electronic file format. As long as all reporting elements are contained in the contractor’s format, the government should accept this as a cost saving measure.

#### **2.2.5.7.6.3.2 Electronic Format**

All formats should be submitted electronically in accordance with DoD-approved schemas as described in the IPMR DID. See Appendix A for a link to the EVM-CR. The government may also require in the CDRL native scheduling formats down to the reporting level as additional, separate submissions.

### **2.2.5.8 Data Item Descriptions (DIDs)**

Copies of DIDs may be obtained from the official DoD repository for Defense Standardization Program documents, the ASSIST database. Links to the DIDs can be found on the AAP EVM website.

## **2.2.6 Source Selection Evaluation**

### **2.2.6.1 Activities**

This section describes the activities that are taken by the source selection team to evaluate each bidder’s response to the EVMS requirement in the solicitation package.

### **2.2.6.2 Proposal Submissions**

Each offeror's proposal should include a description of the EVMS to be used in accordance with the appropriate DFARS clauses (see NOTE in Paragraph 2.2.5.3) placed in the draft contract and solicitation.

#### **2.2.6.2.1 Proposal Submissions Greater than \$100M**

An offeror that proposes to use an EVMS previously accepted by the government may assert that a CO has accepted the offeror’s EVMS (see Part 1, Section 2.5). An offeror not having a previously accepted system should submit a plan to obtain EVMS acceptance (refer to DFARS clause 252.234-7001 for a description of the plan).



#### **2.2.6.2.2 Proposal Submissions Greater than \$20M and Less than \$100M**

If the offeror proposes to use an EVMS that has not been previously accepted, the proposal includes a written description of the management procedures the offeror will use and maintain in the performance of any resultant contract. The description of the offeror's EVMS should be in sufficient detail to show how it complies with the Guidelines. Aspects such as manufacturing, material, and subcontract management should be included. DFARS clause 252.234-7001 describes the requirements for this documentation. This clause also requires a matrix that cross references provisions of the EVMS description to the Guidelines.

The offeror may elect to use and apply an accepted EVMS to meet this requirement and can assert whether a CO has accepted the offeror's EVMS.

#### **2.2.6.3 Evaluation**

The proposal evaluation process typically includes evaluation of the proposed EVMS against the Guidelines. The source selection team should ensure that the offeror has described provisions to flow down EVM requirements to the appropriate subcontractors. Each proposal should also be reviewed for adequate WBS development and resource adequacy for EVM implementation and support of the IBR. The offeror's proposed IMS is evaluated for realism and completeness against the SOW (refer to local source selection policy and procedures for further guidance).

If the offeror asserts that they have an approved EVMS, the CO shall confirm the assertion using the Contract Business Analysis Repository. If the CO is unable to validate the assertion using the Contract Business Analysis Repository, the CO shall request the contractor provide documentation of the approval or plan to obtain compliance. The [Procuring Contracting Officer \(PCO\)](#) shall obtain the assistance of the administrative contracting officer in determining the adequacy of an EVMS plan that an offeror proposes for compliance with the Guidelines, under the provision at DFARS 252.234-7001, Notice of Earned Value Management System. The Government will review and approve the offeror's EVMS plan before contract award.

When an offeror proposes a plan for compliance with the Guidelines, the CO shall forward the offeror's plan to the EVMS functional specialist to obtain an assessment of the offeror's ability to implement a system compliant with the Guidelines. The EVMS functional specialist shall provide its assessment of the offeror's plan to the CO within the timeframe requested.

#### **2.2.6.4 Clarification**

An on-site examination of an offeror's proposed system should not generally be required during proposal evaluation. When any aspect of the system is not clearly understood, however, the offeror may be requested to provide clarification. This may be done by written communications or an on-site visit. Such action should be coordinated with other relevant competent authorities, including the Source Selection Board and Procuring Activity. Care should be exercised during the entire review process to ensure that the offeror and the government have the same understanding of the system described in the proposal. If it is necessary to review plans and reports from other contracts executed by the offeror, concurrence of that procuring activity is to be obtained.

### **2.2.6.5 Proprietary Information**

Avoid improper disclosure of information obtained from the offeror's proposals, especially in competitive situations in which the degree of compliance with the Guidelines is a factor in contract award.

### **2.2.7 Preparation of the Contract**

The final stage of source selection shifts to selection of a qualified source and definitization of the contract, followed by the award of the contract. The source selection team should ensure that the correct DFARS clauses are included in the contract. The SOW tasks and the CDRL items from the solicitation are negotiated and also become part of the contract.

The intent of these provisions is to ensure the following:

- a) The contractor uses an EVMS that can demonstrably meet the the Guidelines
- b) The contractor notifies the government of changes affecting the accepted EVMS
- c) The government has access to pertinent records and data associated with the EVMS
- d) The Guidelines are applied to the appropriate subcontracted effort

## **SECTION 2.3: POST-AWARD ACTIVITIES – INTEGRATED BASELINE REVIEWS**

### **2.3.1 Overview**

Conducted by PMs and their technical staffs or IPTs within 180 days after contract award, an IBR is a review of a contractor's PMB on contracts requiring compliance with DoD EVMS criteria. This section defines the process and provides guidance for planning and conducting IBRs.

### **2.3.2 Purpose of the IBR**

The purpose of the IBR process is to confirm the contract PMB covers the entire technical scope of the work, the work is scheduled realistically and accurately, 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.

The purpose and objectives should be viewed as a continuing IBR process. The goal of the IBR is for the government and contractor to achieve a shared understanding of the risks inherent in the PMB and the management control processes needed to execute the program. Unlike the CR that focuses on EVMS compliance with the Guidelines, the IBR focuses on understanding the realism of performing to the baseline.

The IBR is a tool that should be used as necessary throughout the life of the contract. Key benefits of the IBR are:

- Laying a solid foundation for mutual understanding of project risks
- Government insight into the contractor's planning assumptions and the resource constraints built within the baseline
- Ensuring that the PMO budget can support the funding requirements of the contractor's PMB
- Comparing expectations of PMs and addressing differences before problems arise
- Correction of baseline planning errors and omissions
- In-depth understanding of developing variances and improved early warning of significant variances

- Targeting of resources to address challenges and mitigate risks
- Mutual commitment by the team to manage to the baseline
- Verifying that technical performance goals or functional exit criteria are clearly defined, agreed upon, and documented
- Ensuring meaningful and reliable EV techniques are employed
- Correction of baseline planning due to errors and omissions
- Understanding of contractor's Agile processes (i.e., SCRUM, KANBAN, etc.) if utilized by vendor
- Understanding of contractor's relationships and management of subcontractors, vendors, and interagency agreements
- Understanding of the risk associated with integration of all deliverables

### 2.3.3 IBR Policy and Guidance

FAR Part 34 and DFARS Part 234, as flowed down to DoDI 5000.02, require that the PM and the technical staff conduct an IBR on any contract requiring EVM compliance. As the focus of the IBR is on the content of the baseline and not on the Guideline compliance, the IBR does not depend on whether a contractor's EVMS has been formally approved. An IBR should also be conducted on any subcontract, intra-government work agreement, or other agreement that includes the EVMS DFARS clause.

IBRs shall be initiated as early as practicable and conducted no later than 180 calendar days after contract award/ATP, the exercise of significant contract options, the incorporation of major modifications, or as otherwise agreed.

The IBR should not be considered a one-time event or single-point review. IBRs are also performed at the discretion of the PM or when major events occur within the life of a program. Such events include a significant shift in the content and/or time-phasing of the PMB and reaching the start of the production option of a development contract. Other events that affect the PMB and may prompt a decision to conduct a subsequent IBR include significant baseline changes, major contract execution risk changes, AS changes, and government directed funding profile changes. An IBR should also be conducted whenever an OTB or OTS is implemented.

Incremental IBRs are an alternative approach for long, complex development efforts. In an incremental IBR, the baseline is reviewed for an increment of time that corresponds to the contractor's planning cycles. For example, the baseline may be planned in detail from contract award to Critical Design Review, and this becomes the basis for the first incremental review. The first incremental review should also include the top-level planning for the remaining effort. Conducting incremental IBRs does not abrogate the contractor's responsibility to plan the full baseline in as much detail as possible. Other incremental reviews occur over time as the remaining baseline is planned in detail. Incremental IBRs are not suitable for contracts that are only a few years in duration or for production contracts. Continuous assessment of the remaining PMB and program risks aids the PM in identifying when to conduct a new IBR.

The incremental IBR approach should be taken in the case of an Undefined Contract Action. The IBR should precede definitization if definitization will not occur within 180 days. A review of the known work scope should be conducted within the 180-day window. Follow-up IBRs are

scheduled for the remaining work. Any incremental IBR event should not be driven by definitization but should represent an event driven plan to assess the baseline for the work. A letter from the CO to the contractor may be needed to clarify initial IBR requirements.

Additional guidance is contained in a guide prepared by a joint OSD / NDIA team, *The Program Manager's Guide to the Integrated Baseline Review Process*. While this is not a detailed how-to-guide, it describes the key attributes of the IBR and establishes a framework for improving consistency of the IBR across DoD. In addition, the Services and Agencies may have supplemental guidance.

The government and contractor should begin discussing the coverage of the IBR as soon as possible after contract award. The IBR focuses on assessing the baseline realism at the lowest level and other baseline related risk evaluations as necessary. The following section should help in establishing the focus for the IBR.

### **2.3.4 IBR Focus**

#### **2.3.4.1 Control Account (CA) Coverage**

Given that it is not usually practical to review all CAs, general guidance for the selection of the appropriate CAs includes the following:

- Elements with high to moderate technical risk
- CAs of high to moderate value
- Elements on the Critical Path
- Elements already identified in the program risk plan
- Non-FFP subcontracts or material items

Selection of these CAs should result in at least 80% of the PMB value selected for review. Low dollar value CAs or LOE accounts may be candidates for exclusion.

The contractor should provide a matrix that lists all CAs, names of responsible CAMs, approved budget amounts, and EV techniques. This listing represents all performance budgets on the contract. This list should be jointly reviewed for selection of the CAs per the guidance discussed above.

#### **2.3.4.2 Risk Assessments**

In addition to the detailed review at the CA level, the joint team should agree to risk assessments as appropriate for the contract. These may include, but are not limited to, the following:

- Complete allocation of all work from the contract SOW to the detailed work planning documents
- Impact of GFE, data, and facilities
- Completeness and realism of the total IMS, including a Critical Path analysis
- Completeness and reasonableness of the budget allocation
- Discussion of the planning assumptions and business volume used as the basis for indirect rates
- Overall staffing issues
- Ongoing EVMS discipline issues and risks that may impact the baseline development and maintenance

- Assessment of the overall risks versus the amount held in MR
- Agile development methodology incorporation into EVM methodology, if applicable

### **2.3.4.3 Subcontractor Assessment**

Include in the IBR any subcontractor with a contractual EVM flow down requirement. A separate IBR may be conducted at the subcontractor's facility, in which case the prime contractor, with active government participation, should take the lead in conducting the IBR. Alternatively, the subcontractor may participate as part of the prime contract IBR.

### **2.3.5 IBR Team**

OSD guidance specifies that the PM plan the IBR, serve as the IBR team chief, and actively manage the IBR team. The primary team members are the IPT members of the PMO that have been given the integrated responsibility for managing WBS elements. The selection of CAs for the IBR drives the selection of these primary team members. The PM should select individuals for the IBR team that are experienced with the technical disciplines and programmatic issues under review.

Functional disciplines that should be included on the team are program management, subcontract management, and technical management (i.e., systems engineering, software engineering, manufacturing, integration and test engineering, and integrated logistics support). Business managers, cost analysts, schedule analysts, EVMS specialists, and COs provide support. The CMO and, in particular, the EVMS specialist should actively participate. The size and composition of the team should reflect the PM's objectives, expectations, and risk assumptions.

After designation of an IBR team, conduct joint training for all members of the IBR team, including basic training in EVM baseline concepts as necessary. Give specific training for the IBR three to four weeks before the review. As part of the IBR training, the contractor should provide a short overview of the specific baseline documents to be reviewed, using an example of a single thread trace through a CA. Contractor participation in the government IBR training can be structured to leave more time for CA discussions during the in-person portion of the IBR.

### **2.3.6 IBR Process**

#### **2.3.6.1 IBR Process Overview**

A successful IBR depends on up front planning and commitment by the government and contractor PMs. This includes assessing maturity indicators, conducting a baseline assessment, developing an IBR plan, and conducting the IBR.

#### **2.3.6.2 Assessing Maturity Indicators for the IBR**

Review the following maturity indicators for technical completeness, quality, and validity to help the PM and technical leads prepare for a value-added assessment of the PMB:

- Work definition
  - WBS development
  - Specifications and flow down to subcontractors
  - Internal SOW or WP definitions
- Integrated schedule
  - Vertical Integration between lowest level and master level

- Horizontal Integration between functions or tasks
- Product handoffs identified
- Subcontractor schedules integrated into prime IMS
- Resources
  - Labor and material resources fully planned and time phased for all tasks
  - Constrained resources identified and elevated or rescheduled
  - Manpower resource peaks minimized
  - Subcontractor baselines integrated into prime baseline
- Integration of schedule and budget baselines
- Adequate EV measures at the level where progress is taken
- Baseline validated at the WP level and approved by management

### **2.3.6.3 Baseline Assessment**

It may be beneficial for a team of EVMS specialists (e.g., contractor, DCMA, SUPSHIP, and PMO) to conduct an assessment of the baseline approximately one month prior to the IBR. This team can conduct schedule and budget traces to determine the accuracy of the planning and to verify the integration of the schedule and budget baselines. Identify and correct any baseline planning errors prior to the actual IBR. The assessment should include an evaluation that all scope is included in the baseline. The EVMS specialist should document any concerns with EVMS processes that may impact the development or maintenance of the baseline. This baseline assessment increases the confidence in the baseline and allows the IBR technical team members to focus on risk evaluations, rather than baseline accuracy, during the IBR.

### **2.3.6.4 Planning for the IBR**

To facilitate achievement of IBR objectives, the PM should encourage the contractor to establish a PMB immediately after contract award or after an Undefined Contract Action. The contractor should plan all work (i.e., tasks/activities and WPs) in detail to the extent practicable and use PPs for work beyond the near-term.

Preparation includes the development of an IBR plan by the joint team. An IBR planning schedule can be developed for joint discussion. This schedule should be statused weekly or bi-weekly as the planning for the IBR commences and include the following elements: IMS iterations and finalization, CA budgeting, and RAM finalization.

The PMO may wish to hold an IBR workshop with the contractor to develop and agree to the elements of the IBR plan. This plan should include the following elements:

- Selection of CAs
- Summary level risk discussions
- IBR team membership
- Training schedule
- Further preparation or document review by the team prior to the IBR
- Planned dates and agenda for the review
- Risk evaluation criteria
- Documentation templates

### **2.3.6.5 Conducting the IBR**

#### **2.3.6.5.1 Overview**

Conduct the IBR in small groups as a tabletop review of the baseline documentation. If the contractor has done an adequate job developing an integrated baseline, little additional preparation should be required to support the review. The CAMs and government representatives should follow the flow of how the baseline was developed and review the existing baseline documentation. The IBR should be an informal briefing that does not require additional briefing material other than a short introduction to the IBR process.

Facilities should be a consideration to ensure that IBR introductory briefings, CA discussions, and out brief presentations are comfortably conducted with the required number of attendees. During IBR preparatory meetings, it will be determined how many concurrent CA discussions will be necessary based on evaluation of the risk areas by the government PM.

#### **2.3.6.5.2 Control Account Discussions**

Successfully meeting the objectives of an IBR involves discussions at the CA or WP level. These baseline discussions focus on key risk areas and evaluating the realism of the baseline planning at the lowest level. To be effective, the discussion group must remain small and focused, comprised of knowledgeable participants who have participated in the preparation and training. These discussions should address the adequacy, realism, and risks of the baseline relative to the following areas:

- Technical scope of work is fully included and consistent with authorizing documents
- Key schedule milestones are identified, task durations are realistic, schedule network logic is adequate, and schedules reflect a logical flow to accomplish the technical work scope
- Resources (i.e., budgets, facilities, personnel, and skills) are adequate and available for the assigned tasks
- BCWP is measured as objectively as possible relative to technical progress, and LOE measurement is minimized
- All rationale underlying the PMB is reasonable
- Managers have appropriately implemented required management processes
- Key steps are outlined to effectively manage execution of subcontract management activities

To help facilitate and start the discussion, a baseline discussion starter template is shown in Figure 5. Tailorable to reflect the contractor's terminology, this template provides a framework to guide the discussion and review of the CA.

#### **2.3.6.5.3 Documenting Risks during the IBR**

Risk identification and assessment are a critical focus and result of the IBR. Once identified, risks generally are categorized into one of five areas: technical, schedule, cost, resource, and management processes. Evaluate and document each risk area using the evaluation criteria established in IBR preparation. Document and evaluate the team's assessment of the EV technique. Identify and incorporate all risks into the contract's risk management process and ensure mitigation steps are in the IMS. Additionally, the IBR team should assess the MR with respect to program risk that is unaccounted for in the PMB. To complete the IBR in a reasonable time frame, move anything that does not support the intent of the IBR outside the review. Record any system deficiencies as a risk area using the evaluation criteria.

**2.3.7 IBR Results**

At the end of the IBR, the PMs should agree on a plan to track and close all action items, ensuring that an individual has been assigned to resolve each action item. All CA evaluations and an overall IBR Risk Assessment should be summarized, analyzed, and briefed to senior management within the company and to the PMO senior management at the conclusion of the IBR. Add any newly identified risk that is significant enough for risk management and mitigation to the formal risk management plan.

While no formal IBR report is required for external distribution, the PM should write a memo for the record and attach all documentation for the official program files. Also, while there is no “pass or fail” to an IBR, the measure of a successful IBR is when both PMs can answer the following question with confidence, knowing where and which risks lay ahead:

*Do we have an understanding of the risks associated with executing this contract (i.e., technical work scope) given the available schedule and budget constraints?*

After the close of the IBR, emphasis shifts to ongoing management processes, including effective EVM and risk management processes. Completion of the IBR allows the PMO and contractor to have a better understanding of ongoing performance relative to the baseline. The IBR also enables a continuous, mutual understanding of program risks. As a result, the PMs can more effectively manage/mitigate risk and control the cost/schedule performance of the contract.

BASELINE DISCUSSION STARTER																																																																							
					Minutes																																																																		
<b>Step 1</b>	Introductions (CAMs should briefly discuss organization)				5																																																																		
<b>Step 2</b>	Overview of Control Account(s) - General description, work content				5																																																																		
<b>Step 3</b>	Describe Control Account or Work Packages, briefly describe performance to date				5																																																																		
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## **FIGURE 5: IBR BASELINE DISCUSSION STARTER GUIDE**

### **SECTION 2.4: POST-AWARD ACTIVITIES – SYSTEM COMPLIANCE**

#### **2.4.1 Overview**

This section describes EVMS approval and maintenance following contract award for any contract requiring EVMS application. It describes the system approval process for applicable contracts, the surveillance process, the approval process for changes to the EVMS, and how to address deficiencies in the contractor's EVMS. When EVMS approval is required, DoD policy is to ensure that:

- No changes to contractor's existing EVMS are required except those necessary to conform to the Guidelines
- The contractor has properly implemented the EVMS on the contract under review and is using it as a principal program management tool
- The contractor is using the data from its own EVMS in reports to the government

These objectives can be met through a system approval process for applicable contracts, consistent surveillance practices, and a controlled approach to system changes for all contracts. Industry ownership of EVM as an integrated management tool is fostered through corporate commitment, partnering for joint surveillance, and establishing internal control systems to minimize system deficiencies. This partnering approach meets the needs of DoD for reliable performance data and executable contracts while also meeting the needs of industry for a consistent DoD approach to EVM implementation.

#### **2.4.2 EVMS Approval**

##### **2.4.2.1 Applications**

Section 2.4.2 applies only to those contracts that require EVMS compliance if the contractor does not have a current EVMS approval. Refer to paragraphs 2.2.6.2.1 and 2.2.6.2.2 for guidance on evaluation of previously accepted systems during source selection.

##### **2.4.2.2 EVMS Approval Options**

###### **2.4.2.2.1 Contractor Plan**

DFARS Provision 252.234-7001, Notice of Earned Value Management System, requires that the contractor be prepared to demonstrate that its EVMS meets the Guidelines.

