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EARNED VALUE COST PERFORMANCE REPORT DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**
2. **ISSUE:**
3. **DRD NO.**
4. **DATA TYPE:**
5. **DATE REVISED:**
6. **PAGE:**
7. **TITLE: Cost Performance Report**
8. **DESCRIPTION/USE:** To provide information for: (1) integrating cost and schedule performance data with technical performance measures, (2) assessing the magnitude and impact of actual and potential problem areas causing significant cost and schedule variances, and (3) providing valid, timely project status information to higher management.
9. **OPR:**
10. **DM:**
11. **DISTRIBUTION:** Per Contracting Officer's Letter
12. **INITIAL SUBMISSION:** Per Data Requirements Matrix
13. **SUBMISSION FREQUENCY:** Monthly. Per Data Requirements Matrix. The Cost Performance Report shall be available for online viewing at any time during the effort by the government using appropriately protected Internet/Intranet technologies.
14. **REMARKS:**
15. **INTERRELATIONSHIPS:** The *Financial Management Reports* (DRD# ???) shall include a reconciliation between the 533M/533Q and the Cost Performance Report, which shall be submitted as an attachment to the 533M/533Q reports.

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The CPR reporting levels and frequency shall be in accordance with the Contract *Work Breakdown Structure* (DRD# ???) and contract provisions; Risk Management Plans and Reports; Probabilistic Risk Assessment Plan and Reports; Technical Performance Measurement Plan and Report; Integrated Master Schedule and Critical Path Reports. Generally, link all risk-related DRDs to CPR DRD so that contractor is considering their interrelationships in all reports.

16. DATA PREPARATION INFORMATION:

16.1 **SCOPE:** The Cost Performance Report (CPR) includes data to measure cost and schedule performance.

16.2 **APPLICABLE DOCUMENTS:**

DI-MGMT-81466 *Data Item Description for Cost Performance Report*
(available at:
http://www.acq.osd.mil/pm/newpolicy/cpr_cfsr/cpr_finl.html); *Cost Estimating Handbook* at: www.ceh.nasa.gov

16.3 **CONTENTS:** The Cost Performance Report shall include data pertaining to all authorized contract work, including both priced and unpriced effort, that has been authorized at a not-to-exceed amount in accordance with the Contracting Officer's direction. The CPR shall separate direct and indirect costs and identify elements of cost for all direct reporting elements. The CPR shall consist of:

- a. Format 1, Work Breakdown Structure (WBS): Format 1 shall provide data to measure cost and schedule performance for each WBS elements, and the hardware, software, and services NASA is buying. Critical/major subcontractor cost and schedule performance data are required when subcontract value is above threshold for EVM requirements and/or subcontract is marked for special attention, otherwise, summary level performance measurement data shall be included as an attachment to Format 1. Subcontractor Cost Performance Report (CPR) or Cost/Schedule Status Report (C/SSR) is acceptable. If risk items identified for specific reporting on prime are flowed down to subcontractors then those risk items require reporting as expected by prime regardless of cost of subcontract.
- b. Format 2, Organizational Categories: Format 2 provides the same data as Format 1, sorted by the contractor organization at the level of organizations responsible for managing risks identified in paragraph 15.3.e below. If the contractor is organized by product, Format 2 should be organized by key performance parameters (KPP). For organizations not responsible for risks identified in paragraph 15.3.e, organizational category reporting shall be to the first level of the program's organizational structure.

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- c. Format 3, Baseline: Format 3 provides the budget baseline plan, at a minimum of WBS Level _____ and total program, against which performance is measured. It is the baseline report used to track all changes to the Performance Measurement Baseline (PMB). Format 3 shall contain baseline manpower forecasts for two 3-month periods (columns 10 and 11), two subsequent 12-month periods (columns 12 and 13), and the remainder of the contract for the last period (column 14).
- d. Format 4, Staffing: Format 4 shall provide manpower staffing forecasts, at a minimum of WBS Level _____ and total program, for correlation with the budget plan and cost estimates and contain the manpower baseline which will be updated and submitted whenever the Performance Measurement Baseline changes. Organizational category reporting shall be to the level responsible for managing risks identified in paragraph 15.3.e, otherwise, organizational category reporting shall be to the _____ level of the program's organizational structure. Format 4 shall contain baseline and manpower forecasts for two 3-month periods (columns 10 and 11), two subsequent 12-month periods (columns 12 and 13), and the remainder of the contract for the last period (column 14).
- e. Format 5, Explanations and Problem Analyses: Format 5 shall be a narrative report used to explain significant cost and schedule variances and other identified contract problems. Performance measurement (BCWS, BCWP, ACWP on Formats 1 & 2) for high risk WBS elements in the following subsystems at the source levels of the risk (i.e., at WBS element or Control Account levels where appropriate) shall be provided every month regardless of percentage or dollar variance levels until such time as they do not represent a cost or schedule risk and the project office informs the contractor that reporting on these elements is no longer necessary:

(Insert list of medium- and high-risk WBS elements here)

The government reserves the right to amend the above list in the final RFP, at the appropriate time during source selection, at BAFO, and at any time during the effort as new information on risks becomes available.

