

# **Project Management Terminology and Documentation**

## **Section 1 List of Acronyms and Abbreviations**

<b>A&amp;E</b>	<b>Architecture and Engineering</b>
<b>ACO</b>	<b>Administrative Contracting Officer</b>
<b>ACWP</b>	<b>Actual Cost of Work Performed</b>
<b>ADP</b>	<b>Automated Data Processing</b>
<b>ADPE</b>	<b>Automated Data Processing Equipment</b>
<b>AF</b>	<b>Award Fee</b>
<b>AI</b>	<b>Artificial Intelligence</b>
<b>AIS</b>	<b>Automated Information System</b>
<b>ANSI</b>	<b>American National Standards Institute</b>
<b>AOA</b>	<b>Activity On Arrow</b>
<b>AON</b>	<b>Activity On Node</b>
<b>APM</b>	<b>Assistant Project Manager</b>
<b>APR</b>	<b>Acquisition Plan Review</b>
<b>AR</b>	<b>Acceptance Review</b>
<b>ARO</b>	<b>After Receipt of Order</b>
<b>ASCR</b>	<b>Annual System Certification Review</b>
<b>AT</b>	<b>Acceptance Test</b>
<b>ATE</b>	<b>Automatic Test Equipment</b>
<b>ATP (1)</b>	<b>Acceptance Test Procedure</b>
<b>ATP (2)</b>	<b>Authority to Proceed</b>
<b>ATR</b>	<b>Acceptance Test Review</b>
<b>AUW</b>	<b>Authorized Unpriced Work</b>
<b>B&amp;F Cert.</b>	<b>Budget and Finance Certification</b>
<b>B&amp;P</b>	<b>Bid and Proposal</b>
<b>BAC</b>	<b>Budgeted Cost At Completion; Budget At Completion</b>

<b>BAFO</b>	<b>Best And Final Offer</b>
<b>BCE</b>	<b>Baseline Cost Estimate</b>
<b>BCWP</b>	<b>Budgeted Cost of Work Performed</b>
<b>BCWS</b>	<b>Budgeted Cost of Work Scheduled</b>
<b>BITE</b>	<b>Built-In Test Equipment</b>
<b>BNB</b>	<b>Bid/No Bid</b>
<b>BOE</b>	<b>Basis Of Estimate</b>
<b>BY</b>	<b>Budget Year</b>
<b>C/SCSC</b>	<b>Cost/Schedule Control System Criteria</b>
<b>C/SSR</b>	<b>Cost/Schedule Status Report</b>
<b>CA</b>	<b>Contract Administrator</b>
<b>CAC</b>	<b>Cost at Completion</b>
<b>CAD</b>	<b>Computer Aided Design</b>
<b>CADM</b>	<b>Computer Aided Document Management</b>
<b>CAM (1)</b>	<b>Computer Aided Manufacturing</b>
<b>CAM (2)</b>	<b>Cost Account Manager</b>
<b>CAS</b>	<b>Cost Accounting Standards</b>
<b>CASE (1)</b>	<b>Computer Aided Software Engineering</b>
<b>CASE (2)</b>	<b>Computer Aided System Engineering</b>
<b>CAT</b>	<b>Computer Aided Testing</b>
<b>CBJ</b>	<b>Congressional Budget Justification</b>
<b>CBJR</b>	<b>Congressional Budget Justification Review</b>
<b>CCB (1)</b>	<b>Change Control Board</b>
<b>CCB (2)</b>	<b>Configuration Control Board</b>
<b>CCN</b>	<b>Contract Change Notice</b>

<b>CCO</b>	<b>Contract Change Order</b>
<b>CDCG</b>	<b>Contract Data Classification Guide</b>
<b>CDD</b>	<b>Concept Definition Document</b>
<b>CDR</b>	<b>Critical Design Review</b>
<b>CDRL</b> <b>Requirements List)</b>	<b>Contract Documentation Requirements List (formerly Contract Data</b>
<b>CEO</b>	<b>Chief Executive Officer</b>
<b>CET</b>	<b>Cost Evaluation Team</b>
<b>CFE</b>	<b>Contractor Furnished Equipment</b>
<b>CFSR</b>	<b>Contract Funds Status Report</b>
<b>CI</b>	<b>Configuration Item</b>
<b>CIAR</b>	<b>Configuration Item Acceptance Review</b>
<b>CICA</b>	<b>Competition In Contracting Act of 1984</b>
<b>CID</b>	<b>Commercial Item Description</b>
<b>CIR (1)</b>	<b>Contract Implementation Review</b>
<b>CIR (2)</b>	<b>Contract Inspection Report</b>
<b>CISR</b>	<b>Configuration Item Specification Review</b>
<b>CIT</b>	<b>Component Integration and Test</b>
<b>CLIN</b>	<b>Contract Line Item Numbers</b>
<b>CM</b>	<b>Configuration Management</b>
<b>CMO</b>	<b>Configuration Management Officer</b>
<b>CMSEP</b>	<b>Contractor Management Systems Evaluation Program</b>
<b>CO (1)</b>	<b>Change Order</b>
<b>CO (2)</b>	<b>Contracting Officer</b>
<b>COCOMO</b>	<b>Constructive Cost Model</b>
<b>CONIF</b>	<b>Contract Information File</b>

<b>CONOPS</b>	<b>Concept of Operations</b>
<b>CONUS</b>	<b>Continental United States</b>
<b>COR</b>	<b>Contracting Officer's Representative</b>
<b>COTR</b>	<b>Contracting Officer's Technical Representative</b>
<b>COTS</b>	<b>Commercial Off-The-Shelf</b>
<b>CPA</b>	<b>Certified Public Accountant</b>
<b>CPAF</b>	<b>Cost Plus Award Fee</b>
<b>CPC</b>	<b>Computer Program Component</b>
<b>CPCI</b>	<b>Computer Program Configuration Item</b>
<b>CPFF</b>	<b>Cost Plus Fixed Fee</b>
<b>CPI</b>	<b>Cost Performance Index</b>
<b>CPIF</b>	<b>Cost Plus Incentive Fee</b>
<b>CPM</b>	<b>Critical Path Method</b>
<b>CPNF</b>	<b>Cost Plus No Fee</b>
<b>CPO</b>	<b>Contractor Project Office</b>
<b>CPR</b>	<b>Cost Performance Report</b>
<b>CPU</b>	<b>Central Processing Unit</b>
<b>CPVR</b>	<b>Construction Performance Verification Review</b>
<b>CRISD</b>	<b>Computer Resources Integrated Support Document</b>
<b>CRWG</b>	<b>Computer Resources Working Group</b>
<b>CSC</b>	<b>Computer Software Component</b>
<b>CSCI</b>	<b>Computer Software Configuration Item</b>
<b>CSE</b>	<b>Chief Systems Engineer</b>
<b>CSOM</b>	<b>Computer System Operators Manual</b>
<b>CSSR</b>	<b>Contractor System Status Review (Audit performed by DCAS)</b>

<b>CSU</b>	<b>Computer Software Unit</b>
<b>CTC (1)</b>	<b>Cost to Complete</b>
<b>CTC (2)</b>	<b>Contract Target Cost</b>
<b>CTP</b>	<b>Contract Target Price</b>
<b>CUT</b>	<b>Code and Unit Test</b>
<b>CV</b>	<b>Cost Variance</b>
<b>CWBS</b>	<b>Contract Work Breakdown Structure</b>
<b>CY</b>	<b>Calendar Year</b>
<b>DAR</b>	<b>Deactivation Approval Review</b>
<b>DARPA</b>	<b>Defense Advanced Research Projects Agency</b>
<b>DCAA</b>	<b>Defense Contract Audit Agency</b>
<b>DCAS</b>	<b>Defense Contract Administration Service</b>
<b>DCASMA</b>	<b>DCAS Management Area</b>
<b>DCASPRO</b>	<b>DCAS Plant Representative Office</b>
<b>DCASR</b>	<b>Defense Contract Administration Services Region</b>
<b>DCMAO</b>	<b>Defense Contract Management Area Operation</b>
<b>DCMR</b>	<b>Defense Contract Management Region</b>
<b>DCR</b>	<b>Design Concept Review</b>
<b>DDT&amp;E</b>	<b>Design, Development, Test, and Evaluation</b>
<b>DFCR</b>	<b>Deployment Final Contract Review</b>
<b>DID</b>	<b>Data Item Description (see DRD)</b>
<b>DLA</b>	<b>Defense Logistics Agency</b>
<b>DMO</b>	<b>Documentation (or Data) Management Officer</b>
<b>DoD</b>	<b>Department of Defense</b>
<b>DoD-SPEC</b>	<b>Department of Defense Specification</b>

<b>DoD-STD</b>	<b>Department of Defense Standard</b>
<b>DPAS</b>	<b>Defense Priorities and Allocations Systems</b>
<b>DPRO</b>	<b>Defense Plant Representative Office</b>
<b>DPS</b>	<b>Defense Priority System</b>
<b>DR</b>	<b>Discrepancy Report</b>
<b>DRC</b>	<b>Deployment Readiness Certificate</b>
<b>DRD</b>	<b>Documentation Requirements Description</b>
<b>DRR</b>	<b>Deployment Readiness Review</b>
<b>DSMC</b>	<b>Defense Systems Management College</b>
<b>DT&amp;E</b>	<b>Development, Test, and Evaluation</b>
<b>DTC</b>	<b>Design To Cost</b>
<b>DVR</b>	<b>Documentation Verification Review</b>
<b>EAC</b>	<b>Estimate At Completion</b>
<b>ECCM</b>	<b>Electronic Counter-Countermeasures</b>
<b>ECD</b>	<b>Estimated Completion Date</b>
<b>ECM</b>	<b>Electronic Countermeasures</b>
<b>ECN</b>	<b>Engineering Change Notice</b>
<b>ECP</b>	<b>Engineering Change Proposal</b>
<b>ECR</b>	<b>Engineering Change Request</b>
<b>EDM</b>	<b>Engineering Development Model</b>
<b>EI</b>	<b>End Item</b>
<b>EMC</b>	<b>Electromagnetic Compatibility</b>
<b>EMI</b>	<b>Electromagnetic Interference</b>
<b>EO</b>	<b>Engineering Order</b>
<b>ERB</b>	<b>Engineering Review Board</b>

<b>ETC</b>	<b>Estimate To Complete</b>
<b>ETR</b>	<b>Estimated Time to Repair</b>
<b>EV</b>	<b>Earned Value</b>
<b>EW</b>	<b>Electronic Warfare</b>
<b>EXCOM</b>	<b>Executive Committee</b>
<b>FA</b>	<b>First Article</b>
<b>FAR</b>	<b>Federal Acquisition Regulations</b>
<b>FAT (1)</b>	<b>Factory Acceptance Test</b>
<b>FAT (2)</b>	<b>First Article Test</b>
<b>FAX</b>	<b>Facsimile</b>
<b>FCA</b>	<b>Functional Configuration Audit</b>
<b>FCCM</b>	<b>Facilities Capital Cost of Money (CAS 414)</b>
<b>FCR (1)</b>	<b>Final Contract Review</b>
<b>FCR (2)</b>	<b>Facility Contract Review</b>
<b>FDR</b>	<b>Final Design Review (Facility)</b>
<b>FFP</b>	<b>Firm Fixed Price Contract</b>
<b>FMEA</b>	<b>Failure Mode and Effects Analysis</b>
<b>FMECA</b>	<b>Failure Mode, Effects, and Criticality Analysis</b>
<b>FOC</b>	<b>Full Operational Capability</b>
<b>FOIA</b>	<b>Freedom Of Information Act</b>
<b>FP</b>	<b>Fixed Price Contract</b>
<b>FPAF</b>	<b>Fixed Price Award Fee</b>
<b>FPIF</b>	<b>Fixed Price Incentive Fee</b>
<b>FPR (1)</b>	<b>Final Proposal Review</b>
<b>FPR (2)</b>	<b>Fixed Price Redeterminable</b>



<b>FPVR</b>	<b>Facility Performance Verification Review</b>
<b>FQR</b>	<b>Formal Qualification Review</b>
<b>FRB</b>	<b>Failure Review Board</b>
<b>FRR</b>	<b>Facility Readiness Review</b>
<b>FSM</b>	<b>Firmware Support Manual</b>
<b>FSOW</b>	<b>Facility Scope of Work</b>
<b>FTRR</b>	<b>Facility Test Readiness Review</b>
<b>FY</b>	<b>Fiscal Year</b>
<b>G&amp;A</b>	<b>General and Administrative Costs (Indirect Cost Element)</b>
<b>GAO</b>	<b>General Accounting Office</b>
<b>GAS</b>	<b>General Accounting System</b>
<b>GCB</b>	<b>Group Control Board</b>
<b>GFE</b>	<b>Government Furnished Equipment</b>
<b>GFF</b>	<b>Government Furnished Facilities</b>
<b>GFI</b>	<b>Government Furnished Information</b>
<b>GFM</b>	<b>Government Furnished Material</b>
<b>GFP</b>	<b>Government Furnished Property</b>
<b>GOCO</b>	<b>Government Owned, Contractor Operated (Facility)</b>
<b>GOGO</b>	<b>Government Owned, Government Operated (Facility)</b>
<b>GOTS</b>	<b>Government Off The Shelf</b>
<b>GPO</b>	<b>Government Project Office (see also SPO)</b>
<b>GSA</b>	<b>General Services Administration</b>
<b>GSE</b>	<b>Ground Support Equipment</b>
<b>HAC</b>	<b>House Appropriations Committee</b>
<b>HCI</b>	<b>Human Computer Interface</b>

<b>HPSCI</b>	<b>House Permanent Select Committee on Intelligence</b>
<b>HQ</b>	<b>Headquarters</b>
<b>HSR</b>	<b>Hardware Specification Review</b>
<b>HW</b>	<b>Hardware</b>
<b>HWCI</b>	<b>Hardware Configuration Item</b>
<b>IAW</b>	<b>In Accordance With</b>
<b>ICD</b>	<b>Interface Control Document</b>
<b>ICP</b>	<b>Interface Control Plan</b>
<b>ICWG</b>	<b>Interface Control Working Group</b>
<b>ID (1)</b>	<b>Independent Development</b>
<b>ID (2)</b>	<b>Identifier</b>
<b>IDD</b>	<b>Interface Design Document</b>
<b>IDR (Facilities)</b>	<b>Intermediate Design Review (Facilities)</b>
<b>IE</b>	<b>Information Engineering</b>
<b>IEEE</b>	<b>Institute of Electrical and Electronics Engineers</b>
<b>IFB</b>	<b>Invitation For Bid</b>
<b>IG</b>	<b>Inspector General</b>
<b>IGCE</b>	<b>Independent Government Cost Estimate</b>
<b>ILS</b>	<b>Integrated Logistics Support</b>
<b>INCOSE</b>	<b>International Council on System Engineering</b>
<b>INI</b>	<b>Interest/No Interest (Contractor Executive Control Gate)</b>
<b>IOC</b>	<b>Initial Operational Capability</b>
<b>IR&amp;D</b>	<b>Independent Research and Development</b>
<b>IRS</b>	<b>Interface Requirements Specification</b>
<b>IS</b>	<b>Interface Specification</b>

<b>ISCO</b>	<b>Integrated Schedule Commitment</b>
<b>IV&amp;V</b>	<b>Independent Verification and Validation</b>
<b>K</b>	<b>Thousands</b>
<b>L/H</b>	<b>Labor Hour (Contract)</b>
<b>LAN</b>	<b>Local Area Network</b>
<b>LCC</b>	<b>Life Cycle Cost</b>
<b>LOB</b>	<b>Line Of Business (Business Area)</b>
<b>LOC (1)</b>	<b>Lines of Code</b>
<b>LOC (2)</b>	<b>Logistics Operations Center</b>
<b>LOE</b>	<b>Level Of Effort</b>
<b>LOI (1)</b>	<b>Letter Of Intent</b>
<b>LOI (2)</b>	<b>Letter Of Instruction</b>
<b>M</b>	<b>Millions</b>
<b>MBO</b>	<b>Management By Objectives</b>
<b>MBWA</b>	<b>Management By Walking Around</b>
<b>MDT</b>	<b>Mean Down Time</b>
<b>MET</b>	<b>Management Evaluation Team</b>
<b>MIC</b>	<b>Management Information Center</b>
<b>MIL-SPEC</b>	<b>Military Specification</b>
<b>MIL-STD</b>	<b>Military Standard</b>
<b>MIPR</b>	<b>Military Interdepartmental Purchase Request</b>
<b>MIS</b>	<b>Management Information System</b>
<b>MOA</b>	<b>Memorandum Of Agreement</b>
<b>MOE</b>	<b>Measure Of Effectiveness</b>
<b>MOU</b>	<b>Memorandum Of Understanding</b>

<b>MPS</b>	<b>Master Program Schedule</b>
<b>MR</b>	<b>Management Reserve</b>
<b>MRB</b>	<b>Material Review Board</b>
<b>MRP</b>	<b>Manufacturing Resource Planning</b>
<b>MSB</b>	<b>Material Support Branch</b>
<b>MTBF</b>	<b>Mean Time Between Failure</b>
<b>MTTR</b>	<b>Mean Time To Repair; Mean Time to Restore</b>
<b>MYP</b>	<b>Multi-Year Procurement</b>
<b>N/A</b>	<b>Not Applicable</b>
<b>NAVPRO</b>	<b>Navy Plant Representative Office</b>
<b>NBV</b>	<b>Net Book Value</b>
<b>NC</b>	<b>Numerical Control</b>
<b>NCR</b>	<b>Non-Conformance Report</b>
<b>NDI</b>	<b>Non-Development Item</b>
<b>NIH</b>	<b>Not Invented Here</b>
<b>NLT</b>	<b>No Later Than</b>
<b>NMT</b>	<b>Not More Than</b>
<b>NOR</b>	<b>Notice of Revision</b>
<b>NTE</b>	<b>Not To Exceed</b>
<b>O&amp;M</b>	<b>Operations and Maintenance</b>
<b>OAR</b>	<b>Operational Acceptance Review</b>
<b>OBS</b>	<b>Organizational Breakdown Structure</b>
<b>ODC</b>	<b>Other Direct Costs</b>
<b>OFM</b>	<b>Office of Financial Management</b>
<b>OGC</b>	<b>Office of the General Counsel</b>

<b>OH</b>	<b>Overhead</b>
<b>OJT</b>	<b>On-the-Job Training</b>
<b>OMB</b>	<b>Office of Management and Budget</b>
<b>OOA</b>	<b>Object-Oriented Analysis</b>
<b>ORR</b>	<b>Operational Readiness Review</b>
<b>OSHA</b>	<b>Occupational Safety and Health Administration</b>
<b>OSIF</b>	<b>Oh Shucks [sic] I Forgot</b>
<b>OT&amp;E</b>	<b>Operational Test and Evaluation</b>
<b>OVR</b>	<b>Operational Validation Review (Facilities)</b>
<b>PA</b>	<b>Product Assurance</b>
<b>PAR</b>	<b>Product Acceptance Review</b>
<b>PBS</b>	<b>Product Breakdown Structure</b>
<b>PC</b>	<b>Personal Computer</b>
<b>PCA</b>	<b>Physical Configuration Audit</b>
<b>PCB</b>	<b>Project Control Board</b>
<b>PCCB</b>	<b>Project Configuration Control Board</b>
<b>PCO (1)</b>	<b>Procuring Contracting Officer</b>
<b>PCO (2)</b>	<b>Principal Contracting Officer</b>
<b>PDP</b>	<b>Previously Developed Products</b>
<b>PDR</b>	<b>Preliminary Design Review</b>
<b>PERT</b>	<b>Project Evaluation Review Technique</b>
<b>PET</b>	<b>Proposal Evaluation Teams</b>
<b>PIP</b>	<b>Product Improvement Plan</b>
<b>PIR</b>	<b>Project Initiation Review</b>
<b>PL</b>	<b>Public Law</b>

<b>PM (1)</b>	<b>Program Manager</b>
<b>PM (2)</b>	<b>Project Manager</b>
<b>PM&amp;P</b>	<b>Parts, Materials, and Processes</b>
<b>PMB</b>	<b>Performance Measurement Baseline</b>
<b>PMS (1)</b>	<b>Performance Measurement System</b>
<b>PMS (2)</b>	<b>Procurement Management Staff</b>
<b>PNP</b>	<b>Pursue/No Pursue (Contractor Executive Control Gate)</b>
<b>POC</b>	<b>Point Of Contact</b>
<b>POM</b>	<b>Program Objective Memorandum (DoD Only)</b>
<b>PPI</b>	<b>Proposal Preparation Instructions</b>
<b>PPL</b>	<b>Project Products List</b>
<b>PPLFS</b>	<b>Project Products List Fact Sheets</b>
<b>PPPI</b>	<b>Pre-Planned Product Improvement</b>
<b>PPR (1)</b>	<b>Program Plan Review</b>
<b>PPR (2)</b>	<b>Project/Program Plan Review</b>
<b>PRB</b>	<b>Project Review Board</b>
<b>PRICE</b>	<b>Program Review Information for Costing and Estimating</b>
<b>PRL</b>	<b>Project Requirements List</b>
<b>PRR</b>	<b>Production Readiness Review</b>
<b>PSR</b>	<b>Project Specification Review (formerly Performance Specification Review)</b>
<b>PWAA</b>	<b>Project Work Authorizing Agreement</b>
<b>PY</b>	<b>Prior Year</b>
<b>QA</b>	<b>Quality Assurance</b>
<b>QAR</b>	<b>Qualification Acceptance Review</b>
<b>QC</b>	<b>Quality Control</b>

<b>QRC</b>	<b>Quick Reaction Capability</b>
<b>R&amp;D</b>	<b>Research and Development</b>
<b>RAM</b>	<b>Random Access Memory</b>
<b>RDT&amp;E</b>	<b>Research, Development, Test, and Evaluation</b>
<b>RFC</b>	<b>Request For Change</b>
<b>RFI</b>	<b>Request For Information</b>
<b>RFP</b>	<b>Request For Proposal</b>
<b>RFQ</b>	<b>Request For Quotation</b>
<b>RIF</b>	<b>Reduction In Force</b>
<b>ROM (1)</b>	<b>Rough Order of Magnitude (Estimate)</b>
<b>ROM (2)</b>	<b>Read Only Memory</b>
<b>RTM</b>	<b>Requirements Traceability Matrix</b>
<b>RVM</b>	<b>Requirements Verification Matrix</b>
<b>S/C</b>	<b>Subcontract</b>
<b>SA</b>	<b>System Administration</b>
<b>SAC</b>	<b>Senate Appropriations Committee</b>
<b>SAP</b>	<b>System Acquisition Plan</b>
<b>SAR</b>	<b>System Acceptance Review</b>
<b>SAS</b>	<b>System Analysis Staff</b>
<b>SBA</b>	<b>Small Business Administration</b>
<b>SCA</b>	<b>Subcontract Administrator</b>
<b>SCN</b>	<b>Specification Change Notice</b>
<b>SCR</b>	<b>System Concept Review</b>
<b>SDD</b>	<b>Software Design Document</b>
<b>SDF</b>	<b>Software Development File</b>

<b>SDL</b>	<b>Software Development Library</b>
<b>SDP</b>	<b>Software Development Plan</b>
<b>SDR</b>	<b>System Design Review</b>
<b>SDRL</b>	<b>Subcontract Documentation Requirements List</b>
<b>SEB</b>	<b>Source Evaluation Board</b>
<b>SEI</b>	<b>Software Engineering Institute</b>
<b>SEI&amp;T</b>	<b>System Engineering, Integration, and Test</b>
<b>SEMP</b>	<b>System Engineering Management Plan</b>
<b>SET</b>	<b>Security Evaluation Team</b>
<b>SETA</b>	<b>System Engineering and Technical Assistance</b>
<b>SI</b>	<b>System Integrator</b>
<b>SI&amp;E</b>	<b>System Integration and Engineering</b>
<b>SMAP</b>	<b>Software Management and Assurance Program</b>
<b>SMT</b>	<b>Subcontract Management Team</b>
<b>SO</b>	<b>Security Officer</b>
<b>SOP</b>	<b>Standard Operating Procedure</b>
<b>SOW</b>	<b>Statement Of Work</b>
<b>SPI</b>	<b>Schedule Performance Index</b>
<b>SPM</b>	<b>Software Programmer's Manual</b>
<b>SPO</b>	<b>System Project Office (see also GPO)</b>
<b>SPR</b>	<b>Software Problem Report</b>
<b>SPS</b>	<b>Software Product Specification</b>
<b>SQA</b>	<b>Software Quality Assurance</b>
<b>SRD (1)</b>	<b>System Requirements Document</b>
<b>SRD (2)</b>	<b>System Requirements Directive</b>



<b>SRR</b>	<b>System Requirements Review</b>
<b>SRS</b>	<b>Software Requirements Specification</b>
<b>SSA</b>	<b>Source Selection Authority (Senior Contracting Officer)</b>
<b>SSAC</b>	<b>Source Selection Advisory Council</b>
<b>SSAR</b>	<b>Source Selection Authorization Review</b>
<b>SSCI</b>	<b>Senate Select Committee on Intelligence</b>
<b>SSDD</b>	<b>System/Segment Design Document</b>
<b>SSE</b>	<b>Software Support Environment</b>
<b>SSEB</b>	<b>Source Selection Evaluation Board (see SEB)</b>
<b>SSIR</b>	<b>Source Selection Initiation Review</b>
<b>SSM</b>	<b>Software Sizing Model</b>
<b>SSO</b>	<b>Source Selection Official (Senior Executive Manager)</b>
<b>SSP</b>	<b>Source Selection Plan</b>
<b>SSR</b>	<b>Software Specification Review</b>
<b>SSS</b>	<b>System/Segment Specification</b>
<b>STE</b>	<b>Special Test Equipment</b>
<b>STR</b>	<b>Software Test Report</b>
<b>STRR</b>	<b>System Test Readiness Review</b>
<b>SUM</b>	<b>Software User's Manual</b>
<b>SV</b>	<b>Schedule Variance</b>
<b>SW</b>	<b>Software</b>
<b>SWAG</b>	<b>Scientific Wild Anatomical Guess</b>
<b>T&amp;E</b>	<b>Test and Evaluation</b>
<b>T&amp;M</b>	<b>Time and Materials (Contract)</b>
<b>TAAF</b>	<b>Test, Analyze, And Fix</b>

<b>TBD</b>	<b>To Be Determined</b>
<b>TBR</b>	<b>To Be Resolved</b>
<b>TBS</b>	<b>To Be Supplied</b>
<b>TCPI</b>	<b>To Complete Performance Index</b>
<b>TD</b>	<b>Test Director</b>
<b>TEM</b>	<b>Technical Exchange Meeting</b>
<b>TET</b>	<b>Technical Evaluation Team</b>
<b>TIM</b>	<b>Technical Interchange Meeting</b>
<b>TM</b>	<b>Technical Manual</b>
<b>TP</b>	<b>Test Procedures</b>
<b>TPM</b>	<b>Technical Performance Measurement</b>
<b>TQM</b>	<b>Total Quality Management</b>
<b>TR (1)</b>	<b>Time Remaining</b>
<b>TR (2)</b>	<b>Test Report</b>
<b>TRR</b>	<b>Test Readiness Review</b>
<b>TTC</b>	<b>Time To Complete</b>
<b>TWX</b>	<b>Telex</b>
<b>UB</b>	<b>Undistributed Budget</b>
<b>UPAR</b>	<b>User Product Acceptance Review</b>
<b>URR</b>	<b>User Validation Readiness Review</b>
<b>VAC</b>	<b>Variance At Completion</b>
<b>VDD</b>	<b>Version Description Document</b>
<b>VE</b>	<b>Value Engineering</b>
<b>VECP</b>	<b>Value Engineering Change Proposal</b>
<b>VHSIC</b>	<b>Very High Speed Integrated Circuit</b>

<b>VLSI</b>	<b>Very Large Scale Integration</b>
<b>VP</b>	<b>Vice President</b>
<b>VRIC</b>	<b>Vendor Request for Information or Change</b>
<b>VRR</b>	<b>Validation Readiness Review</b>
<b>VV&amp;T</b>	<b>Verification, Validation, and Test</b>
<b>W-Mgt</b>	<b>Theory W Management</b>
<b>WAG</b>	<b>Wild Anatomical [sic] Guess</b>
<b>WBS</b>	<b>Work Breakdown Structure</b>
<b>WO/WA</b>	<b>Work Order/Work Authorization</b>
<b>WP</b>	<b>Work Packages</b>
<b>WR</b>	<b>Work Remaining</b>
<b>X-Mgt</b>	<b>Theory X (or Authoritative) Management</b>
<b>Y-Mgt</b>	<b>Theory Y (or Supportive) Management</b>
<b>Z-Mgt</b>	<b>Theory Z (or Participative) Management</b>

# **Project Management Terminology and Documentation**

## **Section 2 Definition of Terms**

## A

### **Acceptance**

A Government-authorized representative's act of signifying, after verification, that items submitted for approval meet all requirements. For fixed-price type contracts without progress payments, acceptance also conveys ownership and custody to the Government. For cost-reimbursement type contracts, acceptance also conveys custody for goods and materials already under Government ownership. The identical type of relationship exists between a Prime Contractor and a subcontractor.

### **Acceptance Review**

**AR (1)**

A series of joint control gates at which the buyer approves acceptance of the entity as ready for either integration, acceptance, or replication. The title, Acceptance Review, should be preceded by a descriptor (e.g., Configuration Item Acceptance Review, Segment Acceptance Review, System Acceptance Review, System Acceptance Review at Seller's Facility, System Acceptance Review at Operational Site, etc.)

### **Acceptance Test**

**AT**

A series of tests conducted in accordance with an approved verification plan and in conformance with approved test procedures. The test is conducted by the Contractor or independent organization and is witnessed by a representative of the Government Project Office for compliance with the test procedure and Verification Plan. Acceptance tests may be performed at the factory or after installation at the customer's facility, as defined in the contract. Results of the test are audited in the Functional Configuration Audit (FCA) and/or the Acceptance Review (AR).

### **Acceptance Test Procedure**

**ATP (1)**

A detailed, step-by-step set of instructions for the set-up, operation, and evaluation of results of the Acceptance Test. The approach to sampling and statistical quality control is part of the ATP. The Contractor prepares the verification plans and procedures, and the Government Project Office approves them.

### **Acceptance Test Review**

**ATR**

Formerly a Joint Control Gate, now part of the more comprehensive Acceptance Review (AR) at which all verification data, including test results, are presented.

### **Accountable**

Responsible, answerable.

### **Acquisition**

The contractual process of obtaining products or services for the Government, or a Prime Contractor, whether the products or services are already in existence or must be conceived, developed, demonstrated, or evaluated. It involves all aspects of contract administration and project management performed within the context of the Project Cycle. Also called Procurement.

### **Acquisition Period**

One of the three periods in the Project Cycle, preceded by the Study Period and followed by the Operations Period. The Acquisition Period encompasses the Source Selection Phase and the Implementation Phase.

### **Acquisition Plan**

The document prepared during the Acquisition Planning phase that describes the expected approach to be used in acquiring and deploying a specific system. It is prepared by the Government Project Office and references the System Requirements Document, System Concept Document, and System Performance Specifications. It defines the acquisition approach including funding, manpower, and facilities resources that will be required. The plan requires funding commitment from Government Executive Management. Also called the System Acquisition Plan.

### **Acquisition Plan Review**

### **APR**

The Government Executive Control Gate at which Executive Management approves the approach and required resources as defined in the Government System Acquisition Plan. The APR is the decision point for Government Executive Management to initiate the project and commit funding, manpower, and other resources.