If the offeror submits a proposal greater than \$100M, the offeror should assert that it has a system that has been determined to comply with the Guidelines or prepare a plan for compliance and submit the plan as part of the proposal. The plan shall:

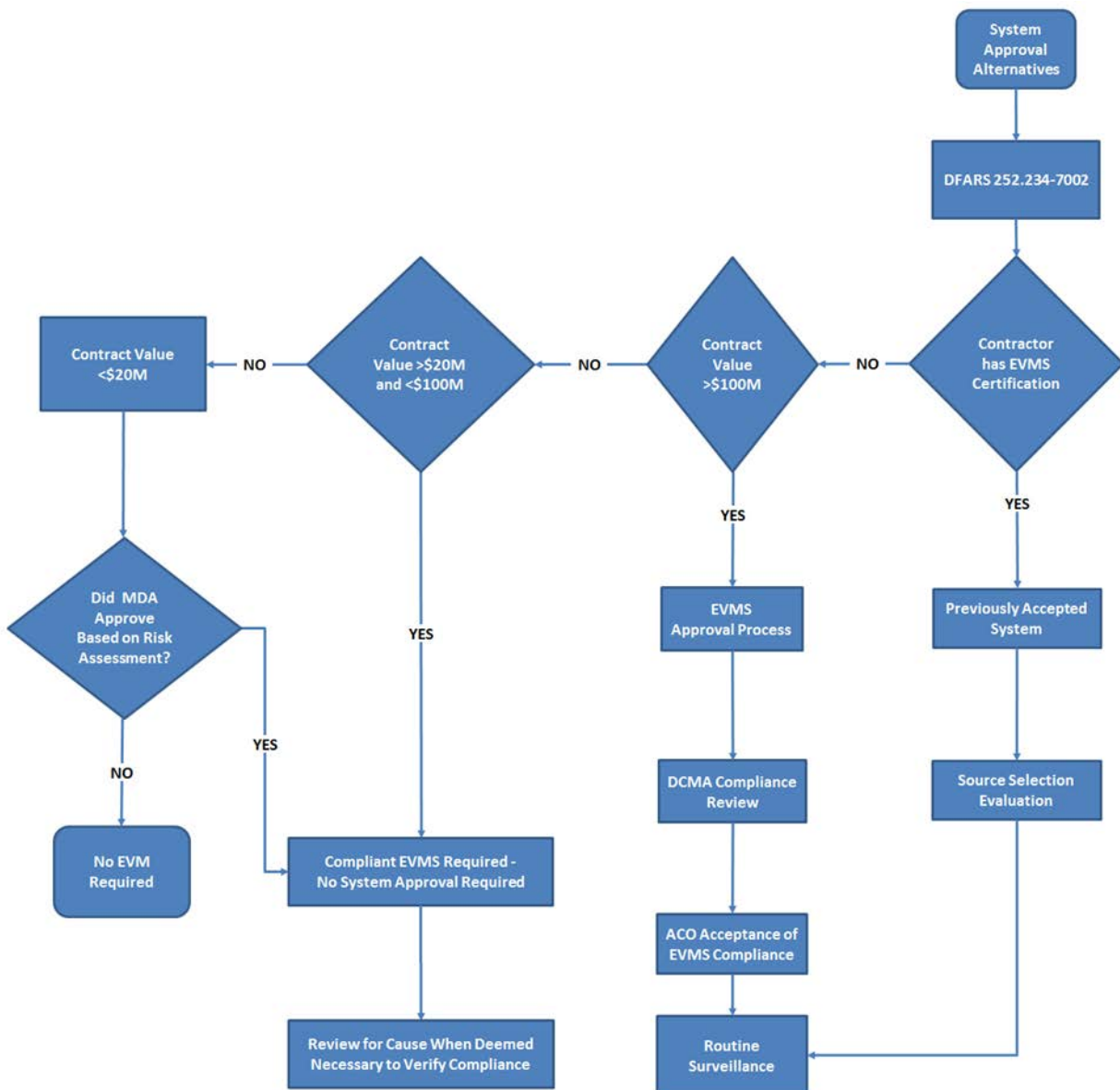
- Describe the EVMS the offeror intends to use in performance of the contract and how the proposed EVMS complies with the Guidelines
- Distinguish between the offeror's existing management system and modifications proposed to meet the Guidelines
- Describe the management system and its application in terms of the Guidelines
- Describe the proposed procedures for administration of the Guidelines as applied to subcontractors
- Describe the process the offeror will use to determine subcontractor compliance with the Guidelines

- Provide milestones that indicate when the offeror anticipates that the EVMS will be compliant with the Guidelines

The government will review and approve the offeror’s EVMS plan before contract award. If the offeror submits a proposal less than \$100M, the offeror should assert that it has a system that has been determined to comply with the Guidelines or submit a written description of the management procedures it will use and maintain in the performance of any resultant contract to comply with the requirements of the EVMS clause. The description shall include:

- A matrix that correlates each Guideline to the corresponding process in the offeror’s written management procedures
- The process the offeror will use to determine subcontractor compliance with the Guidelines

Refer to Figure 6 for System Approval Alternatives.



## FIGURE 6: SYSTEM APPROVAL ALTERNATIVES

### 2.4.2.2.1.1 Ensuring Progress Against the System Approval Plan

DFARS 252.234-7002 contains the following guidance, which is incorporated into the contract, via the DFARS, to ensure adequate progress against the plan for compliance: *“If, at the time of award, the Contractor’s EVMS has not been determined by the CFA to be in compliance with the EVMS Guidelines... the contractor shall apply its current system to the contract and shall take necessary actions to meet the milestones in the Contractor’s EVMS plan.”*

This guidance directs the contractor to show that the system complies with the Guidelines. The plan to become compliant includes not only the actions to be taken but also the timeline to achieve those actions.

### 2.4.2.3 Government Conducted System Approval

#### 2.4.2.3.1 Compliance Review

The purpose of the CR is to conduct a formal data driven compliance assessment of the contractor’s proposed EVMS with the Guidelines. Successful demonstration of the EVMS and completion of the review results in the system approval of the contractor’s EVMS. The primary objectives of the CR follow:

- Evaluate EVMS capabilities against the Guidelines
- Assess the description of the EVMS to determine if it adequately describes the management processes demonstrated during the review
- Evaluate the application of the EVMS on the contract being reviewed

#### 2.4.2.3.1.1 CR Team

Within the DoD, the DCMA is responsible for determining EVMS compliance. Assigned to coordinate review activities between agencies, the Review Director approves the assignment of the team members and establishes the areas of review to be emphasized at the outset of the review.

The Review Director and team members are formally assigned to the team. It is recommended that the team include members from the PMO and CMO. Team members should be experienced with and understand the Guidelines. Knowledge of both the program and the contract is desirable. Formal training, such as that provided by the member schools of the [Defense Acquisition University \(DAU\)](#) or other recognized educational institutions, is recommended. Skills may also be obtained by training and experience in implementing, maintaining, and operating EVMS.

The Review Director should make all necessary arrangements to ensure availability of team members for the time required for preliminary indoctrination, training, and each review for which a team member is needed.

#### 2.4.2.3.1.2 CR Process

The CR begins as soon as possible following the implementation of the EVMS. The review consists of System Description and related documentation reviews, data tests, and interviews with contractor personnel. The contractor’s EVMS is assessed against each Guideline.

The contractor should have a current approved written System Description available. Applicable procedures also need to be available at the contractor's operating levels as necessary to demonstrate a consistent approach. The review team examines the contractor's working papers and other documents to ascertain compliance and to document its findings. The contractor should make documents used in the contractor's EVMS available to the team. The documentation needs to be current and accurate. The contractor demonstrates to the team how the EVMS is structured and used in actual operation.

The CR may include, but is not limited to, the following activities:

- A data-driven assessment using standard test metrics prior to the review. This data-driven assessment will focus the on-site assessment of the review team.
- An overview briefing by the contractor to familiarize the review team with the proposed EVMS.
- A review of the documentation that establishes and records changes to the baseline plan for the contract, work authorizations, schedules, budgets, resource plans, and change records, including MR and UB records. The purpose is to verify that the contractor has established and is maintaining a valid, comprehensive integrated baseline plan for the contract.
- A review, on a sample basis, of the reporting of cost and schedule performance against the baseline plan, along with appropriate analyses of problems and projection of future costs.
- A test to summarize the cost/schedule performance data from the lowest level of formal reporting (normally the CA level) to the external performance measurement report. The purpose of this activity is to verify the adequacy of the control aspects of the system and the accuracy of the resulting management information.
- Interviews with a selected sample of CAMs, functional and other work teams, and PMs to discuss issues discovered during the data driven assessment.
- An exit briefing covering the team's findings. During this briefing, any open system discrepancies should be discussed along with the contractor's corrective action plan, which establishes responsibility and a time-frame for corrective action.

**NOTE:** If, at the time of award, the contractor's EVMS has not been formally approved by the ACO, the contractor applies its current system to the contract and takes timely action to implement its plan to obtain compliance. If the contractor does not follow the implementation schedule in the compliance plan or correct all system deficiencies identified during the CR specified in that plan within a reasonable time, the CO may take remedial action.

#### **2.4.2.3.1.3 CR Results**

At the conclusion of the CR, the Review Director is responsible for a written report. The written report shall be amended to reflect progress against the contractor's corrective action plan to resolve material discrepancies identified during the CR. System approval is granted to the contractor through the ACO. Contractual actions may be initiated when CR results dictate (see paragraphs 2.4.6.1, 2.4.6.2, 2.4.6.3, and 2.4.6.4).

#### **2.4.2.4 EVMS Approval of Subcontractors**

If the prime contract contains the DFARS clause to flow down EVMS to subcontracts, then the subcontractor must meet the same system approval requirements as the prime contractor. The government is responsible for conducting the CR.

#### **2.4.2.5 EVMS with Prior Government Approval**

Contractors with an accepted EVMS application on another contract at the same facility are not required to undergo a CR on a new contract. The PMO may consult its applicable compliance organization or Service/Agency EVM focal point if there are any issues or doubts concerning the status of the contractor's system approval.

When a contractor has a previously accepted EVMS, conduct additional EVMS CRs only to reassess compliance if the contractor's system approval was withdrawn following a [Review for Cause \(RFC\)](#). The most important element to ensure continuing compliance with the Guidelines is less about the "one-time" review leading to the system approval but more about the continuous surveillance process.

In the interest of fostering contractor ownership, the DoD encourages contractors to responsibly conduct continuous self-evaluation of their EVMS in partnership with the government. The contractor should use the Guidelines as the basis for assessing its system compliance.

### **2.4.3 EVMS Surveillance and Maintenance**

#### **2.4.3.1 Purpose of Surveillance**

Surveillance is a recurring process that assesses the continuing compliance of the company's EVMS with the Guidelines, as described by the EVMSIG and the company's written System Description and related documentation. Surveillance ensures that the contractor's EVMS:

- Provides timely, reliable, and integrated cost, schedule, and technical performance measurement information summarized directly from the contractor's internal management system
- Complies with the Guidelines
- Provides timely indications of actual or potential problems
- Maintains baseline integrity
- Provides information that depicts actual conditions and trends
- Provides comprehensive variance analysis at the appropriate levels, including proposed corrective action in regard to cost, schedule, technical, and other problem areas
- Discusses actions taken to mitigate risk and manage cost and schedule performance

#### **2.4.3.2 Surveillance Policy**

Surveillance of management control systems is required for all contract efforts \$100M or more that require EVM compliance with the Guidelines. Nevertheless, the government reserves the right to review the EVMS on contract efforts less than \$100M if the EVM reporting data quality appears suspect. Data quality appearing suspect is defined as when a CO, program office, buying command, or higher headquarters asks for DCMA assistance due to a concern about the quality of EVM data reported on a given contract or when the EVM data is not in compliance with one or more of the Guidelines. EVMS surveillance begins at contract award, continues through the CR and system approval (when required), and extends throughout the duration of the contract. Surveillance is performed to ensure the contractor follows the terms and conditions that are on the contract. Surveillance is implemented on the contract through the inclusion of DFARS clause 252.234-7002 in the contract (see Figure 3).

The CMO has the primary responsibility for surveillance of the prime contractor and specified subcontractor EVMS (see paragraph 2.4.3.5 for a discussion of surveillance of subcontractors with flow down EVMS requirements).

### **2.4.3.3 Surveillance Responsibilities**

#### **2.4.3.3.1 Guidance**

A number of organizations are involved in surveillance of the contractor's EVMS, including the EVMS specialist, PMO, and EVMSS. Joint surveillance reviews, where the contractor participates in the government surveillance review to satisfy its own internal review criteria, are strongly encouraged. This grouping of organizations is referred to as the Integrated Surveillance Team. EVMS surveillance requires participation and full cooperation of both the government and the contractor. The PMO, EVMSS, Contract Administration Organization, and contractor have specific surveillance responsibilities.

#### **2.4.3.3.2 Program Management Office (PMO)**

The responsibilities of the PMO include:

- Keeping the EVMS functional specialist informed of actions and matters that could affect EVMS surveillance
- Assisting resolution of problems cited in surveillance reports by providing required support to the EVMS functional specialist
- Reviewing, evaluating, and analyzing IPMRs and bringing issues to the attention of the EVMS functional specialist
- Apprising the EVMS functional specialist of the adequacy and usefulness of the surveillance reports and, where necessary, stating required changes to reporting practices
- Obtaining assistance from the DCMA EVM Center in resolving surveillance issues

#### **2.4.3.3.3 Earned Value Management Support Staff (EVMSS)**

The EVMSS are the procuring activity's subject matter experts responsible for providing technical support to PMOs. The EVMSS can assist the PMO with policy guidance, training, preparing RFPs, facilitating IBRs, analyzing IPMRs, and conducting risk assessments. The EVMSS may also participate as members of the IST.

#### **2.4.3.3.4 Contract Administration Organization**

The contract administration organization is responsible for EVMS surveillance. Individuals having EVMS surveillance responsibilities are:

- The EVMS functional specialist is assigned the overall responsibility for surveillance of the contractor's EVMS, which includes evaluation of contractor proposed changes to the system. The EVMS functional specialist should be cognizant of the procuring activity EVMSS, which can provide assistance in resolving surveillance issues
- The Program Support Team members are assigned responsibility for accomplishing surveillance in their respective functional or organizational areas
- The ACO is designated as the agent of the government responsible for ensuring that the contractor complies with the contract. The ACO is a member of the Program Support Team

The surveillance team should establish a communication plan with the buying activity. The communication plan will allow the program EVMSS to better understand the compliance issues

that are impacting the government reports and the EVMS surveillance specialists to better understand pertinent program events and quality/utility of surveillance reports. It will also allow programs with contracts less than \$100M to submit issues to the surveillance team that may warrant further examination.

#### **2.4.3.3.5 Contractor**

The contractor is encouraged to conduct its own internal surveillance program to ensure its EVMS continues to meet the Guidelines, is implemented on a consistent basis, and is used correctly on all applicable contracts. The contractor's internal surveillance program should not replace the government surveillance process.

The contract administration office should coordinate government surveillance efforts with the contractor. Joint surveillance between the IST and the contractor is encouraged and, if established, should be documented in a Joint Surveillance Plan.

#### **2.4.3.4 Surveillance Process**

For the life of the contract, surveillance should be based on recurring evaluation of internal management control practices and samples of internally and externally reported data to ensure the validity of the contractor's performance data provided to the government. Surveillance is conducted on specific contracts and throughout the contractor's facility as appropriate.

If deficiencies are discovered in the contractor's compliance with the Guidelines, the EVMS Functional Specialist documents the problem and then notifies the contractor and PMO of the problem along with any corrective action required. The EVMS functional specialist follows up to ensure the deficiency is resolved in a timely manner. EVMS problems that cannot be resolved with the contractor through the EVMS functional specialist are reported to the ACO for resolution.

The EVMS functional specialist reviews the IPMR and related internal data flow on a recurring basis. The EVMS functional specialist provides the PM with an independent and complete assessment of the accuracy and timeliness of IPMR information. These reports specifically highlight issues that could affect contract milestones or areas of considerable cost, schedule, or technical risk.

The EVMS functional specialist documents and maintains surveillance results as part of a chronological record of the contract. The contract administration office may provide surveillance information to the PM.

##### **2.4.3.4.1 DCMA Role**

When DoD is the CFA, the DCMA is responsible for determining EVMS compliance. The PCO does not retain this function, per DFARS Subpart 242.302. The DCMA performs initial and ongoing compliance activities at contractor locations that have been awarded contracts greater than \$100M and include the EVMS DFARS clause. The DCMA will perform a below threshold review upon request and specific conditions.

#### **2.4.3.4.2 SUPSHIP Role**

As structured within the DoD, the Navy SUPSHIP has the responsibility and authority to conduct EVMS ongoing compliance activities, and the requirement to coordinate with DCMA and NAVSEA HQ stakeholders, for the contracts under the SUPSHIP's cognizance. SUPSHIP personnel should follow the system surveillance procedures described in the EVMSIG and the NAVSEA Standard Surveillance Operating Procedure.

#### **2.4.3.4.3 Intelligence Community Role**

For contracts issued by an Intelligence Community Agency, the compliance responsibility resides with the Intelligence Community Agency applying its acquisition authority. In accordance with Under Secretary of Defense Memorandums, DoD Components in the Intelligence Community are exempted from delegating EVMS review authorities to DCMA.

#### **2.4.3.5 Surveillance of Subcontractors and Other Prime Contractor Locations**

Subcontracts and other locations or divisions of the prime contractor selected for application of the Guidelines may require surveillance by another contract administration office. Where appropriate, the contract administration office having cognizance of the prime contract delegates surveillance responsibility to another contract administration office. When a subcontractor is required to comply with the Guidelines, the prime contractor is responsible for surveillance of the subcontractor.

The prime contract administration office function normally is limited to evaluating the effectiveness of the prime contractor's management of the subcontract. However, there may be occasions when the PM or prime contractor requests, through the ACO, that the government perform limited or complete EVMS surveillance. Such support administration is not to be construed as a discharge of the prime contractor's contractual obligations and responsibilities in subcontract management. Such assistance should generally be provided only when:

- The prime contractor is unable to accomplish the required surveillance because it would jeopardize the subcontractor's competitive position or proprietary data is involved
- A business relationship exists between the prime contractor and subcontractor that is not conducive to independence and objectivity, as in the case of a parent-subsidiary or when prime and subcontracting roles of the companies are frequently reversed
- The subcontractor is sole source and the subcontract costs represent a substantial portion of the prime contractor's costs

#### **2.4.3.6 Surveillance of Disapproved or Not Evaluated Systems**

Surveillance on disapproved or not evaluated EVMS is conducted in the same manner as for approved systems, per the processes and responsibilities noted in the previous sections. The primary reason for performing surveillance on disapproved or not evaluated systems is to ensure that the contractor implements a system that is compliant with the Guidelines and that the resulting data is valid. Surveillance of disapproved or not evaluated systems should not be expanded nor construed to imply government approval of the system. Refer to section 2.4.8 for a discussion on handling deficiencies found during surveillance of disapproved or not evaluated systems.



**NOTE:** Surveillance of disapproved systems may initially focus on a Corrective Action Plan that resulted from the system disapproval but may revert to routine surveillance in accordance with the surveillance plan upon completion of all corrective actions.

## **2.4.4 System Changes**

### **2.4.4.1 Approval of Changes to Contractor's EVMS**

The contractor is contractually obligated to maintain the company's EVMS in compliance with the Guidelines. Continuing innovations to and improvement of the contractor's system are encouraged; however, the ACO needs to approve such changes to the EVMS as described in the following sections. In some cases, a waiver to the change approval process may be granted (refer to section 2.4.4.3).

### **2.4.4.2 Change Process**

Changes to the contractor's approved EVMS require formal acceptance and approval prior to implementation to ensure that the proposed changes do not significantly alter the EVMS that was evaluated in the contract award. These changes are forwarded by the EVMS specialist to the ACO with a written assessment of the effects, if any, the changes will have on the contractor's approved system and data delivery. This assessment of the effect of the proposed change(s) on their contracts helps ensure that contractor system changes that result in modifications to reported information are not made without the involvement of the organizations utilizing the data for program management.

Upon evaluation and approval of the proposed changes by the ACO, the ACO should advise the contractor of the acceptability of such changes within 30 calendar days after receipt of the notice of proposed changes from the contractor. When a proposed change would make the contractor's EVMS non-compliant, the ACO should promptly notify the contractor. A flowchart of the system change process for approved systems is provided at Figure 7.