If WBS elements, other than those identified from the above list, begin to experience variances exceeding 10% current period variances for two consecutive months, the contractor will inform the Project Manager and a consensus reached on adding them to the group of high risk WBS elements identified for monthly cost performance reporting and analysis purposes. All other WBS elements shall have earned value (BCWS, BCWP, ACWP) reported at level _____ of the WBS. Subcontractor variance analyses and a discussion of the prime contractor's analysis of the subcontractor's performance shall be provided in Format 5. Any high-risk WBS elements

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above that are flowed down to subcontractors are subject to the same performance measurement requirements as the prime. In addition, the initial submission of the CPR (Format 5), the contractor shall rank, in descending order of criticality (i.e., the most critical elements will be at the top of the list and the least critical will be at the bottom), all reporting level WBS elements anticipated (as determined by the contractor project manager) to be schedule drivers, and all WBS elements (in a similar ranking) anticipated to be the cost drivers on the project. This list shall contain both the list of high-risk WBS elements provided by the Project Office above and any other contractor-specified schedule and cost drivers. The contractor shall submit an updated list of the rankings every six months, based on performance to date. The Government reserves the right to modify this ranking based on Government perception of criticality. The contractor shall use "critical path" and "risk-path" scheduling techniques; identification of the risk and critical paths by WBS element will meet the schedule drivers' requirement. Ranking of the critical and risk path cost drivers shall also be provided. These critical elements shall reconcile to the Master Schedule submitted to the Government.

- f. Variance Analysis: The Variance Analysis shall be a narrative report addressing the following:
1. All medium- and high-risk WBS elements contained in the list identified above in para. 15.3. e;
 2. Reporting elements that equate to 50% of the list of the schedule drivers (i.e., if 20 schedule drivers are listed, the 10 most critical schedule driver variances over \$100k will be addressed). If there are 10 or fewer schedule driver variances, all variances over \$100k shall be addressed.
 3. Reporting elements that comprise the top 50% of the cost drivers (i.e., if 20 cost drivers are listed, the top 10 most critical cost driver variances over \$100k). If there are 10 or less cost driver variances, all cost variances over \$100k shall be addressed.
 4. Impact to the contract Estimate-at-Complete (EAC) for all cost and schedule driver variances addressed.
 5. Explanation for all variances at completion over \$500k.
 6. Corrective Action Plan, as applicable.
 7. Identification of dependent or inter-related WBS elements that could be affected by high-risk WBS elements or Control Accounts identified for monthly reporting from list in paragraph 15.3.e above.

In accordance with the CADRe DRD, the contractor shall, at least annually, re-assess the cost-risk on the contract, developing a cumulative distribution function (CDF) that reflects the degree of cost-risk variance at the total contract level at that time. The contractor shall provide the resulting CDF and supporting data and rationale. The contractor shall identify the Interquartile range endpoints (that is, the 25th and 75th percentiles) as estimates in CPR

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Blocks 6 a and b for best and worst cases. Explanations of changes from previously reported best and worst cases shall be provided in Format 5 for program management documentation.

For program management and cost calibration purposes, the contractor shall classify all cost growth as either 'risk-driven cost & schedule growth' or 'externally-driven cost & schedule growth' in Format 5 as source information for the CADRe.

- **'Risk-Driven Cost & Schedule Growth' (RDCG & RDSG)** is that cost and schedule growth caused by overruns and funded or unfunded changes, linked to technical risk categories originally used to identify cost-risk in the cost estimate (e.g., technology, complexity, schedule, design/engineering, manufacturing, integration, etc) and key engineering performance parameters (e.g., dynamic load resistance, operating voltage, radiation resistance, emissivity, etc.).
- **'Externally-Driven Cost & Schedule Growth' (EDCG & EDSG)** is that cost and schedule growth caused by overruns and funded or unfunded changes, linked to external factors (e.g., requirements changes, technical enhancements not driven by risk, perturbations to budgets by external agents causing schedule changes, etc.) over which the contractor has little, if any, control. (NOTE: The EDCG & EDSG drivers shall be specifically identified in variance analysis reporting)

16.4 **FORMAT**: CPR formats shall be completed according to the instructions outlined in DI-MGMT-81466 and the following forms: Format 1 (DD Form 2734/1); Format 2 (DD Form 2734/2); Format 3 (DD Form 2734/3); Format 4 (DD Form 2734/4); and Format 5 (DD Form 2734/5). Images of the CPR forms are located at: http://www.acq.osd.mil/pm/newpolicy/cpr_cfsr/cpr_gif_new.html. Contractor format shall be substituted for CPR formats whenever they contain all the required data elements at the specified reporting levels in a form suitable for NASA management use. The CPR shall be submitted electronically using the American National Standards Institute (ANSI) X12 standards (transaction sets 839 for cost) or any other equivalent or better electronic format. The X12 file is considered part of the CPR submission and due at same time as the data item report.

16.5 **MAINTENANCE**: Changes shall be incorporated by complete reissue.