## **Acquisition Planning Phase**

The fourth of nine phases of the Project Cycle. The objective is to secure Government Executive Management approval of the System Acquisition Plan for procuring the specified system. The phase begins after completion of the System Specification Definition Phase, and ends with review and approval of the System Acquisition Plan at the Acquisition Plan Review (APR). The Government establishes the acquisition strategy, organizational interfaces, acquisition schedule, facilities and support required, approach to mitigating project risks, and the funding required. The Acquisition Planning Phase is the last phase of the Study Period.

## **Activity**

An operation or task that consumes time or resources. An activity is the smallest unit of work within a project network and Work Breakdown Structure (WBS).

## **Activity On Arrow**

## **AOA**

A project network precedence diagramming technique in which tasks or activities are represented by lines and arrows. The lines and arrows are drawn between nodes, which are preceding and succeeding task junction identifiers.

## **Activity On Node**

## **AON**

A project network precedence diagramming technique in which the tasks, activities, events, milestones, and reviews are represented by circles, called nodes. Related nodes are connected by lines to depict precedence relationships.

## **Actual Cost of Work Performed**

## **ACWP**

A term associated with performance measurement systems relating to the actual costs incurred and recorded in accomplishing the work performed on a defined work package(s) within a specified time period.

## **Administrative Contracting Officer**

## **ACO**

## Project Management Terminology Manual

The Government Contracting Officer or representative assigned administrative responsibility for a contract after contract award to ensure the Contractor delivers to the contract requirements. The Procuring Contracting Officer (PCO) may delegate the ACO responsibilities to a Government representative currently resident at the Contractor facility to make easier daily contractual matters with the Contractor.

### **After Receipt of Order**

**ARO**

The starting point for measuring the contractually agreed-to schedule. Days ARO indicates the number of days after receipt of a purchase order.

### **Agreement**

Concurrence of facts or approach, but not acceptance of meeting all requirements.

### **Air Force Contractor Management Division**

**AFCMD**

A division of the Air Force Systems Command, in charge of overseeing Contractor compliance with Federal regulations and verifying that the Contractor has internal procedures and is following them.

### **Air Force Plant Representative Office**

**AFPRO**

Formerly part of the Air Force procurement organization. Realigned in 1990 as Defense Plant Representative Offices reporting to the Defense Contract Administration Service.

### **Air Force Regulation**

**AFR**

A document approved by the Secretary of the Air Force implementing policies and procedures.

### **Allocated Baseline**

The requirements allocated and flowed down to Computer Software Configuration Items (CSCIs) and Hardware Configuration Items (HWCIs) for implementation. In the case of software, the baseline for any CSCI is embodied in an approved Software Requirements Specification after successful completion of the CSCI's Software Specification Review (SSR).



### **Allocated Requirements**

Requirement values, apportioned to the members of a system, determined by subject matter experts applying knowledge and experience with similar systems. Determination of Allocated Requirements is not as scientifically rigorous as determination of Derived Requirements.

### **Allotment**

A determination by the Agency Comptroller that subdivides the Agency's budget apportionment among the Directorates. The allotments authorize the Deputy Directors to incur commitments, obligations, and expenditures in the accomplishment of an approved budget. An allotment is also a subdivision of an appropriation that provides the funding authority for an official to accomplish a specific function or mission. Deputy Directors further subdivide their allotments by granting specific allotments to individual offices.

### **American National Standards Institute**

### **ANSI**

A private, non-profit organization dedicated to the propagation of standards. ANSI members, including Government, education, and industry organizations, develop standards for a wide range of products, which are then agreed upon. ANSI is the sole US representative to international standards bodies.

### **Analog Cost Estimate**

An estimate of costs, performance, and so forth, based on historical data too limited to allow statistical estimating, but which is more economical to prepare than a bottom-up engineering estimate. Normally prepared by adjusting the historical data of a similar (analog) item by deducting historical costs, performance, and so forth, which are not comparable, and by adding estimated values for new features.

### **Annual Operational Performance Report**

A document that summarizes the operational project's performance history on an annual basis. Includes operational history, problems and resolutions, cost savings ideas, and potential upgrades.

### **Annual System Certification Review**

### **ASCR**

Government user Control Gate to determine if the product delivered by the operating system and personnel to the User continues to meet the original User requirements as documented in the System Requirements Document. The ASCR may cause the initiation of system modifications to improve performance.

### **Apportioned Task**

A task that is dependent on or related to the performance of a discrete task.

### **Apportionment**

A determination made by the Office of Management and Budget that limits the amount of obligations or expenditures incurred during a specific time period. An apportionment may limit all obligations to be incurred during the specified period, or it may limit obligations to be incurred for a specific activity, function, project, object, or a combination thereof.

### **Appropriation**

An Act of Congress providing a specified amount of funds to be used for a designated purpose.

### **Appropriation Limitation**

An amount of funds fixed by Congress for a designated purpose. Said amount may not be exceeded.

### **Architecture**

The framework and interaction of components of a system.

### **Architecture and Engineering**

### **A&E**

The type of Contractor organization normally employed to design and engineer Major Facility Projects. May also be used to oversee or manage the construction phases of a Major Facility Project.

### **As-built Design**

The documentation that describes the ultimate "As-delivered" configuration to provide for system or assembly replication. It includes design changes implemented for manufacturing improvements and integration and test corrective actions. The "As-built" baseline becomes the "Build-to" baseline for additional production systems. In construction contracts, "As-built" drawings are referred to as the "record" drawings.

### **Assembly**

A functional unit designed and managed as an entity. This includes concept, design, analysis, development, manufacturing, testing, maintenance, and record keeping. Examples include electronic boxes (transmitters), mechanical assemblies (deployable antenna) and software components. This is Level 5 in the system hierarchy.

### **Assistant Project Manager**

### **APM**

An assistant to the Project Manager responsible and accountable for defined project functions such as subcontractor management or segment or element management.

### **Associate Contractors**

Two or more Prime Contractors participating in the acquisition of a system, each independently responsible to the Government for the physical, functional, and operational compatibility of their segment to the Interface Specification managed by the System Integrator.

### **Attrition**

The loss of a resource due to causes beyond the jurisdiction of the project manager in the normal course of events such as the death or resignation of an employee, or spoilage, damage, or obsolescence of material.

### **Auctioning**

The technique of indicating to an Offeror the price it must meet to obtain further consideration, advising an Offeror of its price standing relative to another Offeror, or otherwise furnishing information to one Offeror about another offer's pricing in order to obtain pricing concessions. This is an improper practice.

### **Audit**

The systematic examination of tangible evidence to determine adequacy, validity, and effectiveness of the activity or documentation under review. An audit may examine policies and procedures documentation, as well as verification of adherence to same. Examples of types of audit include technical and financial.

### **Authority**

The power to enforce decisions, command, determine, or judge. Also, the power assigned to another.

### **Authority to Proceed**

**ATP (2)**

Authority to Proceed is formal, written authorization from the Government Contracting Officer for the contractor to proceed immediately with development of products or services. Authority to Proceed is granted by actual contract definitization or by Letter Contract. Letter Contracts may be used only after the head of the contracting activity or a designee determines in writing that no other contract is suitable.

### **Authorization**

An act of Congress that authorizes federal programs, obligations, or expenditures; also, management approval of subordinate action.

### **Authorized Unpriced Work**

**AUW**

The effort for which definitized contract costs have not been agreed to, but for which written authorization has been received by the Seller.

### **Authorized Work**

Work tasks that have been approved by management (either Government or Industry). A Project Work Authorizing Agreement (PWAA) is used to authorize in-house work; a subcontract is used to authorize work outside the Contractor's organization.

### **Automated Data Processing**

**ADP**

The application of electronic equipment, especially computers, to the task of managing, manipulating, displaying, and storing data.

### **Automated Data Processing Equipment**

**ADPE**

Electronic equipment, especially computers, used for managing, manipulating, displaying, and storing data (as defined in FAR 31.001).

### **Automated Information System**

**AIS**

A computer-based information retrieval system.

### **Automatic Test Equipment**

**ATE**

Equipment built to perform a test or sequence of tests to determine if the test article is within acceptable quality limits. ATE ranges from simple devices to verify mechanical or electrical continuity to sophisticated computerized systems with automatic sequencing, data processing, and readout. ATE may be used to test components during manufacturing, for acceptance testing prior to delivery, or at field installations to check spares prior to installation. Automatic Test Equipment may be stand alone test units or may be built into the operational equipment. If built in, it is referred to as BITE (Built In Test Equipment).

### **Auxiliary Ground Equipment**

**AGE**

System support equipment that provides essential power or environment normally provided by internal consumables.

### **Award Fee**

**AF**

A special fee provision of a contract that is used to motivate a Contractor about issues that are measured periodically and subjectively. The contract will have defined award fee periods, usually six to nine months long. The award fee criteria are negotiated prior to the start of the next award fee period, thus allowing the Buyer the flexibility to change the evaluation emphasis as the project evolves. The determination is made unilaterally by the

Buyer and is not subject to the Disputes Clause.

## **B**

### **Bar Chart**

A graphical portrayal of parameters in a bar-type format. A Gantt is a special form of bar chart which presents a time-phased work plan and progress against the plan.

### **Base**

Resources needed to operate and maintain capabilities that exist at the beginning of the fiscal year throughout the budget year.

### **Baseline**

The progressively documented set of functional, performance, and physical characteristics, mutually agreed upon by Government and Contractor, that define the evolving definition of the "to be delivered" contract end item, as well as the project management plan for the project. (Note: Items that have not been mutually agreed upon between Buyer and Seller are not part of the Baseline.) Three baselines established during the Implementation Period are the Functional or Performance Baseline, the Allocated or "Design-to" Baseline and the Product or "Build-to" Baseline.

### **Baseline - Business**

Established by Congressional authorization and appropriation for Budget Line-Item. Evolves through Government and Contractor approved contract Terms and Conditions as evidenced by the negotiated contract and all subsequent contract changes. Includes the Project Master Schedule, funding limits, budgets and expenditure limits, Contract Deliverable(s) List, and the Contract Documentation Requirements List.

### **Baseline Cost Estimate**

**BCE**

The estimated cost to perform all work defined in the project baseline based on standard conditions; that is, no overtime, Government Furnished Equipment (GFE) on time, and so forth.

### **Baseline - Technical**

First established by placing the User Requirements under change control. Matures by addition of System Requirements Document, Concept Definition Document, System Specifications, "Design-to" specifications, "Build-to" documents, and "As built," "As tested," "As accepted" and "As operated" configurations.

### **Basis Of Estimate**

**BOE**

Supporting data used to justify the estimated cost for a task. These supporting data are often drawn from organization standards built from historical data and comparisons for similar products; should be requested as part of the RFP.

### **Behavior of Functional Analysis**

The representation of the functions of a system in a rigorous logical diagram (called a "behavior diagram.")

### **Best And Final Offer**

### **BAFO**

A request by the Contracting Officer to potential Contractors within the competitive range to submit a technical, management, and cost "best and final offer" in response to modified or clarified Request For Proposal (RFP) conditions.

### **Best Effort (Contractor)**

Contractor's responsibility to do the best job possible under terms of high risk contracts with no legal obligation to complete. Used in conjunction with cost reimbursement-type contracts.

### **Bid**

A Company's written reply to an Invitation to Bid. See FAR Part 14.



### **Bid and Proposal**

### **B&P**

The type of Contractor funds used to pay for the proposal preparation process and the subsequent factfinding and negotiations. Usually starts at valid notification of a competition. In the Government contracting environment, allowable B&P funds are part of the General and Administrative (G&A) expenses.

### **Bid/No Bid**

### **BNB**

A seller Executive Control Gate to approve pursuing an expected business opportunity based on receipt of the official Request for Proposal. The decision is based on the official RFP and all other information gathered to date. The BNB is the decision point for seller management to fund development of the competitive proposal.

### **Bidders Conference**

A meeting of prospective bidders responding to a Request For Proposal, arranged by the Government contracting organization to assist prospective bidders in fully understanding the requirements in the RFP.

### **Bidders List**

List of companies judged capable by the procuring organization from whom bids, proposals, or quotations may be solicited. The list is developed and maintained by the procuring organization. Verification of companies' capabilities typically involves review of financial status and past performance, as well as on-site review of facilities and personnel.

### **Bill of Material**

A listing of all the subassemblies, parts, and raw materials that go into a parent assembly showing the quantity of each required to make an assembly. There are a variety of formats of Bills of Material, including single level, indented, modular (planning), transient, matrix, costed, and so forth.

### **Blue Ribbon Committee**

A committee of experts who rigorously examines evidence, documents, and testimony to certify that a complex or high risk project has been properly planned, risks are quantified, and the probability of success is sufficient that the project should be funded or permitted to proceed.

### **Boiler Plate**

Essential contract terminology and clauses that are not subject to frequent change. The term "Boiler Plate" is dangerous because it may lull the project team into the trap of not reading the clauses, assuming that there is no change from previous contracts, or assuming that the data are not significant.

### **Bottom-Up Cost Estimate**

An estimate derived by summing detailed cost estimates of individual work packages (labor and materials) and applying appropriate burdens. Detailed estimates should be determined by the Contractor's performing organizations, priced, and then reviewed by price analysts and cost accountants.

### **Brainstorming Session**

A technique in which ideas are freely surfaced and discussed, no matter how abstract they may seem or how removed from practical realization, in the interest of uncovering all possible approaches to an issue.

### **Brassboard (Technical Demonstration Model)**

An experimental device or model constructed and operated in a laboratory environment to demonstrate the application of a scientific or engineering principle, or to test and establish design concepts and technical feasibility. The data accumulated primarily relate to the electromechanical or physical design aspects of the problem, without emphasis or attempt to meet size, shape, or weight specifications or refinement of the design. It may be configured and packaged to be operated outside the laboratory environment for test purposes. Also called Brassboard Model.

### **Breadboard (Technical Demonstration Model)**

An experimental device or model constructed and operated in a laboratory environment to demonstrate the application of a scientific or engineering principle, or to test and establish design concepts and technical feasibility. The data accumulated primarily relate to the electronic or circuit design aspects of the problem, without emphasis or attempt to meet size, shape, or weight specifications or refinement of the design. It is normally configured to be used only in a controlled laboratory environment. Also called Breadboard Model.

### **Budget**

A time-phased expenditure plan, usually expressed in dollars or labor units. May also be an allowance for technical uncertainty, as in error budget.

### **Budget Aspect of the Project Cycle**

The sequence of events within the project cycle dedicated to acquiring the necessary funding for the project.

### **Budget Year**

**BY**

There are three types of budget years:

#### **Budget Execution Year (Current Fiscal Year)**

The third year of the Government three-year Budget Management Cycle in which the budget is spent to acquire goods and services.

### Budget Formulation Year (Internal Review)

The first year of the Government three-year Budget Management Cycle in which budgets for new initiatives, on-going initiatives, and base projects are prepared.

### Budget Review Year (External Review)

The second year of the Government three-year Budget Management Cycle in which the budget is reviewed by Congress for authorization and appropriation of funds.

### **Budgeted Cost At Completion; Budget At Completion**

### **BAC**

The total planned budget for the task or project, excluding management reserve. The BAC plus Management Reserve (MR) equals the Contract Target Cost Baseline.

### **Budgeted Cost of Work Performed**

### **BCWP**

A term associated with performance measurement of work accomplished, which is equal to the projected cost of achieving specified milestones. When a task is completed, the Budgeted Cost of Work Performed (BCWP) is exactly equal to the planned budget for the task (BCWS). There are several methods for calculating the BCWP prior to task completion: 0-100; 50-50; 100-0; 100-0 weighted; milestone; interim milestone; percent complete; and level of effort. The BCWP is also called the Earned Value. See also Performance Measurement System (PMS).

### **Budgeted Cost of Work Scheduled**

### **BCWS**

A term associated with performance measurement systems. The planned, time-phased cost (budget) for each task on a project.

### **Bug**

A mistake in someone else's software.

### **Build (Noun)**

An integrated set of software products incorporating a specified subset of the capabilities that the final product will include.

### **Build-to Documentation**

"Build-to" Documents that define the "Build-to" instructions for Configuration Items, the performance of which must be verified against the Configuration Item "Design-to" Specification. "Build-to" Documents are also referred to as Type C Product Specifications, Type D Process Specifications, and Type E Material Specifications in MIL-STD 490.

### **Built-In Test Equipment**

### **BITE**

A built-in test capability, integral to a system, included to eliminate the need for external stimuli or measurement devices. Primarily used for fault isolation. BITE is a subset of Automatic Test Equipment.

### **Burden**

Costs which cannot be uniquely assigned to a specific contract as direct costs such as overhead expenses, General and Administrative expenses, and so forth.

### **Burn Rate**

The rate at which contract funds are expended, as in total dollars per day or total dollars per week.

### **Business Manager**

The person responsible for verifying and coordinating financial data and resource information in a contractor's proposal and during daily operations of a project.

### **Buy In**

The deliberate submission of an offer or budget request substantially below estimated cost in order to win a competition or to establish a project.

### **Buyer**

The procuring organization. The Government is the Buyer for services to be performed or for equipment to be provided by a Contractor. The Contractor is the Buyer for parts, materials, or services to be provided by a subcontractor or vendor.

## **C**

### **Calendar Year**

**CY**

The calendar year of January through December, as opposed to a fiscal year of October through September.

### **Capability Survey**

A survey by buyer representatives of a seller's capability without specific regard to any project.

### **Cards on the Wall Planning**

A planning process in which the Project Manager and core team members actively interact to create a project strategy and network by locating and interconnecting task cards on walls that are used as the work area. The Project Manager, System Engineer, and Project Business Manager pre-configure the room walls with master milestone events, task color codes, Contract Documentation Requirements List (CDRL), contract deliverables, Work Breakdown Structures (WBS), etc. The team members then define the commensurate work tasks required, incorporating associated risk mitigation tasks. The wall data are then transferred into a computer for scheduling, critical path analysis, and iteration. The technique may also be

used for Strategic planning, Organizational Development planning, and Total Quality Management (TQM) planning.

### **Certification**

To attest or authorize by certificate to guarantee as meeting a standard.

### **Certified Public Accountant**

**CPA**

A person holding an official certificate as an accountant, having fulfilled all the legal requirements.

### **Change Control Board**

**CCB (1)**

Same structure as the Configuration Control Board, but the scope includes all technical and programmatic changes to the project. Government approval is required for any Class I changes; the Government has the right to review Class II changes. See also Configuration Control Board, Project Control Board.

### **Change Order**

**CO (1)**

A unilateral written order signed by a Contracting Officer directing the Contractor to make changes to a current contractual effort. There may be a negotiated equitable adjustment to the cost and schedule baseline. The changes clause of the contract defines the limits of authority of the Contracting Officer to direct changes.

### **Chief Executive Officer**

**CEO**

A company's most senior manager, responsible and accountable for all activities and business units in the company.

### **Chief Systems Engineer**

**CSE**

The senior technical authority for a project. Ensures all approved requirements have been properly decomposed to lower levels and are being properly responded to.

### **Clarification**

## **Project Management Terminology Manual**

When used as a contractual term, refers to communication between a Buyer and a Seller for the sole purpose of eliminating minor irregularities or apparent clerical errors in a proposal. The communication may be either an explanation or a substantiation. The communication may be initiated by either the Buyer or the Seller. Clarification does not give the Seller the opportunity to revise or modify the proposal. Only corrections of apparent clerical errors are allowed. See also Discussion; FAR Subpart 15.601

### **Class I Change**

A change that affects the contract requirements or the form, fit, or function of the approved baseline of a Configuration Item as defined in the contract Statement of Work, referenced specifications, or approved baseline documentation. Government approval of Class I changes is mandatory before implementation.



### **Class II Change**

A change that does not affect the contract requirements or the form, fit, or function of the approved baseline of a Configuration Item as defined in the contract Statement of Work, referenced specifications, or approved baseline documentation. The Government reserves the right to review all Class II changes for concurrence with change classification.

### **Code and Unit Test**

**CUT**

The activities of writing software and performing the initial test. Both activities are usually performed by the same programmer.

### **Code (or Source Code)**

Software in the programming language as written by the programmer, before translation into machine-executable instructions.

### **Coding and CSU (Computer Software Unit) Testing**

A major activity in the software development process during which the designed CSUs are coded and tested as stand-alone entities.

### **Commercial Item Description**

**CID**

Specifications and other documentation that describe a product or service available in the commercial market.

### **Commercial Off-The-Shelf**

**COTS**

An item, software program, or service available in the commercial market.

### **Commitment (Funding)**

A reservation of Buyer funds to make future payment for goods or services for which the Buyer has made a commitment. See also Request for Proposal or Engineering Change Proposal).

### **Commitment of Funds**

A firm administrative reservation of funds by an authorized action leading to a procurement obligation.

### **Competition**

The acquisition strategy where more than one Contractor is sought to bid on performing a service or function. The statutes and regulations require that maximum competition, to the extent practicable, be obtained on each proposed contract or order. This competition should result in lower prices and better performance and give more companies a chance to obtain Agency contracts. Sellers (Contractors) acting independently of each other offer products or services that are reasonably close substitutes for those offered by other sellers to secure the business of the Buyer (Government) by proposing the most attractive technical, cost, and contract terms.

### **Competition Advocate**

The individual within the Agency who is responsible for promoting, and for challenging barriers to, full and open competition.

### **Competition In Contracting Act of 1984**

### **CICA**

An act of Congress mandating policy regarding the awarding of Federal Contracts through the competitive process, as opposed to sole source procurement. The Competition in Contracting Act was passed in 1984 (Public Law 98-369, 98 Stat. 1175-1230)

### **Competitive Range**

All proposals that have a reasonable chance of being selected for award are included in the competitive range, for the purpose of conducting written or oral discussions. When there is doubt as to whether a proposal is within the competitive range, that doubt must be resolved by including the proposal in the competitive range.

### **Component Integration and Test**

**CIT**

Assembling software units into the next higher assembly and testing the units together as a component.

### **Computer Aided Design**

**CAD**

The application of computer technology to facilitate design by applying standard methods, forms, functions, algorithms, and so forth. CAD systems range from microcomputer-based programs to mainframe-based applications with symbol libraries, data bases of commonly used components, and other information.

### **Computer Aided Document Management**

**CADM**

The application of computer technology to facilitate managing documents, in the areas of configuration control, identification, format, distribution, and related fields. CADM also is used as an aid to Configuration and Data Management.

### **Computer Aided Manufacturing**

**CAM (1)**

The application of computer technology to facilitate manufacturing in the areas of numerically controlled machine operations, robotic production lines, just-in-time supply systems, inventory control, and configuration management.

### **Computer Aided Software Engineering**

**CASE (1)**

The application of computer technology to facilitate the design of software. CASE tools usually include libraries of reusable code (modules of software that can be easily modified for specific tasks), programmer productivity tools, and testing utilities. CASE tools also provide support for requirements flowdown and requirements traceability. Also known as Computer Aided System Engineering.

### **Computer Aided Testing**

**CAT**

The application of computer technology to facilitate testing hardware, software, and systems. CAT includes computer-controlled mechanical devices that exercise movable parts of the system, as well as computer routines that simulate inputs and environments to the system under test.

### **Computer Hardware**

Devices capable of accepting and storing digital data, executing a systematic sequence of operations on that data, and producing outputs. Such devices can perform substantial interpretation, computation, communication, control, or other logical functions. They include peripheral equipment such as storage devices.

### **Computer Program Component**

**CPC**

A computer software module forming a portion of a Computer Software Configuration Item (CSCI). CPC is now called Computer Software Component (CSC).

### **Computer Program Configuration Item**

**CPCI**

An old term denoting a major software component of a system, which is designated by the contracting agency for Configuration Management to ensure the integrity of the delivered product. It, therefore, may exist at any level in the hierarchy where interchangeability is required. Each CPCI is to have (as appropriate) individual design reviews, individual qualification certification, individual acceptance reviews, and separate user manuals. CPCI is now called Computer Software Configuration Item (CSCI).

### **Computer Resources Working Group**

**CRWG**

An internal advisory committee that reviews the adequacy of the software development environment and recommends improvements.

### **Computer Software Component**

**CSC**

A distinct part of a Computer Software Configuration Item (CSCI). CSCs may be further decomposed into Computer Software Units (CSUs).

### **Computer Software Configuration Item**

**CSCI**

A contractual term denoting a major software component of a system that is designated by the contracting agency for configuration management to ensure the integrity of the delivered product. It, therefore, may exist at any level in the hierarchy, where interchangeability is required. Each CSCI is to have (as appropriate) individual design reviews, individual qualification certification, individual acceptance reviews, and separate user manuals.

### **Computer Software Documentation**

Technical data or information, including computer listings and printouts, which document the requirements, design, or details of computer software, explain the capabilities and limitations of the software, or provide operating instructions for using or supporting computer software during the software's operational life.

### **Computer Software Unit**

**CSU**

The lowest level grouping of software lines of code created to perform a specified function or functions. An element specified in the design of a Computer Software Component (CSC) that is separately testable.

## **Computer System Operators Manual**

## **CSOM**

The Computer System Software Operators Manual (CSOM) provides information and detailed procedures for initiating, operating, monitoring, and shutting down a computer system and for identifying/isolating a malfunctioning component in a computer system. A Computer Software Operators Manual (CSOM) is developed for each computer system in which one or more CSCIs execute.

## **Concept Definition Document**

## **CDD**

A document created by the Government Project Office to summarize the results of the Concept Definition Phase. Alternative system concepts that will satisfy the user's needs are described and analyzed. Technical feasibility of the various approaches considered is assessed together with cost, schedule, risk, and other factors. The Concept Definition Document presents the results of these studies and fully describes the concept selected for procurement in the Acquisition Period. It is used to derive the System Specifications (Type A) and the contract Statement of Work. Also known as System Concept Document

## **Concept Definition Phase**

The second of nine phases of the Project Cycle. The objective is to secure Government Executive Management approval of the selected system concept to satisfy the identified user requirements. The phase begins with the establishment of system requirements following the User Requirements Definition Phase and ends with a defined system concept approved at a System Concept Review (SCR). The Government performs feasibility analyses and trade studies, drawing on the assistance of one or more Contractors, as required, to determine the preferred system concept. The final versions of the User Requirements Document, System Requirements Document, and Concept Definition Document are prepared in this phase.

## **Concept of Operations**

## **CONOPS**

A section in the System Concept Document describing how the system is expected to operate. It typically includes a narrative description, data flow diagrams, primary operation plan, secondary operations, and timelines.

## **Concept of Operations Document**

A document, developed by the Government Project Office, that summarizes the user's planned operation of the system in the operational environment. It may include the requirements for logistics, provisioning, and maintenance. Also called the Operational Concept Document.

### **Concurrent Engineering**

For development projects, the early consideration of all aspects of the product's life cycle to ensure completeness of design, optimum manufacturing, efficient verification, ease of operations, minimum maintenance, and ease of disposal.

### **Configuration Control Board**

**CCB (2)**

A board established to review all proposed changes to the approved baseline of any Configuration Item after it has been placed under Configuration Management. The CCB Chairperson is the Project Manager, or designee. The Configuration Management Officer (CMO) is usually the CCB secretary. Contractor CCB actions on Class I changes are subject to Government approval before implementation.

### **Configuration Item**

**CI**

A contractual term identifying a hardware, software, or composite item at any level in the system hierarchy designated for disciplined configuration management. CIs vary in size, type and complexity but have four common characteristics:

1. Each has a defined functionality,
2. Each is replaceable as an entity,
3. Each has a unique performance specification.
4. Each has disciplined control of its form, fit and functionality.

CIs are further identified in accordance with system decomposition and Baseline definition. Each CI should have an identified manager and may have CI-unique design reviews, qualification certification, acceptance reviews, and operator and maintenance manuals.

### **Configuration Item Acceptance**

The formal acceptance of a CI by the system integrator to permit the CI to be integrated into the system for system verification testing and system acceptance.

### **Configuration Item Acceptance Review**

### **CIAR**

A Joint Control Gate at which the Government Project Office determines CI readiness for system integration and verification testing. The CI Acceptance Review confirms that the CI meets "Design-to" performance specifications. There are two types of CIs that are acceptance tested:

1. A Qualification CI that is tested to verify design margins
2. A Operational CI that is tested to verify quality

### **Configuration Item Specification Review**

### **CISR**

A Contractor Control Gate at which the Contractor Project Office reviews the preliminary "Design-to" Specifications (Type B Specifications) for the Hardware Configuration Item(s), Software Configuration Item(s), and Operations. These preliminary "Design-to" Specifications are released as final "Design-to" Specifications after approval at the Preliminary Design Review. The CISR is the decision point to proceed with the development of the detailed preliminary design. The CISR is also the hand-off of Baseline development responsibility from System Engineering to Design Engineering. See also Hardware Specification Review (HSR) and Software Specification Review (SSR).

### **Configuration Item Test Readiness Review**

A Joint Control Gate at which the Government Project Office reviews the readiness to initiate CI Verification in accordance with the CI Verification Procedure. The Test Readiness Review (TRR) is the decision point for approval to proceed with formal qualification tests or operational performance tests to produce evidence that the CI meets its "Design-to" Specification.

### **Configuration Item Verification**

The process of proving compliance with the CI "Design-to" Specification using predominately test techniques, but also using demonstration, analysis, and inspection techniques, where necessary, to prove design and quality compliance defined by the CI Verification Procedures and the System Verification Plan.

### **Configuration Item Verification Procedures**

The documents prepared by the system developer or implementor in response to the System Verification Plan and presented to the buyer at the CI Test Readiness Review. They define the detailed procedures to



be followed, including demonstration, inspection, test and analysis to produce the tangible evidence necessary to verify that the CI meets all CI "Design-to" Specifications.

### **Configuration Management**

**CM**

The technical and administrative direction and surveillance to:

- Define and document the functional and physical characteristics of a Configuration Item or system.
- Approve and control any changes to such characteristics.
- Record and report the change process and implementation status.

### **Configuration Management Officer**

**CMO**

The individual responsible for managing and documenting the configuration baseline and control process.

### **Configuration Management Plan**

A document setting forth the Configuration Items of a system and the plan for Configuration Management of each item, including schedules, procedures, personnel, and equipment to be used.

### **Congressional Authorization**

An act of Congress which authorizes Federal programs, obligations, or expenditures. A separate Congressional Appropriation act must follow the Authorization bill to provide the necessary funds to implement the authorized work.

### **Congressional Budget Justification**

**CBJ**

A three volume publication prepared by Agency directorates to justify their upcoming budget before Congress.

### **Congressional Budget Justification Review**

**CBJR**

The Government Executive Control Gate at which the Office Director reviews and approves the Congressional Budget Justification Submission package. The CBJR is the decision point for office-level management to approve a more detailed description of the Project Proposal originally submitted at the Program Plans Review (see PPR), and any adjustments to the original resources requested at the PPR. The adjustments should be based on the results of further studies and analyses performed on the proposed project after the PPR. The CBJR is a review of the information originated by the project proposal office and routed to the comptroller through the Office and Directorate.

### **Consensus Decision Process**

Group decisions based on members agreeing to support and live with the recommended decision based on a full and open hearing where all points of view are considered.

### **"Consent to" Meeting**

A control mechanism that requires an all-hands review of readiness to proceed. Typically used for consent to ship, launch, machine, print, test, and so forth. All control gates are "Consent to" meetings.

### **Consent to Ship Certificate**

The Contractor Project Office prepares the Consent to Ship Certificate for approval by the Government Project Office signifying the readiness to ship the completed system. The certificate certifies that all system components have been properly verified, packaged, and their location documented. The Government Project Office then uses this certificate to transfer accountability for the system to the organization assigned the responsibility for transporting and installing the system. Typically three signatures are required on the certificate: the Seller making the certification, the Government Project Office approving the certification, and the Shipper accepting responsibility.

### **Constructive Challenge**

Knowledgeable interrogation of proposed concepts/solutions for the purpose of ensuring that the concepts/solutions are well founded and will serve the intended purpose.