### **2.4.4.3 Waivers to Change Approval**

Per the provisions in DFARS 252.234-7002, the ACO may provide the contractor with a waiver to the change approval process. Waivers to prior approval of system changes should generally be granted when contractors demonstrate continual commitment to the use of EVM as an integral part of their business practices. For example, formal documentation of this commitment may be found in company internal executive directives clearly indicating the contractor's commitment to effective EVM. The ACO should also weigh the contractor's disciplined use of documented EVMS procedures as demonstrated through surveillance. Note the following:

- When a waiver has been granted, contractors still need to notify the government at least fourteen calendar days in advance of the effective date of the change(s)
- Waivers should normally be granted to apply to all contracts at a contractor's facility. This waiver should continue to apply, provided the CO determines the contractor continues its commitment to effective EVM business practices.

#### **2.4.4.3.1 Exclusions to Approval Requirement**

The software used to implement the EVMS may be modified or replaced without government approval, as long as the approved processes are not modified and continue to be adequately supported by the new software. This includes, for example, management subsystems' inputs,

outputs, files, CA documents, EV techniques, and interfaces among those subsystems. The name of the software may be mentioned in the System Description or related documentation when the intent is to clarify and describe the capabilities as mentioned above and thereby reduce the amount of additional content needed in the System Description.

#### **2.4.4.4 Compliance Only EVMS**

Contracts valued at or greater than \$20M but less than \$100M are contractually required to be Guideline compliant but do not require formal system approval by the ACO. DFARS provision 252.234-7001(b) requires the contractor to submit a written description of the EVM processes that are used to ensure internal, continuing compliance with the Guidelines. Per DFARS clause 252.234-7002(e), the contractor is required to notify the EVMS specialist of any substantive changes to the EVM processes; however, approval of these changes is not required. The EVMS specialist should evaluate any changes for continued compliance to the Guidelines and notify the affected government PM and EVMS providing an assessment of the effect of the proposed changes on the contract.

If the EVMS specialist determines that the changes would cause non-compliance to the Guidelines, the ACO should formally notify the contractor of this non-compliance and therefore its non-fulfillment of the contract requirements. The letter should request that the contractor modify the proposed changes to maintain compliance. If the contractor does not take the appropriate corrective actions in a timely fashion, the ACO should invoke the appropriate contractual remedies to address non-compliance with the terms of the contract.

#### **2.4.5 Reviews for Cause (RFCs)**

An RFC is a formal review intended to solve a prime contractor or subcontractor EVMS implementation problem identified by the PM, EVMS functional specialist, and/or other stakeholder organizations for an approved EVMS. The RFC process is coordinated through the DCMA or NAVSEA HQ for contracts under SUPSHIP's cognizance. After formal acceptance of a contractor's EVMS, no further system review is conducted unless there is a serious need determined by the government. The decision to conduct a review may occur when conditions warrant (e.g., solving a major system application problem identified by the PM or EVMS specialist on a specific contract). The key element in the decision process is whether the output of the processes meets the intent of the Guidelines and is useable for decision making. Input from the surveillance organization should be considered in determining the need for and the scope of the review.

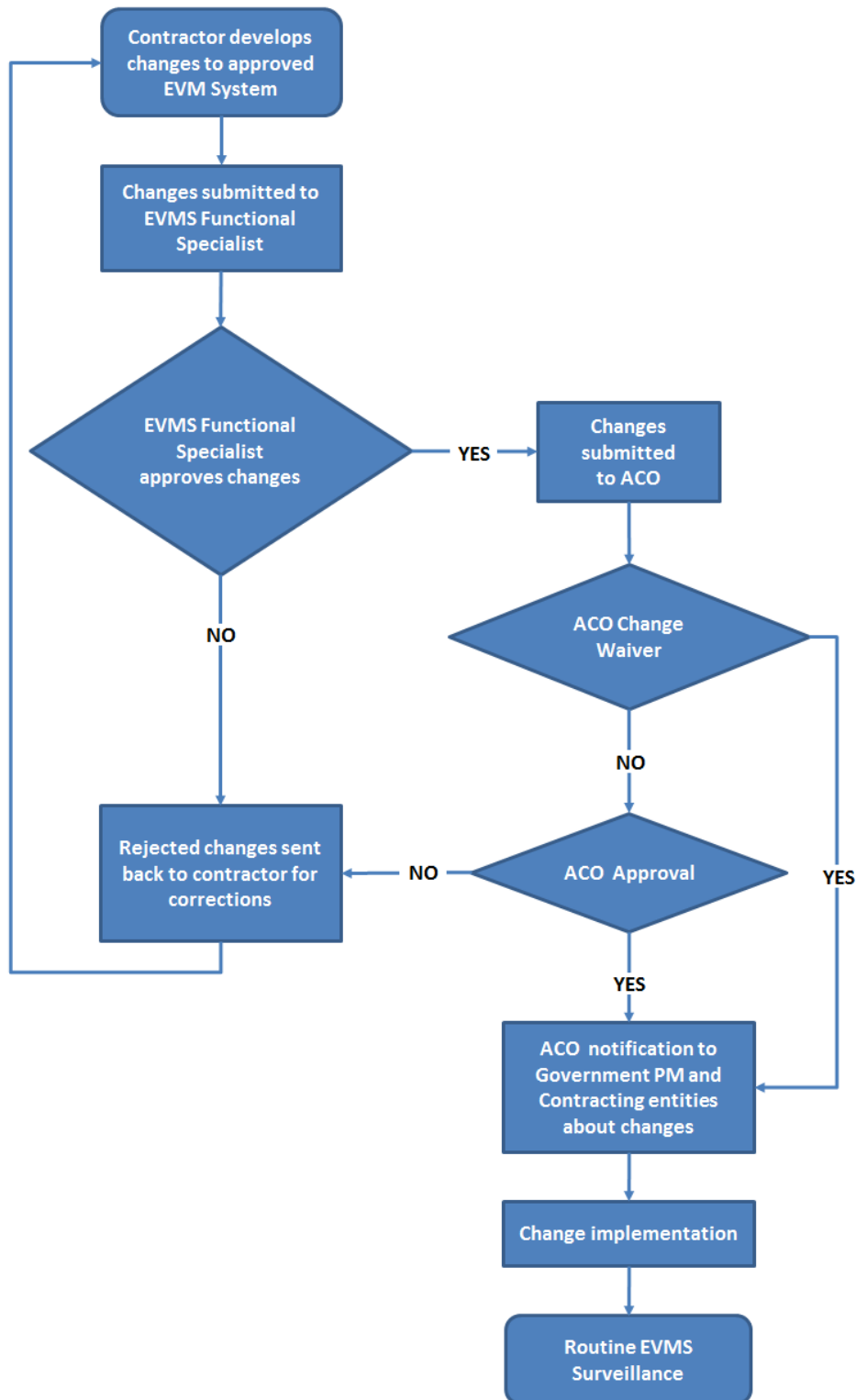
##### **2.4.5.1 Purpose of the RFC**

The primary objectives of the RFC are to:

- Evaluate the contractor's progress against a corrective action plan, if applicable
- Identify actions required to reaffirm system acceptability
- Ensure accuracy of performance data generated for government contracts
- Determine if the system approval should be suspended or withdrawn

The Review Director, working closely with the EVMS specialist, the PMO, the EVMS, and the contractor, should establish the scope of the review. Regardless of cause, the scope and conduct of the RFC should be limited to only the system processes that are affected. Those portions of the

EVMS designated for review should be identified at the start of the review. Any previous review findings and surveillance reports should be analyzed to identify areas of special interest.



**FIGURE 7: SYSTEM CHANGE PROCESS FOR APPROVED SYSTEMS**

### **2.4.5.2 RFC Team**

The RFC team composition and the duration of the review should be optimized. The Review Director leads the review, which usually includes participation by the PMO, EVMS specialist, EVMSS, and the cognizant CMO.

### **2.4.5.3 RFC Process**

The Review Director provides the contractor with a plan for the review, which is scheduled based on written government notification. The basic review routine is similar to that of a CR. However, the RFC is not intended to be pursued to the extent that it would result in a full re-evaluation of the contractor's EVMS. Nonetheless, scope may be expanded when the information dictates the need for further evaluation.

### **2.4.5.4 RFC Results**

The Review Director prepares a formal report within 30 working days after completion of the review. A recommendation may be made to the ACO to either suspend or withdraw the system approval.

## **2.4.6 Deficiencies in Approved EVMS**

### **2.4.6.1 Deficiencies**

Deficiencies may be uncovered either in the EVMS processes or in the implementation of those processes. These deficiencies may be discovered during routine surveillance, analysis of performance data, or team reviews. The procuring activity and EVMSS should be notified of major deficiencies. The government and contractor should follow the process prescribed by the CMO to restore compliance and discipline. This process is designed to provide the contractor an opportunity to correct deficiencies prior to formal withdrawal of the company's EVMS approval.

### **2.4.6.2 Application**

The uniform and consistent application of actions and remedies for EVMS non-compliance is essential for promoting contractor-initiated corrective action. This requires an awareness and understanding of regulatory policies, correct identification of the problem areas, and selection and implementation of appropriate actions and remedies. The appropriate use of contractual actions and remedies is required to protect the government's interest if non-compliance occurs. EVMS value to the government may be significantly greater than its execution cost. The loss of valid performance measurement data may limit the government's ability to measure the contractor's progress on a contract, which may increase the probability of unearned progress payments. When DFARS 252.234-7002, Earned Value Management System, is included in a contract, the contractor's performance measurement system becomes a material requirement.

### **2.4.6.3 Actions**

The following actions and remedies may be initiated after discussion with the PMO (i.e., PCO) and CMO (i.e., ACO):

- Issue letter of concern notifying the contractor of a specific problem and requesting additional information or a corrective action plan with get well dates
- Reduce or suspend progress payments ([Fixed Price Incentive Fee \(FPIF\)](#) contracts) when contract requirements are not met (FAR 32.503-6 (b) (1))

- Reduce contractor billings when EVMS deliverable reports are unacceptable and payments should be recouped (cost-type and FPIF contracts)
- Reduce overhead billing rates when overhead payments to the contractor have not been earned and should be recouped (cost-type and FPIF contracts). Prior to implementing this action, coordinate with the [Defense Contract Audit Agency \(DCAA\)](#)
- Utilize full compliance with the Guidelines as a possible factor in award fee determination
- Inform the CO that an EVMS non-compliance issue is endangering contract performance and recommend a [Cure Notice](#) be issued
- Inform the CO that a condition or conditions endangering performance (described in CO Cure Notice) has/have not been corrected and recommend issuance of a [Show Cause Notice](#) (this is a last resort measure and a contract is rarely terminated for EVMS non-compliance)

**Note:** If a significant deficiency is observed, DFARS 252.242-7005, Contractor Business Systems allows for withholding payments of five percent of amounts due from progress payments and performance-based payments and withholding of five percent from its billings on interim cost vouchers on cost-reimbursement, labor-hour, and time-and-materials contracts until the CO has determined that the contractor has corrected all significant deficiencies as directed by the CO's final determination

#### **2.4.6.4 Remedies**

The following remedies may be initiated by the CO after discussion with the PMO, CMO, or EVMSS:

- Negotiate a reduction in contract price
- Issue a Cure Notice
- Issue a Show Cause Notice

#### **2.4.7 System Disapproval**

If the contractor fails to demonstrate correction of all system deficiencies, the PCO and/or ACO, in coordination with the EVMS Functional Specialist, shall formally disapprove the contractor's EVMS. The contractor may not claim to have an approved EVMS in any new proposal until re-approval of the EVMS has been achieved. To obtain re-approval, the contractor is required to demonstrate full compliance with all 32 Guidelines in a CR. Upon successful demonstration of full compliance, the PCO and/or ACO formally recognize the re-approval system.

#### **2.4.8 Deficiencies in Disapproved or Not Evaluated Systems**

Since a disapproved or not evaluated contractor does not hold a system approval that can be withdrawn, a different approach is taken if serious EVMS deficiencies are uncovered. The CMO should advise the contractor that the system is not compliant with the terms of the contract and that a corrective action plan is required. The CMO should monitor and independently validate the contractor's progress in correcting system deficiencies and consistent application through spot checks, sample data tests, and random interviews as appropriate. The CMO should keep all parties, particularly the PMO, apprised of progress in implementing the corrective action plan. Should the contractor not make adequate or timely progress in the correction of deficiencies, contractual remedies may be appropriate.

## **SECTION 2.5: OTHER POST-AWARD ACTIVITIES**

### **2.5.1 Overview**

This section contains guidance for the PMO and CMO in performing the additional activities for effective EVM after contract award and the IBR. These tasks include maintaining a healthy PMB, evaluating award fee criteria, analyzing performance data, EVM training, and adjusting the level of reporting.

### **2.5.2 Maintaining a Healthy Performance Measurement Baseline (PMB)**

#### **2.5.2.1 Definition**

A baseline that accurately represents all authorized work on the contract and includes a realistic network schedule and time phased budget/resources is a key factor in ensuring the success of the program. Additionally, a contractor should make a consistent commitment to enforce proper baseline change procedures and periodically review the remaining baseline to ensure that it remains executable.

#### **2.5.2.2 Incorporation of Authorized Changes**

The contractor's management system should include procedures for the disciplined incorporation of authorized contract changes and internal replanning. These procedures should ensure that budget is not transferred independent of work scope, that budget and schedule changes are incorporated simultaneously, and that retroactive changes are strictly controlled. Changes occur throughout the life of any contract, and the baseline should be adjusted to incorporate authorized changes or replanning in accordance with the contractor's System Description. Refer to the EVMSIG for details on compliant change control processes.

##### **2.5.2.2.1 Authorized Unpriced Work (AUW)**

Authorized Unpriced Work (AUW) is an effort where the Procuring Activity has provided written ATP with the work but contract costs have not yet been negotiated and definitized. The written authorization defines the scope of work that needs to be accomplished and may include a Not-To-Exceed value. In the absence of a Not-To-Exceed value, the contractor's proposal value should be used as the budget for the authorized scope of work. The AUW budget value can never be negative. The near term efforts should be allocated in the applicable control accounts and the remainder placed in the UB. After definitization of a contract modification, the initial budget is reconciled to the negotiated value, and the remaining AUW budget in UB is allocated appropriately (i.e., either planned and budgeted into CAs, Summary Level Planning Packages (SLPPs), or MR as soon as practical or removed from the CBB).

##### **2.5.2.2.2 Descope & Stop Work**

EVM should be an accurate model of the contract's scope, schedule, and budget. During the execution of the contract "Stop Work" orders may be issued and scope may be "descope" from the effort. While each specific "Stop Work" order or contract "descope" is different, generally the affected budget is placed into UB until contract resolution. When making adjustments to the budget when a stop work order is issued, the baseline budget should be used and not the Estimate to Completion (ETC).

### 2.5.2.2.3 Harvesting Underruns

Situations occur where contractors are asked to move budget from CAs that have cost underruns and to apply the remaining budget to new work—an activity sometimes known as “harvesting underruns.” However, to maintain EVM and EVMS integrity, budget amounts should remain with the scope for which they were budgeted, even where that scope is completed with favorable cost performance. In no cases should underrunning budget in the baseline serve as a means to develop new baseline activities.

An underrun to the budget in the CBB does not automatically mean excess funds have become available. Practitioners may erroneously treat EVM budget and contract funding in the same ways. The application of budgets and funding are distinct and follow separate rules; budget follows EVM rules, while use of funding follows contracting and fiscal rules:

- The term “budget” refers to the resources estimated to be required to complete the contracted scope of work.
- “Funding” refers to the actual government dollars obligated on the contract and available for payment for work being accomplished on the contract.
- The amount of obligated funding does not always equal the contract price. There is no rule that requires the CBB to equal either the amount of obligated funding or the contract price.

When the contract scope has been completed for less than the amount funded, there may exist an opportunity to use that funding for new scope. The ability to use any underrun for new scope becomes a contracting action, not an EVM action, and follows applicable laws and regulations. When funds are available due to an underrun and are then used to acquire new work scope using proper contracting policies and procedures, budget for the new scope is added to the CBB.

The EVMSIG describes flexibility for a variety of program execution and development methodologies. An important principle of EVMS outlined in the EVMSIG is a disciplined approach to maintaining EVM baselines. *“To ensure the ongoing integrity of the Contract Budget Base (CBB), budget traceability throughout the life cycle of a program must be maintained. Current budgets are reconciled to prior budgets in terms of changes to work scope, resources, schedule, and rates so that the contract changes and internal re-planning on overall program growth [are] visible to all stakeholders.”*

## 2.5.2.3 Internal Contractor Replanning

### 2.5.2.3.1 Guidance

To facilitate accurate performance measurement, the contractor should maintain a PMB that reflects the actual plan for performing the remaining work. Internal replanning may include the rolling wave planning process or replanning of the remaining baseline.

### 2.5.2.3.2 Rolling Wave Planning

The contractor may elect to plan the PMB in detailed WPs for near term activities and hold the future budget in higher level PPs and/or SLPPs. The contractor should periodically plan the next increment of work into detailed WPs. This process is known as rolling wave planning and typically provides more flexibility than laying out the complete baseline in detail at the beginning of the contract. The contractor should establish procedures and a timetable for rolling wave planning. The CMO and PMO should be aware of the contractor’s schedule for rolling wave planning.

### 2.5.2.3.3 Replanning of the Remaining Baseline

Maintaining a realistic PMB may occasionally require the replanning of some or all of the remaining baseline within the scope of the authorized contract (CBB or TAB). Examples of when internal replanning may be appropriate include:

- When the original plan becomes unrealistic due to cost, schedule, or technical problems
- When a reorganization of work or people to increase efficiency becomes necessary
- When the decision is made to use a different engineering or manufacturing approach
- When existing budgets for remaining work are deemed sufficient but need to be re-phased to a different work plan or schedule

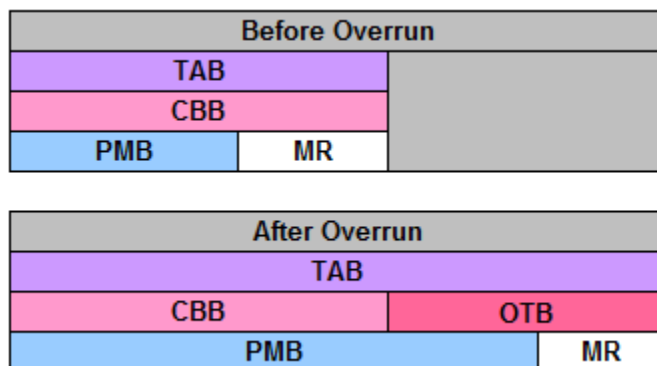
The contractor's EVMS specifies the management procedures it uses to conduct and approve internal replanning. The contractor's system may require government approval for certain replanning activities. In these cases, the government should promptly review and approve the changes as appropriate. If the CMO has been given responsibility to authorize these changes, the CMO should keep the PMO informed of the approved changes (see Paragraph 2.4.4 and supporting paragraphs). The CMO should include a review of the contractor's change procedures and replanning activities in routine surveillance.

### 2.5.2.4 Over Target Baseline (OTB) and Over Target Schedule (OTS)

#### 2.5.2.4.1 Overview

During contract execution, the contractor may conclude that the budget and schedule for performing the remaining work are decidedly insufficient and no longer represent a realistic plan. At this point the contractor should prepare and submit a request to implement an OTB and/or OTS.

An OTB is a new baseline that has been formally reprogrammed to include additional budget in excess of the contract's negotiated cost. An OTB increases the performance budget without modifying the work scope or other constraints of the contract. The value of the OTB incorporated budget therefore exceeds the CBB and the corresponding value of the contract target cost or estimated cost target (depending on contract type). The sum of all resulting budgets (i.e., [Allocated Budget](#), UB, and MR) becomes known as the TAB. The difference between the TAB and the CBB is the amount of the increase over the previously established budget. See Figure 8.



**FIGURE 8: OVER TARGET BASELINE EXAMPLE**



An OTS condition is created when the contractor's schedule is time-phased beyond the contract milestones or delivery dates. While it is possible to have an OTS without a corresponding increase in cost, normally an OTS is accompanied by increased costs and therefore by an OTB.

Implementing an OTB or OTS is a major management decision for the contractor and requires government approval at the start of the process. Consequently, the PM should fully understand the concepts and processes. The PM should consider the factors discussed below when considering whether an OTB or OTS is appropriate for the contract and when evaluating the contractor's request.