### **Constructive Change Order**

A Contract Change Order based on an oral order, written action, or omission of an act by a Government representative. A Constructive Change Order is not a formal Change Order, but, based on case law, is inferred to have the same effect as a formal, written Change Order under the Changes Clause. It requires the Contractor to perform work differently from that originally prescribed by the terms of the contract. May also be called a "change by implication." The Contractor is required to immediately notify, in writing, the Contracting Officer at the Contracting Agency and obtain written confirmation of the order before proceeding.

### **Constructive Cost Model**

### **COCOMO**

A software cost and schedule estimating method originally developed by Barry Boehm (Software Engineering Economics, 1981). The model is derived from a study of 63 software projects, and is nonproprietary.

### **Context of Implementation**

The problem space and operating environment of the problem to be solved.

### **Continental United States**

**CONUS**

The "lower 48" states of the USA. Military authorities have classified Alaska and Hawaii as overseas duty assignments.

### **Contract**

A mutually binding legal relationship, obligating the Seller to furnish the products or services and the Buyer to pay for them. It includes all types of instruments that obligate the Buyer to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include (but are not limited to) awards and notices of awards, subcontracts, job orders, or task letters issued under such basic ordering agreements as purchase orders under which the contract becomes effective by written acceptance or performance, and bilateral contract modifications.

### **Contract Acceptance Review**

A Joint Control Gate at which the buyer and the seller enter into a legally binding contractual agreement.

### **Contract Action**

An action seeking a legal change to a contract.

### **Contract Administration**

The series of management actions undertaken in support of the procuring activity after Contract Award to meet the minimum bona fide needs of the Buyer for products and services. The management actions are to be taken in a timely manner and in a fashion that will protect the Buyer's interests.

### **Contract Administrator**

**CA**

An official designated by the Contractor who has the authority to negotiate, enter into, and administer contracts on behalf of the Contractor.

### **Contract Award**

## Project Management Terminology Manual

The Joint Company and Government Control Gate at which the Government negotiating team meets with the negotiating team of the Company determined by the source selection process to be the "best value" to the Government. The objective is to perform factfinding, finalize the Project Requirements specific to the selected proposal, resolve any cost and schedule adjustments, and negotiate the resultant contract. The Contract Award is the decision point for the Government and the Company to enter into a legally binding contractual agreement. It is the culmination of the negotiation process, completion of the Source Selection Phase, and the initiation of the Implementation Phase.

### **Contract Budget Baseline**

The negotiated contract cost plus the estimated cost of authorized but unnegotiated work.

### **Contract Change Notice**

**CCN**

A written notice, signed by the Contracting Officer, directing the Contractor to make specific changes to the contractual effort. Cost and schedule impact of the change are to be negotiated. Also called Contract Change Order (CCO).

### **Contract Change Order**

**CCO**

See Contract Change Notice

### Contract Changes

Contract changes are described in the Federal Acquisition Regulations (FAR) part 43-2. The following is an excerpt from the clauses, part 52.243 of the FAR:

"Under the change clause, the Contracting Officer may at any time, by written order, unilaterally make changes within the general scope of the contract to the drawings, designs, specifications, method of shipment or packing, and/or place of delivery. If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under the contract, whether or not changed by the order, or otherwise affects any other terms and conditions of the contract, the Contracting Officer shall make an equitable adjustment in the (1) estimated cost, delivery, or completion schedule, or both; (2) amount of any fixed fee; and (3) other affected terms and shall modify the contract accordingly."

The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order.

The general scope of the contract has been defined by case law as what was fairly and reasonable contemplated when the contract was entered into.

### Contract Data Classification Guide

**CDCG**

A government document providing rules for classifying data created on a project.

### Contract Documentation Requirements List

**CDRL**

(formerly Contract Data Requirements List)

A listing of documentation required and quantities to be delivered by the contract under terms of the contract. Documentation Requirements Descriptions (DRDs) define the required content of each CDRL item. CDRL is defined as "Contract Data Requirements List" in Department of Defense contracts.

### Contract Funds Status Report

**CFSR**

A report normally required to be submitted by the Contract Documentation Requirements List (CDRL) on cost or incentive type contracts to inform the Buyer of funds used and status of remaining funds. While not used on Firm Fixed Price Contracts, they are used on Fixed Price Incentive Fee (FPIF) contracts.

### **Contract Implementation Review**

### **CIR (1)**

The Joint Control Gate at which the Government reviews and approves the Contractor's Implementation Plan. The CIR is the joint Government and Contractor decision point for commitment to the Implementation Plan. The Contract Implementation Review is the first formal meeting between the Government Project Team and the Contractor Project Team. The CIR is convened by the Government to:

- Introduce the respective teams and to initiate the teamwork relationships of all participants
- Review all elements of the negotiated contract to demonstrate mutual understanding and to resolve any issues remaining from contract negotiation
- Present the business conduct ground rules as previously determined by the COTR and Contractor Project Manager in private session with their contract specialists
- Provide a constructive challenge of the Contractor management plan from the Government's perspective and achieve agreement on the plan
- Gain an understanding and provide approval of the Contractor's method(s) of implementing the Implementation Plan.

*This review has also been called a "Start-Up" Review, "Initial Design" Review, or, **incorrectly**, "System Requirements Review."*

### **Contract Information File**

### **CONIF**

An Agency-wide database system maintained by the Office of Logistics for tracking acquisitions, contractor performance, and contractor payment.

### **Contract Inspection Report**

### **CIR (2)**

A Contract Information File (CONIF) form filled out periodically by the Agency COTR indicating their contractor's progress on the contract.

## **Contract Line Item Numbers**

**CLIN**

A structure used in many Request for Proposals (RFPs) to describe deliverables under the contract. The use of CLINs usually requires separate pricing for each identified deliverable. (FAR Standard Form 1411, line 8).

## **Contract Manager**

The corporate manager responsible for overseeing all aspects of contract preparation and administration. The contract manager will usually be present at negotiations, but will not usually be the lead negotiator for the firm.

## **Contract Modification**

Any unilateral or bilateral written alteration in the specification, delivery point, rate or delivery, contract period, price, quantity, or other provision of an existing contract, accomplished in accordance with a contract clause (for example, change order, notice of termination, supplemental agreement, or exercise of a contract option).

## **Contract Negotiations**

The process of Government and Contractor discussion and position modification until mutual agreement is reached on contract content, including technical, cost and schedule performance.

## **Contract Target Cost**

**CTC (2)**

The negotiated cost for the original definitized contract and all contractual changes which have been definitized, but excluding the estimated cost of any authorized, unpriced changes. The CTC equals the value of the Budget At Completion (BAC) plus management reserve, when there is no authorized, unpriced work.

## **Contract Target Price**

**CTP**

The negotiated estimated cost (Contract Target Cost) plus profit or fee.

## **Contract Type**



The specific pricing arrangement employed for the performance of work under contract. Specific pricing (or compensation) arrangements, expressed as contract types, include firm-fixed-price, fixed-price-incentive, cost-plus-fixed-fee, cost-plus-incentive-fee, and several others. Among special arrangements that use fixed-price or cost-reimbursement pricing provisions are types called indefinite delivery contracts, basic ordering agreements, letter contracts, and others.

### **Contract Work Breakdown Structure**

### **CWBS**

The hierarchical decomposition of the system into components and associated work tasks to satisfy the Contract Statement of Work. The CWBS is developed down to assignable work packages which are to be defined, scheduled, budgeted, statused, and controlled.

### **Contracting Officer**

**CO (2)**

An official designated by the head of the Government agency to have the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. Includes certain authorized representatives of the Contracting Officer (CO) acting within the limits of their authority as delegated by the CO. Also called Procurement Officer or Procuring Contracting Officer (PCO).

### **Contracting Officer's Representative**

**COR**

A person delegated authority by the Contracting Officer to act on behalf of the Contracting Officer in specifically defined areas, usually administrative in nature.

### **Contracting Officer's Representative**

**COR**

The Government technical officer who assists the Contracting Officer in ensuring that the contract proceeds to successful completion in accordance with the terms of the contract. As specified in the Federal Acquisition Regulations (FAR 1.603), the scope of responsibility and authority of the COR is defined by the Contracting Officer for each specific procurement, and the COR's role is defined in the actual contract document. The COR's responsibility encompasses Contractor technical performance, schedule performance and cost performance. However, the COR may not unilaterally direct any change or make any commitment, either formal or informal, which may involve a change in consideration or legal aspects of any provisions in the contract without concurrence of the Contracting Officer.

### **Contractor**

A private-sector organization that enters into contracts with the Government.

### **Contractor Furnished Equipment**

**CFE**

Equipment owned by the Contractor that is committed to be used in the execution of a contract.

### **Contractor Management Systems Evaluation Program**

**CMSEP**

Formal evaluation by the Government of the Contractor's internal systems for managing cost and schedule. This program is required on contracts that exceed \$160 million, or exceed \$40 million in research and development, and incorporate Cost/Schedule Control System Criteria (C/SCSC).

### **Contractor Project Office**

**CPO**

The Contractor Project Management Office responsible for managing a specific project.

### **Contractor Proposal**

A document submitted by the Seller to the Buyer describing the technical approach, management approach, cost and fee or price required to meet the contract requirements described in the Request For Proposal (RFP).

### **Contractor System Status Review (Audit performed by DCAS)**

**CSSR**

A Government audit of a Contractor to verify that the Contractor documents and implements management and production practices consistent with current and/or anticipated contract requirements.

### **Control Gate**

A management event in the Project Cycle that is of sufficient importance to be identified, defined and included in the Project Schedule by Executive Management or the Project Office in Government and Industry. A Control Gate requires formal examination to evaluate Project Status and to obtain approval to proceed to the next management event.

### **Corrective Action**

Reactive actions taken (1) to return the project to plan and (2) to ensure that identified deficiencies will never recur.

### **Cost Account**

An accounting system identifier used by project participants to charge time and other allowable charges to a specific project. The Cost Account facilitates management reporting, status and control of project costs. In Performance Measurement Systems, the Cost Account usually comprises work packages and is the lowest summation level in the Work Breakdown Structure (WBS).

### **Cost Account Manager**

**CAM (2)**

The individual responsible for managing a Cost Account or task. Also called a Task Manager.

### **Cost Accounting Standards**

### **CAS**

In 1970, Congress established a Cost Accounting Standards Board, with the charter to establish guidelines for a uniform approach to accounting practices on the part of Government Contractors. PL91-379 requires defense contractors to comply with these Cost Accounting Standards and to disclose, in writing, and to follow consistently their cost accounting practices. The disclosure is submitted to the Government for approval, usually the Defense Contract Audit Agency (DCAA), and the Contractor is audited against the disclosure. These standards establish the basis for overhead and General and Administrative (G&A) accumulation and application. The Federal Acquisition Regulations (FAR) specifically state that Cost Accounting Standards (CAS) do not apply to sealed bid contracts or to any contract with a small business concern.

### **Cost Analysis**

The review and analysis of the cost elements of a proposal. The evaluation is performed by comparing the basis of estimate for each cost element in the Work Breakdown Structure to the effort described in the technical proposal. It also includes verification of cost data, evaluation of specific elements of costs, and projection of these data to determine the effect on price. Some form of cost analysis is required as an integral part of all proposal evaluations. Price analysis is used for contracts below \$500,000.

### **Cost Evaluation Team**

### **CET**

A government team, identified in the Source Selection Plan (SSP), convened by the Chairperson of the Source Evaluation Board, to analyze and evaluate the cost volume of proposals submitted in response to an RFP.

### **Cost Overrun (or Underrun)**

A net change in contractual amount over (or under) that contemplated by a contract target price (for fixed-price-incentive type contracts), estimated cost ( for cost-reimbursement type contracts), or redeterminable price (for fixed-price-redeterminable type contracts).

### **Cost Performance Index**

### **CPI**

A factor normally associated with performance measurement systems that relates expected performance (Budgeted Cost of Work Performed) to actual performance (Actual Cost of Work Performed). The formula is  $CPI = BCWP/ACWP$ . A factor of 1.0 means that the value of work accomplished is as expected. Less than 1.0 indicates that costs are higher than expected, and more than 1.0 signifies that the costs are lower than expected for the amount of work accomplished.

### **Cost Performance Report**

**CPR**

A set of five performance status reports associated with Cost/Schedule Control System Criteria (C/SCSC) performance measurement. The first four reports present project budget and actuals as a function of Work Breakdown Structure, functional organization, Baseline, and manpower. The fifth report is the Variance Analysis.

### **Cost Plus Award Fee**

**CPAF**

A cost-reimbursement type contract with Award Fee provisions to provide motivation and to reward Contractors for performance in such areas as quality, timeliness, efficiency, and cost effectiveness. The amount of the Award Fee paid is determined by the Government's subjective evaluation of the Contractor's performance in terms of the criteria established for the evaluation period. See also Award Fee and Fixed Price Award Fee.

### **Cost Plus Fixed Fee**

**CPFF**

A cost-reimbursement type contract which provides for the payment of a fixed fee to the Contractor. The fixed fee, once negotiated, does not vary even though the costs may exceed the original estimate. It may be adjusted however, as a result of approved contract changes.

### **Cost Plus Incentive Fee**

**CPIF**

A cost-reimbursement contract that provides for an initially negotiated target cost and incentive targets to motivate the Contractor. This contract type usually specifies a target cost, minimum and maximum fees, and an incentive fee adjustment formula. The Incentive Fee criteria are established during contract negotiation before the start of the contract and cannot be changed without renegotiation (unlike Award Fee).

### **Cost Plus Incentive Fee With Ceiling Price**

Like CPIF except that when the project reaches the ceiling price, the seller assumes total financial responsibility. Since the contract is a "best effort" contract, the contractor may proceed in order to honor promises made to the buyer.

### **Cost Plus No Fee**

### **CPNF**

A cost-reimbursement contract that provides payment to a Contractor for allowable costs only. No fee is paid to the Contractor. CPNF contracts are often awarded to universities and other non-profit organizations.

### **Cost Variance**

### **CV**

A performance measurement value obtained by subtracting Actual Cost of Work Performed (ACWP) from Budgeted Cost of Work Performed (BCWP).

### **Cost-Reimbursement Contract**

A legally binding document that provides payment to a Contractor for allowable costs as prescribed by the contract. The Contractor is required to provide "best effort" to meet contract requirements.

### **Cost-Sharing Contract**

A legally binding document that provides payment to a Contractor for a share of allowable costs only. Cost Sharing contracts are often awarded to motivate development of new technologies.

### **Cost/Schedule Control System Criteria**

**C/SCSC**

A Performance Measurement System for project status (not control) defined by DoD Instruction 5000.2. Provides for Cost Performance Reports (CPR) or Cost/Schedule Status Reports (C/SSR), and Contract Funds Status Report (CFSR).

### **Cost/Schedule Status Report**

**C/SSR**

A report associated with Cost/Schedule Control System Criteria (C/SCSC) performance measurement used when formal compliance with C/SCSC is not required. It requires two status reports: budgets and actuals by Work Breakdown Structure (WBS), and a Variance Analysis Report. The monthly C/SSR report has less information than the WBS Cost Performance Report in that it provides cumulative-to-date status, but does not provide current month incremental status data. (Reference: Cost/Schedule Control Systems Criteria Joint Implementation Guide, DCAA P7641.7, Oct. 1987, pg. viii.)

### **Critical Design Review**

**CDR**

A series of Joint Control Gates at which the Government COTR reviews and approves the Contractor's "Build-to" baseline as evidenced by detailed "Build-to" and "Code-to" documentation and approves proceeding with fabrication and coding. All hardware, software, handling equipment, test equipment, and tooling should be reviewed in the ascending order of assembly to system.

### **Critical Path**

The sequence of project activities for which there is minimum or zero slack. The critical path paces the project schedule.

### **Critical Path Method**

**CPM**

A project schedule network development approach that analyzes the network and determines the project's critical path. A single estimate is made for the duration of each task in the network. This distinguishes CPM from PERT, which uses three estimates for the duration of each task: earliest, nominal, and latest finish.

### **Cure Notice**

A written delinquency notice to a Contractor informing them that they have failed to perform, and if performance does not take place within a stipulated period of time, the Government may terminate the contract.

### **Customer**

An individual or organization that specifies the requirements for, and formally accepts, delivery of a new or modified hardware/software system and its documentation.

## **D**

### **Data Item Description (see DRD)**

### **DID**

A detailed outline of the required content of a Contract Documentation Requirements List (CDRL) required document. It often includes a sample table of contents. See also Documentation Requirements Description (DRD).

### **DCAS Plant Representative Office**

### **DCASPRO**

DCASPRO has been renamed Defense Plant Representative Office (DPRO) and has expanded to incorporate the functions of the AFPRO and NAVPRO. The new DPRO organization is part of the Defense Contractor Administrative Service (DCAS).



## **Deactivation Approval Review**

**DAR**

The Deactivation Approval Review (DAR) is a Government Control Gate held at the end of the project to approve the Deactivation Plan and the Deactivation Procedures.

## **Deactivation Phase**

The ninth and last phase of the system acquisition project cycle. This phase includes the proper handling and disposal of all hazardous materials and begins with the decision to deactivate the system at the Deactivation Approval Review and ends after all deactivation procedures and the Project Completion Review have been completed.

## **Deactivation Plan**

The document that describes the approach and critical processes required to convert the operational project to the safe, deactivated or disposed of state. It includes methods of shutdown, disposition of records and hardware, security issues, and transition to new or follow-on systems. The plan may include lessons learned, disposition of items of historical interest, environmentally sensitive and hazardous materials issues, etc.

## **Deactivation Procedures**

Step-by-step instructions on how to safely deactivate and dispose of an operating system.

## **Debriefing**

In the procurement process, informing an unsuccessful Offeror about the strengths and weaknesses of their proposal as evaluated by the Government.

## **Decision Coordinating Papers (DoD only)**

A Government document describing the Government's intention to acquire a system.

## **Decision Support Data**

Decision support data can include analysis, trade study results, test results, data from model and simulation studies, engineering data and customer inputs. These data support trade study decisions at each level of decomposition and integration.

### **Decomposition**

The hierarchical, functional, and physical partitioning of any system into hardware assemblies, software components, and operator activities that can be scheduled, budgeted, and assigned to a responsible manager.

### **Decomposition Diagrams - HW and SW**

The noun levels of the WBS that illustrate the system decomposition and integration approach

### **Default**

A Contractor's failure to fulfill the terms of a contract.

### **Defect**

An unintentional condition in a hardware/software system that, when encountered, may cause the system to fail to perform its intended function.

### **Defective Pricing**

Contractor failure to provide current, accurate, and complete cost or pricing data for a contract negotiation, subject to United States Public Law (PL) 87-653.

### **Defense Advanced Research Projects Agency**

### **DARPA**

An agency of the Department of Defense that is chartered to develop new technologies. DARPA sends an order with funds to other Government agencies to issue contracts for basic and applied research. Current areas of interest include: artificial intelligence; robotics; supercomputing; high speed communication networks; and software development.

### **Defense Contract Administration Service**

### **DCAS**

An operating unit of the Defense Logistics Agency, charged with providing services for the benefit of the Government in or near the Contractor's facility. These services often include:

- Contract Administration
- Quality Assurance
- Engineering and production assistance
- Coordination of materials management, industrial security, and transportation.

DCAS employs 19,000 people overseeing more than 28,000 contractor facilities in five regions. The regions are subdivided into Management Area Operations, composed of one or more plant offices.

### **Defense Contract Audit Agency**

### **DCAA**

An agency of the office of the Assistant Secretary of Defense (Comptroller) charged with oversight and audit of the Contractor's accounting system and cost records. The DCAA is an integral part of contract administration and works closely with the Government Program Office and the DCAS.

### **Defense Contract Management Area Operation**

### **DCMAO**

A geographic division of Defense Contract Administration Service's Defense Contract Management Regions. Each management area comprises one or more plant offices.

### **Defense Contract Management Region**

### **DCMR**

One of five geographic divisions of the Defense Contract Administration Service. Each region is further subdivided into Management Area Operations.

### **Defense Logistics Agency**

**DLA**

An agency of the Department of Defense charged with logistic support to the military services. Specific support includes warehousing, transportation, maintenance, and contract services.

### **Defense Plant Representative Office**

**DPRO**

An on-site team from the Defense Contract Administration Service. The DPRO provides services to the Contractor by direction of the Principal Contracting Officer for the benefit of the Government. Services often include quality assurance, transportation and security support, and Administration Contracting Officer support. DPRO is the new name for DCASPRO, AFPRO, and NAVPRO.

### **Defense Priorities and Allocations Systems**

**DPAS**

Under a Department of Commerce regulation, orders for goods and services procured in the national interest may be rated and must be accorded preferential treatment with respect to deliveries and performance. The ratings are DO and DX. DO rated orders supersede the priority of unrated orders, and DX rated orders supersede DO rated orders.

### **Defense Systems Management College**

**DSMC**

A DoD college dedicated to educating persons in the DoD systems acquisition process, both military and civilian in government and industry, and conducting research to support and improve DoD acquisition program management. The Commandant reports to the USD(A).

### Deficiency

When used as a contractual term, deficiency means any part of a proposal that fails to satisfy the Buyer's stated requirements. Deficiencies include:

- Omitted data
- Performance or specification below the minimum requirements
- Unacceptable risk
- Undesirable performance

Deficiencies must be identified during, not after, the proposal evaluation effort. Where possible, evaluators should determine the remedy to a deficiency, and assess the impact of that remedy on the acceptability of the proposal. See also FAR Subpart 15.601

### Definition

The process of quantifying functional performance requirements and documenting them in performance specifications throughout the system hierarchy as the system is decomposed and analyzed.

### Demonstration

compliance by witnessing how something works or operates.

A method used to verify

### Department of Defense

One of the major departments of the executive branch of the US Federal Government. DoD is responsible for the armed forces, and per the Constitution, "provides for the common defense..."

### DoD

### Department of Defense Project Cycle

The project cycle used by the Department of Defense consists of five phases and five milestones. The phases are: Concept Exploration and Definition (CE/D); Demonstration and Validation (D/V); Engineering and Manufacturing Development (E/MD); Production and Deployment (P/D); and Operations and Support (O/S). Milestone 0, Concept Studies Approval, occurs prior to the start of the CE/D phase. Milestone 1, Concept Demonstration Approval, occurs between the CE/D and D/V phases. Milestone 2, Development Approval, occurs between the D/V and E/MD phases. Milestone 3, Production Approval, occurs between the E/MD and P/D phases. Milestone 4, Major Modification Approval, occurs during the O/S phase.

### **Department of Defense Specification**

### **DoD-SPEC**

Specifications and drawings published by the Department of Defense for common DoD purchases. DoD-SPECs are product-oriented and describe the "what." Under a previous system of MIL- and DoD-SPECs, MIL was reserved for documents using the "inch/pound" measurement system, and DoD was reserved for metric, or non-measurement sensitive documents. This system has been abandoned, and DoD documents will be relabeled MIL.

### **Department of Defense Standard**

### **DoD-STD**

A document published by the Department of Defense that provides guidelines for the design, test, and manufacture of items to be procured by the DoD. DoD-STDs are process-, method-, and practice-oriented, and describe the "how." Under a previous system of MIL- and DoD-STDs, MIL was reserved for documents using the "inch/pound" measurement system, and DoD was reserved for metric, or non-measurement sensitive documents. This system has been abandoned, and DoD documents will be relabeled MIL at the next revision.

## Deployment Phase

The seventh of nine phases of the Project Cycle. It follows the Implementation Phase and begins the Operations Period. The Contractor Project Office objective is to secure Government Project Office approval of the readiness to deploy the completed system. The Government Project Office objective is to transfer the system operation to the User. The phase starts with the Deployment Readiness Review (DRR), and ends with satisfactory completion of the User Validation Readiness Review (URR). The Government, with Contractor assistance as specified, prepares the system for deployment, deploys the system and performs sufficient operational performance verification to confirm the system is ready for user operation. The Deployment Readiness Certificate and the Operational Readiness Certificate are prepared in this phase.

## Deployment Lessons Learned Document

The document that records the lessons learned from the deployment and system validation activities of the project. Reviews the total deployment experience and documents the positive and negative Lessons Learned. Includes recommendations for similar deployments.

## Deployment Plan

Definition of all activities necessary to relocate the system from the factory environment to the staging site or operational mode. Typically includes marking, packaging, shipping, transportation, precautions, transportation environment, unpacking, assembly, and special risk management actions.

## Deployment Readiness Certificate

**DRC**

A document prepared by the Contractor Project Office for approval by the Government Project Office, signifying the readiness to deploy the completed system.

## Deployment Readiness Review

**DRR**

The Joint Control Gate to determine that the system presented for review, and all supporting systems and functions, are ready for system deployment into the operational environment. For space systems, this review is the Launch Readiness Review. For ground based systems, this review is the Consent to Ship Review.

## Derived Requirements

Developed requirement values, for lower levels of the system hierarchy, determined by quantitative trade-off analyses of validated data.

### **Design**

The process of developing and documenting a solution to a problem using technology experts and tools.

### **Design Concept Description Document**

A description of the system organization that comprises Hardware Configuration Items (HWCI), Computer Software Configuration Items (CSCI), and manual operations. It describes how the system specifications are grouped and allocated to the Configuration Items and the characteristics of each Configuration Item. This document serves several purposes: (a) it is the basis of agreement between the Contractor and Government on the definition of the Configuration Items; (b) it is the basis for the identification of Configuration Items specification and interface specifications; and (c) it provides an overview of the system that may be used in operations manuals and in training. The document is written by the Contractor and approved by the Government at the Design Concept Review.

### **Design Concept Review**

**DCR**

The Joint Control Gate at which the Government COTR approves the Contractor's design concept and authorizes the Contractor to proceed with development of the "Design-to" specifications for all aspects of the project. Hardware, software, handling equipment, test equipment and tooling should be reviewed in the sequential order of system to assembly. This review will show whether the Contractor intends to follow the concept of the Contractor's winning proposal, or if more attractive concepts have been conceived and are now being recommended to the Government.

### **Design, Development, Test, and Evaluation**

**DDT&E**

A name sometimes applied to the Implementation Phase of the Project Cycle.

### **Design To Cost**

**DTC**

A process using unit cost goals as thresholds for managers and design parameters for engineers. This cost represents what the Buyer has determined it can afford to pay for equipment which meets established and measurable technical specifications at a specified production quantity and rate during a specified period of time.



## **Design-to Specifications**

A document that defines the system "Design-to" baseline performance requirements of Configuration Items that both Buyer and Seller have agreed upon. The specified performance is determined through system analysis and trade-offs driven by the top level System Performance Specification. See also Development Specifications

## **Detailed Design**

The major activity in the 2167A development process during which preliminary design is refined and expanded to contain more detailed descriptions of the processing logic, data structures, and data definitions.

## **Development Specifications (Type B)**

Development Specifications, referred to as Type B in MIL-STD-490, define the allocated design-to baseline requirements of lower level Configuration Items. The specified performance is determined through system analysis and tradeoffs driven by the top level (Type A) system specification. DoD Categories of Type B (MIL-STD-490) specifications are:

- B1 - Prime Item Development
- B2 - Critical Item Development
- B3 - Noncomplex Item Development
- B4 - Facility Development
- B5 - Computer Program Development

Preliminary Development Specifications are released after approval at the Hardware Specification Review or the Software Specification Review. Development Specifications are released after approval at the Configuration Item Preliminary Design Review(s).

## **Development, Test, and Evaluation**

## **DT&E**

A phase in the Department of Defense (DoD) project cycle. Corresponds to the System Development or Implementation Phase of the Acquisition Period.

### **Developmental Configuration**

The Contractor's software and associated technical documentation that defines the evolving configuration of a CSCI during development. It is under the development Contractor's configuration control and describes the software design and implementation. The Developmental Configuration for a CSCI consists of a Software Design Document and source code listings. Any item of the Developmental Configuration may be stored on electronic media.

### **Deviation**

A specific written authorization, granted prior to the manufacture of an item, to depart from a particular performance or design specification, drawing or other document for a specific number of items or a specific period of time. A deviation usually includes financial consideration to compensate for reduced performance.

### **Direct Cost**

An allowable cost directly attributable to the project. It may include labor, material, subcontractors, computer hours, and other expenses.

### **Director**

A level in a management hierarchy.

### **Directorate Program Plan**

A document prepared by the Deputy Director's staff in response to the Comptroller's Program and Budget Call requesting funding for all of the Directorate's projects. Resources requested for new initiatives, ongoing initiatives, and base are submitted to the Comptroller for approval during the Budget Formulation Year, the first year in the three-year budget cycle.

### **Discrepancy Report**

**DR**

A document prepared by the Contractor's quality group to document discrepant items and to require corrective action.

### **Discrete Task**

A short duration, measurable activity that delivers a product and that has a start and stop point.

### **Discussion**

Any written or oral communications between the Contracting Officer and the Offeror, initiated by the Government, that involves information essential for determining the acceptability of a proposal.

### **Documentation**

Any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures or results.

### **Documentation Change Notice**

A notice to holders of controlled documentation notifying the recipient of changes.

### **Documentation (or Data) Management Officer**

**DMO**

The project person responsible for documentation management of all project documents, especially Contract Documentation Requirements List (CDRL) and Subcontractor Documentation Requirements List (SDRL) items.

### **Documentation Requirements Description**

**DRD**

Formerly Data Item Description. A detailed account of the required content of a document identified in the Contract Documentation Requirements List (CDRL). Often includes a sample table of contents. See also Data Item Description (DID).

## **E**

### **Earned Value**

**EV**

The Budgeted Cost of Work Performed (BCWP). A financial measurement of schedule accomplishment in Performance Measurement Systems.

### **Eighty-Twenty Rule**

A term created by Pareto, an Italian sociologist, meaning that a process or methodology will accommodate 80% of the situations that arise, with 20% of the situations requiring handling on a case-by-case basis.

### **Electromagnetic Compatibility**

**EMC**

Assurance that the performance of assemblies and systems is not impaired by the electromagnetic environment and are mutually compatible with each other.

### **Electromagnetic Interference**

**EMI**

Emissions by electrical and electronic systems that adversely affect other systems. EMI is often mitigated by shielding.

### **Electronic Counter-Countermeasures**

**ECCM**

Techniques used to mitigate the effects of an opponent's Electronic Countermeasures. Most often referred to as antijamming systems.

### **Electronic Countermeasures**

**ECM**

Radio emissions used to jam communications channels or to mislead ground- and aircraft- based RADAR systems.

### **Electronic Warfare**

**EW**

A discipline that concentrates on concealing friendly radio transmissions and aircraft positions and mitigating the effects of an opponent's electronic warfare measures. Also includes electronic jamming of opponent's electrical communications.

### **Element**

A member in the same hierarchy consisting of subsystems that are entirely hardware, software, or a combination of both. Level 3 in the system hierarchy.

### **End Item**

**EI**

A contract deliverable.

### **Engineering Change Notice**

**ECN**

The formal release of an engineering change to the participating organizations.

See Engineering Order (EO).

### **Engineering Change Proposal**

**ECP**

A proposal submitted by the Seller in response to a Buyer request for an Engineering Change Proposal to change the existing contract effort. The request for an Engineering Change Proposal can be initiated only by the Buyer. This activity is usually preceded by a Request For Change. A Request For Change to the contract, an exploratory activity, can be initiated by either the User, Buyer, or the Seller.

### **Engineering Change Request**

**ECR**

A request to consider a technical change to the technical baseline submitted to a Change Control Board.

### **Engineering Cost Estimate**

Estimate derived by summing detailed cost analysis of the individual work packages and adding appropriate burdens. Usually determined by a Contractor's performing organizations, price analysts, and cost accountants.

### **Engineering Development Model**

**EDM**

A technical demonstration model constructed to be tested in a simulated or actual field environment. The model meets electrical and mechanical performance specifications, and either meets or closely approaches meeting the size, shape, and weight specifications. It may lack the high-reliability parts required to meet the reliability and environmental specifications, but is designed to readily incorporate such changes in the prototype and final production units. Its function is to test and evaluate operational performance and utility before making a final commitment to produce the operational units. Also called an Engineering Model

### **Engineering Estimate**

An estimate of labor hours, material, and computer support to accomplish a task or a group of tasks.

### **Engineering Model**

See Engineering Development Model.

### **Engineering Order**

**EO**

Documented technical direction from the Contractor's engineering organization to production to change the released engineering. Engineering Orders are released through the Configuration Control process. Usually used to correct errors or improve producibility or the assembly process.

### **Engineering Review Board**

**ERB**

A committee of senior personnel from the functional engineering organizations convened to provide technical oversight to assist the Project Manager. Usually the ERB is convened at the request of the Project Manager. Members are appointed by the director of engineering or his/her designee. Also, it may be a group of experts convened by the chairperson of the Project Control Board to fact find and provide recommendations on technical changes requested.

### **Entitlement**

That portion of a claim that entitles a claimant to recover from the other party.

### **Equitable Adjustment**

The price or target cost adjustment to which a Contractor is entitled upon the occurrence of some special event, such as the issuance of a contract change. The negotiation of an equitable adjustment normally begins when the Contractor submits a proposal following the direction of a change by the Contracting Officer or the recognition of a constructive change.

### **Error**

A discrepancy between a computed, observed, or measured value or condition and the true, specified, or theoretically correct value or condition.

## Essentials of Project Management

Common Vocabulary, Teamwork, Project Cycle, Project Management Elements.

### Estimate At Completion

**EAC**

Actual cost of work completed to date plus the predicted costs and schedule for finishing the remaining work.

### Estimate To Complete

**ETC**

The predicted costs and schedule to be incurred to complete the remaining work.

### Estimated Completion Date

**ECD**

The predicted date at which all requirements for a defined task will be completed.

### Estimated Time to Repair

**ETR**

The predicted time to correct specified system or assembly deficiencies based on spares availability, defect accessibility and time required to make the correction.

## Evaluation

The process of determining whether an item or activity meets specified criteria.

### Evaluation Criteria (Proposal)

Standards established by the Buyer prior to release of a Request For Proposal, to evaluate the responsiveness of Seller proposals. Proposal evaluation criteria are subject to review and approval at the Source Selection Initiation Review convened by buyer management. The evaluation criteria are provided to the bidders as part of Section M of the Request for Proposal.

## Evaluation Factors



Those elements the Buyer considers most important to the successful accomplishment of the requirement and to form the basis for proposal evaluation.

### **Evolutionary Development**

A software development life cycle whose states consist of expanding increments of an operational hardware/software product. The contents of each increment are determined through operational experience with the previous increments.

### **Executive Control Gate**

A Control Gate identified, defined, and included in the Project Schedule by either Government or Industry Executive Management. Executive Control Gates are internal to the Government or the Contractor, as appropriate.

### **Executive Management**

Senior managers responsible for overall direction, policy, and priorities.

## **F**

### **Facilities Capital Cost of Money (CAS 414)**

### **FCCM**

A Government reimbursement factor to compensate contractors for contract use of Contractor-owned facilities and capital. Also known as CAS 414

### **Factfinding**

The discovery process by which a proposal is reviewed to fully understand the offer. The review is part of the formal source selection process and must be performed with and through the Government Contracting Officer. It may take the form of written questions submitted by the evaluation teams to the Contractor through the Contracting Officer. Alternatively, it may be a meeting between respective Contractor and Government personnel, called and chaired by the Contracting Officer, after formal questions have been submitted to the Contractor for response. Factfinding is frequently a prerequisite for establishing negotiation strategy. May also occur between Prime Contractor and subcontractor.

### **Factory Acceptance Test**

### **FAT (1)**

The Contractor-conducted, Government-witnessed system performance test to acquire quantitative, official performance data on which to base system acceptance. Factory Acceptance Test is performed at the place of manufacture or software development, as opposed to on-site tests performed after installation in the customer's facility.

### **Failure**

The inability of a system or component to perform its required function within the specified limits.

### **Failure Mode and Effects Analysis**

### **FMEA**

A study to analyze the potential failure modes of a system and the resulting consequences. The analysis usually leads to decisions to accept risk or actions to reduce the probability of serious failures (i.e., single point catastrophic failures).

### **Failure Mode, Effects, and Criticality Analysis**

### **FMECA**

A study to analyze the potential failure modes of a system, the resulting consequences, and actions to reduce the probability of serious failures (i.e., single point catastrophic failures).

### **Failure Review Board**

### **FRB**

A team of experts convened at the incidence of a failure to determine the best approach to failure diagnosis and resolution.

### **Fair and Reasonable Cost**

A cost is fair and reasonable if, in its nature or amount, it does not exceed what would be incurred by an ordinary, prudent person in the conduct of competitive business.

### **Fault**

A manifestation of an error in a system. A fault, when encountered, may cause the system to fail to perform its intended function.

### **Feasibility Study**

An evaluation to determine if a project is technically achievable within a reasonable cost. Feasibility must be established in the study period.

### **Federal Acquisition Regulations**

**FAR**

Federal Government standards governing the acceptable practices for procuring systems and services from industry.

### **Fee**

A negotiated dollar amount to motivate and to compensate the Contractor for contract performance. The value can reflect a variety of factors, including technical, cost, schedule, and management performance. A fee may be fixed or vary in accordance with an incentive or award formula.

### **Final Contract Review**

**FCR (1)**

A Joint Control Gate at which the Government Project Office reviews and approves the Contractor's contract close-out. The FCR is the last joint Government and Contractor Control Gate and signals the end of the Government/Contractor relationship on the project.

### **Final Design**

The documented design that describes the ultimate "As-Delivered" configuration to provide for system or assembly replication. It includes both manufacturing improvements and integration and test corrective actions.

### **Final Proposal Review**

**FPR (1)**

The Company Executive Control Gate for Executive Management to constructively challenge the proposal to ensure that a high quality competitive proposal has been prepared in response to the Government Request for Proposal and that Executive Management will support the effort if the company wins the award. The FPR is the decision point for management approval to deliver the proposal to the Government.

### **Firm Fixed Price Contract**

**FFP**

A contract that provides for a price that is not subject to adjustment by reason of the cost experience of the Contractor in the performance of the contract. It is used for contracts where costs can be estimated with reasonable accuracy to enable the negotiation of a fair price and Contractor assumption of cost risk.

### **Firmware**

The combination of a hardware device and computer instructions or computer data that reside as read-only software on the hardware device. The software cannot be readily modified under program control.

### **First Article Test**

**FAT (2)**

Tests performed on the first production article. These tests are usually more comprehensive than acceptance tests performed on subsequent articles.

### **Fiscal Year**

**FY**

Any 12-month period designated by an organization for financial planning and reporting purposes. The US Federal Government's fiscal year is 1 October through 30 September. For instance, the Government FY 97 starts 1 October 1996 and ends 30 September 1997.

### **Fixed Price Award Fee**

**FPAF**

## **Project Management Terminology Manual**

A completion type of contract based on the establishment of a firm fixed price to complete the required work with an Award Fee incentive. The incentive is designed to motivate and reward the Contractor for contract performance in such areas as quality, timeliness, ingenuity and cooperation. The amount of the Award Fee is determined by the Buyer's subjective evaluation of the Contractor's performance against predetermined and negotiated criteria.

### **Fixed Price Contract**

**FP**

A category of contracts based on the establishment of a firm price. The contract must be completed by the Contractor under penalty of law. Penalties for failure to perform may include reprocurement costs. Various incentives and awards used in fixed price contracts are:

- Firm Fixed Price
- Fixed Price with Escalation
- Fixed Price Redeterminable
- Fixed Price Incentive
- Fixed Price Indeterminate Quantity
- Fixed Price Award Fee

### **Fixed Price Incentive Fee**

**FPIF**

A completion type of contract based on the establishment of a target price to complete the required work and an incentive fee provision. The negotiated fee is calculated from a formula based on the degree of risk assumed by the Contractor, or on other criteria such as cost, technical, or schedule performance. This contract type usually includes a target price, an incentive fee with minimum and maximum limits, and a calculated point of total assumption.

### **Fixed Price Redeterminable**

**FPR (2)**

A fixed price contract with prospective price redetermination provides for a firm fixed price for an initial period of contract deliveries or performance, and prospective redetermination, at a stated time or times during performance, of the price for subsequent periods of performance. This differs from the fixed ceiling price contract with retroactive price redetermination which has a fixed ceiling and retroactive redetermination within the ceiling after completion of the contract.

### **Float**

The amount of time an activity can be delayed without affecting any milestone. Normally, activities on the critical path have zero float. Float is also called slack.

### **Flow Chart**

A diagrammatic representation of a sequential process.

### **Formal Qualification Review**

**FQR**

A Joint Control Gate, also called Qualification Acceptance Review, at which the Government Project Office, based on analysis and test data, determines that the Contractor's design will survive the qualification environment as defined in the System Specifications. The FQR is the decision point for Government Project Office approval of the qualification certification. See also Qualification Acceptance Review (QAR).

### **Framastat**

A fictitious product name that is used to illustrate a point.

### **Freedom Of Information Act**

**FOIA**

A US public law that allows citizens to obtain data from Federal and State agencies. The agency holding the data must prove "overriding national interests" in order to avoid disclosing it.

### **Full and Open Competition**

The process by which all responsible Offerors are allowed to compete. Available competitive procedures include sealed bids, competitive proposals, a combination of competitive procedures (two-step) and other competitive procedures (for instance, A-E).

### **Full Operational Capability**

**FOC**

The attainment of specified system performance in the operational environment.

### **Function Points**

A software parameter which is quantified by inputs, outputs, master file inquiries, and system interfaces, all modified by a complexity factor. This measure is independent of the language used. Complementary to the Lines Of Code (LOC) measure used for estimating the cost of a project, quantifying maintenance responsibilities, and estimating enhancements.

## **Functional Configuration Audit**

**FCA**

An engineering audit of a Configuration Item (CI) or system conducted by the Government Project Office to verify that the performance test results of the "As- built" item are in accordance with the performance specification of the item. The FCA, with the results of the Physical Configuration Audit (PCA), is the decision point to confirm that the design is ready for either integration or replication. For single item systems, the FCA and PCA together form the System Acceptance Review (System AR).

## **Functional Manager**

The manager of like-disciplined support personnel. Also, a manager within a functional organization.

## **Functional Organization**

An organizational option in which project tasks are assigned to the functional skill units.

## **Funding Profile**

Time-phased project funding usually displayed in spreadsheet or graphical format.

# **G**

## **Gantt Chart**

A time-phased bar chart representation of both planned activities and actual performance.

## **General Accounting Office**

**GAO**

An agency of the legislative branch, responsible solely to the Congress, whose function is to audit all Government contracts and to investigate all matters relating to the receipt, disbursement, and application of public funds. It determines whether public funds are expended in accordance with appropriations.

## **General and Administrative Costs (Indirect Cost Element)**

**G&A**



## **Project Management Terminology Manual**

Expenses incurred or allocated to a business unit for the general management and administration of the business unit as a whole. Insurance, legal fees, bid and proposal, Independent Research and Development (IR&D), and interest expenses are examples of G&A costs. Specific content is specified in the Contractor's cost accounting disclosure.

### **General Provisions**

The mandatory (by law or regulation) clauses for all contracts for the type of procurement involved-sometimes called boiler plate. The clauses devised for a particular procurement are called the Special Provisions.

## **General Services Administration**

**GSA**

An agency of the Executive branch of US Federal Government. GSA's responsibilities include acting as "landlord" for most Government office buildings and specifying, procuring, and distributing routine purchases (stationery, vehicles, computers, and so forth). Contractor access to GSA procurement may be part of any specific contract if the Government desires.

## **GIDEP Alert**

Government Industry Data Exchange Program that alerts users to potential problems in piece parts.

## **Government**

Almost always refers to the United States Federal Government. Most often the term refers to a department of the Executive Branch.

## **Government Furnished Equipment**

**GFE**

Government-owned items made available to the Contractor for use on a specific contract.

## **Government Furnished Facilities**

**GFF**

Government-owned buildings, land, warehouses or other real estate made available to the Contractor for use on a specific contract.

## **Government Furnished Information**

**GFI**

Government-owned data made available to the Contractor for a specific contract.

## **Government Furnished Material**

**GFM**

Government-owned material or parts made available to the Contractor for a specific contract.

## **Government Furnished Property**

**GFP**

Government-owned property that is made available to the Contractor for a specific contract.

### **Government Off The Shelf**

**GOTS**

An item, software program or service readily available from the Government.

### **Government Owned, Contractor Operated (Facility)**

**GOCO**

A facility that is the property of the Government, but which is managed and operated by a Contractor under contract to the Government.

### **Government Owned, Government Operated (Facility)**

**GOGO**

A facility that is both owned and operated by the Government. The term is used primarily to differentiate areas that contain both Government employees and contract employees.

### **Government Program Office**

The Government office responsible for managing two or more projects.

### **Government Project Office (see also SPO)**

**GPO**

The Government office responsible for managing a specific project.

### **Ground Support Equipment**

**GSE**

Equipment used to service and supply airborne or spaceborne systems. Examples include power, air-conditioning, deicing, and other such equipment.

## **H**

### **Hardware**

**HW**

The physical portion of a system including the electrical, electronic, electromechanical, and mechanical components.

### **Hardware Configuration Item**

**HWCI**

A contractual term denoting a hardware component of a system, which is designated by the contracting agency for Configuration Management to ensure the integrity of the delivered product. It may exist at any level in the system hierarchy, since Configuration Management must be imposed down to the lowest level where item interchangeability is required. Each HWCI is to have (as appropriate) individual design reviews, individual qualification certification, individual Acceptance Reviews, and separate operator and maintenance manuals.

### **Hardware Specification Review**

**HSR**

A Contractor Control Gate at which the Contractor Project Office reviews the Preliminary Design Specifications for the Hardware Configuration Item(s). Final Design-to Specifications are released after approval at the Preliminary Design Review (PDR). The HSR is the decision point to proceed with preliminary design. See also Configuration Item Specification Review (CISR)

### **Headquarters**

**HQ**

The principal office of an organization, usually housing the top management and their supporting staff.

### **House Appropriations Committee**

**HAC**

A committee of the United States House of Representatives responsible for oversight of the use of Government funds. The HAC operates in conjunction with the House and Senate Budget Committees.

### **Human Computer Interface**

**HCI**

The shared boundary between the human operator and the software system. Replaces the older term "MMI" (Man-Machine Interface).



### Implementation Contract Completion Certificate

A document signed by the Government indicating that a contract or portion of a contract has been completed. A DD-250, signed by the Government, is one example of an Implementation Contract Completion Certificate.

### Implementation Phase

The sixth of nine phases of the Project Cycle, following the Source Selection Phase. The Contractor Project Office objective is to secure progressive Government Project Office approval of the Contractor's orderly satisfaction of the contract provisions. The Government Project Office objective is to create an environment of professionalism which inspires mutual trust, respect and teamwork, and to assist the Contractor in reaching their common goal - a successfully completed project. The phase begins with contract award and proceeds through a series of control gates which provide the Contractor with the Government's assessment of the Contractor's status and progress, formal approval to proceed to the next control point, and a commitment to support the on-going effort. The Contractor performs in accordance with the contract requirements, and the Implementation Plan is reviewed and approved at the Contract Implementation Review. The phase ends with the System Acceptance Review (SAR) and Government acceptance of the system. The Government schedules and chairs the control gates. The Implementation Plan, "Design-to" Specifications, Design Documentation, System Verification Plan and Test Procedures, "Build-to" Specifications, and Operations and Maintenance Documentation are all prepared in this phase.

### Implementation Plan

Formerly called "Project Plan," the Implementation Plan is the project plan for the Implementation Phase. The Implementation Plan is first developed by the contractor (seller) during the preparation of the proposal in response to the customer's Request for Proposal. This plan is the collection of all Contractor project planning documentation leading to the development of a well organized set of Project Work Estimating Documents and Subcontracts (which are binding only on winning the prime contract, and are subject to customer approval). After contract negotiation and contract award, the proposed Implementation Plan is updated to reflect the results of negotiation, and now contains the collection of all Contractor project planning documentation leading to the development and release of a well organized set of Project Work Authorizing Agreements and Subcontracts.

After contract award, the planning documentation usually includes:

- Contract Documentation,
- System Engineering Management Plan (SEMP),
- Project Products List and Fact Sheets,

- Work Breakdown Structure and Dictionary,
- Task Responsibility Matrix,
- Master Schedule with Milestones,
- Milestone Dictionary,
- Risk Management Plan,
- Detailed Functional (or Support or Product Center) Specialty Plans,
- Project Network Diagram,
- Detailed Schedules,
- Budgets,
- Work Authorizing Agreements, and
- Subcontracts.

### **Implementation Planning**

The methodical, disciplined process of converting all contractual and non-contractual project requirements into a logically sequenced set of Project Work Authorizing Agreements and Subcontracts. These agreements define and authorize all work to be performed by the Contractor and all Subcontractors under the control of the Contractor.

#### **Impossibility of Performance**

A common law concept that a contract is not enforceable because subsequent events have rendered the subject matter of the contract unattainable. This does not apply in cases where performance is merely inconvenient or is the cause of a loss from one party to the other. Similar principles are contained in the provisions of Government contracts preventing termination for default-type remedies, where a failure to perform is without fault or negligence of both the Prime Contractor and Subcontractors.

#### **In Accordance With**

#### **IAW**

A term used to imply that an activity, course of action, or statement complies with a law, regulation, standard, or reference document.

#### **In Scope**

Within the limits of the Contract Changes clause. See also Contract Changes.

### **In-house Visibility Meetings**

Meetings which keep personnel informed of project activities. Meetings include:

- News Flash - Each shift, a summary of accomplishments, activities, problems, corrective action, and expectations.
- Plan Violators - Weekly meetings with managers to review planned vs. actual results concerning personnel, schedule, or milestone satisfaction. Focus is on cause of variance and corrective action.
- Project Manager's Review - Meetings at least weekly with key project and functional personnel to thoroughly review project status and corrective action.

### **Incremental and Evolutionary Prototype**

The progressive maturing of a software or hardware product by building a simulation and developing it into the final product by the progressive introduction of required performance.

### **Incremental Development**

A hardware/software development life cycle that involves constructing a partial implementation of a system and gradually adding increased functionality or performance. Each increment is developed using all life cycle phases from analysis to integration and test. All increments are planned at the outset and agreed-to at the System Preliminary Design Review (System PDR).

### **Indefinite Quantity Contract**

The provision of an indefinite quantity, within specific limits, of specific supplies or services, by placing orders with the Contractor. The unit price and unit delivery schedule are negotiated prior to contract award, with delivery ordered on an as-needed basis post contract award.

### **Independent Development**

**ID (1)**

Activities funded entirely by a company, usually undertaken to enhance its competitive posture. This effort is supported in part by Government funds which the Company can allocate according to their cost

accounting standards. These funds are reimbursable in part through General and Administrative overhead expenses, based on annual negotiations with the Government. The proportion of Independent Development reimbursed depends on the relevance of the work performed to Department of Defense needs. Unreimbursed Independent Development is paid for by company profit. The Government's right to results from Contractor Independent Development studies is currently a contested issue.

### **Independent Government Cost Estimate**

### **IGCE**

The final "should cost" used as a baseline in evaluating proposals. See also "Should Cost."

### **Independent Research and Development**

### **IR&D**

A contractor's technical effort which is not sponsored by or required in performance of a contract. This includes projects within the areas of:

- Basic and applied research
- Technology development
- Systems and other concept formulation studies.

This effort is supported in part by Government funds which the Company can allocate according to their cost accounting disclosure. These funds are reimbursable in part through General and Administrative overhead expenses, based on annual negotiations with the Government. The proportion of IR&D reimbursed depends on the relevance of the work performed to Department of Defense needs. Unreimbursed IR&D is paid for by Company profit. The Government right to results from Contractor IR&D studies is currently a contested issue.

### **Independent Verification and Validation**

### **IV&V**

The process of confirming that the design or execution of a system or Configuration Item meets all requirements. This process must be performed by a group that is both technically competent and managerially separate from the development group. The degree of independence of the IV&V team is a function of the project risk associated with the system or Configuration Item.

### **Indirect Costs**

Contractor allowable costs incurred for common or joint objectives which cannot be directly attributable to a specific project such as certain management salaries, employee fringe benefits, holiday pay, taxes,



utilities and facility costs, and similar expenses. The costs that are defined as indirect can vary between companies according to their cost accounting standards. Also called Overhead Cost.

### **Information Services Oversight Board (ISOB) Approval Reviews IARs**

A series of Government Executive Control Gates to review all Agency Information Services initiatives greater than \$10M and/or with projected O&M costs of \$2M or more in any fiscal year. Included are initiatives with users outside the procuring Directorate, new interfaces to or mods to existing Information Services systems, or those of special interest. See ISOB Approval Review #1, #2, #3, #4, ISOB Ad Hoc Reviews and ISOB Concurrence Reviews.

### **Information Engineering**

**IE**

The application of an interlocking set of management and engineering techniques for planning, analyzing, designing, and implementing information systems. The emphasis is on enterprisewide systems rather than small projects.

### **Initial Operational Capability**

**IOC**

The first attainment of system specified performance in the operational environment.

### **Inspection**

Verification of compliance by critical examination and measurement against predetermined standards.

### **Inspection Plan - System and CI**

The document that defines the use of inspection to ensure quality.

### **Inspector General**

**IG**

An independent department of an agency, usually reporting indirectly to the chief executive of the agency and directly to Congress, charged with investigating areas of concern and ensuring that the agency's standards and the country's laws are met by all groups within the agency.

### **Institute of Electrical and Electronics Engineers**

### **IEEE**

A nonprofit organization dedicated to the disciplines of electrical and electronic engineering. This society places particular emphasis on software technology and management issues. IEEE members meet to exchange technical information, promote standards, and otherwise advance the knowledge base of their disciplines.

### **Integrated Logistics Support**

**ILS**

A composite of all support considerations necessary to ensure the effective and economical support of a system over its life cycle. The principal elements of ILS include:

- Maintenance planning,
- Supply support,
- Technical data,
- Facilities,
- Manpower and personnel,
- Training and training support,
- Support equipment,
- Computer resources support,
- Packaging handling, storage and transportation, and
- Design interfaces.

### **Integrated Schedule Commitment**

**ISCO**

The project team development and commitment to the detail schedules of the project.

### **Integration**

The successive combining and testing of system hardware assemblies, software components, and operator tasks to progressively demonstrate the performance and compatibility of subsystems, elements, and segments of the system.

### **Interest/No Interest (Contractor Executive Control Gate)**

**INI**

The Company Executive Control Gate for Company Executive Management to decide if it will take action to remain cognizant of an expected Government acquisition. This decision is based on early information usually obtained at a Government briefing on the anticipated project, and evidence that the project is being planned in the Government's budget.

## **Interface**

A common physical or functional boundary between Government organizations or Associate Contractors. It is usually defined by an Interface Specification and managed by a system integration contractor.

## **Interface Control Document**

**ICD**

The specification of the physical, functional, and operational characteristics of the interfaces between subsystems, elements or segments supplied by Associate Contractors or multiple Government organizations. Interfaces between subsystems supplied by a single Contractor or Government organization are called Intrafaces. More appropriately called Interface Specification.

## **Interface Control Plan**

**ICP**

The Government's or System Integrator's documented approach to managing the interfaces between the Associate Contractors involved in a system acquisition. The plan usually contains details regarding the management of interface specifications and interface control working group meetings.

## **Interface Control Working Group**

**ICWG**

The forum managed by the System Integrator to discuss, status, and resolve issues involving the compliance of Government organizations or Associate Contractors with applicable interface specifications.

## **Interface Design Document**

**IDD**

The Interface is defined by the Interface Requirements Specification (IRS). The Interface Design Document contains the detailed design in response to the IRS. Typically, there are two IDD's for a given interface; together, they compose the detailed design for both sides of the interface.

## **Interface Requirements Specification**

**IRS**

A document used to define the interface between Computer Software Configuration Items and other Configuration Items within the system as defined (DoD-STD-2167A). This document is identical to the Interface Specification or Intraface Specification.

## **Interface Specification**

**IS**

The performance specification that defines the physical, functional, and operational characteristics of the interfaces between two entities of a system.

## **International Council on System Engineering**

**INCOSE**

A nonprofit professional society formed in 1991 to focus on the discipline of System Engineering in both government and commercial environments.

## **Interorganizational Transfers**

Work performed by a separate organization within a company. The work is considered a subcontract only if it is performed by a unit that has an "arm's length" financial relationship to the buying organization. However, such work should be managed like a Subcontractor regardless of the legal relationship.

## **Intraface**

A common physical or functional boundary within a Contractor's project. It usually exists between assemblies and/or software components, is defined by an Intraface Specification, and is usually managed by the Contractor's Design Integration Function within System Engineering or Design Engineering.

## **Intraface Specification**

The performance specification that defines the physical, functional, and operational characteristics of the interfaces between two entities within a single organization.

## **Invitation For Bid**

**IFB**

The Government-initiated request for Contractor fixed price bids on well-understood work. Examples are building construction, paving, painting, and similar projects.

### **ISO 9000**

Internationally recognized standard for quality system processes controlled by the International Standards Organization.

## **J**

### **Job Shop**

A manufacturing capability devoted to producing small quantities of special or urgently needed items to limited documentation. A job shop can also be an organization providing skilled personnel (that is, engineers or programmers) for temporary support, usually at the Buyer's facility.

### **Joint Control Gate**

A preplanned accomplishment demonstration event jointly conducted by both Buyer and Seller.

# K

## **Key Personnel**

Those persons, assigned by name to a project by a Contractor, who cannot be replaced without approval, by the Buyer, with replacement personnel.

# L

## **Labor Hour (Contract)**

L/H

A variation of the time and materials contract, differing only in that materials are not supplied by the contractor.

## **Leadership**

Inspiring and motivating individuals and teams in their approach to the work process.

## **Legal, Ethical, and Moral Conduct**

Legal conduct is established and authorized by law. Ethical conduct is established by published professional standards of conduct. Moral conduct is established by generally accepted standards of rightness of conduct. Considerable overlap may exist in these categories.

## **Lessons Learned Document**

The Government, with the assistance of the Contractor as required, reviews the total acquisition experience and documents the positive and negative Lessons Learned with recommendations for improvement on similar future projects.

## **Letter Contract**

A written, preliminary contractual instrument that authorizes the immediate commencement of activity under its terms and conditions, pending definitization of a fixed-price or cost-reimbursement contract. It

should be noted that most letter contracts contain a not-to-exceed (NTE) dollar (\$) amount. The NTE puts a cap on the amount of money a Contractor may spend prior to definitization of the contract. In such cases, the schedule will provide for definitization within 180 days or before completion of 40 percent of the work, whichever occurs first.

### **Letter Of Intent**

**LOI (1)**

A Buyer's letter to a Seller indicating possible future business involvement if certain business events happen. This carries no legal implication and allows early planning by supplier.

### **Level Of Effort**

**LOE**

A predetermined fixed level of personnel over time to accomplish specific tasks or operations.

### **Level of Effort Contract**

A contract that authorizes the use of personnel at a predetermined level over a stated period of time, on work that can only be stated in general terms. Payment is based on effort expended at the authorized level and skill.



### **Life Cycle Cost**

**LCC**

The total cost to the Government of acquisition and ownership of a system over its useful life. It includes the cost of development, acquisition, operation, maintenance, support, and where applicable, disposal.

### **Line Of Business (Business Area)**

**LOB**

A part of a company organization dedicated to a functional area or type of support. A large electronics-aerospace firm might have a business strategy of competing in three areas: tracking systems, communications satellites, and ground to air missiles. Each of these three areas is a line of business. The company may further segment the lines of business into divisions, which have the responsibility of designing, manufacturing, and marketing one or more specific types of systems within the line of business.

### **Lines of Code**

**LOC (1)**

A measure of the size of a software program. Both source statement lines and comment lines are used in the determination. This measure is effective if recording rules are consistent, if it includes deleted and changed lines, and if only one language is used.

### **Logistics**

Services and supplies necessary to the deployment and support of an operational system.

### **Logistics Support**

Services provided to deploy, operate, and maintain systems. Typical services include transportation, maintenance, supply, training, spares, data management, operations and maintenance personnel, computer resources, packaging and handling, interface management, and support equipment.

### **Long Lead Procurement**

The early procurement of material or parts to accommodate early use or long procurement spans. Contractors may choose to initiate Government-approved preaward commitments of Contractor funds to meet the long lead requirements.

# M

### **Major Facility Project**

A project category whose deliverable is a multipurpose facility resulting from new construction or major renovation.

### **Major Facility Project Cycle**

A Project Cycle customized to incorporate terminology, documents, and activities required to perform a Major Facility Project. The Major Facility Project Cycle is derived from the Project Cycle and has the same three Periods and the following ten Phases:

1. User Requirements Definition Phase
2. Concept Definition Phase
3. Facility Definition Phase
4. Acquisition Planning Phase
5. A-E Source Selection Phase
6. A-E Design Engineering Phase
7. Construction Source Selection Phase
8. Facility Construction Phase
9. Operations and Maintenance Phase
10. Deactivation Phase

### **Maintenance Reports**

A record of the maintenance conducted.

### **Make or Buy**

## Project Management Terminology Manual

The Contractor's decision to either internally produce an item (hardware or software) or to purchase from others as necessary to ensure the lowest overall cost and technical risk to the Government. The Government may reserve the right to review and agree on the Contractor's Make or Buy program.

### **Management By Objectives**

**MBO**

A management theory that calls for managing people based on documented work statements mutually agreed to by manager and worker. Progress on these work statements is periodically reviewed, and in a proper implementation, the worker's salary is tied to performance.

### **Management By Walking Around**

**MBWA**

Part of the Hewlett-Packard legacy and popularized by management theorist Tom Peters, MBWA works on the assumption that a manager must circulate to fully understand the teams' performance and problems. The best managers, according to Peters, spend 10 percent of their time in their offices, and 150 percent of their time talking and working with their people, their customers, and their suppliers.

### **Management Information Center**

**MIC**

An area where project information such as WBS, network, master schedule, Top Ten Problems List, etc., is displayed to provide broad visibility into the status of the project.

### **Management Information System**

**MIS**

A system dedicated to serving the enterprise by implementing computer-based data retrieval, presentation systems, and productivity tools to increase the effectiveness of management.

### **Management Reserve**

**MR**

An amount of the total allocated project funding withheld for management control to be used for "forgots," "surprises," and errors in estimating. A reserve may be held by the Government Project Office and/or the Contractor Project Manager. Management Reserve is not part of the Performance Measurement baseline.

### **Manufacturing Plan**

The plan that describes the project's approach, processes, risks, and techniques for manufacturing the product.

### **Manufacturing Resource Planning**

### **MRP**

A set of management methods and tools that maximize the effectiveness of the production line by planning and scheduling personnel, equipment, materials, and so forth. MRP is usually implemented by computer systems.

### **Margin**

In design, margin is the amount of designed-in performance above expected operating performance. In qualification, margin is the measure of expected performance above that required for normal operations.

## **Market Survey**

The collection and analysis of data from potential sources to determine the capability of satisfying the Government's requirement. The testing of the marketplace may range from written or telephone contact with knowledgeable Federal and non-Federal experts regarding similar requirements, to the more formal Request For Information.

## **Master Program Schedule**

## **MPS**

The highest level summary schedule for a major program, depicting overall program phasing and all major interfaces, contractual milestones, and program elements.