#### 2.5.2.4.2 When to Use an OTB/OTS

The contractor should submit a written OTB/OTS request when it determines that the current baseline does not represent a realistic plan for accomplishing the remaining work and no longer serves as a basis for practical measurement. Working to an unrealistic baseline inhibits effective management control, possibly exacerbating the present over-cost and/or behind-schedule condition. To restore effective management control, the contractor should prepare an OTB/OTS request that reflects the needed changes to its baseline.

Since the primary reason for implementing an OTB/OTS should be to improve the contractor's ability to manage and control ongoing work, the decision to request an OTB/OTS should originate with the contractor. However, the government may request that the contractor evaluate the need for an OTB/OTS if the government is not gaining accurate performance insight. The PM should not unilaterally determine the specifics, such as the amount of additional budget or degree of schedule stretch. Before the PM approves the OTB/OTS, the following factors should be considered:

- **Do the contractor and government understand why the current work plan is no longer valid?** The parties should identify the problems that rendered the current work plan unrealistic and implement measures to prevent these problems in the future.
- **Is the existing plan for accomplishing the remaining work valid?** The plan should reflect a realistic schedule of how the remaining work actually is to be done, and the new budget should be adequate and reflect a realistic estimate and remaining program risks with an appropriate amount of MR.
- **Has contract work progressed sufficiently to warrant an OTB/OTS?** The use of an OTB/OTS may be inappropriate in a contract's early stages because insufficient work has been accomplished to verify the need for an OTB/OTS. However, nothing precludes the contractor from implementing an OTB/OTS at the outset, provided the PM and PCO concur.
- **Does sufficient time remain on the contract to warrant an OTB/OTS?** If there is little time remaining, an OTB/OTS may not be worthwhile and may be very disruptive.
- **Has an OTB been implemented previously?** If multiple OTBs are requested, the above factors, especially the first two on the list, may have not been adequately considered. This may indicate significant underlying management problems requiring investigation.

#### 2.5.2.4.3 Government Review and Approval

Once the contractor receives written approval for an OTB, the contractor can create a budget baseline in excess of the CBB. If approval is received for an OTS, the contractor can replan remaining work to a realistic schedule that extends beyond the contract milestones. This allows

the contractor to provide its managers with realistic budgets and schedules for accomplishing the remaining work.

The contractor initiates the process by submitting an OTB/OTS request to the PM detailing its implementation plan. To expedite the return to a realistic baseline, the PM promptly reviews and negotiates changes, if necessary, to the contractor's request within 30 days. If the request is not approved within 30 days, the PM should provide specific reasons as to why it was denied and what is required to obtain approval. If the request is approved, the PCO promptly sends written approval to the contractor to proceed. The contractor may not implement an OTB/OTS without this written approval.

Because OTB budgets represent performance budgets only and are implemented solely for planning, controlling, and measuring performance on already authorized work, a contract modification is not needed. The OTB budget does not impact the negotiated value of the contract. For incentive type contracts with a ceiling, the government's cost liability is still capped at the ceiling value. For cost reimbursement contracts, however, the government cost liability continues to increase as actual costs accrue on the contract. Any funding changes would require contract action.

The PM should seek support from the PMO/CMO technical and support staff in evaluating an OTB request, ensuring that the OTB approval process is not inhibited by inappropriate or unrelated issues. The overriding goal should be to allow the contractor to implement in a timely manner a baseline that allows it to regain proper management control of the ongoing effort.

#### **2.5.2.4.4 Implementing an OTB/OTS**

The PM and the contractor must agree on the OTB/OTS before it can be finalized and incorporated into the contractor's baseline. The PM is encouraged to seek support from the EVMS specialist, the EVMSS office, and the CMO when evaluating an OTB/OTS request. The contractor's OTB/OTS request should contain the following essential elements:

- **Bottom-up estimate of remaining costs and schedule.** The contractor should perform a detailed bottom-up estimate of remaining work during the OTB process based on a realistic schedule.
- **Realistic schedule for remaining work.** The remaining work plan should be based on a realistic schedule. The new work plan shall be time phased into the current schedule to produce a new executable schedule that validates the OTB/OTS.
- **Reporting the OTB/OTS in the IPMR.** The parties should agree on how the OTB/OTS is to be reported in the IPMR. The agreement should include how the existing cost and schedule variances will be handled and how visibility into the budget allocations will be reported. The variances can be retained or eliminated, or some combination thereof, depending on the specific circumstances of the contract. Narrative justification for the OTB/OTS is described in this report. Detailed instructions on how to report an OTB/OTS in the IPMR are discussed in the Over Target Baseline and Over Target Schedule Guide. The PM should carefully evaluate management information needs before deciding how these items should be handled.
- **OTB/OTS approval.** The contractor shall submit a request for approval to initiate an OTB or OTS to the Contracting Officer. The request shall include a top-level projection of potential cost and/or schedule growth, a recommendation of whether or not performance

variances will be retained, and a schedule of implementation for the rebaselining. The government will acknowledge receipt of the request in a timely manner (generally within 30 calendar days).

- **OTB/OTS implementation timeframe.** The contractor should fully implement an OTB/OTS in required reports one to two full accounting periods after receipt of written ATP.

## 2.5.3 EVMS and Award Fee Contracts

### 2.5.3.1 General Concepts

An award fee contract is a type of incentive contract in which evaluation of performance is subjective in nature. The award fee incentive is a pool of money that the contractor can earn based on performance. The aim of award fee contracting is to motivate the contractor to enhance performance in the areas rated, including technical, schedule, and cost, but not at the expense of at least minimum acceptable performance in all other areas. For maximum effectiveness, the arrangement should be in operation when performance starts so the first decisions made by the contractor's organization are made with the knowledge of the incentive criteria. An award fee plan establishes both the procedures for evaluating contractor performance and an award fee board for conducting the evaluation. The PMO establishes award fee criteria prior to the start of each award fee period. Typically, the majority of the contractor's fee is tied to award fee with only a small percentage earned as a base fee. If significant replanning or formal reprogramming occurs during the award fee period of performance, equitable adjustments to the award fee plan should occur, as appropriate.

Award fee criteria should be carefully selected to properly motivate the contractor's management and performance during the award fee period. Objective criteria tied to identifiable outcomes, discrete events, or milestones are recommended whenever possible. Clear distinctions should be established between the performance levels to guide the PMO when evaluating performance. The PMO should establish the criteria to motivate and encourage improved management processes during the period, keeping in mind that recognizing improvements in integrated program management results in more long lasting improvement in cost and schedule performance. If such qualitative criteria are difficult to support during the evaluation process, the PMO should consider using subjective criteria for EVMS performance results.

### 2.5.3.2 Avoidance of EVMS Quantitative Metrics

While it may seem obvious that EVM metrics, such as variances or indices, provide incentives to the contractor in an award fee environment, experience shows otherwise. Using metrics such as cost or schedule variances, cost or schedule performance indices, or VACs to measure performance for award fee purposes should be avoided. Use of such metrics may result in overstating of performance or other improper actions that could undermine the EVMS. Metrics may lead to frequent baseline changes for short-term profit gain and generally have not resulted in better cost control. Cost performance may be more directly incentivized with a CPIF contract rather than an award fee contract.

### 2.5.3.3 Avoidance of Contract Management Milestones (such as IBR) as Criteria

The IBR or other management, technical or program milestones should not be used as a basis for award fee. Establishing award fee metrics based on hard dates for either the IBR or other management milestones may force the conduct of these reviews, even though the contractor is not

ready for the review. Rather, outcomes of technical completion of work leading to an established baseline evaluation criterion is one way of objectively evaluating and rewarding the contractor based on success to a baseline plan.

#### **2.5.3.4 Establishing Qualitative Criteria**

The goal of award fee criteria should be to motivate and reward a contractor on proactive and innovative performance management. The criteria should be based on a mix of quantitative and qualitative measures, focusing 75% on management and 25% on discipline. This breakout can be seen in the following suggested categories:

##### **Management**

- EVM effectively integrated and used for program management
- Prime contractor's management of major subcontractors
- Realistic and current budgets, expenditures, and schedule forecasts
- Adequacy of cost proposals submitted during award fee period
- Cost control
- Meaningful variance analysis
- Timely incorporation of changes to the PMB

##### **Discipline**

- Accuracy, timeliness, and consistency of billings
- Accuracy, timeliness, and consistency of cumulative performance data
- Accuracy, timeliness, and consistency of integration of subcontractor data
- Baseline discipline and system compliance

Sample criteria and varying levels of performance are shown in Appendix D. These criteria should be selected and tailored as appropriate to the nature of the contract.

### **2.5.4 Performance Data**

#### **2.5.4.1 Analysis of Performance Data**

EVM provides detailed insight into program performance at all levels. Proper management use of EVM data by the program team can be the deciding factor in whether a program is delivered on-time and on-cost or whether the program fails. Proper management use depends on effective and tailored analysis that is responsive to management needs. Key attributes of effective analysis are:

- Management support that is consistent and visible to the entire team
- Multi-functional team approach to analysis
- Integration of analysis of key programmatic data from a variety of sources
- Timeliness of analysis
- Focus on significant variances and developing trends
- Focus on robust final cost and schedule estimates
- Management emphasis on developing credible corrective action plans

Analysis is a team effort and is fully integrated into the overall program management process. Effective analysis considers all impacts, considers all courses of action, synthesizes an integrated solution and action plan, and allows informed decisions. The real test for effective, forward-

looking analysis is that it is used to manage program performance, not just to report the status and problems to date.

#### 2.5.4.2 Principal Steps of Analysis

The major steps generally performed in EV analysis should be followed in sequential order, as the knowledge gained in each step builds on previous steps. One should not attempt to perform one of the final steps without a thorough understanding of past performance trends, remaining risk, etc.

Principle Steps of Analysis:

- 1) **Analyze Past Performance**
  - Ensure validity of data
  - Calculate variances at appropriate levels
  - Analyze data
  - Look at comparative data
  - Analyze schedule trends, IMS, and CP
  - Examine written analysis by contractor
- 2) **Project Future Performance**
  - Look at work remaining versus risk in project
  - Integrate analysis from IPTs
  - Assess realism of contractor EAC
  - Calculate range of independent EACs, compare to funding
  - Calculate independent completion date, compare to IMS data
- 3) **Formulate Plan of Action**
- 4) **Provide Team Analysis to Project Management Team**

#### 2.5.4.3 Understanding the Contractor's EACs

The contractor provides the Government a set of estimates of the cost to complete the scope of work.

- **The best case EAC** reflects the lowest potential cost to the Government. If this estimate is different from the most likely management EAC, the assumptions, conditions, and methodology underlying the estimate shall be explained in the IPMR Format 5. This estimate is for informational purposes only; it is not an official company estimate. The estimate is based on the most favorable set of circumstances.
- **The worst case EAC** reflects the highest expected cost to the Government. If this estimate is different from the most likely EAC, the assumptions, conditions, and methodology underlying the estimate shall be explained in the IPMR Format 5. This estimate is for informational purposes only; it is not an official company estimate. The estimate is based on the least favorable set of circumstances.
- **The most likely EAC** need not agree with EACs contained in the contractor's internal data, but must be reconcilable to them. The most likely EAC shall be reconcilable to the contractor's latest statement of funds required as reported in the CFSR or its equivalent. The most likely EAC is the value that the contractor's management believes is the most possible outcome based on a knowledgeable estimation of all authorized work, known factored risks, and probable future conditions.
- **The distributed EAC** is the summation of the EACs by WBS plus the expected cost performance of any value in Undistributed Budget (UB) – see Format 1 Column (15)

(Block 8.e) of the IPMR. This value may not agree with the most likely EAC. Any difference shall be explained in terms of risk and opportunities and senior management knowledge of current or future contract conditions in the IPMR Format 5.

#### **2.5.4.4 EVM Metrics**

There are certain EVM indicators that provide insight into the overall performance of a program and that should be used to guide programmatic decisions. Four of these indicators follow: Cost Variance (CV), Schedule Variance (SV), Cost Performance Index (CPI), and Schedule Performance Index (SPI).

CV measures work accomplishment compared with actuals. The CV is computed by subtracting the ACWP from the corresponding BCWP. A negative CV is unfavorable indicating that more money was spent to complete a task than was budgeted for the task. A positive CV is favorable indicating that work was completed under budget. It may be expressed as a value for a specific period of time or cumulative to date.

SV measures work accomplishment compared with the plan. The SV is computed by subtracting the BCWS from the corresponding BCWPA. A negative SV is unfavorable, indicating that some amount of planned work was not completed as scheduled. A positive SV is favorable, indicating that more work was completed than originally planned. SV alone is insufficient to determine the schedule performance of a program. The SV should be compared to the CP and Driving Critical Paths to determine its true impact.

CPI is a measure of efficiency calculated by dividing BCWP by ACWP. The metric denotes the cost expended for the work completed. A CPI value greater than 1.0 indicates the work accomplished cost less than planned, while a value less than 1.0 indicates the work accomplished cost more than planned.

SPI is a measure of efficiency calculated by dividing BCWP by BCWS. The metric denotes the amount of work accomplished versus the amount of work planned. An SPI value greater than 1.0 indicates more work was accomplished than planned, while an SPI value less than 1.0 indicates less work was accomplished than planned.

Reference the DAU Gold Card (Appendix A) for a synopsis of EVM terms and formulas.

#### **2.5.4.5 Understanding the Contractor's EVMS**

One of the most important tasks for the EVM analyst to undertake is to gain an in-depth understanding of the contractor's EVMS. The program analyst should study the contractor's EVMS description and then request, as necessary, a briefing on the operation and use of the EVMS. The briefing should include the contractor's (and subcontractors', as necessary) method for establishing and maintaining its PMB, baseline documentation, allowable methods for earning the BCWP, procedures for updating the EAC, baseline change incorporation, and overhead rate structure. This basic understanding allows the analyst to understand fully the nature of the performance data as the contract progresses and allows determination of any data anomalies.

Because the IPMR is the primary report for communicating integrated contract cost and schedule performance data, the PM should ensure that it presents accurate and useful information. The PM should carefully review each IPMR submission, checking for such things as errors, DID compliance, and data anomalies. The PM should address any concerns or problems and require prompt correction by the contractor. If left uncorrected, data errors and anomalies may skew and distort the EVM analysis, government EAC, and resulting program planning.

## **2.5.5 EVM Training**

### **2.5.5.1 Sources of Training**

To utilize effectively the information generated by the contractor's EVMS and reported in the external reports, the PMO, CMO, EVMSS, and contractor personnel should receive training in the analysis of EVM data. There are four general sources of training: formal training classes (e.g., DAU and professional conferences), contractor-sponsored training, in-house training, and training materials available on performance management websites.

### **2.5.5.2 Formal Training**

Courses on the basics of EVM and the analysis of data should be provided for all personnel associated with the program, and refresher training should be offered on a periodic basis. This training is available from DAU as well as from other recognized educational institutions, and through formal training programs at professional association conferences.

### **2.5.5.3 Contractor-Sponsored Training**

The majority of contractors with an approved EVMS conduct training classes in the operation of their EVMS. Where the contractor provides training in the contractor's EVMS, the government PM, the CMO, and EVMSS may seek to participate in these training opportunities.

### **2.5.5.4 In-House Training**

Each acquisition component with an EVMSS normally provides in-house training. Where this capability exists, all organizations involved in an acquisition should be invited to participate in this training. This may be specialized, individual contract training, or it may be generalized training addressing the concepts and requirements of EVM and the analysis of EVM information. When in-house training is conducted for an individual PMO, every effort should be made to incorporate the specifics of the contractor's EVMS into the course.

### **2.5.5.5 Training Materials Available on Websites**

There is a wealth of training materials posted to several performance management websites that may be used to understand basic principles and for refresher training. It is important to pay attention to the date and source of the materials.

## **2.5.6 Adjusting Level of Reporting During Contract Execution**

Near the end of a contract, the usefulness of the EVM reporting diminishes when major deliverables are completed and no significant risks remain. EVM policy encourages the government to reduce or suspend EVM reporting when certain conditions exist.

While some program offices will want to cease reporting entirely when a certain percentage of the effort is completed, this may not be the best option. The tail end of the contract can take a long

time to complete and tracking progress is desirable. Changes in reporting are ultimately determined by the level of risk remaining on the project. The entire list of risk factors should be thoroughly assessed prior to making an informed decision to cease or decrease the level or amount (depth or breadth) of EVM reporting.

#### **2.5.6.1 Mid-Contract Considerations**

While it is possible to re-evaluate risk throughout the life of the program, the current IPMR DID only briefly addresses the potential change in level of reporting over time. Specifically, it states, “Variance analysis thresholds shall be reviewed periodically and adjusted as necessary to ensure they continue to provide appropriate insight and visibility to the government.” Again, risk to the program throughout its lifecycle influences reporting requirements.

#### **2.5.6.2 Contract Closeout**

Even if the decision to decrease or suspend EVM reporting occurs at a certain contract percent complete, the actual decision to conclude or reduce EVM reporting should be a risk-based (i.e., not a calendar-based) decision. As discussed below, there are too many variables and non-metric factors to say that EVM reporting should cease at a certain percent complete.

Instead, when the information provided by the contractor “is no longer meaningful” (per the IPMR DID) or the milestones previously identified and listed in the CDRL have already occurred (as stated in the IPMR Implementation Guide), resulting in lowered program risk, EVM reporting may be reduced or suspended altogether. It is important for members of the program team to discuss risks and reporting then determine what is best for the program.

It is important to remember to report any changes in IPMR reporting schedules to the appropriate government repositories (such as the EVM-CR and Defense Acquisition Management Information Retrieval (DAMIR)).

Any changes in EVM reporting schedule, if not covered in the CDRL, must be preceded by a contract modification letter initiated by the program office.

#### **2.5.6.3 Factors to Consider When Deciding Whether to Decrease or Cease EVM Reporting**

Prior to initiating the contract letter, the program office should confer with the EVM Specialist to determine if modifying EVM variance reporting or ceasing EVM reporting are appropriate. The following criteria should be considered:

##### **2.5.6.3.1 Percent Complete**

Based on historical experience and risk remaining in the program, it is acceptable to consider reducing EVM variance reporting or ceasing EVM reporting once a project has reached a certain percent complete. However, percent complete should not be the only factor in deciding when to decrease or cease EVM reporting.

##### **2.5.6.3.2 Risks/Opportunities Remaining in the Program**

Risks and opportunities are the ultimate deciding factors on whether to decrease or cease EVM reporting. While it may be permissible to consider decreasing or ceasing reporting at a certain percent complete, outstanding risks and opportunities must be considered, compared, and



quantified. It is important to understand, however, that continuing reporting throughout the risk mitigation process at the end of the Period of Performance can provide the program office with useful insight.

#### **2.5.6.3.3 Phase of the Program**

Program risk also depends on the phase of the program. For many aircraft development programs, for example, the riskiest phase of the program occurs at the end. Aircraft development programs going into flight test or operational test are riskier than programs that have already completed these test phases. Continued complete EVM reporting is essential during these riskier phases of the development program.

#### **2.5.6.3.4 Program Trends**

Prior to deciding whether to decrease or cease EVM reporting, the PM, with input from the EVMSS, should review recent trends of project performance. If EVM reporting indicates negative variances or decreasing indices or if EVM reporting is incomplete, this could indicate continued risk in the remaining effort of the program. With indications of continued risk apparent, the program office should continue reporting to gain the necessary insight to make effective management decisions.

#### **2.5.6.3.5 Work Remaining**

Reviewing the amount or type of work remaining is imperative prior to making decisions whether to change reporting. Specifically, the PM should review the following:

- What type or amount of work remains?
- Does remaining work depend on risky GFE or contractor-supplied material or all materials on-hand?
- Does the successful completion of future WPs depend on special types of labor that have not yet been procured or does the appropriate workforce already exist on site?
- Is a major modification anticipated, increasing the work scope?

A thorough examination of work remaining by the PM is required. If the PM is comfortable with ceasing or reducing EVM reporting given the type and amount of work remaining on the contract, then changing or reducing the reporting schedule may be appropriate.

#### **2.5.6.3.6 Management Reserve (MR) Usage**

PMs should review the recent trend of MR usage. If this trend indicates a potential emerging risk, it will be necessary to continue full EVM reporting to ensure the program office has the insight needed to manage this emerging risk.

#### **2.5.6.3.7 Schedule Trends**

Typical Project IMSs indicate not only baseline dates for the start and finish of WPs (i.e., dates when work is planned to begin and end) but also forecasted start and finish dates (i.e., dates when work is expected to begin and end). In properly operating projects, the gap between baseline and forecasted dates (i.e., the variance) is minimal.