## **Material Review Board**

## **MRB**

The Buyer/Seller team that reviews discrepant material and invokes a decision to use-as-is, repair, scrap, or return to vendor. The MRB has at least three members: the Buyer's representative, usually on-site quality assurance; the Seller's representative, usually from quality assurance; and the Seller's engineering liaison. Other specialists participate as required. Non-Conformance Reports (NCR), which document problem areas and require a description of the corrective action, trigger MRB action.

## **Matrix Management**

An organizational option in which project tasks are performed by functional organization specialists funded by the Project Manager. The project office defines the "what is required" and the functional organizations define the "how it is to be done."

## **Maximum Practicable Competition**

A negotiated procurement action solicited from the maximum number of qualified sources, to the end that the procurement will be made to the best advantage of the Government.

## **Mean Down Time**

## **MDT**

A measure of maintainability, derived by dividing the sum of the elapsed clock time during which the system is unavailable due to failures by the number of occurrences over a selected time frame, usually one year.

### **Mean Time Between Failure**

**MTBF**

A measure of maintainability, derived by dividing the sum of elapsed clock time between system failures by the number of occurrences over a selected time frame, usually one year.

### **Mean Time To Repair; Mean Time to Restore**

**MTTR**

A measure of maintainability, derived by dividing the sum of the elapsed clock time to perform corrective actions, by the number of corrective actions required in a selected time frame, usually one year.

### **Measure Of Effectiveness**

**MOE**

A quantifiable comparison of results obtained under specific external conditions and decisions. Examples include profit, quality, and customer satisfaction.

### **Memorandum Of Agreement**

**MOA**

A document that describes the background, assumptions, and agreements between two parties. In a contractual agreement, the buyer and seller create an MOA at the conclusion of contract negotiations. It is valid only when signed by the respective contracting officers.

### **Memorandum Of Understanding**

**MOU**

A document that describes an agreement for cooperative effort between two separate organizations. It is often used between cooperatively participating Government agencies on a project. The term is also used for the title of a document that evidences a Contractor's validation under the Cost/Schedule Control System Criteria (C/SCSC) performance measurement system.

### **Milestone**

A significant measurable project event or Control Gate, such as Contract Award, Preliminary Design Review (PDR), Critical Design Review (CDR), or shipment.

### **Milestone Dictionary**

A description of exactly what is required to satisfy each milestone.

## **Military Interdepartmental Purchase Request**

## **MIPR**

The internal billing system of the US Department of Defense. MIPRs are used to move funds between DoD service organizations.

## **Military Specification**

## **MIL-SPEC**

Specifications and drawings published by the Department of Defense for common DoD purchases. MIL-SPECs are product-oriented, and describe the "what." For example, there is a MIL-SPEC for fruitcake (MIL-F-1499F). Under a previous system of MIL- and DoD-SPECs, MIL was reserved for documents using the "inch/pound" measurement system, and DoD was reserved for metric, or non-measurement sensitive documents. This system has been abandoned, and DoD documents will be relabeled MIL at the next revision.

## **Military Standard**

## **MIL-STD**

A document published by the Department of Defense that provides guidelines for the design, test, and manufacture of items to be procured by the DoD. MIL-STDs are process-, method-, and practice-oriented and describe the "how." Under a previous system of MIL- and DoD-STDs, MIL was reserved for documents using the "inch/pound" measurement system, and DoD was reserved for metric, or non-measurement sensitive documents. This system has been abandoned, and DoD documents will be relabeled MIL at the next revision.

## **Mock-up**

A physical demonstration model, built to scale, used early in the development of a project to verify proposed design fit, critical clearances, and operator interfaces. Mock-up verification results should normally be available at Preliminary Design Review.

## **Model**

A representation of the real thing. A variety of terms have been used to describe models used during the project cycle:

## **Model - Advanced Development Model**

A Department of Defense term for a research model that is built to prove a concept.

### **Model - Brassboard (Technical Demonstration Model)**

An experimental device or model constructed and operated in a laboratory environment to demonstrate the application of a scientific or engineering principle or to test and establish design concepts and technical feasibility. The data accumulated primarily relate to the electrical, mechanical, or physical design aspects of the problem, without emphasis or attempt to meet size, shape, or weight specifications or refinement of the design. It may be configured and packaged to be operated outside of the laboratory environment for test purposes.

### **Model - Breadboard (Technical Demonstration Model)**

An experimental device or model constructed and operated in a laboratory environment to demonstrate the application of a scientific or engineering principle or to test and establish design concepts and technical feasibility. The data accumulated primarily relate to the electronic or circuit design aspects of the problem, without emphasis or attempt to meet size, shape, or weight specifications or refinement of the design. It is normally configured to be used only in a controlled laboratory environment.

### **Model - Engineering Model**

A technical demonstration device constructed to be tested in a simulated or actual field environment. The model meets electrical and mechanical performance specifications, and either meets or closely approaches meeting the size, shape, and weight specifications. It may lack the high-reliability parts required to meet the reliability and environmental specifications, but is designed to readily incorporate such changes into the prototype and final production units. Its function is to test and evaluate operational performance and utility before making a final commitment to produce the operational units. Also called Engineering Development Model.

### **Model - Hardware Prototype**

Production demonstration model, built to released drawings and processes, may be built under direction of engineering using pre-production tooling. The prototype must meet all Acceptance Test requirements. Manufacturing must be able to replicate the prototype for subsequent units.

### **Model - Mock-up**



A physical demonstration model, built to scale, used early in the development of a project to verify proposed design fit, critical clearances and operator interfaces. Mock-up verification results should normally be available at Preliminary Design Review.

### **Model - Production Model**

A production demonstration model, including all hardware, software, and firmware, manufactured from production drawings and made using production tools, fixtures and methods. Generally, the first article of the production unit run initiated after the Production Readiness Review (PRR). A Prototype model, also built from production drawings, may precede the PRR to provide confidence to authorize fabrication of the production model.

### **Model - Requirements Understanding**

A software or hardware model developed by a provider to demonstrate the understanding of a buyer's problem or to help in communicating what the buyer wants.

### **Model - Software Prototype.**

User requirements model or algorithm feasibility model that designers and programmers must replicate.

### **Model - Test Simulator**

Functional model that replicates system behaviors.

All of the above models should be called models with the proper modifier of user requirements, technology demonstration, physical demonstration, field demonstration, production demonstration, algorithm demonstration, or test readiness demonstration model.

### **Modification**

The term used to describe changes to an existing product, item, document, or design.

### **Monthly Status Review**

The process of reviewing a project's technical, cost, schedule, material, and corrective action status against the implementation plan in a monthly review with project leaders for the purpose of identifying situations needing corrective action.

### **Most Probable Cost**

A post RFP Government Cost Estimate performed during the Source Selection Phase based on an in-depth cost analysis of each Contractor's proposed approach. The purpose is to establish a realistic project cost projection of each Contractor's approach for funding and management reserve sizing. It is developed by a team of procurement, contract administration, cost audit, and engineering experts. The Most Probable Cost, rather than the Contractor's proposed cost, may be used to determine the low bidder. Not to be confused with "should cost."

### **Multi-Year Appropriation**

Government funding available for obligation over more than one fiscal year.

### **Multi-Year Contract**

A contract agreement for more than one year. The funds may or may not be appropriated for the full duration of the contract.

### **Multi-Year Funding**

Two- or three-year funds which cover only one fiscal year's requirement, but permit the executive branch more than one year to obligate the funds.

### **Multi-Year Procurement**

**MYP**

Refers to a project that requires funds for more than one fiscal year.

# N

## **Narrative Findings**

In proposal evaluation, findings in narrative form that provide the basis for numerical ratings.

## **Navy Plant Representative Office**

**NAVPRO**

Formerly part of the Navy's procurement organization. Realigned in 1990 as Defense Plant Representative Offices, reporting to the Defense Contract Administration Service. See also Defense Plant Representative Office.

## **Negotiation**

A bargaining process between two or more parties seeking to reach a mutually satisfying agreement.

## **Net Book Value**

**NBV**

The dollar amount shown in the accounting system for assets, liabilities, or equity. When comparing firms, the net book value is the excess of total assets over total liabilities.

## **Network Diagram**

A project task sequence diagram consisting of activities (shown in nodes or along arrows) with linkages to all predecessor and successor activities. When durations are defined for each activity, the critical path can be determined for the project. See also Precedence Diagram.

## **New Initiative**

A project that does not yet have congressionally appropriated funds but for which a requirement exists and resources have been requested.

## **News Flash Meeting**

A brief meeting convened by the Project Manager on a regular basis (daily/shift start) to focus on important project issues.

### **No Cost Settlement**

Termination of a contract with no monetary awards to either the Government or the Contractor.

### **No Later Than**

**NLT**

The last acceptance date; used in conjunction with scheduling and critical path analysis.

### **Non-Appropriated Funds**

Monies derived from sources other than Congressional appropriations. A distinguishing characteristic of these funds is that there is no accountability for them in the fiscal records of the Treasury of the United States.

### **Non-Competitive Justification**

A document citing the rationale for restricting or limiting the issuance of solicitation documents to only one source. This document is usually prepared by the Government Project Office and countersigned by the Contracting Officer or senior Procurement Executive. Justification for a sole source or non-competitive subcontract is documented by the Contractor and approved by the Government Contracting Officer. Also called Sole Source Justification.

### **Non-Conformance Report**

**NCR**

Prepared by the Contractor's Quality organization to document discrepant items and to request corrective action from engineering or manufacturing.

### **Non-Development Item**

**NDI**

A commercial product or an item that requires no Government-funded development effort.

### **Nonrecurring**

A task or expenditure that does not recur during the life of the project. Example: Design rather than repetitive manufacturing.

**Not Applicable****N/A**

A contract term used to indicate that a standard clause or phrase does not apply to this specific case or contract.

**Not Invented Here****NIH**

An attitude that prevents individuals and groups from using ideas of other individuals, groups, and organizations because of personal pride or other bias.

**Not More Than****NMT**

A term used in cost estimating to define the highest possible estimate.

**Not To Exceed****NTE**

A cost or schedule estimating term that defines the highest realistic estimate.

**Numerical Control****NC**

Manufacturing process or machining operations controlled by programmed tape or computers.

# O

**Object-Oriented Analysis****OOA**

Analysis of requirements based on viewing the system as a collection of objects (entities, relationships, attributes). OOA can be contrasted with other analytical methods such as structured and functional.

**Obligation (Funding)**

A commitment that legally encumbers a specified sum of money to be paid in the future. An obligation is incurred as soon as an order is placed or a contract is awarded by a responsible authorized individual for the delivery of goods. See also Commitment.

### **Obsolete**

No longer current.

### **Occupational Safety and Health Administration**

**OSHA**

An agency of the US Government charged with promoting and ensuring safety in the workplace.

### **Off-The-Shelf Item**

A product or service that requires no development effort and can be built or provided from existing documentation. See also Non-Development Item (NDI), Commercial Off -The -Shelf (COTS), and Government Off -The -Shelf (GOTS).

### **Offer**

A response to a solicitation that, if accepted, would bind the Offeror to perform the resultant contract. Responses to invitations for bids (formal advertising) are offers called bids; responses to requests for proposals (negotiation) are offers called proposals; responses to requests for quotations (negotiation) are not offers and are called quotes.

### **Office of Management and Budget**

**OMB**

An agency of the Executive branch of the US Government that is charged with preparing the Administration's budget, and preparing responses to congressional questions. The OMB also creates or reviews standard forms and Data Item Descriptions (DIDs) used on Government contracts.

### **Office of the General Counsel**

**OGC**

The General Counsel is the senior legal advisor in a Government agency. The OGC provides legal support to Contracting Officers and Project Managers on contractual issues.

### **Oh Shucks [sic] I Forgot**

**OSIF**

An expression that describes the result of poor planning, where an essential part of the system has been overlooked in the Request for Proposal (RFP), proposal, or planning process.

### **On-the-Job Training**

**OJT**

Training by acquiring direct experience in the job environment. Usually implemented by a team or tutor approach to minimize the risk of a new operator.

### **One-Year Appropriations**

Appropriations which must be obligated in the fiscal year of the appropriation.

### **Ongoing Initiative**

A multi-year project which has been authorized by congress and has received congressionally appropriated funds. An ongoing initiative becomes a base project two fiscal years beyond FOC.

### **Operational Acceptance**

The official act of transferring system responsibility for system operation from the Government Project Office to the Operations and Maintenance (O&M) Manager of the final user. If the final user is the System User, User Acceptance occurs at Operational Acceptance. If the final user is the Product User, the O&M Manager accepts the system at Operational Acceptance and the Government Project Office must still conduct User Product Acceptance with the Product User.

### **Operational Acceptance Review**

**OAR**

A Joint Control Gate between the Buyer Project Project Office and the Operational User at which the Operational User accepts the system as operational. The OAR is the decision point for initiating routine operations.

### **Operational Demonstration**

The process of operating the system in its normal environment, using trained operators and standard operating procedures to verify the system is ready for normal operations. Also referred to as an Operational Readiness Exercise, or Operational Test and Evaluation.

## **Operational Demonstration Plan**

The document that describes the required approach to Operational Demonstration. The Operational Procedures must be responsive to this plan.

## **Operational Demonstration Procedures**

The documents, prepared by the Government Project Office and presented at the Operational Readiness Review, that define the detailed procedures to be followed by trained operators to demonstrate system performance in the operational environment.

## **Operational Readiness Certificate**

The documented summary of evidence verifying that the system is ready to be transferred to normal operations by operations personnel. The Government Project Office uses this certificate to transfer accountability for the system to operational personnel.

## **Operational Readiness Review**

## **ORR**

A Joint Control Gate between the Government Project Office and the user (O&M Manager or System User) at which the user reviews and approves the readiness of the system and operators to implement the Operational Demonstration Procedures. The Operational Demonstration Procedures are approved, and authorization is given to conduct the demonstration to verify that the system will function as required in the operational environment.

## **Operational System**

The functioning system in its operational environment.



## **Operations and Maintenance**

## **O&M**

The activities of the Operations and Maintenance Phase of the Project Cycle. Usually covers field operations, training, repair, logistics support, upgrades, and other items.

### **Operations and Maintenance (O&M) Document**

The project document that defines and describes the system operation throughout its useful life and the associated maintenance required to keep the system operational.

### **Operations and Maintenance (O&M) Manual**

The manual designed for field personnel use that defines and describes the system operation throughout its useful life and the associated maintenance required to keep the system functioning.

### **Operations and Maintenance Phase**

The eighth of nine phases of the Project Cycle. The Government Project Office objective is to maintain the full operational performance of the system, and to develop Lessons Learned to improve the management of future projects. The phase starts with the completion of the Operational Readiness Review and turnover of the system to operational personnel. An annual operational Performance Report is prepared and reviewed at the annual System Certification Review to assure the system performance continues to meet the performance requirements.

### **Operations Period**

The third period in the Project Cycle, preceded by the Study Period and the Acquisition Period. The Operations Period encompasses the Deployment Phase, the Operations and Maintenance (O&M) Phase, and the Deactivation Phase.

### **Operator's Manual**

A document providing instructions on how to operate the entire system and Configuration Items.

### **Operators**

The personnel who functionally operate the system.

### **Organizational Breakdown Structure**

**OBS**

The project organization structure. The OBS can be diagrammed to intersect with the Work Breakdown Structure (WBS) resulting in a task responsibility matrix that identifies organizational responsibilities for performing each task.

### **Organizational Conflicts of Interest**

An Organizational Conflict of Interest exists when the nature of the work to be performed under a proposed Government contract may, without some restriction on future activities, result in an unfair competitive advantage to the Contractor or may impair the Contractor's objectivity in performing the contract work.

### **Other Direct Costs**

**ODC**

Charges for allowable non-labor items directly chargeable to a contract. Travel expenses are an example.

### **Out of Scope**

Requirements not included in the current contract requirements and beyond the limits of the changes clause. See also Contract Changes

### **Outsourcing**

The practice of purchasing goods or services from specialty suppliers.

### **Overhead**

**OH**

The costs of operating a facility or organization that cannot be charged directly to a single contract or single product. Overhead costs are described in the Contractor's disclosure statement setting forth cost accounting practices. Overhead or indirect cost does not include the G&A cost. See also Indirect costs.

## **P**

### **Parametric Cost Estimating**

Appraising the costs of a project based on knowledge gathered from similar, but different projects. Typically uses parameters such as weight, power, lines-of-code, or other characteristics of the system to estimate or to scale development cost or schedule. System complexity or team maturity are also influencing factors.

### **Part**

A single piece not subject to disassembly without destruction or impairment of use, such as resistors, transistors, relays, or gears. Level 7, the lowest level, in the system hierarchy.

### **Part Derating**

The practice of selecting and using parts to operate substantially within their proclaimed capability to increase reliability.

### **Partial Termination**

Discontinuance, at the direction of the Contracting Officer, of only a portion of the work under a contract.

### **Parts, Materials, and Processes**

**PM&P**

Components of the manufacturing environment. Each must be controlled to have a predictably reliable manufacturing output.

### **Path**

The series of connected activities within a network with a single beginning and a single end.

### **Performance Measurement Baseline**

**PMB**

The time-phased project cost and schedule plan against which contract performance is measured. The PMB does not include fee, profit, or management reserve.

### **Performance Measurement System**

**PMS (1)**

A project planning and status system that periodically measures variances (usually cost and schedule) and requires documented corrective action to eliminate the variances.

### **Personal Computer**

**PC**

A microprocessor-based, small computer system with off-the-shelf application software.

### **Physical Configuration Audit**

**PCA**

An engineering audit of a Configuration Item (CI) or System conducted by the Government Project Office to verify that the item "As-built" conforms to the "Build-to" documentation. The PCA is a method of verification. Results of the PCA are part of the Acceptance Review.

### **Pilot Production**

The initial limited quantity production of equipment or of a system to confirm readiness for large quantity production.

### **Plan Violator's Meeting**

A meeting between the Project Manager and a Task Manager to discuss technical, cost, and/or schedule deviations from the plan and the actions necessary to correct the deviation.

### **Planning Package**

A logical aggregation of the work within a cost account, normally the far-term effort that can be identified and budgeted in early baseline planning but is not yet defined into work packages.

### **Point Of Contact**

**POC**

The agreed to, official communication point between two interfacing organizations.

### **Post Award Conference**

The first meeting after contract award. A meeting chaired by the Government to orient all personnel (Government and Contractor) to the project requirements. See also Contract Implementation Review (CIR).

### **Pre-Award Survey**

A survey by buyer representatives of a seller's capability that is focused on the RFP requirements and the documented claims in the proposal provided by the seller.

### **Pre-Planned Product Improvement**

**PPPI**

Design and development of a product with designed-in provision for future enhancement. This may require initial version to have excess capability to accommodate upgrading.

### **Pre-Solicitation Survey**

A survey by buyer representatives of a seller's capability that is focused on the specific requirements. See also, "Market Survey."

### **Precedence Diagram**

A project task sequence and integration diagram consisting of activities (shown in nodes or along arrows), with all predecessor and successor activities. When durations are defined for each activity, the critical path can be determined for the project.

### **Preliminary Design**

The major activity in the 2167A software development process during which components and data are defined and structured, interfaces among the components are defined, and preparation of timing and sizing estimates are performed.

### **Preliminary Design Documentation**

"Design-to" Performance Specifications and concept drawings, schematics, analyses, flow diagrams, data sheets, pictorials, and so forth that are sufficient to convey to the receiver the technical and operational characteristics of the system in response to the System Specifications. The documentation is sufficient to describe how the system is expected to operate but does not contain sufficient detail on how to construct the system.

### **Preliminary Design Review**

**PDR**

A series of Joint Control Gates at which the Government COTR reviews and approves the Contractor's proposed "design to" Baseline as evidenced by lower level performance specifications and associated verification plans and authorizes the Contractor to proceed with detail design. All hardware, software, handling equipment, test equipment, and tooling should be sequentially reviewed in the descending order of system to assembly.

### **Preproposal Conference**

A meeting of prospective bidders responding to a Request For Proposal (RFP) from the Government, arranged by the Contracting Officer to assist prospective bidders to fully understand the requirements in the RFP.

### **Previously Developed Products**

**PDP**

Products which are already developed but may or may not be available off the shelf. Generally offers reduced risk of development. Previously Developed Products include Commercial-Off-The-Shelf (COTS) items, Government-Off-The-Shelf (GOTS) items, and Non-Development Items (NDI).

## **Prime Contractor**

A private sector organization that enters into contracts with the Government. See also Contractor.

## **Principal Contracting Officer**

**PCO (2)**

An official designated by the head of the Government agency to have the authority to obligate Government funds, enter into, administer, change, and terminate contracts and make related determinations and findings. Also called Procurement Officer, or Procuring Contracting Officer.

## **Prior Year**

**PY**

The preceding fiscal or calendar year. Usually used to refer to previously appropriated funds that were not expended during their budget execution year.

## **Privity of Contract**

A legal concept that refers to the relationship between all parties in a contract. In subcontracts, the Government has no contractual relationship with the subcontractor; the Prime Contractor is obligated to compensate and manage the subcontractors.

## **Proactive Management**

A management style characterized by taking actions to ensure future events will happen as planned. Examples include expeditors and long lead procurement.

## **Process**

A preferred and controlled method of doing something, generally involving sequential steps and techniques.

## **Process Control**

Managing a process to a proven standard.

### **Procurement**

The process of acquiring, by contract, products or services for the direct benefit or use of the buyer, whether the products or services are already in existence or must be created, developed, demonstrated, or evaluated. It involves all aspects of contract administration and project management performed within the context of the Project Cycle. Also called Acquisition.



### **Procuring Contracting Officer**

**PCO (1)**

An official designated by the head of the Government agency to have the authority to obligate Government funds, enter into, administer, change, and terminate contracts and make related determinations and findings. Also called Procurement Officer, or Principal Contracting Officer.

### **Product**

A tangible result of activities during phases of the Project Cycle.

### **Product Assurance**

**PA**

The project function responsible for overseeing all aspects of achieving the required quality performance. Includes inspectability, testability, process control, and related factors.

### **Product Baseline**

The hardware/software configuration established at completion of development. In the case of software, this baseline for any CSCI is embodied in a set of approved Software Requirements Specifications (SRSs) after successful completion of the CSCIs Functional and Physical Configuration Audits (FCA and PCA).

### **Product Integration Project**

A type of project whose deliverable is a system with a high percentage of off-the-shelf products and varying degrees of hardware and software content.

### **Product Specifications (Type C)**

Product Specifications referred to as Type C in MIL-STD-490. The preliminary Type C defines the "Build-to" and the approved Type C defines the "As-built" performance and configuration of lower level Configuration Items, the performance of which has been verified through the Product Development Cycle. The following are DoD categories of Type C Specifications, as defined in MIL-STD-490:

- C1A - Prime Item Product Function
- C1B - Prime Item Product Fabrication (Part II)
- C2A - Critical Item Product Function

- C2B - Critical Item Product Fabrication (Part II)
- C3 - Noncomplex Item Product Fabrication (Part II)
- C4 - Inventory Item
- C5 - Computer Program Products (Part II).

Preliminary "Build-to" Product Specifications, including engineering drawings, software- detailed design documentation, and manufacturing process documents, are released after approval at the Critical Design Review (CDR). Final Type C Product Specifications are to be released after the Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA) have been completed.

### **Product User**

A final recipient whose interest and needs are primarily in the output of the system to be developed by the Government Project Office. A Product User may or may not be involved in the operation of the system. The emphasis in a User's Requirements Statement prepared by a Product User is on the results the system is to produce. The Product User's interest in the performance of the system is mainly to the extent that it assists the user to better understand and use the output of the system.

### **Production Article**

An article produced from production drawings, tooling, and methods. The deliverable is intended for operational use. It usually follows the Production Model.

### **Production Engineering**

The application of manufacturing knowledge and techniques to the design and development of the configuration item. This includes analyses of design producibility and production operations; application of manufacturing methods, tooling and equipment; control of the introduction of engineering changes; and employment of manufacturing cost control techniques.

### **Production Model**

A Production Demonstration Model, including all hardware, software, and firmware, manufactured from production drawings and made by production tools, fixtures and methods. Generally, the first article of the production unit run initiated after the Production Readiness Review (PRR). A prototype model, also

built from production drawings but under engineering supervision, may precede the PRR to provide confidence in authorizing fabrication of the production model.

### **Production Project**

A type of project whose deliverable is a proven system or component that has already been designed, tested, and fielded.

### **Production Readiness Review**

### **PRR**

A Joint Control Gate convened to ensure that a design is ready to be released to production and that the production organization is prepared and willing to accept the design for production. The PRR is usually held after the production prototype model has passed acceptance tests.

### **Production Unit**

An article or product produced from production drawings, tooling, and methods. The deliverable is intended for operational use. It usually follows the production model.

### **Profit**

The amount received by a Contractor above the cost of contract performance under fixed price contract.

### **Program**

A coordinated group of planned undertakings (projects) having a common goal or objective. In the Government, activities with a common mission. In Industry, activities in a common business area. Examples are alternative energy sources program, public transportation program, or hazardous waste management program.

### **Program Evaluation Review Technique (PERT)**

See Project Evaluation Review Technique

### **Program Manager**

### **PM (1)**

The individual responsible for managing a coordinated group of planned undertakings (projects) having a common goal or objective.

### **Program Objective Memorandum (DoD Only)**

**POM**

A formal document submitted to the chief of an agency or organization that details the goals and resource requirements of a new program. The POM is used to request funding in the DoD, and its submittal initiates the DoD funding cycle.

### **Progress Payments**

Payments made to a Contractor during the life of a fixed-price type contract on the basis of a percentage of incurred total cost or total direct labor and material cost. This practice has been generally superseded by a system of payments made on Government acceptance of contractually identified deliverables at predetermined milestones.

### **Project**

Any undertaking to achieve a desired result within defined budget and schedule constraints.

### **Project Champion**

The Government Project Office person assigned to interface with an identified User to determine the User's need and the potential for a cost effective solution.

### **Project Change Control Board**

**PCCB**

A Government board established to review and to decide on all project baseline (technical, cost, or schedule) actions and to act on all changes thereto. Actions are brought to the board by submitting a Request for Change. The PCCB chairperson is the Government Project Manager.

### **Project Completion Review**

The Project Completion Review is the final Control Gate in the project.

A Buyer control gate held at the end of the Deactivation Phase to confirm that deactivation is complete and to terminate the Operations and Maintenance Period.

### **Project Cycle**

The orderly sequence of interrelated activities and events, performed in periods and phases, leading to the successful acquisition of products and services.

The three periods of the Project Cycle for System Acquisition are:

1. Study period,
2. Acquisition period, and
3. Operations period.

The nine phases of the Project Cycle for System Acquisition are:

1. User Requirements Definition,
2. Concept Definition,
3. System Specification Definition,
4. Acquisition Planning,
5. Source Selection,
6. Implementation,
7. Deployment,
8. Operations and Maintenance
9. Deactivation

### **Project Evaluation Review Technique**

### **PERT**

A technique for scheduling and statusing a project by constructing a network diagram of tasks and events and periodically evaluating progress against the plan. Estimates are given for the most optimistic, nominal, and most pessimistic duration of each task in the network. These data allow statistical evaluation of critical paths for the project and a statistical prediction of project completion dates. The

three-point estimate on each task is the primary distinguishing feature between a PERT network and a Critical Path Method (CPM) network, that uses a single estimate for the duration of each task.

### **Project Initiation Review**

### **PIR**

A Contractor Executive Control Gate at which Contractor Executive Management reviews, approves, and commits the company to the Contractor's Implementation Plan and approves the project start. The PIR is the forum for Executive Management to constructively challenge the readiness of the Contractor Project Manager and project team to initiate the contract effort and successfully meet the contract requirements. The approved Implementation Plan from this review is the basis for the Contract Implementation Review, which is the first formal meeting with the Government project team after contract award.

### **Project Management**

The process of planning, applying, and controlling the use of funds, personnel, and physical resources to achieve a specific result.

### **Project Management Elements**

An interactive system of 10 management responsibilities applied to all phases of the Project Cycle by all organizations participating in the project to accomplish the project objectives.

These ten elements are:

1. Project Requirements.
2. Organizational Options.
3. Project Team.
4. Project Planning.
5. Risks and Opportunities.
6. Project Control.
7. Project Visibility.
8. Project Status.
9. Corrective Action.
10. Project Leadership.

## **Project Management Process**

Project Cycle, phases, and activities that are managed by multiple techniques to completely address the 10 Project Management elements and to ensure that all project Control Gates are completed satisfactorily and that project objectives are accomplished. The formality of application of the process must be tailored to the type of project and value and risk of the project.

## **Project Manager**

## **PM (2)**

The individual assigned to manage a project. In an acquisition under Government contract, the industry individual responsible for managing the project is called the Contractor Project Manager. The counterpart in the sponsoring organization is called the Government Project Manager. The Government Project Manager may also be the Contracting Officer's Technical Representative (COTR).

## **Project Organization**

An organizational option in which the Project Manager has responsibility for all technical, functional and administrative personnel.

## **Project Plans Review**

## **PPR**

A Government Executive Control Gate at which the Office Director reviews, approves, and commits to support the Project Champion's project proposal for the start-up of a new project (new initiative). The PPR is the decision point for Office level management to include the project in the Directorate Program Plan. The Directorate Program Plan is a composite of the Office Program Plans which identify the User Requirements, the proposed response to the need, and the resources required to support the project.

## **Project Products List**

## **PPL**

A list that includes deliverable and developmental versions and quantities of all hardware, software, support equipment, tooling, support services, and documentation. The PPL is the Baseline for Work Breakdown Structure (WBS) development and for planning, budgeting, and scheduling. There is a Government Project Product List to encompass the total project, and a contract PPL for each contract. (Formerly PRL)

## **Project Products List Fact Sheets**

**PPLFS**

A narrative description of each entry of the Project Products List. The narrative should be written by the most knowledgeable expert and should include sufficient information to facilitate planning, estimating, and scheduling.

## **Project Proposal (Government)**

A request for Government resources including personnel, equipment, contract support, and other costs associated with the project. A Project Proposal must be prepared and incorporated into the Directorate Program Plan for each fiscal year in which resources are required. The format and submission time of the proposal must be consistent with the Directorate Program Plan submission to the Comptroller, which is outlined in the Comptroller's Program and Budget Call.

## **Project Requirements List**

**PRL**

More correctly called Project Products List. See PPL.

## **Project Review Board**

**PRB**

Convened by Government Executive Management to provide senior management review of project progress. It is initially convened to review the draft Request for Proposal (RFP) and the general preparedness of the project team and project data to proceed to acquisition. A PRB is typically higher in the organizational structure than a Project Control Board (PCB).

## **Project Specification Review**

**PSR**

A Government Executive Control Gate to approve the System Specification and Verification Plan for the selected system concept. The PSR is the decision point to proceed with development of the Acquisition Plan and to identify potential bidders if the acquisition is to be competitive. Also called Performance Specification Review.

## **Project Status**

The timely comprehensive measurement of project progress against the plan to identify variances and the seriousness of the variances if not controlled by corrective action.



## Project Visibility

The means by which project personnel and management become aware of project activity to facilitate timely statusing and effective corrective action.

## Project Work Authorizing Agreement

## PWAA

A Contractor document that is used to define and authorize all contractor work performed on the project. The PWAA and subcontracts are the end product of the implementation planning process, and the existence of a complete set of current PWAA's and subcontracts is evidence that a project has been baselined. The PWAA must contain the following five elements:

1. Task description (input required, task to be performed, and output resulting from successful completion).
2. Time-phased budget.
3. Schedule, with appropriate intermediate milestones, and if appropriate, detailed work packages to enable earned value reporting.
4. Signature of the task leader indicating commitment to do the task within the time and budget constraints.
5. Signature of the Project Manager indicating that the task is authorized.

## Proposal

A Contractor's written reply to a Request for Proposal. This usually includes technical, management, cost, and basis of estimate volumes.

## Proposal Evaluation File

The documentation created during the Source Selection Process in which an assessment is made of the ability of an Offeror to successfully perform the effort defined in the Statement of Work section of the Request for Proposal. The evaluation includes technical, schedule, management, security, cost and price analysis, and any other factors having an effect on the Contractor's ability to perform to the prospective contract requirements.

## Proposal Evaluation Teams

## PET

Selected experts organized for factfinding and evaluating proposals against predetermined criteria. Typically, there is a Technical Evaluation Team, a Cost Evaluation Team, a Management Evaluation Team, and a Security Evaluation Team.

### **Proposal Preparation Instructions**

**PPI**

The Government's instructions, included in Section L of the RFP, to guide potential Contractors in the best way to respond to the RFP. This may include page count limits, organization preference, font and font size, delivery instructions, and so forth.

### **Proprietary Information**

The information, data, and processes controlled by individuals, organizations, or companies. The exclusive right to such information keeps it from being disclosed by others until formal permission is granted.

### **Protest**

A written objection by an interested party to a solicitation or award by an Agency for a proposed contract.

### **Prototype - Hardware**

A specification-compliant, production readiness demonstration model developed under engineering supervision that represents what manufacturing should replicate. All design engineering and production engineering must be complete, and the assembly must be under configuration control. Prototype acceptance test data are presented at the Production Readiness Review (PRR).

### **Prototype - Software**

An imprecise term, currently with multiple meanings. A "rapid prototype" is usually a software requirements demonstration model, which provides a simulated representation of the software system functionality and operator interface. The model facilitates early Government-Contractor agreement on the system design approach. A software prototype may also be a technical demonstration model. Except with "Evolving Prototypes," the code is usually discarded once the model has served its purpose.

### **Public Law**

**PL**

Federal, State, County and other statutes.

### **Pursue/No Pursue (Contractor Executive Control Gate)**

**PNP**

The Company's Executive Control Gate for Executive Management to determine if it intends to respond to the formal Request for Proposal based on a review of the draft RFP. The Pursue/No Pursue Review is the decision point for management to approve the formation of a proposal team to prepare to respond to the formal RFP. A decision to pursue the business opportunity usually results in a significant increase in the size of the Contractor proposal project team.

## Q

### **Qualification**

The process of testing and analyzing hardware and software configuration items to prove that the design will survive the anticipated accumulation of acceptance test environments, plus its expected handling, storage, and operational environments plus a specified qualification margin. Qualification usually includes temperature, vibration, shock, salt spray, software stress testing, and other testing.

### **Qualification Acceptance Review**

**QAR**

A series of joint control gates at which the buyer approves the Qualification evidence and the Qualification Certificate of the CI presented.

### **Qualification Certificate**

A configuration item-unique document that documents verifies the official status of the qualification of the CI. It provides subsequent users of the design details of the qualification status.

### **Qualification Test**

A test performed to a qualification unit representative of production units to demonstrate that the design will survive the specified qualification environment. See also Qualification.

## **Qualification Verification Procedures**

Step by step instructions leading to the qualification of an entity. Usually contain environment levels, test durations, test set up instructions, facility instructions, etc.

## **Quality**

Usefulness, clarity, reliability, efficiency, cost-effectiveness, are attributes of quality.

## **Quality Assurance**

**QA**

The design and implementation of design features and procedures to ensure that performance specifications can be verified. This includes performance specification analysis, quality engineering for inspectability and testability, manufacturing process control, and the use of techniques and training to implement the measurement and testing process.

## **Quality Assurance Plan**

A document setting forth the schedules, procedures, personnel, and equipment to be used in order to perform the Quality Assurance functions for a development project.

## **Quality Control**

**QC**

The management procedures and resulting actions to ensure that the required product quality is provided throughout the Development Phase.

## **Quality Function Deployment**

Allocation of functions essential to the satisfaction of requirements to the lowest contributing decomposition level.

## **Quick Reaction Capability**

**QRC**

An organization or collocated team that specializes in delivering to System Requirements in a shorter time than would normally be expected. Cost is usually secondary to program schedule. Sometimes called Skunk Works.

# R

## **Random Access Memory**

## **RAM**

Refers to solid state memory that is randomly accessible (Random Access Memory) without sequencing through a serial data bank.

## **Reactive Management**

A management style characterized by taking action at an early indication of trouble to avoid the impending consequences. Examples include overtime or adding expert help.

## **Rebaseline**

Development of a new implementation plan with associated milestones and schedules to accomplish project objectives. Rebaselining is required in response to changed contract requirements, funding changes, or realization that the operative implementation plan is not possible to achieve. Rebaselining of an existing contract requires approval from the Government Project Manager.

## **Recurring Cost**

Costs of activities that are repeated during a contract, such as repetitive manufacturing of like items.

## **Recusal**

To remove oneself from an activity.

## **Red Team**

Independent peer-level review for the purpose of identifying deficiencies and recommending corrective action relative to documentation and presentation material. A Red Team review is usually used on proposals but is applicable to any documentation and presentation material. For instance, the Government Project Manager should Red Team the Request For Proposal prior to release to industry. The Project Manager decides which of the recommendations are to be implemented.

### **Reduction In Force**

**RIF**

An action to reduce the number of people working through layoffs, transfers or attrition.

### **Redundancy**

Duplication of capability to achieve reliability.

### **Reimbursable Expenditure**

A Seller's expenditure which will be funded by the Buyer.

### **Release**

A configuration management action whereby a particular version of hardware or software is made available for a specific purpose (for example, released for a test).

### **Reliability**

The probability that a Configuration Item or system will perform its intended function for a specified period of time under stated conditions; usually stated as a Mean Time Between Failure (MTBF) number.

### **Replan**

Rescheduling or adjustment of planned resources for remaining tasks to meet contract milestones. Replanning does not imply rebaselining.

### **Request For Change**

**RFC**

The documented request from either the Government or the Contractor to the Government Project Control Board (PCB) that effort should be expended by the Contractor to develop an Engineering Change Proposal (ECP) for a desired change or improvement. The request states the technical or contractual issue being addressed, its impact on, or benefit to the project, and an assessment of its cost and schedule impact. A decision by the PCB to pursue the change will trigger the Contracting Officer to request an ECP from the Contractor.

### **Request For Information**

**RFI**

A Buyer-initiated request for Seller information relative to the Seller's capability.

### **Request For Proposal**

**RFP**

A document prepared by the Contracting Officer and the Government Project Office to solicit proposals from potential bidders in industry. The Request For Proposal consists of a Solicitation Letter, Instruction to Bidders, Evaluation Criteria, Statement of Work, and a System Specification. The Contractor issues an RFP to potential Subcontractors. The Contractor RFP to Subcontractors usually follows the Government format. An RFP cannot be released to potential bidders unless there is authorization and intent to place an award, and funding is available.

### **Request For Quotation**

**RFQ**

A document prepared by the Contracting Officer and the Government Project Office to solicit price quotations from potential suppliers of standard items.

### **Requirements**

Needs or necessities; something demanded or obligatory. For clarification purposes, requirements should always be preceded by a modifier; that is, user requirements, intelligence requirements, operational requirements, or contract requirements.

### **Requirements Flowdown**

The process of methodically deriving and allocating requirements to lower levels of system hardware and software through system decomposition and definition.

### **Requirements Traceability**

The management actions of understanding, documenting, approving, and auditing the parent/child relationships of all system requirements throughout the system decomposition.

### **Requirements Traceability Matrix**

**RTM**

## Project Management Terminology Manual

A document that records the parent-child relationships of requirements as they descend from system to lowest level Cis.

### **Research and Development**

**R&D**

Technical pursuit of a new technology or design to support a strategic goal.

### **Research, Development, Test, and Evaluation**

**RDT&E**

The process by which a system is designed and built to meet mission requirements, then tested to determine if those requirements are met.



## **Responsibility Matrix**

A matrix that maps WBS tasks to the individual and organizations assigned as responsible and supporting those responsible. Also called Task

Responsibility Matrix.

## **Review**

A formal meeting at which a document or other product is presented to the user, customer, or other interested parties for comment and approval.

## **Revision**

A change to a document or design.

## **Risk**

The potential for encountering negative technical, cost or schedule impacts in the course of the project.

## **Risk Analysis**

An examination of risk to determine the probability of the occurrence and the seriousness of the resulting consequences. Follows Risk Assessment. After completing risk analysis, the next step is risk management.

## **Risk Assessment**

The process of identifying all programmatic and product risks. Risk Assessment should be followed by Risk Analysis.

## **Risk Management**

Management actions that include Risk Assessment, Risk Analysis, and Risk Control. To control risk, preventive and/or contingent actions are defined and incorporated into the implementation plan. Risk management is applied throughout the Project Cycle.

### **Risk Reduction Model**

Any model used to mitigate project risk. See Model - Technical Demonstration, Mock-up, etc.

### **Rolling Wave Planning**

Cost and schedule planning where the level of detail and accuracy is complete for the near term (six months to one year), and decreases for the later time frames. The near term effort is documented in work packages, and the longer term effort is summarized in planning packages. Rolling wave planning requires progressive refinement of the distant time frame plan.

### **Rough Order of Magnitude (Estimate)**

### **ROM (1)**

The estimated cost based on cost models or expert analysis. It is usually based on top level requirements or specifications, and a top-down prediction of work to be done to satisfy the specified requirements. The ROM is usually used for financial planning purposes only.

## **S**

### **Schedule**

Activities and events with associated time spans and due dates. It may be graphically displayed.

### **Schedule Performance Index**

### **SPI**

The ratio of actual schedule achievement (Budgeted Cost of Work Performed or BCWP) to the planned schedule achievement (Budgeted Cost of Work Scheduled or BCWS) for a specified period.  $SPI = BCWP/BCWS$ . An SPI of 1.0 indicates that schedule progress is according to plan. An SPI of less than 1.0 indicates that the project is falling behind the plan. An SPI of more than 1.0 indicates that the project is proceeding faster than the plan.

### **Schedule Variance**

### **SV**

Budgeted Cost of Work Performed (BCWP) minus Budgeted Cost of Work Scheduled (BCWS) provides schedule variance in dollars. A negative value indicates that the project is behind schedule.

## **Scheduling**

The development of the time required for activities and the dates required for events.

## **Scientific Wild Anatomical Guess**

## **SWAG**

A rapid estimate based on personal experience. Sometimes used in cost and schedule predictions.

## **Scoring Plan**

Scoring plans provide guidance to proposal evaluators to ensure an orderly and uniform approach for evaluating proposals. It is part of the Source Selection Plan.

## **Second Source**

An acquisition strategy to approve two (or more) capable suppliers.

## **Segment**

A grouping of functionally related elements at a common location. Level 2 in the system hierarchy.

## **SEI Capability Maturity Model**

Software Engineering Institute's Model for assessing the potential of an organization for producing quality software.

## **Seller**

The organization under contract to the Buyer. The Contractor is the Seller to the Government Buyer; a Subcontractor or vendor is the Seller to the Contractor Buyer.

## **Should Cost Estimate**

A pre-RFP estimate developed by or for the Government Project Office of the anticipated cost of a project based on cost models or expert analysis. It is first derived in the User Requirements Definition Phase as an estimate for submission in the Directorate Program Plan. A more refined cost estimate is provided in the Concept Definition Phase at the conclusion of the system trade-off studies.

### **Should-Take Estimate**

A pre-RFP estimate developed by or for the Government Project Office of the anticipated total schedule of a project based on cost models or expert analysis. It is first derived in the User Requirements Definition Phase as an estimate for submission in the Directorate Program Plan. A more refined schedule estimate is provided in the Concept Definition Phase at the conclusion of the system trade-off studies.

### **Show Cause**

An action initiated by the Government Contracting Officer to notify the Contractor of unsatisfactory performance. The Contractor is asked to "show cause" why the contract should not be terminated. Similarly, a Contractor may request that a Subcontractor "show cause."

### **Show Cause Letter; Show Cause Notice**

A written delinquency notice by the Contracting Officer to the Contractor. It documents the Contractor's failure to perform to the specified terms of the contract and indicates that the Government is considering terminating the contract for default. Pending a final decision by the Contracting Officer, the Contractor is afforded the opportunity to "show cause" why he should not be terminated for default; that is, to present documented, factual evidence proving excusable cause. This may also be used between Prime Contractor and Subcontractor.

### **Slack**

The amount of time an activity can be delayed without affecting any milestone. Normally activities on the critical path have zero slack. Slack is also called Float.

### **Small Business Administration**

### **SBA**

An agency of the Federal Government charged with developing small businesses. The SBA definition of small business varies from industry to industry but generally describes firms with less than 1,000 employees. Industry by industry data can be found in the Federal Acquisition Regulation (FAR), section

19.102. The SBA provides loans, business and technical consulting. Contractors are encouraged to use small businesses and often must prepare documentation to SBA to substantiate the extent that they use them.

### **Software**

**SW**

A sequence of instructions suitable for processing and execution by a computer. Software may reside on magnetic media, in memory, in firmware, or in the small holes on punched cards.

### **Software Design Document**

**SDD**

The primary product of the detailed design activity for software. Known in DoD as a Type C5 Specification.

### **Software Development**

The process by which user needs are translated into software requirements; software requirements are translated into design; the design is implemented in code; and the code is tested, documented, and certified for operational use.

### **Software Development File**

**SDF**

A repository for collection of material pertinent to the development or support of software. Contents typically include (either directly or by reference) design considerations and constraints; design documentation and data; schedule and status information; test requirements; test cases; test procedures; and test results. The Contractor is required to establish an SDF for each Computer Software Unit (CSU) or related group of CSUs, each CSC or related group of CSCs, and each CSCI or related group of CSCIs.

### **Software Development Library**

**SDL**

A controlled collection of software, documentation, and associated tools and procedures used to facilitate the orderly development and subsequent support of software. The SDL includes the Development Configuration as part of its contents. An SDL provides storage of, and controlled access to, software and documentation in human-readable form, machine-readable form, or both. The library may also contain management data pertinent to the software development project.

### **Software Development Plan**

**SDP**

A document describing a contractor's plans for conducting software development. The Software Development Plan (SDP) is used to provide the Government insight into the organization(s) responsible for performing software development and methods and procedures to be followed by these organization(s). The SDP is used by the Government to monitor the procedures, management, and contract work effort of the organizations performing software development.

### **Software Engineering**

The systematic approach to the development, operation, maintenance, and retirement of software.

### **Software Engineering Institute**

**SEI**

A federally funded laboratory, operated by Carnegie-Mellon University in Pittsburgh, PA, under contract to the Department of Defense (DoD).

### **Software Management and Assurance Program**

**SMAP**

An initiative led by the Chief Engineer of the National Aeronautics and Space Administration (NASA) to improve software quality. Started in 1985, the program has produced standards for software life cycles and documentation.

### **Software Problem Report**

**SPR**

The description of an error or a perceived error in a software product. SPRs can be fixed on an emergency or periodic basis, acknowledged, but not fixed, or found to be a problem not related to the software (for instance, user error). Also known as a bug report.

### **Software Product Specification**

**SPS**

Consists of the Software Design Document and source code listings for a Computer Software Configuration Item. Upon Government approval and authentication following the Physical Configuration Audit, the System Product Specification (SPS) establishes the Product Baseline for the CSCI. Until establishment of the Product Baseline, the contents of the SPS are contained in the contractor's Development Configuration for the CSCI. The SPS is used by the Government to establish the Product Baseline.

### **Software Programmer's Manual**

**SPM**

A document that provides the information needed by a programmer to understand the instruction set architecture of the specified host and target computers. The Software Programmer's Manual (SPM) provides information that may be used to interpret, check out, troubleshoot, or modify existing software on the host and target computers.

### **Software Quality Assurance**

**SQA**

The design and implementation of design features and procedures to ensure that software requirements and specifications can be verified. An approach to SQA is presented in DoD-STD-2168.

### **Software Requirements Analysis**

The Major Activity in the 2167A development process during which system requirements are allocated and flowed down to the software elements of the system.

### **Software Requirements Specification**

**SRS**

A document that clearly describes the performance requirements for Computer Software Configuration Items (CSCI). The requirements include function, performance, constraints, and quality.

### **Software Sizing Model**

**SSM**

A computer application that predicts the probable size of a software project. The model requires estimates of least, probable, and largest size, example module size, and multiple estimators as inputs. The model tells the expected size and a standard deviation for each module, and an overall system size and confidence factor. The model is most accurate when the system has been decomposed into software components.

### **Software Specification Review**

**SSR**

A Contractor Control Gate at which the Contractor Project Office reviews the functional performance specifications of the software and firmware configuration items. The SSR is the decision point to proceed with preliminary design. Preliminary Software Development Specifications are reviewed at the SSR. Software Development Specifications for the Computer Software Configuration Item(s) are released after approval at the Preliminary Design Review (PDR). See also Configuration Item Specification Review (CISR).

## **Software Support**

The sum of all activities that take place to ensure that implemented and fielded software continues to fully support the operational mission of the software.

## **Software Support Environment**

**SSE**

A system of computers, tools, methods, and personnel that allows software developers to effectively and efficiently produce software.

## **Software Test Report**

**STR**

A record of the formal qualification testing performed on a Computer Software Configuration Item (CSCI). The Software Test Report (STR) provides the Government with a permanent record of the formal qualification testing performed on a CSCI. The STR may be used by the contractor on a basis for re-testing of a CSCI.

## **Software User's Manual**

**SUM**

A document that provides user personnel with instructions sufficient to execute one or more related Computer Software Configuration Items (CSCIs). The Software User's Manual (SUM) provides the steps for executing the software, the expected output, and the measures to be taken if error messages appear.

## **Sole Source**

Characterized as the only qualified source possessing a unique and singularly available performance capability for the purpose of a contract award.

## **Sole Source Acquisition**

A contract that is entered into by an agency after soliciting and negotiating with the sole source. This is frequently referred to as a Non-Competitive Acquisition.

## **Sole Source Justification**



A document citing the rationale for restricting or limiting the issuance of solicitation documents to only one source. This document is usually prepared by the Government Project Office and countersigned by the Contracting Officer. Also called Non-Competitive Justification.

### **Solicitation**

A Request For Proposal (RFP), Invitation for Bid (IFB), or Request for Quotation (RFQ) from the Government to Contractors or from a Contractor to Subcontractors.

### **Source Evaluation Board**

### **SEB**

The Government organization formed to evaluate Contractor proposals against a predetermined set of standards and evaluation criteria. It must be identified in the Source Selection Plan. Also known as the Source Selection Evaluation Board (SSEB).

### **Source Inspection**

Customer inspection of a product, in process or upon completion, at the Seller's facility.

### **Source List**

A list of Contractors judged capable by the procuring organization from whom bids, proposals, or quotations may be solicited. The list is developed and maintained by the procuring organization. Verification of Contractor capability typically involves review of financial status and past performance, as well as on-site review of facilities and personnel.

### **Source Selection**

The process of solicitation, evaluation, factfinding and selection of a Contractor in the Government competitive acquisition environment, and performed in the Source Selection Phase of the Project Cycle.

### **Source Selection Advisory Council**

### **SSAC**

A group of senior officials appointed by the Source Selection Authority to act as advisers during the source selection process. The SSAC is often charged to select and approve the Source Selection Evaluation Board, as well as review the evaluation criteria.

### **Source Selection Authority (Senior Contracting Officer)**

**SSA**

The senior Contracting Officer designated to direct the source selection process, approve the Source Selection Plan, and, with the Source Selection Official, select the source(s), and announce contract award.

### **Source Selection Authorization Review**

**SSAR**

A Government Executive Control Gate to approve the results of the source selection process and to authorize proceeding with contract negotiation. The SSAR is the decision point for the Contracting Officer to initiate contract negotiations with the "best value" Contractor.

### **Source Selection Board (Contractor)**

The Source Selection Board for subcontracts is chaired by the Project Manager and includes other project staff. Responsibilities include: approval of selection plans, criteria weighting, review of final scoring, final award recommendations, and presentation to the Executive Review Committee and the customer, if required.

### **Source Selection Decision Memorandum**

The document that records the source selection decision, the authority for the decision, the rationale, and a determination that the selected Contractor is responsive.

### **Source Selection Evaluation Board (see SEB)**

**SSEB**

(See Source Evaluation Board)

### **Source Selection Initiation Review**

**SSIR**

The Government Executive Control Gate which reviews and approves the Government's Request for Proposal (RFP) and Source Selection Plan. The SSIR is the decision point for the Contracting Officer to release the RFP and implement the Source Selection Plan.

### **Source Selection Official (Senior Executive Manager)**

**SSO**

The senior Executive Management official responsible for the system acquisition activity with the authority to appoint or approve the members of the Source Evaluation Board, concur in the Source Selection Plan, and, with the Source Selection Authority, select the Offeror for final contract award.

### **Source Selection Phase**

The fifth of nine phases of the Project Cycle. It follows the Acquisition Planning Phase and begins the Acquisition Period. The objective is to secure Government Executive Management approval of the competitive source solicitation and the results of the source selection process culminating in the selection of a Contractor to produce the specified system. The phase begins with solicitation planning and proceeds through a series of reviews which include a Government Source Selection Initiation Review (SSIR), Contractor Final Proposal Review (FPR), Government Source Selection Authorization Review (SSAR), and an Agency Contract Review Board (ACRB) Review. The Source Selection Phase ends with Contract Award. The Government project team develops and releases the solicitation documentation and evaluates the compliant proposals. The contractors prepare and submit proposals, participate in proposal factfinding and negotiate final contract. The Request for Proposal (RFP), Source Selection Plan, Contractors' Proposals, Proposal Evaluation Results, and the ACRB Docket are prepared in this phase.

### **Source Selection Plan**

### **SSP**

The document that defines the solicitation and award process to be used by the Government procuring organization for a specific procurement. The plan defines the Source Evaluation Board, the evaluation criteria, the scoring plan/procedures, and the source selection schedule.

### **Special Test Equipment**

### **STE**

Test equipment not considered standard for the system or project under test. Procurement of authorized STE is an allowable direct contract cost.

### **Specification**

A document that accurately defines the quantitative technical performance parameters to be met and includes the criteria for acceptance. A "Design-to" performance specification states performance, as opposed to design, and what is needed, as opposed to how to provide it. A "Build to" specification defines how to build the items and is used for follow-up on production buys. All specifications must be formulated in terms that are quantifiable, testable, and verifiable. See also Specification Types.

### Specification Change Notice

### SCN

A document used to propose and convey changes to Contractor specifications.

### Specification Types (DoD Defined)

Type A System Specification defines the system's functional and performance baseline in terms of quantitative technical performance parameters and is required to be included in the RFP Statement of Work for System Acquisition. See also System Specification.

Type B Development Specifications or "Design-To" Specifications define the system allocated baseline requirements of lower level Configuration Items. The specified performance is determined through system analysis and tradeoffs driven by the Type A system specification. Preliminary Type B Specifications are released after approval at the Configuration Item Specification Review (CISR) (also known as the Hardware Specification Review (HSR) and/or Software Specification Review (SSR)). Final Type B Specifications are released after approval at the Configuration Item Preliminary Design Review(s). See also Development Specifications.

Type C Product Specifications or "Build-To" Specifications define the "Build-To" and "As Built" requirements of lower level Configuration Items, the performance of which has been determined and verified through the product development cycle including successful Physical Configuration Audit (PCA) and Functional Configuration Audit (FCA) reviews. Preliminary Type C Specifications are released at the Critical Design Review (CDR) and Final Type C Part II "As-Built" Specifications are released after the PCA and FCA. See also Product Specifications.

### Spiral Model

The Spiral Model incorporates prototyping as a risk reduction option at any stage of development, and accommodates go-backs to earlier stages of the spiral as more attractive alternatives are identified or new risk issues need resolution. Its primary advantage is that its range of options allows it to accommodate the best features of existing software process models, while its risk-driven approach helps it to avoid most of their difficulties. Among its other advantages are that it accommodates strategies for developing program families, reuse of existing software, preparation for life-cycle evolution, growth, and changes of the software product.

### Sponsor

## Project Management Terminology Manual

The Government Project Office within the Agency responsible for the system acquisition.

### **Stakeholder**

Any group, individual, or organization that is affected by, or can affect, the project.

### **Standard Operating Procedure**

### **SOP**

A detailed step-by-step procedure for repetitive operations. Examples are aircraft takeoff and landing procedures.

### **Standards**

An approved, documented, and available set of criteria used to determine the completeness of a process or product.

### **Statement Of Work**

### **SOW**

The part of the Request For Proposal and resulting contract which describes the actual work to be done under the contract. It includes a description of the tasks the Contractor shall perform and the identification and schedule of the deliverable contract end items.

### **Status**

The comparison of actual progress against the plan to determine variance and corrective action

### **Status Review**

An examination of the project to discuss variances and approve corrective action. See Monthly Status Review

### **Stop Work Order**

An order by the Contracting Officer to a Contractor to cease work on a Government contract until notified to resume.

## **Strength/Weakness Report**

A report documenting the findings of the Source Evaluation Board for an evaluated proposal.

## **Stress Testing (Software)**

Performance testing that qualifies the software design in regions and conditions beyond normal expected use to demonstrate design margins. Typical conditions are number of users, number of simultaneous transactions, inadvertent shut down, and similar tests.

## **Study Period**

The first of the three periods in the Project Cycle, followed by the Acquisition Period and the Operations Period. The Study Period consists of the following phases: (1) User Requirements Definition, (2) Concept Definition, (3) System Definition, and (4) Acquisition Planning.

## **Subassembly**

Two or more parts joined together to form a stockable unit as a replacement item in an assembly, such as a printed circuit board with installed parts. Level 6 in the system hierarchy.

## **Subcontract**

**S/C**

A contract between the Government Prime Contractor and a Seller.

## **Subcontract Administrator**

**SCA**

An official designated by the Contractor, who has the authority to obligate Contractor funds; enter into, administer, change and terminate subcontracts; and make related determinations and findings.

## **Subcontract Documentation Requirements List**

**SDRL**

The documentation required by a Prime Contractor from a Subcontractor in the execution of a subcontract. The SDRL is included in the subcontract statement of work.

## **Subcontract Management Team**

**SMT**

The Prime Contractor's multi-disciplined task force responsible for audit and corrective action guidance of a Subcontractor.

## **Subcontractor**

A Contractor performing work for a Prime or Associate Contractor in accordance with a contract that includes a Statement of Work and a specification. See also Vendor.

## **Subcontractor Management Plan**

The document that defines how the Prime Contractor intends to manage specific Subcontractors. Included are implementation planning, status and control techniques, use of resident representatives, and other techniques unique to management of the Subcontractor risk.

## **Subcontractor Manager**

A senior Prime Contractor project team member responsible for the overall management of the Subcontractor.

## **Subsystem**

A functional grouping of assemblies that combine to perform a major function within an Element, such as electric power, command and control, or software. Level 4 in the system hierarchy.

## **Subtier**

The subcontractor's subcontractor or vendor.

## **System**

A combination of hardware, software, facilities, personnel, data, and services to perform a designated function with specified results, such as the collection, processing, and delivery of intelligence data to users. The highest member of the system hierarchical structure.

### **System Acceptance (Factory or Site)**

The official contractual act of transferring system management responsibility, as defined in the contract, from the Contractor to the Government after proving compliance with all contract provisions. On fixed price contracts ownership also transfers unless progress payments have already caused transfer of ownership. On cost reimbursement contracts, since the Government (Buyer) is the owner of the system throughout the system development phase only system management responsibility transfers. Government acceptance is commonly called DD250 because of the form used to capture the signatures of the responsible decision makers consummating the transfer.

### **System Acceptance Review**

### **SAR**

A Joint Control Gate at which the Government Project Office determines system readiness for Government acceptance. The System Acceptance Review confirms that the system meets contractual performance specifications. A system-level Acceptance Review may occur twice during the project. The first acceptance, from the Seller, takes place at the Seller's facility. A second acceptance, from the installation team, occurs after installation at the operational site to assure no damage occurred during transportation and installation.

For a contract having a single deliverable system, the System AR consists of a Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA). For a contract with repetitive deliveries of identical units, the first unit System AR will consist of a full FCA and PCA. The AR for subsequent units may consist of a subset of the first unit System AR requirements.

### **System Acquisition**

The process of conceiving, specifying, designing, building, integrating, testing, delivering, operating, and maintaining a system in order to satisfy a User's need.

### **System Acquisition Plan**

### **SAP**

The document that describes the expected approach to be used in developing and deploying a specific system. It is prepared by the Government Project Office, after the System Specification Definition Phase is completed and prior to the start of the Source Selection Phase. Content includes the User requirement and the concept definition; it references the System Specifications, and identifies the funding, manpower, and facilities resources that will be required, as well as ten Project Management elements and the



techniques that will be used in the project to implement the elements. The plan, when approved, requires a commitment from Government executive management. Also called Acquisition Plan.

### **System Analysis**

The process of studying an existing system to determine how it works and how it meets user needs. System analysis lays the groundwork for improvements to the system. The analysis involves an investigation, which in turn usually involves establishing a relationship with the client for whom the analysis is being performed, and with system users.

### **System Architecture Development**

The development of the top level decomposition of a system concept.

### **System As-Built Documentation**

Drawings, process specifications, and software listings that document the as-built configuration of hardware and software including any required fabrication and coding fixes.

### **System Concept**

The approach selected as a result of the Study Period trade-off analysis performed in response to the System Requirements Document.

### **System Concept Document**

A document created by the Government Project Office to summarize the analyses and trade-offs leading to the concept selected by the Concept Definition Phase. Technical feasibility of approaches considered is assessed in terms of cost, schedule, risk, and other factors. The Concept Definition Document presents the results of these studies, and fully describes the concept selected for procurement in the Acquisition Period. It is used to derive the System Performance Specifications (Type A) and the contract Statement Of Work. Also known as Concept Definition Document.

### **System Concept Review**

SCR

The Government Executive Control Gate which reviews and approves the recommended system concept configured to satisfy the System Requirements Document and described in the System Concept Document. The SCR is the decision point to proceed with the development of the System Specification.

### **System Decomposition**

The hierarchical functional and physical partitioning of any system into hardware assemblies, software components, and operator activities that can be scheduled, budgeted, and assigned to a responsible manager.

### **System Deployment Procedures**

Step-by-step instructions to deploy the project into its operational environment.

### **System Design**

The process of developing a plan for an improved system, based on the results of system analysis.

### **System Design Review**

### **SDR**

A Contractor Control Gate on DoD contracts at which the Contractor Project Office reviews and approves the Contractor's top level system design solution and rationale. The SDR is the decision point to proceed with system specification flowdown to hardware and software configuration items.

### **System Development**

The sequence of activities starting from the negotiated contract with the selected Offeror and extending to deployment of the system into operational use. In the Project Cycle, the phase following Source Selection and preceding Deployment and Operations and Maintenance (O&M).

### **System Development Phase**

Old name for Implementation Phase

### **System Development Project**

A type of project whose deliverable is a system with a high percentage of new product design and varying degrees of hardware and software content.

### **System Engineer**

The advocate for orderly, progressive system development by adherence to the System Development Process within the Project Cycle. The responsibility begins with the identification of the user needs in the User Requirements Definition Phase and ends with validation that the user needs were satisfied in the Operations and Maintenance Phase. The specific responsibilities of the System Engineer depend on the phase of the Project Cycle. The System Engineer ensures that all appropriate technical and operational disciplines are applied to the System Development Process in the applicable phases and that the authorized tasks will satisfy the control gate requirements of each phase.

### **System Engineering and Technical Assistance**

**SETA**

Technical assistance provided by consultants and/or Contractors to assist the Government during all phases of the Project Cycle by performing system analysis and system engineering oversight.

### **System Engineering, Integration, and Test**

**SEI&T**

Technical assistance provided by consultants and/or Contractors to assist the Government during all phases of the Project Cycle by performing system engineering oversight and by physically performing system integration and acceptance test.