If ongoing evaluations of the IMS WPs indicate that variances are increasing, then EVM reporting, which could provide insight into the reasons for the slippage, should continue to the end of the

contract's Period of Performance. If the IMS updates indicate a potential milestone slip, it will be necessary to continue full EVM reporting to ensure the program office has the necessary insight to manage the remaining schedule.

#### **2.5.6.3.8 Significant Milestone Completion**

As previously discussed, the IPMR Implementation Guide indicates that significant contract milestones should be listed in the IPMR CDRL for each contract. Once these significant milestones have been completed and risk has been mitigated, it is permissible to consider ceasing or decreasing EVM reporting.

APPENDIX A: EVM GUIDANCE RESOURCE ROADMAP <sup>1</sup>

Topic Area	Government	Industry
<b><i>Governance/Requirements</i></b>	OMB Circular A-11, Supplement to Part 7 <a href="#">[*]</a> Capital Programming Guide DoDI 5000.02 <a href="#">[*]</a> FAR 34.2, 52.234-2, 52.234-3, 52.234-4 <a href="#">[*]</a> DFARS 234.201, 252.234-7001, 252.234-7002, 252.242-7005 <a href="#">[*]</a>	- - -
<b><i>Standards</i></b>		EIA-748 Standard for Earned Value Management Systems <a href="#">[*]</a>
<b><i>Intent/Implementation</i></b>	Department of Defense Earned Value Management System Interpretation Guide (EVMSIG) <a href="#">[*]</a> Department of Defense Earned Value Management Implementation Guide (EVMIG) <a href="#">[*]</a> Department of Navy Earned Value Management <a href="#">[*]</a>	NDIA IPMD Earned Value Management Systems Intent Guide to the EIA Standard for EVMS (EIA-748) <a href="#">[*]</a> NDIA IPMD EVMS Application Guide <a href="#">[*]</a> -

<sup>1</sup> Note: All hyperlinks current as of 12/20/2018.

	Implementation Guide (DON EVMIG)	
<b><i>Planning and Organizing</i></b>	MIL-STD-881 <a href="#">[*]</a>	-
<b><i>Integrated Master Plan (IMP) &amp; Integrated Master Schedule (IMS)</i></b>	Integrated Master Plan and Integrated Master Schedule Preparation and Use Guide <a href="#">[*]</a>	
<b><i>Schedule Development and Analysis</i></b>	GAO Schedule Assessment Guide: Best Practices for Project Schedules <a href="#">[*]</a>	NDIA IPMD Planning and Scheduling Excellence Guide (PASEG) <a href="#">[*]</a>
<b><i>Reporting and Analysis</i></b>	Integrated Program Management Report (IPMR) <a href="#">[*]</a> IPMR Implementation Guide <a href="#">[*]</a> DAU Gold Card <a href="#">[*]</a> EVM-Central Repository (EVM-CR) <a href="#">[*]</a> GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs <a href="#">[*]</a>	A Guide to Managing Programs Using Predictive Measures <a href="#">[*]</a>
<b><i>Integrated Baseline Review (IBR)</i></b>	The Program Manager's Guide to the Integrated Baseline Review Process <a href="#">[*]</a>	NDIA IPMD Integrated Baseline Review Guide <a href="#">[*]</a>
<b><i>Over Target Baseline (OTB)/ Over Target Schedule (OTS)</i></b>	Over Target Baseline and Over Target Schedule Guide <a href="#">[*]</a>	

<b><i>EVM &amp; Risk</i></b>	Department of Defense Risk, Issue, and Opportunity Management Guide for Defense Acquisition Programs <a href="#">[*]</a>	
<b><i>EVM &amp; Software</i></b>	Agile and EVM Management: A Program Manager's Desk Guide <a href="#">[*]</a>	NDIA IPMD An Industry Practice Guide for Agile on EVM Programs <a href="#">[*]</a>
<b><i>Compliance and Surveillance</i></b>	DCMA EVMS Site <a href="#">[*]</a>	Surveillance Guide <a href="#">[*]</a> Earned Value Management System <a href="#">[*]</a> Acceptance Guide

## APPENDIX B: GUIDELINES-PROCESS

EIA-748 GUIDELINES		PROCESS GROUPING									
		Organizing	Scheduling	Work/Budget Authorization	Accounting	Indirect Management	Managerial Analysis	Change Incorporation	Material Management	Subcontract Management	
<b>ORGANIZATION</b>											
2-1a	Define authorized work	X									
2-1b	Identify Program Organization Structure	X									
2-1c	Company Integration of EVMS subsystems with WBS and OBS	X									
2-1d	Identify organization/function for overhead					X					
2-1e	Integrate WBS & OBS, create control accounts	X									
<b>PLANNING, SCHEDULING, AND BUDGETING</b>											
2-2a	Sequential scheduling of work		X								
2-2b	Identify interim measures of progress, i.e. milestones, products, etc.		X								
2-2c	Establish time-phased budget			X		X					
2-2d	Identify significant cost elements within authorized budgets			X							
2-2e	Identify discrete work packages			X							
2-2f	All work package budgets & planning packages sum to control account			X							
2-2g	Identify and control LOE budgets			X							
2-2h	Establish overhead budgets by organization element					X					
2-2i	Identify manage reserve and undistributed budget			X							
2-2j	Reconcile program target cost goal with sum of all internal budgets			X							
<b>ACCOUNTING CONSIDERATIONS</b>											
2-3a	Record direct costs from accounting system					X					
2-3b	Summarize direct costs into WBS without allocation					X					
2-3c	Summarize direct costs into OBS without allocation					X					
2-3d	Record indirect costs						X				
2-3e	Identify unit costs, equivalent unit costs, or lot costs					X					
2-3f	Accurate material cost accumulation by control accounts; EV measurement at right time; full accountability of material								X		
<b>ANALYSIS AND MANAGEMENT REPORTS</b>											
2-4a	Control account monthly summary, identification of CV and SV				X			X			
2-4b	Explain significant variances							X			
2-4c	Identify and explain indirect cost variances						X				
2-4d	Summarize data elements and variances through WBS/OBS for mgmt							X			
2-4e	Implement management actions as result of EVM analysis							X			
2-4f	Revise EAC based on performance data; calculate VAC					X		X			
<b>REVISIONS AND DATA MAINTENANCE</b>											
2-5a	Incorporate authorized changes in timely manner								X		
2-5b	Reconcile budgets with prior budgets								X		
2-5c	Control retroactive changes				X				X		
2-5d	Prevent all but authorized budget changes								X		
2-5e	Document changes to PMB								X		

Legend	
X	Key Process
<span style="background-color: #0000FF; color: #0000FF;"> </span>	Cross Process Area

## APPENDIX C: ESSENTIAL ELEMENTS OF A BUSINESS CASE ANALYSIS

**1.0 Business Case Analysis (BCA) Overview.** A business case is a persuasive and compelling argument advocating a Course of Action (COA) to achieve one or more business objectives. A well-constructed business case presents a definite point of view that proves to the decision maker that the recommended action is the best option. In this particular case, the implied COA under consideration is the application of EVM in a situation normally excluded from application. A BCA is conducted to analyze the application of EVM to a contract that would normally be excluded from EVM application per DoD policy, primarily FFP contracts or cost reimbursable contracts less than \$20M in value. Current DoD policy requires that the MDA approve BCAs.

**2.0 BCA Contents.** The following description contains a generally accepted outline of the contents of a business case and the BCA report. This is provided as guidance only, and the program office is encouraged to conduct and tailor the business case in a way that best meets the need of the individual program. Specific EVM guidance is included as appropriate in the following description.

**2.1 Common Elements.** BCAs contain a common set of elements that can be tailored according to the degree of application required for a particular contract. These common elements are problem definition, data collection, evaluation, and a report or briefing, which are detailed below.

- **Problem definition** includes establishing an objective for the analysis, stating the assumptions that frame the analysis, and, as appropriate, laying out alternative solutions to the problem. **NOTE:** This should include rationale for the selection of the FFP contract type versus selection of a cost type or incentive type contract or for application of an EVM requirement to a contract less than \$20M.
- **Data collection** identifies and obtains the data needed to meet the objective of the analysis (e.g., cost, benefits, etc.).
- **Evaluation** analyzes the data to address the objective of the business case and to develop findings that specifically relate the data to the objective. Both quantitative and qualitative benefits for the proposed solution should be evaluated.
- **A report or briefing** presents the conclusions and recommendations of the BCA.

**2.2 BCA Report.** The report should document the elements described above. An accompanying decision briefing should contain the following:

- Charter (i.e., objectives of the BCA)
- Scope (i.e., boundaries of the BCA)
- Assumptions
- Methodology (i.e., description of the data and analysis process)
- Status quo (i.e., description of the status quo- no EVM implementation and baseline costs)
- Proposed solution (i.e., description of EVM implementation, tailoring approach, and costs)
- Summary (i.e., comparison of costs, benefits, and potential drawbacks)
- Recommendation

**APPENDIX D: SAMPLE AWARD FEE CRITERIA**

<b>MANAGEMENT EXAMPLE: EVM is effectively integrated and used for program management.</b>	
<b>UNSATISFACTORY</b>	<b>Contractor does not meet the criteria for satisfactory performance.</b>
<b>SATISFACTORY</b>	<b>Contractor uses EVM performance data to make program decisions as appropriate.</b>
<b>GOOD</b>	<b>Contractor meets all SATISFACTORY requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor effectively integrates EVM performance into program management reviews and utilizes EVM as a primary tool for program control and decision-making.</li> </ul>
<b>VERY GOOD</b>	<b>Contractor meets all GOOD requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor develops and sustains effective communication of performance status on a continual basis with the government.</li> </ul>
<b>EXCELLENT</b>	<b>Contractor meets all VERY GOOD requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor proactively and innovatively uses EVM. Contractor plans and implements continuous performance improvement in using EVM.</li> </ul>

<b>MANAGEMENT EXAMPLE: Management of major subcontractors.</b>	
<b>UNSATISFACTORY</b>	<b>Contractor does not meet the criteria for satisfactory performance.</b>
<b>SATISFACTORY</b>	<b>Contractor routinely reviews the subcontractor's performance measurement and baseline.</b>
<b>GOOD</b>	<b>Contractor meets all SATISFACTORY requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor structures contractor's management system for oversight of subcontractor performance.</li> </ul>
<b>VERY GOOD</b>	<b>Contractor meets all GOOD requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor actively reviews and manages subcontractor progress. Contractor clearly and accurately reports status to the government.</li> </ul>
<b>EXCELLENT</b>	<b>Contractor meets all VERY GOOD requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor effectively and timely communicates subcontractor cost and schedule status to the government. Contractor proactively manages issues.</li> </ul>

<b>MANAGEMENT EXAMPLE: Realistic and current cost, expenditure, and schedule forecasts.</b>	
<b>UNSATISFACTORY</b>	<b>Contractor does not meet the criteria for satisfactory performance.</b>
<b>SATISFACTORY</b>	<b>Contractor provides procedures for delivering realistic and up-to-date cost and schedule forecasts as presented in the <a href="#">Integrated Program Management Report (IPMR)</a>, formal EAC, CFSR, IMS, etc. The forecasts are complete, consistent with program requirements, and reasonably documented.</b>
<b>GOOD</b>	<b>Contractor meets all SATISFACTORY requirements plus the following:</b>



	<ul style="list-style-type: none"> <li>• Contractor thoroughly documents and justifies all requirements for additional funding and schedule changes. Contractor creates consistent and logical expenditure forecasts based on program requirements. Contractor acknowledges cost growth (if any) in the current reporting period and provides well-documented forecasts.</li> </ul>
<b>VERY GOOD</b>	<p><b>Contractor meets all GOOD requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>• Contractor constantly scrutinizes expenditure forecasts to ensure accuracy and currency. Contractor prepares and develops program cost and schedule data that provides clear government visibility into current and forecast program costs and schedule. Schedule milestone tracking and projections are accurate and reflect true program status. Contractor maintains close and timely communications with the government.</li> </ul>
<b>EXCELLENT</b>	<p><b>Contractor meets all VERY GOOD requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>• Contractor consistently submits a high quality EAC that is current and realistic. Reported expenditure profiles are accurate. Contractor develops comprehensive and clear schedule data that provides excellent correlation with technical performance measures and cost performance reports and permits early identification of problem areas. Schedule milestone tracking and projections are accurate and recognize potential program impacts.</li> </ul>

<b>MANAGEMENT EXAMPLE:</b> Adequacy of cost proposals submitted during award fee period.	
<b>UNSATISFACTORY</b>	<b>Contractor does not meet the criteria for satisfactory performance.</b>
<b>SATISFACTORY</b>	<b>Contractor provides proposal data, including subcontractor data that is logically organized and provides adequate visibility to the government to support technical review and cost analysis. Contractor documents a basis of estimate for each element. If insufficient detail is provided, the contractor provides the requisite detail to the government on request. The proposal is submitted on time.</b>
<b>GOOD</b>	<p><b>Contractor meets all SATISFACTORY requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>• Contractor provides a detailed analysis for subcontractor and material costs.</li> </ul>
<b>VERY GOOD</b>	<p><b>Contractor meets all GOOD requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>• Contractor provides traceable proposal data that supports a detailed technical review and thorough cost analysis by the government. Data requires only minor clarification. Potential cost savings are considered and reported in the proposal.</li> </ul>
<b>EXCELLENT</b>	<p><b>Contractor meets all VERY GOOD requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>• Change proposals are stand-alone and require no iteration for government understanding. Contractor communicates during the proposal preparation phase and effectively resolves issues before submission.</li> </ul>

<b>MANAGEMENT EXAMPLE: Cost control.</b>	
<b>UNSATISFACTORY</b>	<b>Contractor does not meet the criteria for satisfactory performance.</b>
<b>SATISFACTORY</b>	<b>Contractor controls cost performance to meet program objectives.</b>
<b>GOOD</b>	<b>Contractor meets all SATISFACTORY requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor establishes means to stay within target cost. Contractor provides good control of all costs during contract performance.</li> </ul>
<b>VERY GOOD</b>	<b>Contractor meets all GOOD requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor provides measures for controlling contract cost at or slightly below target cost. Contractor provides suggestions to the program office and implements said suggestions as appropriate. Contractor implements some ideas for cost reduction.</li> </ul>
<b>EXCELLENT</b>	<b>Contractor meets all VERY GOOD requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor provides suggestions and, when appropriate, proposals to the program office for initiatives that can reduce future costs. Contractor implements cost reduction ideas across the program and at the subcontract level. Contractor identifies (and, when appropriate, implements) new technologies, commercial components, and manufacturing processes that can reduce costs.</li> </ul>

<b>MANAGEMENT EXAMPLE: Variance analysis in performance reports.</b>	
<b>UNSATISFACTORY</b>	<b>Contractor does not meet the criteria for satisfactory performance.</b>
<b>SATISFACTORY</b>	<b>Contractor provides sufficient variance analysis. Contractor usually keeps the government informed of problem areas, the causes, and corrective actions. When insufficient detail exists, the contractor provides it to the government promptly upon request.</b>
<b>GOOD</b>	<b>Contractor meets all SATISFACTORY requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor routinely keeps the government informed of problem areas, the causes, and corrective actions. Contractor updates explanations on a monthly basis. Contractor takes actions to analyze potential risks for cost and schedule impacts.</li> </ul>
<b>VERY GOOD</b>	<b>Contractor meets all GOOD requirements plus the following:</b> <ul style="list-style-type: none"> <li>• Contractor always keeps the government informed of problem areas, the causes, and corrective actions. Contractor performs thorough variance analysis and uses said analysis for internal management to control cost and schedule. Contractor provides detailed explanations and insight for schedule slips or technical performance that could result in cost growth. The government rarely requires further clarification of the analysis.</li> </ul>
<b>EXCELLENT</b>	<b>Contractor meets all VERY GOOD requirements plus the following:</b>

	<ul style="list-style-type: none"> <li>Contractor provides extremely thorough variance analysis. Contractor proactively keeps the government informed of all problem areas, the causes, emerging variances, impacts, and corrective action. Contractor keeps the government informed on progress made in implementing the corrective action plans. Analysis is fully integrated with risk management plans and processes.</li> </ul>
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**DISCIPLINE EXAMPLE:** Accuracy, timeliness, and consistency of billing and cumulative performance data and integration of subcontractor data.

<b>SATISFACTORY</b>	<b>Billings to the government may have slight delays and/or minor errors. IPMR, CSFR, and IMS reports are complete and consistent with only minor errors. Data can be traced to the WBS with minimum effort. Subcontractor cost and schedule data are integrated into the appropriate reports with some clarification required. Contractor occasionally submits late reports. Contractor submits electronic data correctly.</b>
<b>GOOD</b>	<p><b>Contractor meets all SATISFACTORY requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>Billings to the government are accurate, although there may be slight delays. Data is complete, accurate, consistent, and traceable to the WBS with minor clarification required. Subcontractor performance data is fully integrated into the appropriate reports with no clarification required, and reports are submitted on time.</li> </ul>
<b>VERY GOOD</b>	<p><b>Contractor meets all GOOD requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>Data is complete, accurate, and consistent with little or no clarification required.</li> </ul>
<b>EXCELLENT</b>	<p><b>Contractor meets all VERY GOOD requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>Contractor submits billings to the government on time. Data is complete, accurate, and consistent with clear traceability to the WBS. Data elements are fully reconcilable between the IPMR and the CFSR. Subcontractor schedule performance is vertically and horizontally integrated with the contractor schedule.</li> </ul>

**DISCIPLINE EXAMPLE:** Baseline discipline and system compliance.

<b>SATISFACTORY</b>	<b>The contractor develops a reliable PMB that includes work scope, schedule, and cost. The contractor or government may discover system deficiencies or baseline planning errors through either routine surveillance or data inaccuracies in the IPMRs. The contractor incorporates contract changes and UB into the baseline in a timely manner. The contractor tracks and uses MR properly. Elimination of performance variances is limited to correction of errors.</b>
<b>GOOD</b>	<p><b>Contractor meets all SATISFACTORY requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>Contractor addresses requirements up front to minimize changes and future cost and schedule growth. Contractor always incorporates contract changes and UB into the baseline in a timely manner. Contractor</li> </ul>

	quickly assesses and corrects system deficiencies or baseline planning errors, resulting in minor impacts to data accuracy. Contractor provides for the continuous review of the baseline to ensure that it is current and accurate, thereby maintaining its usefulness to management. Cost and schedule baselines are fully integrated.
<b>VERY GOOD</b>	<p><b>Contractor meets all GOOD requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>• Contractor builds proper baseline in a timely manner. Contractor provides realistic performance baseline. Contractor ensures WPs are detailed and consistent with scope of contract and planned consistently with the schedule. Contractor conducts routine surveillance that reveals minor system deficiencies or minor baseline planning errors, quickly assessed and corrected, resulting in minimal impact to data accuracy. Contractor EVMS is effectively integrated with other management processes.</li> </ul>
<b>EXCELLENT</b>	<p><b>Contractor meets all VERY GOOD requirements plus the following:</b></p> <ul style="list-style-type: none"> <li>• Contractor proactively manages baseline. Contractor maintains timely detail planning as far in advance as practical and implements proper baseline controls. Contractor controls and minimizes changes to the baseline, particularly in the near term. System deficiencies or planning errors are few and infrequent. Contractor takes the initiative to streamline internal processes and maintains a high level of EVMS competency and training across the organization.</li> </ul>