### **System Engineering Management Plan**

**SEMP**

The top-level system engineering plan for the project that describes the technical approach to conceiving, designing, and developing the project in accordance with the Technical Aspect of the Project Cycle. The SEMP includes risk management, studies, use of models, analyses, configuration management, and the like.

### **System Hierarchical Structure**

A set of terms defining the composition of a system, ranked one above another, with the term "part" ranked lowest and the term "system" ranked highest. The terms and the corresponding level numbers from lowest to highest rank are:

- (7) part,
- (6) subassembly,
- (5) assembly,
- (4) subsystem,
- (3) element,
- (2) segment,
- (1) system.

For software projects, Computer Software Components (CSC) may reside at all levels below the segment level and Computer Software Units (CSU) usually reside at Level 6 subassembly. A Configuration Item can be specified at any level in the System Hierarchical Structure.

### **System Integration**

The successive combining and testing of system hardware assemblies, software components, and operator tasks to progressively demonstrate the performance and compatibility of subsystems, elements, and segments of the system.

### **System Integration and Testing**

The major activity in the development process during which tested Hardware Configuration Items (HWCI) and Computer Software Configuration Items (CSCI) are integrated into the environment and tested using real or simulated input. The output is analyzed to determine whether the system performed as specified.

### **System Integration Plan**

A document prepared by the Contractor and approved by the Government that describes the Contractor's intended approach to system integration from the hardware assembly level or software unit level up to the system level.

### **System Integrator**

SI

A Contractor or a Government organization responsible for managing the total compatibility of the physical, functional, and operational interfaces between participating Associate Contractors, and ensuring that all requirements of all Interface Specifications have been realized.

### **System O&M Project**

A type of project whose deliverable is a system that has been deployed and turned over to Operations.

### **System Performance Report**

The document prepared by operations personnel to quantitatively describe, evaluate, and rate system performance as compared to the Operations and Maintenance Document requirements.

### **System Project Office (see also GPO)**

**SPO**

The Government office responsible for managing a specific project.

### **System Requirements Analysis/Design**

The major activity in the development process during which user needs are studied and analyzed to arrive at a definition of system requirements and to develop from them a preliminary design for the system. This major activity is specifically addressed in the software development process defined by MIL-STD-2167A.

### **System Requirements Document**

**SRD (1)**

The document prepared by the Government Project Office that describes user needs in understandable technical or operational criteria, by stating what the system must do to satisfy all or a part of the user's requirement. This document is the basis for developing the system concept and the resulting System Specification which is written in quantitative technical performance parameters.

### **System Requirements Review**

**SRR**

The Government Executive Control Gate which reviews and approves the Government Project Office's System Requirements Document to determine which needs of the total User Requirements Statement will be satisfied by the proposed project. The SRR is the decision point to allow the project to proceed with the in-depth analyses and tradeoffs necessary to select a preferred system concept with associated

"Should Cost" (budget) and "Should Take" (schedule) estimates. In the DoD structure, the term "System Requirements Review" is used to denote the review held at the beginning of each new contract to verify that the Seller understands what the Buyer wants. In this Terminology Manual, the exchange of this Buyer-Seller information at contract award is an integral part of the Contract Implementation Review (CIR). See CIR.

### **System Specification**

Defines the system baseline in terms of functional requirements, quantitative technical parameters, design constraints and the criteria for acceptance. It also includes a top level system description. The System Specification, also referred to Type A System Specification in MIL-STD-490, is the top level specification in the specification tree. It states functionality and performance, as opposed to design, and what is needed, as opposed to how to do it. It must be formulated in terms that are quantifiable and verifiable.

### **System Specification Definition Phase**

The third of nine phases of the Project Cycle. The objective is to secure Government Executive Management approval of the System Specification for the identified system concept. The Government conducts performance and design analyses with assistance of one or more Contractors, as required, to determine the quantitative specification requirements for the system. The phase begins after the completion of the Concept Definition Phase with an analysis of performance trade-offs and establishment of design criteria relative to the approved system concept. It ends with approval of the System Specification (Type A) at a Project Specification Review (PSR), which includes a system description, the identification and specification of external system interfaces, and internal allocation of system performance, as appropriate.

### **System Test Plan**

A document prepared by the Contractor and approved by the Government that describes the Contractor's intended approach to all development, integration, qualification, and acceptance testing. The System Test Plan is part of the System Verification Plan.

### **System Test Readiness Review**

### **STRR**

A Joint Control Gate at which the Government Project Office reviews the readiness to initiate System Verification in accordance with the System Verification Procedures. The STRR is the decision point for

approval to proceed with formal qualification tests or operational performance tests to produce evidence that the system meets the System Specification.

### **System User**

A final user who is both the operator and user of the output of the system to be developed by the Government Project Office. The emphasis in a User's Requirements Statement prepared by a system user is on both the product of the system and how the system is to be used. The system user performs the functions of the O&M Manager during the Operations Period.

### **System Validation**

The process of developing evidence in accordance with the User Validation Plan and System Validation Procedures to prove that the system meets the needs of the user.

### **System Validation Procedures**

The documents prepared by the Government Project Office and presented at the User Validation Readiness Review that define the detailed procedures to be followed to produce the tangible evidence of required performance, as defined by the User Validation Plan.

### **System Validation Report**

The documented summary of the results of the System Validation activities presented at the User Product Acceptance Review to determine acceptance.

### **System Verification**

The process of proving compliance with the System Specification using predominately test techniques, but also using demonstration and analysis techniques where necessary, as defined by the System Verification Procedures and the System Verification Plan.

### **System Verification Plan**

The document that describes the method used to prove that the system will meet all System Specifications. The plan includes development testing, integration verification, qualification testing, and

system verification. The System Verification Plan is prepared initially by the Government Project Office during the System Specification Definition Phase (previously called System Performance Definition Phase), and it is included as part of the Request For Proposal documentation in the Source Selection Phase. The plan is updated by the system developer and presented to the buyer for approval at the Preliminary Design Review (PDR).

### **System Verification Procedures**

The documents prepared by the system developer in response to the System Verification Plan and presented to the buyer at the Test Readiness Review that define the detailed procedures to be followed, including inspection, test, and analysis, to produce the tangible evidence necessary to verify that the system meets all System Specifications. The procedures define the testing sequence, test equipment, calibration requirements, facility requirements, and so forth.

### **System Verification Report**

The documented summary of the verification results which prove the system meets specification requirements. This report also identifies all discrepancies and their disposition and resolution.

### **System/Segment Design Document**

**SSDD**

A complete description of the system or segment design. It describes the organization of a system or segment as composed of Hardware Configuration Items(HWCIs), Computer Software Configuration Items (CSCIs), and manual operations. The SSDD is outlined in Data Item Description (DI-CMAN-80534).

### **System/Segment Specification**

**SSS**

A complete description of the system or segment functional performance requirements. The SSS is outlined in Data Item Description (DI-CMAN-80008A). See also System Specification.

## **T**

### **Task Force**



A team of skilled people who are tasked to investigate a problem, develop the necessary corrective action, and implement the actions necessary to correct the problem.

### **Teamwork**

Working together to achieve a common goal, with acknowledged interdependency, acceptance of a common code of conduct, and a shared reward.

### **Technical**

Relating to specified performance as opposed to cost and schedule.

### **Technical Aspect of the Project Cycle**

The portion of the project cycle required for technical solution management depicted in a Vee format to illustrate Decomposition on the left and Integration on the right.

### **Technical Evaluation Team**

**TET**

One of the proposal evaluation teams in the Source Selection Phase set up by the Source Evaluation Board to evaluate the technical aspects of a proposal.

### **Technical Exchange Meeting**

**TEM**

Meetings of Government and Contractor technical personnel and consultants to periodically review analysis and design progress to ensure validity of approach. Also called Technical Interchange Meeting.

### **Technical Interchange Meeting**

**TIM**

Meetings of Government and Contractor technical personnel and consultants to periodically review analysis and design progress to ensure validity of approach. Also called Technical Exchange Meeting.

### **Technical Leveling**

## Project Management Terminology Manual

The technique of helping Offerors to bring their proposals up to the technical level of other proposals through repeated rounds of discussions, where deficiencies, weaknesses, and corrective actions are discussed. This is an improper practice.

### **Technical Manual**

**TM**

The documentation written to provide technical operating and maintenance information to the user.

### **Technical Performance Measurement**

**TPM**

The risk management technique of identifying and measuring selected critical parameters. The goal is to identify adverse trends early for rapid and effective corrective action. Typical parameters selected for TPM are weight, power, computer memory capacity, and similar items.

### **Technical Transfusion**

The technique of disclosing technical information from one offeror's proposal to another Offeror in order to improve the second Offeror's proposal. This is an improper practice.

### **Telex**

**TWX**

An abbreviation for "TELEgraphic EXchange." Telex is a worldwide network of teletypewriters used for rapid, written communications. Telex is largely being replaced by facsimile (fax) machines. However, the Telex network provides somewhat more reliable access to less developed areas of the world than fax, which relies on the voice telephone network.

### **Termination**

An action taken pursuant to the termination clause of the contract. It may be in whole or in part, and represents the Contracting Officer's unilateral decision to end all or part of the work. Termination can be for the convenience of the Government or for default when the Contractor does not perform the work stipulated in the contract.

### **Termination for Convenience**

A unilateral right of the buyer to terminate any or all of a contractual effort for any reason at any time.

## **Termination for Default**

The tool whereby the Government cancels a procurement that is not meeting requirements. Default relates to any failure of the Contractor to perform the work called for by the contract within the specified time or any other provisions of the contract.

## **Terminology of Project Management**

The system of terms unique to the science or art of project management.

## **Test**

An operational procedure to quantitatively demonstrate compliance with the performance specification.

## **Test, Analyze, And Fix**

**TAAF**

A process used for problem solving. Hardware, software, and systems are tested, and the results of the test are compared against expected results. If there are variances, corrective action is taken, and the process repeated.

## **Test and Evaluation**

**T&E**

The process by which measured system performance is compared against specifications. The results of the comparison are used to assess suitability of the system for its mission.

## **Test Director**

**TD**

The individual in charge of all test operations.

## **Test Plan**

A document prepared by the Contractor and approved by the Government that is responsive to the Verification Plan and that describes the Contractor's intended approach to all development, integration, qualification, and acceptance testing. Test Plan is usually preceded by one of the following modifiers: system, subsystem, assembly, subassembly, module, and so forth.

## **Test Procedures**

**TP**

The documents that implement the testing of the System Test Plan and verification requirements by identifying the sequential tasks and data that must be accumulated by test personnel. It defines the step-by-step testing sequence, test equipment to be used, calibration requirements, test facility requirements, and other factors.

## **Test Readiness Review**

**TRR**

A series of Joint Control Gates at which the Government COTR concurs that the Contractor is ready to conduct official "sell-off" tests during which official verification data will be produced. Each TRR is the decision point for COTR approval to proceed with planned qualification tests or acceptance tests that will produce evidence to verify that performance specifications have been satisfied in accordance with the Verification Plan. Since TRRs are conducted to approve official data-gathering tests, they may occur at all levels of system integration, starting at assembly-level testing, and ascending through system-level testing. For tests below the Configuration Item level, the TRR is usually a Contractor Control Gate rather than a Joint Control Gate.

## **Tiger Team**

Focused visibility, status, evaluation, and recommendations by objective specialists relative to an identified area of concern.

## **Time and Materials (Contract)**

**T&M**

A contract type, wherein labor rates are negotiated to include indirect expense and profit. Materials consumed in the course of contract performance are provided as a direct charge without the application of indirect costs and profit.

## **Time Remaining**

**TR (1)**

Time between the status date and a contract milestone.

## **Time To Complete**

**TTC**

Time required from the status date to a contract milestone.

### **To Be Determined**

**TBD**

Contractual content such as dates, specifications, or criteria that have yet to be defined. Contractor cannot be expected to accurately propose without additional information. When defined, they become the basis for an Engineering Change Proposal (ECP).

### **To Be Resolved**

**TBR**

Contractual content, such as dates, specifications, or criteria that are not final, and are to be resolved by the Contractor or by the Government as part of the development effort. When resolved, they may be a basis for an Engineering Change Proposal (ECP).

### **To Complete Performance Index**

**TCPI**

An indicator of the future efficiency at which work must be performed to achieve the given estimate at completion (EAC).

### **Top Down Estimate**

An estimate of the anticipated cost and schedule for a project, based on expert judgment of the key members of the project team. Senior functional managers who have a major role in supporting the project may contribute to the creation of the Top Down Estimate. This estimate creates cost and schedule targets for each organization on the project team. Usually a "bottom-up" quoting process is then initiated to create a more precise cost and schedule estimate and team commitment.

### **Top Ten Problems List**

A list of critical problems in order of importance. There may be more or less than ten.

### **Total Quality Management**

**TQM**

An approach to quality predicated on viewing all coworkers as customers who must be satisfied and all work processes as needing continued improvement. TQM is based on the life's work of Dr. W.E. Deming whose basic concepts are:

- Gain understanding of the product requirements,

- Assess the product against the requirements,
- Ensure that all members of the organization understand the requirements and the development process as it relates to them, and
- Improve the process continually and forever.

The US Department of Defense has mandated TQM be applied to all new acquisitions and has a seven year plan of "quality as a way of life" in place.

### **Traceability**

The degree to which a relationship can be established between two or more products of the development process, especially products having a predecessor-successor or master-subordinate relationship to another [IEEE draft update, November 30, 1989]. Important kinds of traceability include from external source to system requirements; from system requirements to lowest level requirements; from requirements to design; from design to implementation; from requirements to verification; and from design to verification.

### **Trade Studies**

A comparison of alternatives against evaluation criteria to select the best solution.

### **Truth in Negotiations Act**

Public Law 87-653. The requirement for the submission either actually or by specific identification in writing of cost or pricing data and certification of their accuracy, completeness, and currency for the award of any negotiated contract expected to exceed \$500,000. Certain exceptions apply that are tied to adequate price competition or other conditions reflecting a competitive marketplace.

## **U**

### **Undistributed Budget**

### **UB**

Budget applicable to contractual effort which has not yet been identified to CWBS elements at or below the lowest level of reporting to the government.

## **Unpriced Changes**

Authorized but unnegotiated changes to the contract.

## **Unsolicited Proposal**

A proposal submitted by a Contractor to obtain a contract, which is not a response to a formal solicitation. Unsolicited proposals are accepted only when submitted to the cognizant Contracting Officer.

## **User**

The ultimate customer for whom the system, product, or service is being developed.

## **User Acceptance Review**

## **UAR**

Government User Control Gate to determine that the project product delivered by the operating system and personnel to the user meets the original user requirements as documented in the System Requirements Document, thus validating the system. The PAR is the decision point for user acceptance of all aspects of the system delivered. This review is the decision point for the user to accept the system and is also the Initial Operating Capability (IOC) milestone. The UAR is held after the Operational Acceptance Review (OAR) and User Readiness Review (URR) have been successfully completed.

## **User Product Acceptance**

The official act by the Product User to validate that the Government Project Office has fulfilled all user needs stated in the System Requirements Document, and as agreed to in the User Validation Plan. If the final user is the System User, User Acceptance occurs at Operational Acceptance.

## **User Readiness Review**

## **URR**

The User Government Control Gate at which the User concurs that the Government Project Office is ready to conduct official "sell off" validation tests required by the Validation Plan developed in compliance with the System Requirements Document at the outset of the project. The URR is the decision point for User approval authorizing the GPO to proceed with the "official" System Validation. Same as the Validation Readiness Review (VRR).

### **User Requirements**

What the user needs, expressed in user terminology. May be intelligence, operational, mission, or other capability.

### **User Requirements Definition Phase**

The first of nine phases of the Project Cycle and the beginning of the Study Period. The objective is to secure Government Executive Management approval to initiate a new project in response to an identified user need and to initiate the funding process. The phase starts with the first recognition of a need and ends with the Project Resource Request being included in the agency Program Plan. The Government Project Office, together with the user, develops documented user requirements and conceptual system ideas through mutual discussions regarding the needs and the method(s) of satisfying the needs relative to existing capabilities. The User Requirements Statement, the initial System Acquisition Plan, Project Proposal, and Directorate Program Plan are prepared in this phase.

### **User Requirements Statement**

A document prepared by the user in consultation with the Government procuring organization that defines the user's needs and the requirements that must be satisfied by any resulting system. Usually written in user terminology from the user's perspective.

### **User Validation Plan**

The document prepared by the Government Project Office and presented to the user at the System Concept Review. It describes the method that will be used to prove that the system, when developed, meets all User Requirements.

## **V**

### **Validation**

The process of providing evidence that a system meets the needs of the user.



## **Validation Readiness Review**

**VRR**

The User Government Control Gate at which the User concurs that the Government Project Office is ready to conduct official "sell-off" validation tests required by the Validation Plan developed in compliance with the System Requirements Document at the outset of the project. The VRR is the decision point for User approval for the GPO to proceed with the "official" System Validation.

## **Value**

Benefit divided by cost.

## **Value Engineering**

**VE**

An organized effort to analyze the functions of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest life cycle cost consistent with required performance, reliability, quality, and safety.

## **Value Engineering Change Proposal**

**VECP**

A proposal that requires a change to the instant contract to implement, and results in reducing the overall projected cost to the agency without impairing essential functions or characteristics. A Value Engineering Proposal is not acceptable if the changes are restricted only to: contract type, deliverable end item quantities, or research and development (R&D) items or test quantities that are due solely to results of previous testing under the instant contract.

## **Variance**

The difference between actual and planned.

## **Variance Analysis**

The analysis of a cost or schedule deviation from the Plan, and the planned corrective action to eliminate the variance.

## **Variance Analysis Report**

A performance measurement system report that discusses the variance from the Plan and the planned corrective action to eliminate the variance.

### **Variance At Completion**

**VAC**

The difference between actual and planned cost or schedule at completion.

### **Variance Control**

The detection and correction of practices and/or performance considered substandard.

### **Variance Threshold**

The amount of variance that triggers a Problem Analysis Report as agreed to between the Seller and the Buyer. Variance parameters will differ depending on the function, level, and state of the project.

### **Vendor**

A supplier of material or services sold from a catalog or price list. This material or service is covered by a purchase order rather than a contract.

### **Vendor Request for Information or Change**

**VRIC**

A vendor-initiated document to request information or a change from the Prime Contractor.

### **Verification**

Proof of compliance with specification performance requirements. Verification may be determined by test, analysis, inspection, or demonstration.

### **Verification Matrix**

A document that displays all required verification, the method of verification, and the results of verification. Also called Requirements Verification Matrix.

### **Verification Plan**

A subsection of the Implementation Plan that describes the Contractor's method of proving technical performance. May be part of the System Engineering Management Plan (SEMP).

### **Verification Procedures**

The documents that implement the inspection, demonstration, testing, and analysis required by the Verification Plan. They define the step-by-step instructions, equipment to be used, calibration requirements, facility requirements, etc.

### **Verification Report**

A report that documents the results of the verification process.

### **Verification, Validation, and Test**

### **VV&T**

The proof that the solution meets both specification and user requirements as evidenced by test and operational results.

### **Version Description Document**

### **VDD**

Identifies and describes a version of a Computer Software Configuration Item (CSCI). It is used by the contractor to release CSCI versions to the Government. The term "version" may be applied to the initial release of a CSCI to a subsequent release of that CSCI, or to one of multiple forms of the CSCI released at approximately the same time (for example, to different sites). The VDD is used by the Government to track and control versions of software to be released to the operational environment.

### **Vice President**

### **VP**

A senior officer of a commercial firm. Depending on the size of the firm, the Vice President reports to the President or Chief Financial Officer. In larger firms, a Vice President might report to a Senior Vice President or an Executive Vice President. A Vice President typically is in charge of a line of business or a staff function.

# W

### **Waiver**

The unilateral action by the Government granting relief from performance against a contractual requirement. Usually limited to instances where such relief is in the best interests of the Government; that is, when the cost and/or schedule to achieve full compliance would be prohibitive.

### **Walk-through**

The rehearsal of a test or operational procedure by simulating the actual execution of the procedure but bypassing the high risk or expensive operations. It ensures that all personnel and equipment are ready to carry out the real thing. Also a group of three or four peers mentally stepping through a software design and logic flow with test cases to identify errors and inconsistencies.

### **Waterfall Model**

A development life cycle (applicable to both hardware and software) that partitions the project into manageable phases and establishes milestones, products, and reviews at the end of each phase. [Thayer]

### **Weighted Guidelines**

A technique that the Government uses to ensure consideration of the relative value of appropriate profit factors in establishing a profit objective and conducting negotiations. Appropriate profit factors include contractor's effort, contractor's cost risk, facilities investment, special factors such as productivity, independent development, and others.

### **Wild Anatomical [sic] Guess**

### **WAG**

A rapid estimate based on personal experience. Sometimes used in cost and schedule predictions.

### **Work Breakdown Structure**

### **WBS**

The hierarchical division of the system into elements of the system and then the associated work tasks into manageable work packages which are defined, scheduled, budgeted, organized, statused, and controlled.

## **Work Breakdown Structure Dictionary**

A detailed description of the work content for each WBS task.

## **Work Order/Work Authorization**

**WO/WA**

An alpha-numeric identifier used by team members to code time cards and other charges to specific Work Breakdown Structure (WBS) work tasks and projects. Also forms the basis for Earned Value calculations.

## **Work Packages**

**WP**

Detailed, short-span jobs, or material items, identified by the Contractor for work required to complete the contract. Characteristics of the work package are: (a) it represents units of work at levels where work is performed; (b) it is clearly distinguished from all other work packages; (c) it is assignable to a single organizational element; (d) it has scheduled start and completion dates, and, as applicable, interim milestones, all of which are representative of physical accomplishment and can be stated.

## **Work Remaining**

**WR**

The work tasks still to be done to complete the project.

# **Z**

## **Zero Dollar Contract**

A contract, usually for one dollar, that establishes a relationship between a buyer and seller to permit legal transfer of data.

# **Project Management Terminology and Documentation**

## **Section 3**

### **Control Gate Descriptions**

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## Program Plans Review (PPR)

### What is it?

The Government Executive Control Gate at which the Office Director reviews, approves, and commits to support the Project Champion's project proposal for the start-up of a new project (new initiative). The PPR is the decision point for Office level management to approve the project for inclusion into the Office Director's Program Plan and to support it in the Directorate Program Plan. The Directorate Program Plan is a composite of the Office Program Plans which identify the User Requirements, the proposed response to the need, and the resources required to support the project.

### Who are the host, chairperson, and reviewers?

The Office Director is the both the host and chairperson. If delegated to the Deputy Office Director, the individual must have the authority to approve the Project and commit the required resources. The reviewers are Office-level staff (Budget and Plans) and objective peer level evaluators (Group Directors).

### Who are the presenters?

The presenters are the Government Project Champion, championing the new initiative proposal, the Government project System Engineer, other key project team participants, and a User representative (i.e. product User or system operator).

### Where is the review held?

The review is held in the Office Directors conference facility.

### How is the review conducted?

The Government Project Champion presents evidence of the need (User Requirement), the project proposal, the resources required, and the project's relationship to the Office and Directorate Strategic Plan. The Office Director and reviewing staff conduct a constructive review of the Project Proposal to confirm that the resulting Office Program Plan is responsive to the Directorate Strategic Plan and meets Program Guidance provided by the Directorate.

### What is the evidence that is evaluated?

- User Requirements Statement
- Project Proposal, to include an initial system concept, Should Cost and Should Take budget and schedule estimates, required government staff, equipment procurement, and contract support to develop, deploy, and operate the proposed system concept
- Initial System Acquisition Plan, to include the acquisition strategy leading to the required staffing, contracting, and other resources

### **What are the actions?**

The Office Director approves or disapproves the Project Proposal, or requests additional data in order to make a more informed decision. The resulting approved Project Proposals constitute the Office Program Plan which will be submitted to the Directorate for approval and incorporation into the Directorate Program Plan

### **What is the closure?**

The Office Director shall conclude one of the following:

- a. The Office supports the project proposal. The Office Director approves the Project Proposal for incorporation into the Office Program Plan and submission to the Directorate.
- b. Some project proposals require additional data, others are disapproved. The Office Director requests the appropriate Project Champion to obtain the necessary data and schedules a repeat of the Program Plans Review.

## System Requirements Review (SRR)

### What is it?

The Government Executive Control Gate which reviews and approves the Government Project Office's System Requirements Document to determine which needs of the total User Requirements Statement will be satisfied by the proposed project. The SRR is the decision point to allow the project to proceed with the in-depth analyses and trade-offs necessary to select a preferred system concept with associated "Should Cost" (budget) and "Should Take" (schedule) estimates.

In the DoD structure the term "System Requirements Review" is used to denote the review held at the beginning of each new contract to verify the Seller understands what the Buyer wants. In this Terminology Manual, the exchange of this Buyer-Seller information at contract award is an integral part of the Contract Implementation Review (CIR). (see CIR description)

### Who are the host, chairperson, and reviewers?

The review is hosted by Government executive management at least one level above the Government Project Champion. The individual must have the authority to approve the System Requirements Document and commit the required resources. The Chairperson is the Government Executive responsible for the ultimate success of the project. The reviewers are members of his staff and objective peer level evaluators.

### Who are the presenters?

The presenters are the Government Project Champion, the Government project System Engineer, other key project team participants, and a User representative (i.e., product User, system operator or both).

### Where is the review held?

The review is held in the Government executive management conference facility.

### How is the review conducted?

The Government Executive Review team conducts a constructive review of the evidence presented to ensure that the project is responsive to the specific User Requirements Statement as established in various meetings and understandings with the cognizant operators and Users. Evidence is also reviewed to verify that the operational environment and functional performance requirements are understood and defined in the System Requirements Document. Executive management must achieve the required confidence that the Project Champion understands the User's Requirements and is ready to proceed with the concept formulation, evaluation, and selection process.

### What is the evidence that is evaluated?

- A summary, from the User Requirements Statement, of which User needs will be met by the system
- System Requirements Document with supporting evidence of quantified critical operational functions
- Requirements models that establish a clear understanding of the User's requirements
- Results of requirements analysis, and studies of the operational environment
- The concept selection criteria previously agreed upon with the User

### What are the actions?

At the completion of the review the chairman convenes an executive session to review the findings and recommendations. The chairperson and secretary prepare the review minutes to be signed by the chairperson. The Government Project Champion and User Executive Manager receive copies of the minutes for review of the factual content. The Government Project Champion discusses the assigned action items identified in the minutes with the chairperson and enters them into the GPO action item log as a record of the actions required to satisfy the review requirements. The Government Project Champion places the System Requirements Document under change control and publishes the document as the system requirements Baseline.

### What is the closure?

Executive management shall conclude one of the following:

- a. The System Requirements are responsive to the User's needs, and executive management approves the System Requirements Document and provides authorization to proceed with system analysis and concept selection.
- b. Action items and limited authorization to proceed are provided by the executive management to the Government Project Champion.
- c. The System Requirements Review was unacceptable and the SRR must be repeated before authorization to proceed is provided.
- d. The system requirements are not responsive to the User's requirements, will be too difficult to accomplish, adequate resources cannot be made available, or the return on investment is too small, thus the project is terminated.

# System Concept Review (SCR)

## What is it?

The Government Executive Control Gate which reviews and approves the recommended system concept configured to satisfy the System Requirements Document and described in the System Concept Document. The SCR is the decision point to proceed with the development of the System Performance Specification.

## Who are the host, chairperson, and reviewers?

The review is hosted by Government executive management at least one level above the Government Project Champion. The individual must have the authority to approve the System Concept Document and commit the required resources. The Chairperson is the Government Executive responsible for the ultimate success of the project. The reviewers are members of his staff and objective peer level evaluators.

## Who are the presenters?

The presenters are the Government Project Champion, the Government Project System Engineer, other key project team participants, a User representative (i.e., product User, system operator or both), and advisors to the Project Manager.

## Where is the review held?

The review is held in the Government executive management conference facility.

## How is the review conducted?

The Government review team conducts a constructive challenge of the evidence that in-depth analyses and concept trade-offs were performed and the proposed system concept is responsive to the validated needs of the User as defined in the System Requirements Document. Evidence must show that the critical feasibility issues essential to the concept have been resolved and project cost and schedule drivers are understood and adequately budgeted. The Government Project Champion and project team present the results of the system analyses and trades of alternative approaches which led to the system concept.

## What is the evidence that is evaluated?

- System Concept Document
- Results of system analysis and trades of alternative concepts justifying the concept selected
- Results of the technical feasibility studies and tests confirming acceptable risk
- System Validation Plan with User concurrence
- Operational Demonstration Plan with Operations Team concurrence
- Revised "Should Cost" and "Should Take" estimates
- Staffing and facility needs for the selected concept

## What are the actions?

At the completion of the review the chairman convenes an executive session to review the findings and recommendations. The chairperson and secretary prepare the review minutes to be signed by the chairperson. The Government Project Champion, User Executive Manager, and the Operations Team Executive Manager receive copies of the minutes for review of the factual content. The Government Project Champion discusses the assigned action items identified in the minutes with the chairperson and enters them into the GPO action item log as a record of the required actions necessary to satisfy the review requirements.

## What is the closure?

Executive management shall conclude one of the following:

## Project Management Terminology Manual

- a. The Concept selected is acceptable and executive management provides the Government Project Champion with written approval of the System Concept Document and authorization to proceed with a more detailed system analysis for the selected concept and the development of the System Performance Specification.
- b. Limited authorization to proceed is authorized by the chairperson to the Government Project Champion.
- c. The selected System Concept is unacceptable. The trade-off of alternative system concepts must be repeated and the SCR must be repeated before authorization to proceed is provided.
- d. It is agreed that the most responsive system concept was selected by the GPO. However, the risks are too great, adequate resources cannot be made available or the value of the product does not warrant the amount of investment. The project is terminated.

## Interest/No Interest Review

### What is it?

The Company Executive Control Gate for Company executive management to decide if it will pursue an expected Government acquisition. This decision is based on early information usually obtained at a Government briefing on the anticipated project and evidence that the project is being planned in the Government's budget. The Interest/No Interest Review is the decision point for company management to approve low level funding of technical and marketing effort using executive management discretionary funds.

### Who are the host, chairperson, and reviewers?

The company executive manager with the authority to commit discretionary funds is both the host and chairperson. If delegated to a subordinate the person must have the authority to commit Company resources. Reviewers are members of the executive's staff and technical advisors as required.

### Who are the presenters?

The presenters are technically cognizant system engineering personnel, marketing, and other personnel interested in pursuing the opportunity.

### Where is the review held?

The review is held in the Company's executive conference facility.

### How is the review conducted?

Marketing and key technical personnel present the nature of the project and its relation to the Company's strategic plan. The Executive management team conducts a constructive challenge of the evidence presented to obtain the required confidence to make an informed Interest/No Interest decision to fund the preproposal preparation effort.

### What is the evidence that is evaluated?

The following information is presented as available:

- Evidence showing that the project and funding have support in the Government and that the acquisition process is sufficiently near term
- System Requirements Document
- System Concept Document
- Known risk areas and feasibility demonstration results
- Government Executive Management's position on the project
- Also presented is how the Company's capability matches with the project, how the project supports the Company's strategic plan, the investment required by the Company, and the potential profit

### What are the actions?

At the completion of the review the chairperson determines if the project is consistent with the Company's new business areas and, if the risk is acceptable, the chairperson authorizes the team formation, approves funding for the effort, and establishes a single acquisition manager responsible for leading corporate effort, interfacing with the government project champion, and developing corporate teaming relationships.