**APPENDIX E: SAMPLE CONTRACT DATA REQUIREMENTS LIST FORMS**

Sample CDRL for the CWBS

CONTRACT DATA REQUIREMENTS LIST										Form Approved OMB No. 0704-0188	
<i>(1 Data Item)</i>											
Public reporting burden for the collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.											
A. CONTRACT LINE ITEM NO.			B. EXHIBIT A			C. CATEGORY TDP _____ TM _____ OTHER _____					
D. SYSTEM/ITEM				E. CONTRACT/PR NO.				F. CONTRACTOR			
1. DATA ITEM NO.		2. TITLE OF DATA ITEM Contract Work Breakdown Structure					3. SUBTITLE				
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-81334				5. CONTRACT REFERENCE				6. REQUIRING OFFICE			
7. DD250 REQ LT		9. DIST STATEMENT REQUIRED D		10. FREQUENCY SEE 16		12. DATE OF FIRST SUBMISSION SEE 16		14. DISTRIBUTION			
8. APP CODE N/A		11. AS OF DATE N/A		13. DATE OF SUBSEQUENT SUBMISSION SEE 16		a. ADDRESSEE		b. COPIES			
16. REMARKS											
<p>Block 4 Supplemental Instructions for Completion of CWBS.</p> <p>1. Part I INDEX. Provide a matrix identifying the contract line item and SOW to the WBS elements.</p> <p>2. Part II CWBS DICTIONARY. The Dictionary will provide a description of every CWBS element and contractor task essential to fulfill the element description. The task description will include summary identification of the functional/organizational resources to be applied.</p> <p>(a) The elements shall be in the same order as the Part I INDEX.</p> <p>(b) The WBS element number shall precede the WBS element title.</p> <p>3. The CWBS will be based upon the WBS included in contract Attachment 3. If the WBS is not included, the CWBS will be developed using the latest version of MIL-HDBK-881 as a guide. The Contractor may use its own WBS element numbering scheme as long as the WBS integrity, as provided by the guidance in MIL-HDBK-881, is maintained.</p> <p>Blocks 11-13: Initial submission is required within thirty (90) days after contract award. Provide updates to previously approved CWBS, as required. The CWBS will be provided as an electronic file.</p>											
15. TOTAL → 0 0											
G. PREPARED BY				H. DATE		I. APPROVED BY				J. DATE	
DD Form 1423-1, JUN. 90				17. PRICE GROUP		18. ESTIMATED TOTAL PRICE		Page of Pages			

Sample CDRL for the IPMR

CONTRACT DATA REQUIREMENTS LIST <i>(1 Data Item)</i>						Form Approved OMB No. 0704-0188			
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>									
A. CONTRACT LINE ITEM NO.		B. EXHIBIT <p style="text-align: center;">A</p>		C. CATEGORY: TDP _____ TM _____ OTHER <input checked="" type="checkbox"/>					
D. SYSTEM/ITEM			E. CONTRACT/PR NO. (Fill in when known)		F. CONTRACTOR (Enter Full name of Contractor)				
1. DATA ITEM NO. A0XXXX	2. TITLE OF DATA ITEM Integrated Program Management Report (IPMR)			3. SUBTITLE			17. PRICE GROUP		
4. AUTHORITY (Data Acquisition Document No.) <p style="text-align: center;">DI-MGMT-81861</p>		5. CONTRACT REFERENCE <p style="text-align: center;">SOW PARA XXXX</p>			6. REQUIRING OFFICE PROG/XXXX		18. ESTIMATED TOTAL PRICE		
7. DD250 REQ <p style="text-align: center;">LT</p>	9. DIST STATEMENT REQUIRED <p style="text-align: center;">FOUO</p>	10. FREQUENCY <p style="text-align: center;">MONTHLY</p>		12. DATE OF FIRST SUBMISSION <p style="text-align: center;">SEE BLOCK 16</p>		14. DISTRIBUTION			
8. APP CODE <p style="text-align: center;">NO</p>		11. AS OF DATE <p style="text-align: center;">SEE BLOCK 16</p>		13. DATE OF SUBSEQUENT SUBMISSION <p style="text-align: center;">SEE BLOCK 16</p>		a. ADDRESSEE	b. COPIES		
16. REMARKS  The Contractor shall provide monthly IPMRs per DID DI-MGMT-81861; modified per the following:  1. Block 12 - Date of First Submission. The first submission of Formats 1-6 is due 12 working days after the end of the second full accounting period following Authorization to Proceed (ATP).  2. Block 13 - Date of Subsequent Submissions: Subsequent submissions containing Formats 1 through 6 shall be provided within 12 working days <sup>2</sup> after the close of the contractor's monthly or periodic accounting cycle. Format 7 is due annually on <i>[add date]</i> <sup>3</sup> . Final submission is due when the last significant milestone/deliverable as defined by the contract has been achieved and remaining risk areas have been mitigated.  3. Block 14 - Distribution and addresses:  3.1. All formats shall be submitted electronically in accordance with the DOD-approved guidance and XML requirements located in the EVM Central Repository (EVM-CR) at <a href="http://cade.osd.mil/tools/evm-tools">http://cade.osd.mil/tools/evm-tools</a> .  3.1.1. Formats 1-4 shall be submitted using the DoD-approved XML schema and cost guideline.  3.1.2. Format 5 shall be submitted in contractor format.  3.1.3. Format 6 shall be submitted using the DoD-approved XML schema and schedule guideline.  3.1.4. A copy of the IMS in contractor native software format shall also be submitted <sup>4</sup> .  3.1.5. Format 7 shall be submitted using the DoD-approved XML schema and time-phased cost guideline.  3.2. All IPMR files must be electronically forwarded to the EVM-CR <sup>5</sup> at the DCARC Web site at <a href="https://service.cade.osd.mil/DCARCPortal">https://service.cade.osd.mil/DCARCPortal</a> .						EVM-		0	
						CR		1	
DD FORM 1423-1, FEB 2001				PREVIOUS EDITION MAY BE USED		15. TOTAL →		15	
G. PREPARED BY			H. DATE		I. APPROVED BY		J. DATE		

<sup>2</sup> DID allows for as late as 17 WD where technical or other significant issues exist.  
<sup>3</sup> Select a timeframe that meets the PMO needs.  
<sup>4</sup> Formats 1-4 may be required in hours and/or human readable formats as optional items.  
<sup>5</sup> EVM-CR requirement is only for ACAT I programs with an EVM requirement on contract.

<b>CONTRACT DATA REQUIREMENTS LIST</b> (1 Data Item)		
A. CONTRACT LINE ITEM NO.	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
D. SYSTEM/ITEM	E. CONTRACT/PR NO. (Fill in when known)	F. CONTRACTOR (Enter Full name of Contractor)
<p><b>16. REMARKS</b> (Continued)</p> <p>4. Block 16 - Remarks:</p> <p>4.1. Format 1 Instructions: The Work Breakdown Structure (WBS) shall be reported in accordance with the applicable MIL-STD-881 appendix (latest version at time of award) tailored for execution requirements. The default level of XML reporting is called the "Reporting Level."</p> <p>4.2. Format 2 Instructions: Provide the contractor's functional breakdown structure (e.g. Engineering, Manufacturing, Program Management, Quality, Test, etc.) or other organizational breakdown such as by Integrated Product Teams (IPTs). Material and major subcontractors with EVM System flow-down requirements shall be included as separate elements. No formal monthly variance analysis is required for Format 2, however, the contractor should correlate the variances in Format 1 to Format 2, as needed.</p> <p>4.3. Format 3 Instructions:</p> <p>4.3.1. Significant differences, those that are absolute values exceeding +/- 5%<sup>6</sup>, between the Performance Measurement Baseline (PMB) at the beginning and end of each specified period by month, and in total, shall be explained in Format 5.</p> <p>4.3.2. Baseline change breakout on the Format should be by month for the next six months and [insert time interval]<sup>7</sup> thereafter.</p> <p>4.4. Format 4 Instructions:</p> <p>4.4.1. Significant changes that require explanations in Format 5 are those that change the absolute value of the projected total staff-months at completion of any organizational or functional category by more than +/-5%<sup>8</sup>.</p> <p>4.4.2. Staffing forecast should be by month for the next six months and [insert time interval]<sup>9</sup> thereafter.</p> <p>4.5. Format 5 Instructions:</p> <p>4.5.1. The variance analysis thresholds<sup>10</sup> are:</p> <p style="margin-left: 40px;">4.5.1.1. [example: \$50K and 10% for current period cost or schedule variances.]</p> <p style="margin-left: 40px;">4.5.1.2. [example: \$100K and 10% for cumulative cost or schedule variances.]</p> <p style="margin-left: 40px;">4.5.1.3. [example: \$250K and 5% for at-complete variances.]</p> <p>4.5.2. Narrative explanations required and variance thresholds will be reviewed periodically and may be adjusted by contract modification with no change in contract price.</p> <p>4.5.3. The contractor will notify the Government monthly on which reportable WBSs exceeded the threshold no later than the 7th working day after the accounting close.</p> <p style="margin-left: 40px;">4.5.3.1. The government may notify the contractor which 15 variances are reportable in the current period no later than the 10th working day after accounting close.</p> <p style="margin-left: 40px;">4.5.3.2. Without Government direction, the contractor shall report the top three current period, cumulative, and at complete variances. A total of 15 WBS elements are reported, as applicable.</p> <p style="margin-left: 40px;">4.5.3.3. The contractor or the Government may identify additional variances to report over the 15 WBS elements to cover emerging trends. Items shall be reviewed monthly to see if still required; the intent of the requirement is temporary.</p> <p>4.5.4. Variance analysis narratives shall be reported at the Reporting Level based on the WBS level of Format 1. The narratives also shall:</p> <p style="margin-left: 40px;">4.5.4.1. Quantify and explain the root cause of the variance and account for the majority of the variance amount exceeding the threshold.</p> <p style="margin-left: 40px;">4.5.4.2. Discuss any schedule variance in terms of float and the impact to the program critical path, if any, and identify significant missed milestones, impact to major milestones, and expected recovery dates.</p>		

<sup>6</sup> Value to be evaluated by PMO to ensure it meets risk needs.

<sup>7</sup> PMO can select breakout of timeframe beyond the 6-month window.

<sup>8</sup> Value to be evaluated by PMO to ensure it meets risk needs.

<sup>9</sup> PMO can select breakout of timeframe beyond the 6-month window.

<sup>10</sup> Thresholds provided here are notional; they should be evaluated by the Government PMO based on program scope and risk.

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<p><b>16. REMARKS (Continued)</b></p> <p>4.5.4.3. Specific corrective actions, forecasted closure date, and impact to the Estimate at Completion (EAC).</p> <p>4.5.4.4. If there are no changes to the reportable element issue description, the expected impacts, or corrective action plans, then specify, "no changes since the last reported analysis" and reference the IPMR date when the original narrative was reported.</p> <p>4.5.5. IPMRs required from subcontractors will be provided electronically using the DOD-approved XML formats.</p> <p>4.6. Format 6 Instructions</p> <p>4.6.1. The IMS will include the applicable calendar(s).</p> <p>4.6.2. The IMS shall include all discrete work; subcontractors with EVM flow-down shall be incorporated with sufficient detail to develop a realistic critical path and provide insight into the scope of work being accomplished.</p> <p>4.6.3. The Schedule Risk Assessment (SRA) shall be submitted in Format 5 and delivered 60 days prior to any IBR<sup>11</sup>.</p> <p>4.6.4. The following reserved fields are required: <i>[add fields here]</i><sup>12</sup>.</p> <p>4.7. Format 7 Instructions: The following items will be provided at the same level as the Format 1 WBS level<sup>13</sup>: BCWS, BCWP, ACWP, and ETC by month, for the period, from contract start to complete, as applicable.</p>			

<sup>11</sup> SRAs can be delivered more frequently, but must be listed here. Also, days before IBR are adjustable.

<sup>12</sup> If PMO has specific special fields or flags needed in the submission, they should be listed here.

<sup>13</sup> Level of the Format 7 reporting can be down to the control account level, but must be specified here.



Sample IMS Only CDRL

CONTRACT DATA REQUIREMENTS LIST <i>(1 Data Item)</i>						Form Approved OMB No. 0704-0188			
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A. CONTRACT LINE ITEM NO.		B. EXHIBIT <p style="text-align: center;">A</p>		C. CATEGORY: TDP _____ TM _____ OTHER <u>  X  </u>					
D. SYSTEM/ITEM			E. CONTRACT/PR NO. (Fill in when known)		F. CONTRACTOR (Enter Full name of Contractor)				
1. DATA ITEM NO. A0XXXX	2. TITLE OF DATA ITEM Integrated Program Management Report (IPMR)			3. SUBTITLE			17. PRICE GROUP		
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7. DD250 REQ <p style="text-align: center;">LT</p>	9. DIST STATEMENT REQUIRED <p style="text-align: center;">FOUO</p>	10. FREQUENCY <p style="text-align: center;">MONTHLY</p>		12. DATE OF FIRST SUBMISSION <p style="text-align: center;">SEE BLOCK 16</p>		14. DISTRIBUTION			
8. APP CODE <p style="text-align: center;">NO</p>		11. AS OF DATE <p style="text-align: center;">SEE BLOCK 16</p>		13. DATE OF SUBSEQUENT SUBMISSION <p style="text-align: center;">SEE BLOCK 16</p>		a. ADDRESSEE	b. COPIES		
16. REMARKS  The Contractor shall provide monthly IPMRs per DID DI-MGMT-81861, except as modified per the following:  4. Block 12 - Date of First Submission. The first submission of Formats 5 & 6 is due 12 working days after the end of the second full accounting period following Authorization to Proceed (ATP).  5. Block 13 - Date of Subsequent Submissions: Subsequent submissions shall be provided within 12 working days <sup>14</sup> after the close of the contractor's monthly or periodic accounting cycle. Final submissions are due when the last significant milestone/deliverable as defined by the contract has been achieved and remaining risk areas have been mitigated.  6. Block 14 - Distribution and addresses:  6.1. Only Formats 5 and 6 are required. Formats 1-4 and 7 are not required.  6.2. Format 5 shall be submitted in contractor format. Only the portions of Format 5 that pertain to the overall contract status or Format 6 are required as narrative.  6.3. Format 6 shall be submitted electronically in accordance with the DOD-approved XML schemas located in the EVM Central Repository (EVM-CR) <a href="http://dcarc.cape.osd.mil/EVM/Uncfact.aspx">http://dcarc.cape.osd.mil/EVM/Uncfact.aspx</a> .  6.4. Format 6 shall also be submitted in contractor native format <sup>15</sup> .  6.5. All IPMR files must be submitted to the EVM-CR <sup>16</sup> in accordance with the submission process at the DCARC Web site at <a href="http://dcarc.cape.osd.mil/EVM">http://dcarc.cape.osd.mil/EVM</a> .									
						EVM-		0	
						CR		1	
DD FORM 1423-1, FEB 2001				PREVIOUS EDITION MAY BE USED		15. TOTAL →		15	
G. PREPARED BY			H. DATE		I. APPROVED BY		J. DATE		

NOTES FOR GOVT USE ONLY:

<sup>14</sup> DID allows for as late as 17 WD where technical or other significant issues exist.

<sup>15</sup> "Native format" is the scheduling tool format and not another scheduling reporting output such as PDF.

<sup>16</sup> EVM-CR requirement only for ACAT I programs with an EVM requirement on contract.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)			
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D. SYSTEM/ITEM	E. CONTRACT/PR NO. (Fill in when known)		F. CONTRACTOR (Enter Full name of Contractor)
<p><b>16. REMARKS</b> (Continued)</p> <p>4. <span style="float: right;">Block 16 -</span> Remarks:</p> <p>4.8. Format 5 Instructions: Discuss root causes of any schedule variance in terms of float and the impact to the program critical path, if any, and identify significant missed milestones, impact to major milestones, and expected recovery dates.</p> <p>4.9. Format 6 Instructions</p> <p>4.9.1. The IMS submissions will include the applicable calendar(s).</p> <p>4.9.2. The IMS shall include all discrete work. Subcontractors with EVM flow-down shall be incorporated with sufficient detail to develop a realistic critical path.</p> <p>4.9.3. The Schedule Risk Assessment (SRA) shall be submitted in Format 5 and delivered 60 days prior to the IBR<sup>17</sup>.</p> <p>4.9.4. The following reserved fields are required [add fields here]<sup>18</sup>.</p>			

**NOTES FOR GOVT USE ONLY:**

<sup>17</sup> SRAs can be delivered more frequently, but must be listed here. Also, the number of days before IBR is adjustable. If no IBR on contract, another event or date should be chosen.

<sup>18</sup> If PMO has specific special fields or flags needed in the submission, they should be listed here.

## APPENDIX F: SAMPLE STATEMENT OF WORK PARAGRAPHS

### 1.0 Integrated Program Management (IPM)

1.1 Contract Work Breakdown Structure (CWBS). The contractor develops and maintains the CWBS and CWBS dictionary in accordance with DI-MGMT-81334D, using the WBS structure contained in the Cost and Software Data Reporting (CSDR) plan. The CWBS provides the basis for further extension by the contractor to lower levels during the performance of the contract. The contractor extends the CWBS down to the appropriate level required to provide adequate internal management, surveillance, and performance measurement, regardless of the reporting level stipulated in the contract for government visibility. The contractor uses the CWBS as the primary framework for contract planning, budgeting, and reporting of the cost, schedule, and technical performance status to the government. The contractor analyzes the system requirements specified in the SOW and system specification and translates them into a structure representing the products and services that comprise the entire work effort commensurate with the acquisition phase and contract requirements. The contractor's teams or organizational entity responsible for the systems engineering of the system prepares the technical elements of the extended Contract WBS. The contractor, if necessary, updates the CWBS during the execution of the contract. Changes to the CWBS or associated definitions, at any reporting level, require approval of the government (DI-MGMT-81334D).

<u>Applicable Documents</u>	<u>Title and Tailored Application</u>
MIL-STD-881	Work Breakdown Structure for Defense Materiel Items
DI-MGMT-81334D	Contract Work Breakdown Structure

1.2 Performance Management System. The contractor utilizes its existing, internal performance management system to plan, schedule, budget, monitor, manage, and report cost, schedule, and technical status applicable to the contract. The contractor's internal performance management system serves as the single, formal, and integrated system that meets both the contractor's internal management requirements and the requirements of the government for timely, reliable, and auditable performance information. The application of these concepts provides for early indication of contract cost, schedule, and technical challenges. Earned Value assessments correlate with technical achievement. The outputs of this system are used as the basis to report detailed performance status during program management reviews and other status meetings. The contractor's system should satisfy the industry Guidelines delineated in the EIA-748 ("the Guidelines"), EVMS, the general provisions of the contract, and this SOW. The contractor need not establish a separate or unique internal performance management system for purposes of planning, scheduling, directing, statusing, recording or reporting progress under this contract.

1.2.1 Contractor Performance Management System. The contractor's system shall meet the Guidelines and be maintained in accordance with the requirements of the Guidelines as described in this contract, under DFARS Clause 252.242-7002 and the contractor's own documented System Description. The Integrated Program Management Reports (IPMR) are developed, maintained, updated/statused, and

reported on a monthly basis per CDRL requirements. An EVMS must be formally validated and accepted by the cognizant contracting officer for contracts over \$100M. The formally validated and accepted EVMS is required for cost or incentive contracts, subcontracts, and other agreements valued at or greater than \$50M in then-year dollars. The application of these concepts provides for early indications of contract cost and schedule problems. Earned Value assessments correlate with technical achievement. For contracts valued at or greater than \$20M but less than \$50M then-year dollars, the above requirements apply, but some tailoring is allowed. However, in regards to DFARS 252.242-7001 and 252.242-7002, the contractor is required to have an EVMS that complies with the Guidelines but is not formally validated or accepted by the cognizant contracting officer for contracts greater than \$20M and less than \$100M.

1.2.2 Integrated Baseline Review (IBR). An IBR focusing on the realism of the contractor's integrated Performance Measurement Baseline (PMB) and the appropriateness of the Earned Value methodology to be employed under the contract occurs as soon as possible after the contract PMB is in place, but, in no event without specific authorization of the Contracting Officer, is initiation of the IBR process to be delayed past the sixth month after award of this contract. Incremental IBRs will be conducted as needed throughout the life of the contract for initiation of an Unfinalized Contract Action, and subsequently, when required following major changes to the baseline or replanning. The government verifies during the IBR, and follow-on IBRs when required, that the contractor has established and maintains a reliable PMB. The contractor ensures that the baseline includes the entire contract technical scope of work consistent with contract schedule requirements and has adequate resources assigned. The contractor ensures the government that effective Earned Value methods are used to accurately status contract cost, schedule, and technical performance. The IBR is used to achieve a mutual understanding of the baseline plan, cost and schedule risk, and the underlying management processes used for planning and controlling the program. Participation in the IBR is a joint responsibility of both the government PM and the contractor. The contractor flows-down the IBR requirement to those subcontractors that meet the applicable thresholds for EVM reporting. The contractor leads the IBR at subcontractors, with active participation from the government.

1.2.3 Application to Subcontractors. The contractor flows-down EVM requirements to subcontractors meeting the applicable thresholds and/or assigned critical tasks. The performance information reported by the subcontractors is incorporated and integrated into the contractor's management system. The contractor is responsible for reviewing and assuring the validity of all subcontractors reporting through surveillance and other means.

<u>Applicable Documents</u>	<u>Title and Tailored Application</u>
DFARS 252.242-7002	Notice of Earned Value Management System

1.3 Integrated Program Management Reporting. The contractor reports EVM data as applicable to this contract in accordance with the requirements stated herein and the CDRL. All reporting corresponds to applicable Contract WBS elements. The contractor reconciles reporting elements in the Contract Funds Status Report (CFSR) with the IPMR when these documents are submitted in the same month. The contractor provides a reconciliation of the CFSR with IPMR as an addendum to the IPMR. (DI-MGMT-81861 and DI-MGMT-81468)

1.3.1 Application to Subcontractors. Subcontracts exceeding \$100M in then-year dollars must be formally validated and accepted by the cognizant contracting officer. The formally validated and accepted EVMS is required for cost or incentive contracts, subcontracts, and other agreements valued at or greater than \$50M in then-year dollars. For subcontracts valued at or greater than \$20M but less than \$50M then-year dollars, the above requirements apply, but some tailoring is allowed. However, in regards to DFARS 252.242-7001 and 252.242-7002, the subcontractor is required to have an EVMS that complies with the Guidelines but is not formally validated or accepted by the cognizant contracting officer for contracts greater than \$20M and less than \$100M. EVMS flow down to subcontracts of less than \$20M in then-year dollars or Firm Fixed Price (FFP) subcontracts that exceed 18 months duration is a risk-based decision and will be as mutually agreed between the contractor and the government.

1.3.2 Electronic Transmission of Data. The contractor formats the deliverable data for electronic data interchange (EDI) in accordance with the ANSI X12 Standard or XML equivalent.

<u>Applicable Document</u>	<u>Title and Tailored Application</u>
ANSI X12	American National Standards Institute, 839 Project Cost Reporting

1.4 Integrated Master Schedule (IMS). The IMS will have the following characteristics:

- 1.4.1 It is consistent with the CWBS.
- 1.4.2 It is detailed sufficiently that critical and high risk efforts are identified and planned realistically to ensure executability. The IMS will be extended and expanded as the contract or agreement unfolds and additional insight is needed (for example, rolling wave detail planning or scope changes).
- 1.4.3 It includes the efforts of all activities, including subcontractors and contractors.
- 1.4.4 It presents a current, integrated view of the contract or agreement that is consistent with resource plans, IPMRs, and other approved documentation.
- 1.4.5 It should reflect those risks identified and documented in the contractor's risk management plan.
- 1.4.6 The contractor formats the deliverable IMS for EDI. The IMS is created using a network capable Commercially Off the Shelf (COTS) scheduling software application. Unless otherwise provided in the CDRL, the IMS is to be delivered

electronically in the native digital format (i.e., an electronic file produced by the contractor's scheduling tool). (DI-MGMT-81861)

- 1.5 Over Target Baseline (OTB)/Restructure: The contractor may conclude the baseline no longer represents a realistic plan in terms of budget/schedule execution. In the event the contractor determines an OTB/restructuring action is necessary, the contractor obtains government approval prior to implementing an OTB/restructuring action. The request should also include detailed implementation procedures as well as an implementation timeframe. The contractor will not implement the OTB/restructuring prior to receiving written approval from the Contracting Officer.

**APPENDIX G: GLOSSARY OF TERMS**

<b><u>Acquisition Category (ACAT)</u></b>	Categories established to facilitate decentralized decision making, execution, and compliance with statutorily imposed requirements. The categories determine the level of review, decision authority, and applicable procedures. <sup>19</sup>
<b><u>Acquisition Integration (SAF/AQXE)</u></b>	Office of the Deputy Assistant Secretary for Acquisition Integration (Execution Oversight Division) provides expert and integrated position/advice to SAE, AF leadership, PEOs and PMs on programming, budgeting, execution and acquisition reporting for AF acquisition programs.
<b><u>Acquisition Strategy (AS)</u></b>	Describes the Program Manager’s plan to achieve program execution and programmatic goals across the entire program life cycle. Summarizes the overall approach to acquiring the capability (to include the program schedule, structure, risks, funding, and the business strategy). Contains sufficient detail to allow senior leadership and the Milestone Decision Authority (MDA) to assess whether the strategy makes good business sense, effectively implements laws and policies, and reflects management’s priorities. Once approved by the MDA, the Acquisition Strategy provides a basis for more detailed planning. The strategy evolves over time, should continuously reflect the status, and desired goals of the program. <sup>20</sup>
<b><u>Actual Cost of Work Performed (ACWP)</u></b>	The costs actually incurred and recorded in the Earned Value Management System for accomplishing the work performed within a given accounting period. ACWP reflects the applied costs that may be expressed as a value for a specific period or cumulative to date. <sup>21</sup>
<b><u>Administrative Contracting Officer (ACO)</u></b>	The government Contracting Officer (CO) responsible for government contracts administration. <sup>22</sup>
<b><u>Allocated Budget</u></b>	See Total Allocated Budget <sup>23</sup>
<b><u>Authorization to Proceed (ATP)</u></b>	Official authority for the contractor to begin work. The Procuring Contracting Officer usually issues it. <sup>24</sup>
<b><u>Authorized Unpriced Work (AUW)</u></b>	A contract scope change that has been directed by the government contracting officer but has not yet been fully negotiated/definitized. It includes a value, excluding fee or profit, typically associated with the authorized, unpriced change order. <sup>25</sup>
<b><u>Budget at Completion (BAC)</u></b>	The sum of all budgets established for the contract through any given WBS/OBS level. When associated with a level it becomes

<sup>19</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/Pages/1382.aspx>, (December 30, 2016).

<sup>20</sup> “Glossary of Defense Acquisition Acronyms and Terms.” DAU, <https://dap.dau.mil/glossary/pages/1398.aspx>, (March 6, 2017).

<sup>21</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 77.

<sup>22</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/1407.aspx>, (December 30, 2016).

<sup>23</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 77.

<sup>24</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 77.

<sup>25</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 77.

	control account BAC, Performance Measurement Baseline BAC, etc. (See Total Allocated Budget.) <sup>26</sup>
<b><u>Budgeted Cost for Work Performed (BCWP)</u></b>	The sum of the budgets for completed work packages and completed portions of open work packages, plus the applicable portion of the budgets for level of effort and apportioned effort. May be expressed as a value for a specific period or cumulative to date. <sup>27</sup>
<b><u>Budgeted Cost for Work Scheduled (BCWS)</u></b>	The sum of the budgets for all work packages, planning packages, etc., schedule to be accomplished (including in-process work packages), plus the amount of level of effort and apportioned effort scheduled to be accomplished within a given time period. May be expressed as a value for a specific period or cumulative to date. <sup>28</sup>
<b><u>Business Case Analysis (BCA)</u></b>	The Product Support Business Case Analysis (BCA) is a structured methodology and document that aids decision making by identifying and comparing alternatives by examining the mission and business impacts (both financial and non-financial), risks, and sensitivities. <sup>29</sup>
<b><u>Cognizant Federal Agency (CFA)</u></b>	Defined by 48 CFR 2.101 as the Federal agency that, on behalf of all Federal agencies, is responsible for establishing final indirect cost rates and forward pricing rates, if applicable, and administering cost accounting standards for all contracts in a business unit.
<b><u>Compliance Review (CR)</u></b>	A common term used to denote any type of formal EVMS compliance assessment performed by the DCMA for determining the adequacy of the prime contractor or subcontractor EVMS. The EVMS CR process encompasses three CR types, including the Validation Review (VR), Implementation Review (IR), and Review for Cause (RFC). <sup>30</sup>
<b><u>Component Acquisition Executive (CAE)</u></b>	Secretaries of the military departments or heads of agencies with the power of redelegation. In the military departments, the officials delegated as CAEs (also called service acquisition executives (SAEs)) are respectively, the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(AL&T)); the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN(RD&A)); and the Assistant Secretary of the Air Force for Acquisition (ASAF(A)). The CAEs are responsible for all acquisition functions within their components. This includes both the SAEs for the military departments and acquisition executives in other DoD components, such as the U.S. Special Operations Command (SOCOM) and Defense Logistics Agency (DLA), which also have acquisition management responsibilities. <sup>31</sup>
<b><u>Contract Budget Base (CBB)</u></b>	The sum of the negotiated contract cost plus the estimated cost of authorized unpriced work. This represents the total amount of

<sup>26</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 77.

<sup>27</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 78.

<sup>28</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 78.

<sup>29</sup> US Department of Defense, DoD Product Support Business Case Analysis Guidebook: 5.

<sup>30</sup> DEPARTMENT OF DEFENSE, DEFENSE CONTRACT MANAGEMENT AGENCY, INSTRUCTION Earned Value Management System Compliance Reviews, 20.

<sup>31</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/pages/1773.aspx>, (December 30, 2016).



	performance measurement budget that may be allocated to contract work. (See Total Allocated Budget). <sup>32</sup>
<a href="#"><u>Contract Data Requirements List (CDRL)</u></a>	The standard format for identifying potential data requirements in a solicitation and deliverable data requirements in a contract. The purpose of the CDRL is to provide a standardized method of clearly and unambiguously delineating the government’s minimum essential data needs. <sup>33</sup>
<a href="#"><u>Contract Funds Status Report (CFSR)</u></a>	The CFSR, or DD Form 1586, is designed to supply funding data about defense contracts to Program Managers for: (a) updating and forecasting contract funds requirements, (b) planning and decision making on funding changes to contracts, (c) developing funds requirements and budget estimates in support of approved programs, (d) determining funds in excess of contract needs and available for de-obligation, and (e) obtaining rough estimates of termination costs. <sup>34</sup>
<a href="#"><u>Contract Line Item Number (CLIN)</u></a>	Contracts may identify the items or services to be acquired as separately identified line items. Contract line items should provide unit prices or lump sum prices for separately identifiable contract deliverables and associated delivery schedules or performance periods. Line items may be further subdivided or stratified for administrative purposes (e.g., to provide for traceable accounting classification citations). <sup>35</sup>
<a href="#"><u>Contract Management Office (CMO)</u></a>	An organizational unit within DCMA that provides contract administrative and oversight functions. Normally co-located with or near major acquisition commands and customers, to include international customers. <sup>36</sup>
<a href="#"><u>Contract Work Breakdown Structure (CWBS)</u></a>	The complete WBS for a contract. It includes the DoD approved WBS for reporting purposes and its discretionary extension to lower levels by the contractor, in accordance with government direction and the contract work statement. It provides for the product-oriented decomposition of contract work into major elements that include all the hardware, software, data and/or services that are the responsibility of the contractor. <sup>37</sup>
<a href="#"><u>Contracting Officer (CO)</u></a>	A person with authority to enter into, administer, and/or terminate contracts and make related determinations and findings for the U.S. government. In the DoD, these functions are often divided between the Administrative Contracting Officer (ACO) and the Procuring Contracting Officer (PCO). <sup>38</sup>
<a href="#"><u>Contractor Cost Data Report (CCDR)</u></a>	The primary means within the Department of Defense (DoD) to systematically collect actual data on the development and production costs incurred by contractors in performing DoD acquisition program contracts. <sup>39</sup>

<sup>32</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 78.

<sup>33</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 78.

<sup>34</sup> “ACQuipedia: Contract Funds Status Report (CFSR)”, DAU, <https://dap.dau.mil/acquipedia/Pages/ArticleDetails.aspx?aid=52872594-480d-4cdf-a01f-ccf5da357c0e>, (December 30, 2016).

<sup>35</sup> “Subpart 4.10—Contract Line Items”, [https://www.acquisition.gov/far/html/Subpart%204\\_10.html](https://www.acquisition.gov/far/html/Subpart%204_10.html), (December 30, 2016).

<sup>36</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/1819.aspx>, (December 30, 2016).

<sup>37</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 78.

<sup>38</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/1648.aspx>, (December 30, 2016).

<sup>39</sup> “CSDR Overview and Policy, Defense Cost and Resource Center”, <http://dcarc.cape.osd.mil/csdr/CSDROverview.aspx>, (January 10, 2017).

<a href="#"><u>Control Account (CA)</u></a>	The control account is the intersection of one WBS element and one OBS element representing a discrete portion of program scope assigned to an individual manager. The control account is the minimum level where technical, schedule, and cost responsibility exists. <sup>40</sup>
<a href="#"><u>Control Account Manager (CAM)</u></a>	A single manager within the contractor’s organizational structure that has been given the authority and responsibility to manage one or more control accounts. <sup>41</sup>
<a href="#"><u>Cost and Software Data Report (CSDR) / Cost and Software Data Reporting (CSDR)</u></a>	CSDRs are the primary means by which the Department of Defense (DoD) collects data on the costs that contractors incur on DoD programs. CSDR reporting and processing requirements are determined by Acquisition Category (ACAT) program category and the value of individual contracts and subcontracts within the program. Programs are classified according to estimated dollar value for Research, Development, Test and Evaluation (RDT&E), production, annual acquisition and life-cycle costs. Contractor Cost Data Report (CCDR) requirements are the same for all contracts and subcontracts within all categories. Also, the services have discretion in applying CCDR requirements to ACAT II and ACAT III programs. <sup>42</sup>
<a href="#"><u>Cost Plus Award Fee (CPAF)</u></a>	A cost reimbursement type contract suitable for Level of Effort contracts where mission feasibility is established but measurement of achievement must be by subjective evaluation rather than objective measurement. A CPAF contract provides for a fee consisting of (a) a base amount (which may be zero) fixed at inception of the contract and (b) an award amount, based upon a judgmental evaluation by the government sufficient to provide motivation for excellence in contract performance. A CPAF contract may not be used to avoid establishing a Cost Plus Fixed Fee (CPFF) contract when the criteria for CPFF contracts apply or developing objective targets so a Cost Plus Incentive Fee (CPIF) contract can be used. <sup>43</sup>
<a href="#"><u>Cost Plus Fixed Fee (CPFF)</u></a>	A cost reimbursement-type contract that provides for the payment of a fixed fee to the contractor. The fixed fee, once negotiated, does not vary with actual cost, but may be adjusted as result of any subsequent changes in the scope of work or services to be performed under the contract. <sup>44</sup>
<a href="#"><u>Cost Plus Incentive Fee (CPIF)</u></a>	A cost reimbursement-type contract with provision for a fee, which is adjusted by formula in accordance with the relationship that total allowable costs bear to target costs. The provision for increase or decrease in the fee, depending upon allowable costs of contract performance, is designed as an incentive to the contractor to increase the efficiency of performance. <sup>45</sup>

<sup>40</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 78.

<sup>41</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 78.

<sup>42</sup> “CSDR Overview and Policy, Defense Cost and Resource Center”, <http://dcarc.cape.osd.mil/csdr/CSDROverview.aspx>, (December 30, 2016).

<sup>43</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/1638.aspx>, (December 30, 2016).

<sup>44</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/Pages/1639.aspx>, (December 30, 2016).

<sup>45</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/1640.aspx>, (December 30, 2016).

<b><u>Critical Path (CP)</u></b>	A sequence of discrete work packages and planning packages (or lower level tasks/activities) in the network that has the longest total duration with the least amount of total float/slack through an end point that is calculated by the schedule software application. <sup>46</sup>
<b><u>Cure Notice</u></b>	The Cure Notice specifies the failure(s) endangering the performance of the order; allows a period of at least 10 days for the contractor to cure the failure(s); notifies the contractor that unless the situation is cured, the ordering activity may terminate the order; and identifies the clause authorizing order termination for cause. <sup>47</sup>
<b><u>Data Item Description (DID)</u></b>	A document that specifically defines the data required of a contractor in terms of content, format and intended use. <sup>48</sup>
<b><u>Defense Acquisition University (DAU)</u></b>	A corporate university of the U.S. Department of Defense offering “acquisition, technology, and logistics” (A&S) training to military and Federal civilian staff and Federal contractors. <sup>49</sup>
<b><u>Defense Contract Audit Agency (DCAA)</u></b>	The Defense Contract Audit Agency (DCAA) provides audit and financial advisory services to Department of Defense (DoD) and other federal entities responsible for acquisition and contract administration. <sup>50</sup>
<b><u>Defense Contract Management Agency (DCMA)</u></b>	Independent combat support agency within the DoD that performs the contract administration function. <sup>51</sup>
<b><u>Defense Federal Acquisition Regulation Supplement (DFARS)</u></b>	A supplement to the FAR that provides DOD – specific acquisition regulations that DoD government acquisition officials – and those contractors doing business with DoD – must follow in the procurement process for goods and services. <sup>52</sup>
<b><u>Department of Defense (DoD)</u></b>	The mission of the Department of Defense is to provide the military forces needed to deter war and to protect the security of our country. The department’s headquarters is at the Pentagon. <sup>53</sup>
<b><u>Earned Value (EV)</u></b>	See Budget Cost for Work Performed (BCWP). <sup>54</sup>
<b><u>Earned Value Management (EVM)</u></b>	A program management technique for measuring program performance and progress in an objective manner. <sup>55</sup>
<b><u>Earned Value Management Central Repository (EVM-CR)</u></b>	A repository managed by OUSD(A&S)AE-AAP, that provides: <ul style="list-style-type: none"> <li>• Centralized reporting, collection, and distribution for Key Acquisition EVM data</li> </ul>

<sup>46</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 79.

<sup>47</sup> “MAS Desk Reference”, GSA, [https://www.gsa.gov/MASDESKTOP/section6\\_2.html](https://www.gsa.gov/MASDESKTOP/section6_2.html), (March 15, 2017).

<sup>48</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/3343.aspx>, (December 30, 2016).

<sup>49</sup> “Defense Acquisition University”, Wikipedia, [https://en.wikipedia.org/wiki/Defense\\_Acquisition\\_University](https://en.wikipedia.org/wiki/Defense_Acquisition_University), (December 30, 2016).

<sup>50</sup> “ABOUT DCAA”, DCAA Defense Contract Audit Agency, [http://www.dcaa.mil/about\\_dcaa.html](http://www.dcaa.mil/about_dcaa.html), (December 30, 2016).

<sup>51</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/1750.aspx>, (December 30, 2016).

<sup>52</sup> “DFARS – DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT”, DCAA Defense Contract Audit Agency, <http://www.dcaa.mil/dfars.html>, (December 30, 2016).

<sup>53</sup> “About the Department of Defense (DoD)”, U.S. Department of Defense, <http://www.defense.gov/About-DoD>, (December 30, 2016).

<sup>54</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 80.

<sup>55</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 80.

	<ul style="list-style-type: none"> <li>• A reliable source of authoritative EVM data and access for OSD, the Services, and the DoD Components IPMR Cost &amp; Schedule reports as well as Contract Funds Status Reports (CFSR) submitted by contractors (and reviewed by Program Management Offices) for required programs<sup>56</sup></li> </ul>
<a href="#"><u>Earned Value Management System (EVMS)</u></a>	An integrated management system that integrates the work scope, schedule, and cost parameters of a program in a manner that provides objective performance measurement data. It measures progress objectively with earned value metrics; accumulates direct costs; allows for analysis of deviations from plans; facilitates forecasting the achievement of milestones and contract events; provides supporting data for forecasting of estimated costs; and fosters discipline in incorporating changes to the baseline in a timely manner. <sup>57</sup>
<a href="#"><u>Earned Value Management Systems Implementation Guide (EVMSIG)</u></a>	The basis for the DoD to assess EVMS compliance to the EIA-748 Guidelines. It was developed in collaboration with DoD EVMS experts from the Office of the Secretary of Defense and the organizations responsible for conducting EVMS compliance reviews (i.e., Defense Contract Management Agency, Intelligence Community, Navy Shipbuilding, and Defense Contract Audit Agency). <sup>58</sup>
<a href="#"><u>Electronic Industries Alliance (EIA)</u></a>	A standards and trade organization composed as an alliance of trade associations for electronics manufacturers in the United States. It developed standards to ensure the equipment of different manufacturers was compatible and interchangeable. The EIA ceased operations on February 11, 2011, but the former sectors continue to serve the constituencies of EIA. <sup>59</sup>
<a href="#"><u>Enterprise Resource Planning (ERP)</u></a>	A method for the effective planning of all resources of a manufacturing contractor. It integrates planning of all aspects (not just production) of a manufacturing firm. It includes functions such as business planning, production planning and scheduling, capacity requirement planning, job costing, financial management and forecasting, order processing, shop floor control, time and attendance, performance measurement, and sales and operations planning. <sup>60</sup>
<a href="#"><u>Estimate at Completion (EAC)</u></a>	The current estimated total cost for program authorized work. It equals Actual Cost of Work Performed plus the estimated costs to complete (Estimate To Complete (ETC)) the authorized work remaining. EAC does not include profit or fee. <sup>61</sup>
<a href="#"><u>Extensible Markup Language (XML)</u></a>	A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. <sup>62</sup>

<sup>56</sup> "PARCA Earned Value Management (EVM) – Central Repository (CR)", CADE, <http://cade.osd.mil/tools/evm-tools>, (March 6, 2017).

<sup>57</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 80.

<sup>58</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 2.

<sup>59</sup> "Electronic Industries Alliance", Wikipedia, [https://en.wikipedia.org/wiki/Electronic\\_Industries\\_Alliance](https://en.wikipedia.org/wiki/Electronic_Industries_Alliance), (December 30, 2016).

<sup>60</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 80.

<sup>61</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 80.

<sup>62</sup> "XML", Wikipedia, <https://en.wikipedia.org/wiki/XML>, (December 30, 2016).

<b><u>Federal Acquisition Regulation (FAR)</u></b>	The regulation for use by federal executive agencies for acquisition of supplies and services with appropriated funds. The FAR is supplemented by the DoD, the military departments, the Defense Contract Audit Agency (DCAA), the Defense Information Systems Agency (DISA), and the Defense Logistics Agency (DLA). The DoD supplement is called the DFARS (Defense FAR Supplement). <sup>63</sup>
<b><u>Firm Fixed Price (FFP)</u></b>	Provides for a price that is not subject to any adjustment on the basis of the contractor's cost experience in performing the contract. This type of contract places upon the contractor maximum risk and full responsibility for all costs and resulting profit or loss. Provides maximum incentive for the contractor to control costs and imposes a minimum administrative burden on the government. <sup>64</sup>
<b><u>Fixed Price Incentive Fee (FPIF)</u></b>	Uses an incentive whereby the contractor's profit is increased or decreased by a predetermined share of an overrun or underrun. A firm target is established from which to later compute the overrun or underrun. A ceiling price is set as the maximum amount the government will pay. Necessary elements for this type of contract are: target cost—best estimate of expected cost; target profit—fair profit at target cost; share ratio(s)—to adjust profit after actual costs are documented; and ceiling price—limit the government will pay. <sup>65</sup>
<b><u>Full Rate Production (FRP)</u></b>	<p>1. The second effort part of the Production and Deployment (P&amp;D) phase as defined and established by DoDI 5000.02 after Low-Rate Initial Production (LRIP) and following a successful Full-Rate Production Decision Review (FRPDR). The system is produced at rate production and deployed to the field or fleet. This phase overlaps the Operations and Support (O&amp;S) phase since fielded systems are operated and supported (sustained) while Full-Rate Production (FRP) is ongoing.</p> <p>2. The production level contracted for once the production process has been stabilized. Ideally, it would coincide with the Economic Production Rate (EPR).<sup>66</sup></p>
<b><u>Government Furnished Equipment (GFE) / Government Furnished Property (GFP)</u></b>	Property in the possession of, or acquired directly by, the government, and subsequently delivered to, or otherwise made available to, the contractor. <sup>67</sup>
<b><u>Indefinite Delivery/ Indefinite Quantity (IDIQ)</u></b>	<b><u>Indefinite Delivery</u></b> There are three types of indefinite delivery contracts: 1) definite quantity contracts, 2) requirements contracts, and 3) indefinite quantity contracts. The appropriate type of indefinite delivery contract may be used to acquire supplies and/or services when the exact times and/or exact quantities of future deliveries are not known at the time of contract award. <sup>68</sup>

<sup>63</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/pages/1894.aspx>, (December 30, 2016).

<sup>64</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/pages/1643.aspx>, (December 30, 2016).

<sup>65</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/Pages/1644.aspx>, (December 30, 2016).

<sup>66</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/pages/1937.aspx>, (December 30, 2016).

<sup>67</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/Pages/1976.aspx>, (December 30, 2016).

<sup>68</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/pages/3027.aspx>, (December 30, 2016).

	<p><b><u>Indefinite Quantity</u></b> Provides for furnishing an indefinite quantity, within stated limits, of specific supplies or services, during a specified contract period, with deliveries to be scheduled by the timely placement of orders upon the contractor by activities designated either specifically or by class.<sup>69</sup></p>
<b><u>Integrated Baseline Review (IBR)</u></b>	Review of a contractor’s Performance Measurement Baseline (PMB). It is conducted by Program Managers (PMs) and their technical staffs, or Integrated Product Teams (IPTs), on contracts requiring compliance with DoD Earned Value Management System (EVMS) criteria requirements within 6 months after contract award. <sup>70</sup>
<b><u>Integrated Master Plan (IMP)</u></b>	An event-driven plan that documents the significant accomplishments necessary to complete the work and ties each accomplishment to a key program event. <sup>71</sup>
<b><u>Integrated Master Schedule (IMS)</u></b>	An integrated, networked schedule containing all of the detailed activities necessary to accomplish the objectives of a program. When coupled with the Integrated Master Plan, it provides the time spans needed to complete the accomplishments and criteria of the Integrated Master Plan events. The IMS normally contains all levels of schedule for the program (master, intermediate, and detailed). <sup>72</sup>
<b><u>Integrated Product Team (IPT)</u></b>	A multidisciplinary team assigned management responsibility for one or more elements of an acquisition program. <sup>73</sup>
<b><u>Integrated Program Management Report (IPMR)</u></b>	A contractually required report, prepared by the contractor, containing performance information derived from the internal Earned Value Management System. Provides status of contract cost and schedule performance (DI-MGMT-81861). The IPMR combines and replaces the Contract Performance Reports (DI-MGMT-81466) and the Integrated Master Schedule (DI-MGMT-81650). <sup>74</sup>
<b><u>Interpretation and Issue Resolution (IIR)</u></b>	The AAP EVM Interpretation and Issue Resolution (IIR) Process provides both industry and government a vehicle for formally submitting requests to AAP regarding existing DoD EVM policy and guidance. The process is intended to be used when a particular question or concern cannot be answered within the requestor’s natural organization’s chain of command. Where appropriate, IIR responses are made available to the public via lessons learned on

<sup>69</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/2011.aspx>, (December 30, 2016).

<sup>70</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/2060.aspx>, (December 30, 2016).

<sup>71</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/2064.aspx>, (December 30, 2016).

<sup>72</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 82.

<sup>73</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 82.

<sup>74</sup> “Integrated Program Management Report”, ACQuipedia, <https://dap.dau.mil/acquipedia/Pages/ArticleDetails.aspx?aid=9b577e0d-144a-4622-a5d7-4ba9c3effc21>, (January 10, 2017).

	the Frequently Asked Question (FAQ) section on the AAP EVM website. FAQs reflect guidance on the interpretation of DoD EVM policy and guidance to promote a common understanding and consistent implementation of DoD EVM Policy throughout the EVM community. Any information, guidance, or recommended resolutions provided by AAP EVM through the IIR process do not replace any contractual documents, requirements, or any Contracting Officer's direction on a given contract. <sup>75</sup>
<b><u>Level of Effort (LOE)</u></b>	Work defined as having no practicable measurable output or product that can be discretely planned and objectively measured at the work package level. <sup>76</sup>
<b><u>Low Rate Initial Production (LRIP)</u></b>	The first part of the Production and Deployment (P&D) phase. LRIP is intended to result in completion of manufacturing development in order to ensure adequate and efficient manufacturing capability and to produce the minimum quantity necessary to provide production or production-representative articles for Initial Operational Test and Evaluation (IOT&E); establish an initial production base for the system; and permit an orderly increase in the production rate for the system, sufficient to lead to Full-Rate Production (FRP) upon successful completion of operational (and live-fire, where applicable) testing. <sup>77</sup>
<b><u>Line of Balance (LOB)</u></b>	Line of balance (LOB) is a management control process for collecting, measuring, and presenting facts relating to time, cost and accomplishment- all measured against a specific plan. It shows the process, status, background, timing, and phasing of project activities. <sup>78</sup>
<b><u>Management Reserve (MR)</u></b>	An amount of the total budget withheld for management control purposes for future considerations to handle execution risks. It is not part of the Performance Measurement Baseline. <sup>79</sup>
<b>Manufacturing/Enterprise Resource Planning (M/ERP) System</b>	A method for the effective planning of all resources of a manufacturing contractor. It integrates planning of all aspects (not just production) of a manufacturing firm. It includes functions such as business planning, production planning and scheduling, capacity requirement planning, job costing, financial management and forecasting, order processing, shop floor control, time and attendance, performance measurement, and sales and operations planning.
<b><u>Manufacturing Resource Planning (MRPII)</u></b>	See Manufacturing/Enterprise Resource Planning (M/ERP) System.
<b><u>Material Requirements Planning (MRP)</u></b>	See Manufacturing/Enterprise Resource Planning (M/ERP) System.
<b><u>Milestone Decision Authority (MDA)</u></b>	Designated individual with overall responsibility for a program. The MDA shall have the authority to approve entry of an acquisition program into the next phase of the acquisition process

<sup>75</sup> "EVM Interpretation and Issue Resolution Request", EVM EARNED VALUE MANAGEMENT, <http://www.acq.osd.mil/evm/issueRes.shtml>, (December 30, 2016).

<sup>76</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 82.

<sup>77</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/pages/2178.aspx>, (December 30, 2016).

<sup>78</sup> "AcqNotes Defense Acquisitions Made Easy," acqnotes.com, [acqnotes.com/acqnote/tasks/line-of-balance](http://acqnotes.com/acqnote/tasks/line-of-balance) (March 29, 2018).

<sup>79</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 82.

	and shall be accountable for cost, schedule, and performance reporting to higher authority, including congressional reporting. <sup>80</sup>
<a href="#"><u>Missile Defense Agency (MDA)</u></a>	The Missile Defense Agency (MDA) is a research, development, and acquisition agency within the Department of Defense. Its workforce includes government civilians, military service members, and contractor personnel in multiple locations across the United States. <sup>81</sup>
<a href="#"><u>National Defense Industrial Association (NDIA)</u></a>	America’s leading Defense Industry association promoting national security that provides a legal and ethical forum for the exchange of information between industry and government on National Security issues. <sup>82</sup>
<a href="#"><u>Naval Sea Systems Command (NAVSEA)</u></a>	The Naval Sea Systems Command (NAVSEA) is the largest of the United States Navy’s five “systems commands” or materiel (not to be confused with “material”) organizations. NAVSEA consists of four shipyards, nine “warfare centers” (two undersea and seven surface), four major shipbuilding locations, and the NAVSEA headquarters, located at the Washington Navy Yard in Washington, D.C. NAVSEA’s primary objective is to engineer, build, and support the U.S. Navy’s fleet of ships and its combat systems. NAVSEA accounts for one quarter of the Navy’s entire budget with more than 150 acquisition programs under its oversight. <sup>83</sup>
<a href="#"><u>Near-Critical Path (NCP)</u></a>	The lowest float or slack paths of discrete work packages and planning packages (or lower level activities) in the network that has the next longest total duration nearest to the critical path. <sup>84</sup>
<a href="#"><u>Office of the Secretary of Defense (OSD)</u></a>	The principal staff element of the Secretary of Defense in the exercise of policy development, planning, resource management, fiscal, and program evaluation responsibilities. OSD includes the immediate offices of the Secretary and Deputy Secretary of Defense, Under Secretaries of Defense, Director of Defense Research and Engineering, Assistant Secretaries of Defense, General Counsel, Director of Operational Test and Evaluation, Assistants to the Secretary of Defense, Director of Administration and Management, and such other staff offices as the Secretary establishes to assist in carrying out assigned responsibilities. <sup>85</sup>
<a href="#"><u>Over Target Baseline (OTB)</u></a>	A new baseline for management for the original objectives cannot be met and new goals are needed for management purposes. An overrun to the Contract Budget Base (CBB) that is formally incorporated into the Performance Measurement Baseline for management purposes. The difference between the Total Allocated Budget and CBB is the amount of the overrun incorporated into the budget. <sup>86</sup>

<sup>80</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/2247.aspx>, (December 30, 2016).

<sup>81</sup> “AGENCY IN BRIEF,” MDA, <https://www.mda.mil/about/about.html>, (February 23, 2018)

<sup>82</sup> “NDIA”, NDIA, <http://www.ndia.org/Pages/default.aspx>, (December 30, 2016).

<sup>83</sup> “Naval Sea Systems Command”, Wikipedia, [https://en.wikipedia.org/wiki/Naval\\_Sea\\_Systems\\_Command](https://en.wikipedia.org/wiki/Naval_Sea_Systems_Command), (January 9, 2017).

<sup>84</sup> OUSD AT&L (PARCA), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 83.

<sup>85</sup> “Office of the Secretary of Defense”, U.S. Department of Defense, <http://www.defense.gov/About-DoD/Office-of-the-Secretary-of-Defense>, (December 30, 2016).

<sup>86</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 83.



<b><u>Over Target Schedule (OTS)</u></b>	A replanned schedule baseline that extends beyond the contract milestones and/or delivery dates. An OTS is usually accompanied by an increase in budgets resulting in a corresponding Over Target Baseline (OTB). <sup>87</sup>
<b><u>Performance Assessments and Root Cause Analyses (PARCA) now Acquisition Analytics and Policy (AAP)</u></b>	The central office for major defense authorization performance assessment, root cause analysis, and earned value management within the Department of Defense (DoD). Established by section 103 of the Weapons System Acquisition Reform Act of 2009 (P.L. 111-23), PARCA (now AAP) issues policies, procedures, and guidance governing the conduct of such work by the Military Departments and the Defense Agencies. <sup>88</sup>
<b><u>Performance Measurement Baseline (PMB)</u></b>	A time-phased resourced plan against which the accomplishment of authorized work can be measured. <sup>89</sup>
<b><u>Planning Package (PP)</u></b>	A logical aggregation of future work within a control account that cannot yet be planned in detail at the work package or task level. <sup>90</sup>
<b><u>Procuring Contracting Officer (PCO)</u></b>	The individual authorized to enter into contracts for supplies and services on behalf of the government by sealed bids or negotiations and who is responsible for overall procurement under the contract. The term “Procuring” was removed from the Federal Acquisition Regulation (FAR); however, it is still in widespread use to differentiate the buying office Contracting Officer (CO) from the Contract Administrative Office CO, who usually is referred to as the Administrative Contracting Officer (ACO). The FAR uses the term ACO for those actions unique to post contract award; otherwise it uses the generic CO. <sup>91</sup>
<b><u>Program Management Office (PMO)</u></b>	The government office that has the assigned authority and responsibility to manage a program.
<b><u>Program Manager (PM)</u></b>	Designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the user’s operational needs. The PM shall be accountable for credible cost, schedule, and performance reporting to the Milestone Decision Authority (MDA). <sup>92</sup>
<b><u>Program Work Breakdown Structure (PWBS)</u></b>	The WBS that encompasses an entire program, including the Contract Work Breakdown Structure (CWBS) and “other government” elements (for example, program office operations, manpower, Government Furnished Equipment (GFE), and government testing). It defines at a high level what is to be procured and consists of at least three program levels with associated definitions. The PWBS is used by the government Program Manager (PM) and contractor to develop and extend a CWBS. Examples of WBSs for various items of defense materiel

<sup>87</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 83.

<sup>88</sup> “ABOUT PARCA”, PARCA PERFORMANCE ASSESSMENTS AND ROOT CAUSE ANALYSES, <http://www.acq.osd.mil/parca/>, (December 30, 2016).

<sup>89</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 84.

<sup>90</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 84.

<sup>91</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/2423.aspx>, (December 30, 2016).

<sup>92</sup> “Glossary of Defense Acquisition Acronyms and Terms,” DAU, <https://dap.dau.mil/glossary/pages/2488.aspx>, (December 30, 2016)

	that may be used as a guide for acquisition programs are contained in Military Standard (MIL-STD) 881. <sup>93</sup>
<a href="#"><u>Request for Proposal (RFP)</u></a>	A document used in negotiated acquisitions to communicate government requirements to prospective contractors and to solicit proposals. RFPs for competitive acquisitions describe the government's requirement; anticipated terms and conditions that will apply to the contract; information required to be in the offeror's proposal; and factors and significant sub-factors that will be used to evaluate the proposal and their relative importance. <sup>94</sup>
<a href="#"><u>Review for Cause (RFC)</u></a>	A formal review intended to solve a prime contractor or subcontractor EVMS implementation problem identified by the PM, EVMS functional specialist, and/or other stakeholder organizations for an approved EVMS. <sup>95</sup>
<a href="#"><u>Schedule Risk Assessment (SRA)</u></a>	A process that uses statistical techniques to identify technical, programmatic, and schedule risks in a program and quantifies the impact of those risks on the program's schedule. <sup>96</sup>
<a href="#"><u>Show Cause Notice</u></a>	This is used as a means of discovering any excusable cause/default of the contractor's failure to perform when there are fewer than 10 days remaining on the contract delivery schedule. <sup>97</sup>
<a href="#"><u>Statement Of Work (SOW)</u></a>	Contractual document that defines the work scope requirements for a program. <sup>98</sup>
<a href="#"><u>Supervisor of Shipbuilding; Conversion and Repair (SUPSHIP)</u></a>	SUPSHIP serves as DoD's designated Contract Administration Office (CAO) responsible for performing Contract Administration Services (CAS) for all DoD contracts awarded to assigned contractors. <sup>99</sup>
<a href="#"><u>Time and Materials (T&amp;M)</u></a>	Contract that provides for acquiring supplies or services on the basis of— (1) Direct labor hours at specified fixed hourly rates that include wages, overhead, general and administrative expenses, and profit; and (2) Actual cost for materials. A T&M contract may be used only when it is not possible at the time of placing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence. <sup>100</sup>
<a href="#"><u>Total Allocated Budget (TAB)</u></a>	The sum of all budgets allocated to the contract. TAB consists of the Performance Measurement Baseline and all Management Reserve. In the event an Over Target Baseline is in place, the TAB must reconcile to the Contract Budget Base and any recognized over target budget. <sup>101</sup>
<a href="#"><u>Under Secretary of Defense (Acquisition, Technology, and Logistics) (USD(AT&amp;L))[now]</u></a>	The USD(AT&L) re-organized into USD(A&S) and USD(R&E). AAP falls under USD(A&S) that is the principal staff assistant and

<sup>93</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/Pages/2497.aspx>, (December 30, 2016).

<sup>94</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/pages/2564.aspx>, (December 30, 2016).

<sup>95</sup> DEPARTMENT OF DEFENSE, DEFENSE CONTRACT MANAGEMENT AGENCY, INSTRUCTION Earned Value Management System Compliance Reviews, 22.

<sup>96</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 85.

<sup>97</sup> "Acquisition Community Connection", DAU, <https://acc.dau.mil/CommunityBrowser.aspx?id=526665>, (March 15, 2017).

<sup>98</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 85.

<sup>99</sup> "Supervisor of Shipbuilding, Conversion and Repair", NAVAL SEA SYSTEMS COMMAND, <http://www.navsea.navy.mil/Home/SUPSHIP/>, (December 30, 2016).

<sup>100</sup> "Glossary of Defense Acquisition Acronyms and Terms," DAU, <https://dap.dau.mil/glossary/pages/3339.aspx>, (December 30, 2016)

<sup>101</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 86.

<b><u>(Acquisition and Sustainment)(USD(A&amp;S))</u></b>	advisor to the Secretary of Defense and Deputy Secretary of Defense for all matters concerning acquisition and sustainment. <sup>102</sup>
<b><u>Undistributed Budget (UB)</u></b>	Budget associated with specific work scope or contract changes that have not been distributed to a control account or summary level planning package. <sup>103</sup>
<b><u>Variance at Completion (VAC)</u></b>	The difference between the Budget at Completion (BAC) and the Estimate at Completion (EAC) ( $VAC = BAC - EAC$ ). It may be calculated at any level from the control account up to the total contract. It represents the amount of expected overrun (negative VAC) or underrun (positive VAC). <sup>104</sup>
<b><u>Work Breakdown Structure (WBS)</u></b>	A hierarchical product-oriented division of program tasks depicting the breakdown of work scope for work authorization, tracking, and reporting purposes. <sup>105</sup>
<b><u>Work Package (WP)</u></b>	Natural subdivision of control accounts. A WP is simply a task/activity or grouping of work. A WP is the point at which work is planned, progress is measured, and earned value is computed. <sup>106</sup>

<sup>102</sup> "Welcome", Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, <http://www.acq.osd.mil/>, (December 30, 2016).

<sup>103</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 86.

<sup>104</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 86.

<sup>105</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 87.

<sup>106</sup> OUSD A&S (AAP), DEPARTMENT OF DEFENSE EARNED VALUE MANAGEMENT SYSTEM INTERPRETATION GUIDE: 87.