### What is the closure?

Company Executive Management shall conclude one of the following:

## Project Management Terminology Manual

- a. The risk is acceptable and executive management provides the team leader with authorization to target the project and form the initial team.
- b. Exceptions noted in the review require executive or team actions to resolve.
- c. The proposed approach is unacceptable and the Interest/No Interest review must be repeated.
- d. The probability of winning is not sufficient to justify the expense of forming a team.



## Project Specification Review (PSR)

### What is it?

A Government Executive Control Gate to verify that the System Specification accurately defines the performance required to satisfy the System Concept Document and that the project can be accomplished within the allocated budget and schedule. The PSR is the decision point to finalize the Acquisition Plan and to identify potential bidders.

### Who are the host, chairperson, and reviewers?

The review is hosted by Government executive management at least one level above the Government Project Champion. The individual must have the authority to approve the System Specification and commit the required resources. The Chairperson is the Government Executive responsible for the ultimate success of the project. The reviewers are senior technically qualified system engineers, technical advisors familiar with similar concepts, and objective peer level evaluators to assure adequacy and realism of specifications.

### Who are the presenters?

The presenters are the Government Project Champion, the Government project System Engineer, and other key project team participants. System engineering consultants involved in the study period may participate as technical advisors to the Project Champion.

### Where is the review held?

The review is held in the Government executive management conference facility.

### How is the review conducted?

The Government executive review team conducts a constructive challenge of the evidence presented to verify that the System Specification is responsive to the validated needs of the User as defined in the System Requirements Document and the System Concept Document. The evidence should be reviewed to assure that the specifications are accurate, adequate, and achievable, and that the technical risks have been balanced against payoff, cost, and schedule. Executive Management should provide sufficient challenge to the project team to determine that the project is sufficiently defined to finalize the Acquisition Plan.

### What is the evidence that is evaluated?

- System Specification
- Interface Specifications
- Requirements Traceability Matrix
- System Verification Plan

The Government Project Champion and project team present evidence of successful completion of the System Specification Definition Phase, including system analysis and trades establishing the desired and minimum acceptable technical performance, analysis of the system concept to resolve all system level TBDs and TBRs identified at SCR, a resolution plan for known TBDs and TBRs below the system level, and sensitivity analysis of the technical drivers in the “Should Cost” and “Should Take” baselines. The evidence should also show that the specification does not restrict competition.

### What are the actions?

At the completion of the review the chairman convenes an executive session to review the findings and recommendations. The chairperson and secretary prepare the review minutes to be signed by the chairperson. The Government Project Champion receives a copy of the minutes for review of the factual content. The Government Project Champion discusses the assigned action items identified in the minutes with the chairperson and enters them into the GPO action item log as a record of the required actions necessary to satisfy the review requirements.

### What is the closure?

Executive management shall conclude one of the following:

- a. The Project Specification Review is acceptable, executive management approves the System Specification and provides the Government Project Champion with authorization to proceed with the completion of the Acquisition Plan.
- b. Exceptions noted in the review minutes require a subsequent PSR to resolve. Limited authorization to proceed is provided by the chairperson to the Government Project Champion.
- c. The System Specification is unacceptable and the PSR must be re-convened before authorization to proceed is provided.

## Acquisition Plan Review (APR)

### What is it?

The Government Executive Control Gate at which executive management approves the approach and required resources defined in the Government System Acquisition Plan. The APR is the decision point for Government Executive Management to initiate the project and commit funding, manpower, and other resources.

### Who are the host, chairperson, and reviewers?

The review is hosted by Government executive management at least one level above the Government Project Manager. The individual must have the authority to approve the Acquisition Plan and commit the required resources. The Chairperson is the Government Executive responsible for the ultimate success of the project. The reviewers are senior personnel experienced in project management and acquisition planning, the Senior Contracting Officer, and objective peer level evaluators.

### Who are the presenters?

The presenters are the Government Project Manager, the Government project System Engineer, other key project team participants and representatives of interfacing systems.

### Where is the review held?

The review is held in the Government executive management conference facility.

### How is the review conducted?

The Government executive review team conducts a constructive review of the evidence to verify that the Acquisition Plan is complete and has a reasonable chance of success. Executive management seeks ways to strengthen the plan and commits the required resources and office priorities.

### What is the evidence that is evaluated?

- The Acquisition Plan with justification of the acquisition approach
- Recommended bidders list
- Project Office Organization
- The WBS with dictionary and budget allocations
- Project Products List and Fact Sheets
- The project network diagram and milestone dictionary
- The project funding schedule
- Project Schedule
- Project Control System

- Project Visibility System
- Project Status System
- Risk Management approach
- Personnel task assignments and authority
- Planned leadership approach

If non-competitive procurement is recommended, complete sole source justification consistent with Federal Regulations is required.

### **What are the actions?**

At the completion of the review the chairman convenes an executive session to review the findings and recommendations. The chairperson and secretary prepare the review minutes to be signed by the chairperson. The Government Project Manager, receives a copy of the minutes for review of the factual content. The Government Project Manager discusses the assigned action items identified in the minutes with the chairperson and enters them into the GPO action item log as a record of the required actions necessary to satisfy the review requirements.

### **What is the closure?**

Executive management shall conclude one of the following:

- a. The Acquisition Plan is acceptable, executive management approves the Plan and authorizes the Government Project Manager to proceed with the Source Selection Phase.
- b. Limited authorization to proceed is authorized by the chairperson to the Government Project Manager, pending resolution of the outstanding action items.
- c. The Acquisition Plan is unacceptable and the APR must be repeated before authorization to proceed is provided.
- d. Adequate resources can not be made available to accomplish the project, and therefore the project is terminated.

## Pursue/No Pursue Review

### What is it?

The Company Executive Control Gate for executive management to determine if it intends to respond to the formal Request for Proposal based on a review of the draft RFP. The Pursue/No Pursue Review is the decision point for management to approve the formation of a proposal team to prepare to respond to the formal RFP. A decision to pursue the business opportunity usually results in a significant increase in the size of the Contractor proposal project team.

### Who are the host, chairperson, and reviewers?

The company executive manager with the authority to commit discretionary funds is both the host and chairperson. If delegated to a subordinate the person must have the authority to commit Company resources. Reviewers are members of the executive's staff and technical advisors as required.

### Who are the presenters?

The presenters are the proposal team leader identified as the win manager, marketing, and other personnel interested in pursuing the opportunity.

### Where is the review held?

The review is held in the Company's executive conference facility.

### How is the review conducted?

The Win Manager and Marketing present the strategy for winning based on the draft RFP, including competitive analysis of the expected competitors and their probability of winning. The executive management team conducts a constructive review of the information to obtain the required confidence to proceed with the proposal team formulation and funding.

### What is the evidence that is evaluated?

- Overview of the Draft RFP
- Match between Company capability and the Draft RFP
- Proposed approach
- Competitive analysis
- Win strategy
- Teaming required
- Risks and risk management actions
- Bid and Proposal funding requirements
- Personnel requirements
- Facility requirements
- Capital equipment requirements
- Proposal schedule

### What are the actions?

At the completion of the review the chairperson determines the probability of winning and, if acceptable, authorizes the proposal team formation and funding of the effort.

### What is the closure?

Company Executive Management shall conclude one of the following:

- a. The probability of winning is acceptable and executive management provides the win manager with written authorization to initiate the proposal preparation activities.

- b. Exceptions noted in the review require executive or team actions to resolve.
- c. The proposed approach is unacceptable and the Pursue/No Pursue review must be repeated.
- d. The probability of winning is not sufficient to justify the expense of forming a team. The team is disbanded and the customer is notified of the “no pursue” decision.

## Source Selection Initiation Review (SSIR)

### **What is it?**

The Government Executive Control Gate which reviews and approves the Government's Request for Proposal (RFP) and Source Selection Plan. The SSIR is the decision point for the Contracting Officer to release the RFP and implement the Source Selection Plan.

### **Who are the host, chairperson, and reviewers?**

The review is held by the Government executive manager of the Office responsible for the project. The Government Source Selection Official (SSO) and the Source Selection Authority (SSA) are the hosts. The SSO is the chairperson. The reviewers are the senior Contracting Officer, Group Directors, Budget representative, and technical advisors experienced in contracting and project management.

The authority and responsibility for conducting this review may be delegated to the Group Director, or Division Chief depending upon the scope and importance of the project. However, it must always be conducted at least one level above the Government Project Manager.

### **Who are the presenters?**

The presenters are the Government Project Manager, the Government project System Engineer, other key project team participants, representatives of interfacing systems, the Contracting Officer assigned to the project, and advisors to the Project Manager.

### **Where is the review held?**

The review is held in the Government executive management conference facility.

### **How is the review conducted?**

The Government executive review team conducts a constructive review of the evidence presented to obtain confidence that the RFP is complete, responsive to the validated needs of the User and the project has been organized, scheduled, and funded to facilitate the preparation of responsive proposals. The review team should also review the Source Selection Process and the Source Selection Plan, to achieve the confidence that the process will provide for a fair review of the resulting proposals, and selection of a winning company consistent with all legal requirements. The project team should respond to executive management challenges with sound rationale to provide confidence in the completeness of the RFP and the recommended source selection process.

### What is the evidence that is evaluated?

- Request for Proposal, including the Statement of Work, System Performance Specifications, and Schedule
- Funding
- Bidders List
- Source Selection Plan outlining the source selection process, the evaluation criteria, source selection organization and schedule
- Evidence that a draft RFP was submitted to potential bidders with industry's response as evidence that bidders will respond with responsive proposals

### What are the actions?

At the completion of the review the chairman convenes an executive session to review the findings and recommendations. The chairperson and secretary prepare the review minutes to be signed by the chairperson. The Government Project Manager receives a copy of the minutes for review of the factual content.

The Government Project Manager discusses the assigned action items identified in the minutes with the chairperson and enters them into the GPO action item log as a record of the required actions necessary to satisfy the review requirements.

### What is the closure?

Executive management shall conclude one of the following:

- a. The Source Selection Initiation Review was acceptable and executive management authorizes the contracting officer to release the RFP and implement the Source Selection Plan.
- b. Limited authorization to proceed is authorized by the chairperson to the Government Project Manager and the Contracting Officer pending resolution of outstanding action items.
- c. The source selection planning is unacceptable and the SSIR must be repeated before authorization to proceed is provided.



## Bid/No Bid Review

### **What is it?**

The Company Executive Control Gate for Company executive management to constructively review the ability of the Company to respond to the Government's formal Request for Proposal and to achieve sufficient confidence in winning to justify the expense of bidding. The Bid/No Bid Review is the decision point for management to approve the preparation of a proposal in response to the Government's Request for Proposal and to authorize expenditure of B&P (Bid and Proposal) funds.

### **Who are the host, chairperson, and reviewers?**

The Company executive manager with the authority to commit discretionary funds is both the host and chairperson. If delegated to a subordinate the person must have the authority to commit Company resources. Reviewers are members of the executive's staff, functional managers, marketing, contracts, and technical advisors as required.

### **Who are the presenters?**

The presenters are the proposal team leader identified as the Win Manager, the proposed Project Manager, key personnel from the proposal team, responsible functional managers, marketing, and other personnel key to the success of winning the award.

### **Where is the review held?**

The review is held in the Company's executive conference facility.

### **How is the review conducted?**

The Win Manager and Proposal Team present the Company's strategy for winning including a competitive analysis of the expected competition and the Company's probability of winning. The executive management team conducts a constructive review of the information presented to achieve the required confidence to proceed with the proposal preparation. The proposal team must respond to executive management challenge with sound rationale to instill confidence in the decision to bid or not bid.

### What is the evidence that is evaluated?

- Overview of the RFP with results of the draft RFP cycle
- The match with Company capability
- The proposed approach and win strategy
- Competitive analysis
- Teaming arrangements
- Risks and risk management actions
- Bid and Proposal funding requirements
- Personnel requirements
- Facility requirements
- Capital equipment requirements
- Proposal schedule

### What are the actions?

At the completion of the review the chairperson determines if the risk is acceptable and, if so, authorizes funding of the proposal effort. Executive management determines with the Win Manager the executive control points in the proposal process that executive control will exercise.

### What is the closure?

Company Executive Management shall conclude one of the following:

- a. The probability of winning is acceptable and executive management provides the win manager with written authorization to expend B&P funds to prepare the proposal.
- b. Exceptions noted in the review require executive or team actions to resolve.
- c. The proposal approach is unacceptable and the Bid/No Bid review must be repeated.
- d. The probability of winning is not sufficient to justify the expense of preparing a proposal and the decision is to “no bid.” The proposal team is disbanded, and the customer is notified of the “no bid” decision.

# Final Proposal Review (FPR)

## What is it?

The Company Executive Control Gate for executive management to constructively challenge the proposal to ensure that a high quality competitive proposal has been prepared in response to the Government Request for Proposal, and that executive management will support the effort if the Company wins the award. The FPR is the decision point for management approval to deliver the proposal to the Government.

## Who are the host, chairperson, and reviewers?

The company executive manager with the authority to commit the Company resources necessary to support the proposed effort is both the host and chairperson. If delegated to a subordinate, the individual must have this same authority to commit the Company. Reviewers are members of the executive's staff, functional managers, marketing, contracts, and technical advisors as required.

## Who are the presenters?

The presenters are the proposal Win Manager, the proposed Project Manager, key personnel from the proposal team, responsible functional managers, marketing, and other personnel key to the success of winning the award.

## Where is the review held?

The review is held in the Company's executive conference facility.

## How is the review conducted?

The Win Manager and the Proposal Team present evidence that the RFP has been accurately interpreted and that the proposal has been prepared in accordance with the RFP Preparation Instructions. The Executive management team conducts a constructive review of the Proposal to achieve the required confidence to complete the proposal process and to deliver the proposal to the Government Contracting Officer. Executive management should seek ways to strengthen the proposal and look for opportunities to improve the Company's overall competitive position. The proposal team must respond to all executive management challenge with sound rationale to instill confidence in the conclusions recommended in the proposal.

## What is the evidence that is evaluated?

- The Proposal
- Compliance Matrix
- Results of Red Team evaluations
- Analyses substantiating the proposed approach
- Technical and business risk analysis and planned risk management actions
- Initial Implementation Plan defining how the project will be managed
- The team must demonstrate that the proposal is responsive to both the needs of the customer and the capabilities and goals of the Company

## What are the actions?

At the completion of the review the chairperson and the secretary prepare the review minutes for signature by the chairperson. The Win Manager reviews the minutes for factual content and enters any assigned action items in his action item log.

## What is the closure?

The Proposal Review Board shall conclude one of the following:

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- a. The proposal is acceptable and executive management provides the win manager with written authorization to submit the proposal.
- b. Action items are assigned by executive management to the win manager. Executive management may accept action items to resolve major issues or to help correct significant deficiencies in the proposed approach.
- c. The proposal is unacceptable and the FPR must be repeated.
- d. The deficiencies and issues requiring resolution are of such magnitude or the proposal is so flawed that the effort is terminated and the Government is notified of the Company's "no-bid" decision.

## Source Selection Authorization Review (SSAR)

### **What is it?**

The Government Executive Control Gate at which executive management approves the results of the source selection process and authorizes proceeding with contract negotiation. The review occurs after the source selection process is completed and a winner is proposed for selection, but before the contract is negotiated. The winner is announced after the contract is negotiated.

### **Who are the host, chairperson, and reviewers?**

The Government Source Selection Official (SSO) is the chairperson. The Source Selection Authority (SSA) and the SSO are the hosts and reviewers. The SSO is the Office Director or authorized representative. The SSA is the senior Contracting Officer.

### **Who are the presenters?**

The presenter is the Chairperson of the Source Evaluation Board and key members of the SEB. The Chairman of the evaluation teams and personnel responsible for the implementation of the Source Selection Plan attend as required.

### **Where is the review held?**

The review is held in the Office Director's conference facility.

### **How is the review conducted?**

The SSO and SSA conduct a constructive review of the evidence to achieve the required confidence that the source selection process was rigorously observed and that the proposal which offered the best value to the Government was being offered for selection as winner. The chairperson of the Source Evaluation Board must present evidence to the SSO and SSA that the Source Selection Plan and the previously developed proposal evaluation criteria were rigorously followed and resulted in a fair evaluation of the proposals.

### What is the evidence that is evaluated?

The Government Source Evaluation Board project team should produce:

- Justification for proposals declared outside of the competitive range
- Individual and team evaluation scores for each proposal
- Results of proposal fact-finding
- Strengths and weaknesses of *each* proposal in all areas evaluated within the proposal
- Comparative evaluation of strengths and weaknesses between proposals
- Most probable cost of each proposal
- A recommended winner with justification

In addition, the Board must describe the source selection process used, the rankings of the proposals, the acquisition plan, and the funding plan. The Contracting Officer and the Project Manager should be prepared to discuss their strategy for negotiating with the selected company.

### What are the actions?

The Source Selection Official (SSO), as the senior technical official recommends, and the Source Selection Authority (SSA) as the senior Contracting Officer, selects the winning proposal based on best value to the Government and approve the actions required to proceed with the negotiations.

### What is the closure?

The SSO/SSA shall conclude one of the following:

- a. The source selection process was performed in accordance with the Source Selection Plan. The SSO and SSA provide the Government Project Manager and the Contracting Officer with written authorization to proceed with contract negotiations by signing the Source Selection memorandum.
- b. Exceptions noted in the review require a subsequent SSAR to close.
- c. Results of the source selection process are unacceptable. The source selection process is terminated without selecting a winning proposal.

## Contract Acceptance Review (CAR)

### **What is it?**

The Joint Company and Government Control Gate at which the Government Negotiating Team meets with the Negotiating Team of the Company determined by the source selection process to be the “best value” to the Government. The objective is to perform fact finding, finalize the Project Requirements specific to the selected proposal, resolve any cost and schedule adjustments, and negotiate the resultant contract. The Contract Award is the decision point for the Government and the Company to enter into a legally binding contractual agreement. It is the culmination of the negotiation process, completion of the source selection phase, and the initiation of the System Development Phase.

### **Who are the host, chairperson, and reviewers?**

The Contracting Officer is the host and chairperson. The Company’s Contract Administrator with the Company’s supporting team, is the responding participant to the negotiation process. The Government Project Manager and the Company Project Manager are responsible for the outcome. The fact finders and the reviewers are members of the Government Proposal Evaluation and Negotiation Team, auditors, and technical advisors, as required.

### **Who are the presenters?**

The Company’s Contract Administrator, Project Manager and members of the Project Team are responders to fact finding questions. Other experts and functional managers such as manufacturing, procurement, test, etc., may also participate in their areas of expertise.

### **Where is the negotiation held?**

At the location most conducive to the transfer of information. Initial fact finding, refinement of Project Requirements and cost/schedule adjustments usually occurs at the company facility where data is most readily available. Final submission of adjustments and contract negotiation usually occurs at the Government facility.

### **How is the negotiation conducted?**

The Contracting officials present evidence and information in support of their proposed contract terms and conditions as established in the negotiation strategy sessions with their respective Project Managers . Each Contracting official evaluates the recommendation of the other and determines whether to adopt it or propose an alternate or a preferred position. The issues are progressively resolved until an agreement is reached as to contractual content and value.

### **What is the evidence that is evaluated?**

All data deemed necessary to justify and substantiate the position being advanced, to include:

- Results of Fact Finding
- Auditors Reports
- Project Requirements changes
- Adjustments to submitted proposal
- Status of GFE, CFE, etc.
- Availability of Company resources
- Functional Manager's substantiation

### **What are the actions?**

Based on the logic, each side adjusts their position until a mutual agreement is reached as to contract content and terminology. Each Contracting Official is responsible for maintaining a log of the negotiation proceedings. Once agreement has been reached, the Government Contracting Officer should prepare a draft of a Memorandum of Agreement to be signed by both Contracting Officials. The Government Contract Officer subsequently prepares the Contract reflecting the results of the negotiation process and the resulting Memorandum of Agreement for submission to the Company Contract Administrator for signature.

### **What is the closure?**

The Contracting Officer's signature completes Contract Award and produces a legally binding agreement between both organizations.



## Project Initiation Review (PIR)

### What is it?

A Contractor Executive Control Gate at which Contractor executive management reviews, approves, and commits the Company to the Contractor's Implementation Plan and approves the project start. The PIR is the forum for executive management to constructively challenge the readiness of the Project Manager and project team to initiate the contract effort and successfully meet the contract requirements. The approved Implementation Plan from this review is the basis for the Contract Implementation Review, which is the first formal meeting with the Government project team after contract award.

### Who are the host, chairperson and the reviewers?

The Contractor executive manager responsible for the success of the project is the host and chairperson. The reviewers are executive managers responsible for functional and resource support of the project.

### Who are the presenters?

The Project Manager, key personnel from the project team, participating functional managers, and other personnel key to the successful execution of the project in accordance with the Implementation Plan.

### Where is it held?

The review is usually held in the Contractor's executive conference facility, or at the project facility.

### How is it conducted?

The Project Manager and project team present evidence that the project has been planned to the detail level and that the team is committed and signed up to the successful execution of the plan. Executive management is responsible to provide sufficient challenge to the Implementation Plan and the project team to achieve the required confidence that both the plan and the team represent the approach that will achieve success for the Government and the Company. The project team responds to all executive management challenges with sound rationale that provides confidence in both the team and the recommendations of the plan. Executive management commits to support the project with required resources and Company priorities. Executive management seeks ways to strengthen the Implementation Plan. The attitude of executive management is vital to the success of this review. It must be both challenging and supportive. The results of this review will be presented to the Government project team at the Contract Implementation Review (CIR).

### What is the evidence that is evaluated?

The Implementation Plan that is fully responsive to the contract as negotiated including:

- Project requirements management
- Verification and validation approach
- The organization with key personnel and staffing
- The WBS with dictionary and budget allocations
- The Project Products List and Fact Sheets
- The project network diagram
- Detail schedules with resources required
- Critical path identification and schedule risk analysis
- Project Work Authorizing Agreements
- Contract funding schedule
- The risk management approach
- The control systems
- The visibility systems
- The status systems
- Planned leadership approach

### What are the actions?

The review chairman and executive secretary maintain the review minutes and sign them on completion of the review. The Project Manager reviews the minutes for factual content. The Project Manager discusses the content of the assigned action items with the executive management and documents the results in the action item log.

### What is the closure?

The Contractor executive management shall conclude one of the following:

- a. The Implementation Plan is acceptable, both the team and executive management are prepared to start the project. Executive management provides the Project Manager with written authorization to proceed to Contract Implementation Review (CIR).
- b. The Implementation Plan is deficient. Action items and limited authorization to proceed is provided by executive management to the Project Manager.
- c. The Implementation Plan and preparation for start-up are unacceptable and the PIR must be repeated.
- d. The deficiencies in the management plan and the start-up review are of such magnitude that executive management concludes a restructuring of the project management is necessary.

## Contract Implementation Review (CIR)

### What is it?

The Joint Control Gate at which the Government COTR reviews and approves the Contractor's Implementation Plan. The CIR is the joint Government and Contractor decision point for commitment to and implementation of the Project Plan. The Contract Implementation Review is the first formal meeting between the Government Project Team and the Contractor Project Team.

The CIR is convened by the Government to:

- Introduce the respective teams and to initiate the teamwork relationships of all participants
- Review all elements of the negotiated contract to demonstrate mutual understanding and to resolve any issues remaining from contract negotiation
- Present the business conduct ground rules as previously determined by the COTR and Contractor Project Manager in private session with their Contract specialists
- Provide a constructive challenge of the Contractor management plan from the Government's perspective and achieve agreement on the plan
- Gain an understanding and provide approval of the Contractor's method(s) of implementing the Implementation Plan

This review has also been called a "Start-up" Review, "Initial Design" Review, or, incorrectly, "System Requirements Review".

### Who are the host, chairperson and reviewers?

The COTR is the chairperson. The Contractor is the host and the Contractor Project Manager is the co-chairperson. The reviewers are the COTR, the Contracting Officer, and other members of the Government Project Team.

### Who are the presenters?

The COTR, the Contractor Project Manager, Contractor technical, business, and contract personnel, and key personnel from high risk subcontractors.

### Where is it held?

The review is usually held at the Contractor's facility to provide convenient access to pertinent information, documentation and Contractor personnel.

### How is it conducted?

The Government and Contractor Project Managers meet prior to the CIR to establish team seating, meeting agenda, business conduct ground rules and method of introducing the teams. The conduct of the CIR should eliminate misunderstandings between participants and begin to build a team atmosphere and a team approach to problem resolution.

The COTR and Contractor Project Manager open the meeting with team introductions and their respective expectations for the project. They jointly present their jointly determined ground rules for conduct of the business. This may include communications policy, and practices, ECP threshold, contract change authorization, disagreement escalation technique, etc. Government and Contractor teams perform a point-by-point review of all provisions of the negotiated contract to affirm mutual understanding. The intent is not to propose, discuss or initiate any changes of scope to the recently negotiated contract but rather to have the actual project team agree on interpretation. In the Implementation Planning part of the review, the Contractor should present the results of the Project Initiation Review conducted by company executive management and the project team. The evidence that has been accumulated and summarized from internal, detail level reviews and planning sessions is presented. This should include the traceability and verification methods from all Government System Performance Specifications and contractual requirements into contractor specifications that will drive the design, development, and verification of the system. The Government is responsible for providing challenge and feedback until agreement is reached that the Implementation Plan addresses all contract requirements and, if met, will satisfy the Government Project Team. The Contractor responds to all Government questions with sound rationale to prove the Contractor's approach and conclusions. Both parties are responsible for ensuring that the review is properly managed and that discussions are relegated to meetings that are unique to the subject. The review should be conducted to create a positive environment of mutual cooperation to be carried throughout the conduct of the project. The CIR should conclude on a note of total commitment to the successful completion of the project by all parties and participants.

### What is the evidence that is evaluated?

- The team diagram of both Government and Contractor teams showing responsibilities and authority
- The joint Government-Contractor business conduct ground rules
- The contract as negotiated including demonstrated understanding of the technical requirements
- The Implementation Plan which was presented and approved at the Project Initiation Review (PIR)

### What are the actions?

The Government and Contractor co-chairpersons maintain the review minutes and sign them on completion of the review to signify concurrence with the accuracy of the records. The Contractor Project Manager discusses the assigned action items with the COTR and documents the results in the Contractor's action item log. Both the COTR and Contractor Project Manager sign the action item log as evidence of ownership and responsibility for the required actions necessary to complete the review.

### What is the closure?

The COTR shall conclude one of the following:

- a. The Implementation Plan is acceptable and the COTR provides the Contractor with written authorization to proceed to the next control gate.
- b. Action items and limited authorization to proceed are provided by the COTR to the Contractor.
- c. The Implementation Planning preparation and proposed implementation are unacceptable and the CIR must be repeated before authorization to proceed is provided.
- d. The Contractor's project preparation and implementation approach is sufficiently flawed to cause the COTR to initiate discussions with Contractor executive management to restructure the project management or terminate the contract.

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## Design Concept Review (DCR)

### What is it?

The Joint Control Gate at which the Government COTR approves the Contractor's design concept and authorizes the Contractor to proceed with development of the "Design-to" specifications for all aspects of the project. Hardware, software, handling equipment, test equipment and tooling should be reviewed in the sequential order of system to assembly. This review will confirm if the Contractor intends to follow the concept of the Contractor's winning proposal or if more attractive concepts have been conceived and are now being recommended to the Government.

### Who are the host, chairperson, and reviewers?

The Government COTR is the chairperson. The Contractor Project Manager is the host and the co-chairperson. The reviewers are the Government project team including technical advisors.

### Who are the presenters?

Contractor system engineering and technical personnel, Contractor technical consultants, technical personnel from high risk subcontractors, and business management personnel from both the Contractor and high risk Subcontractors.

### Where is it held?

The review is held at the Contractor's facility to provide access to pertinent evidence and key Contractor personnel.

### How is it conducted?

The Contractor presents the planned design concept using top level illustrations, drawings, models, etc., and evidence that justifies the design proposed. The evidence shall prove that no show stoppers exist in the design and that it can be carried through the project cycle to maturity with low risk. Government personnel provide sufficient challenge to the concept to achieve the required confidence to authorize development of "Design-to" Baseline specifications. The Contractor project team responds to Government challenges with sound rationale to provide confidence in the design concept selection.

Both Contractor and Government chairpersons are responsible to ensure that the review is properly managed and that irrelevant discussions are relegated to meetings that are unique to the subject. The review should be conducted to maintain a positive environment of mutual cooperation throughout the conduct of the project.

### What is the evidence to be evaluated?

- The proposed design concept
- Technical justification for the concept or trade-off analysis justifying the concept
- Selection of off-the-shelf and proven solutions with rationale
- Data justifying the use of high risk and developmental designs
- Results of technical feasibility model tests, simulations, computer model analysis, etc.
- Deviations from the design concept recommended in the Contractor's proposal must be justified
- Evidence that the proposed concept can be built, verified and deployed
- Evidence that the proposed concept can be completed within the cost and schedule budgets
- Design Quality Assurance Plan

### What are the actions?

The Government and Contractor chairpersons maintain the review minutes and co-sign them on completion of the review as evidence of concurrence with the accuracy of the records. The Contractor Project Manager discusses the content of the assigned action items with the COTR and documents the results in the action item log. Both the COTR and Contractor Project Manager sign the action item log as evidence of the required actions necessary to complete the review.

### What is the closure?

The COTR shall conclude one of the following:

- a. The design concept is acceptable as presented and the COTR provides the Contractor with written authorization to place the concept under formal configuration management and to proceed to development of the "Design-to" Baseline.
- b. Action items and limited authorization to proceed are provided by the COTR to the Contractor.
- c. The design concept is unacceptable and the DCR must be repeated before concept approval is provided.
- d. The Contractor's design concept is seriously deficient and flawed and is unacceptable. The COTR should initiate discussions with Contractor executive management to affect significant improvements to the design concept or to terminate the contract.



## Configuration Item Specification Review (CI SR)

### What is it?

A Contractor Control Gate at which the Contractor Project Office reviews the preliminary “Design-to” Specifications (Type B Specifications) for the Hardware Configuration Item(s), Software Configuration Configuration Item(s), and Operations. These preliminary “Design-to” Specifications are released as final “Design-to” Specifications after approval at the Preliminary Design Review. The CI SR is the decision point to proceed with the development of the detailed preliminary design. The CI SR is also the hand-off of baseline development responsibility from System Engineering to Design Engineering.

### Who are the host, chairperson, and reviewers?

The Contractor Project Manager is the host and the chairperson. The reviewers are functional managers responsible for functional and resource support of the project.

### Who are the presenters?

Contractor system engineers for the project, Contractor technical personnel, Contractor technical consultants, technical personnel from high risk subcontractors, and business management personnel.

### Where is it held?

The review is held at the Contractor’s project facility to provide access to pertinent evidence and key Contractor project personnel.

### How is it conducted?

The Contractor system engineer for the project presents the planned design concept using top level illustrations, drawings, models, etc., and evidence that justifies the decomposition of the design into hardware, software, and manual operations. The evidence shall prove that no show stoppers exist in the proposed decomposition and that it can be carried through the project cycle to maturity with low risk. The Contractor design team provides sufficient challenge to the decomposition to achieve the required confidence that they can design and implement the “Design-to” Baseline. The review should be conducted to maintain a positive environment of mutual cooperation among the Contractor project team.

### What is the evidence to be evaluated?

- Preliminary “Design-to” specifications (Type B specifications) for the Configuration Items

### What are the actions?

The recording secretary for the meeting, designated by the Project Manager, maintains the review minutes and signs them on completion of the review. The Project Manager reviews the minutes for concurrence. The Project Manager discusses the content of the assigned action items with the team and documents the results in the action item log. Both the Project Manager and the System Engineer sign the action item log as evidence of their respective actions necessary to complete the review.

### What is the closure?

The Contractor Project Manager shall conclude one of the following:

- a. The design allocation to Configuration Items is acceptable. The Project Manager provides the System Engineer with written authorization to proceed to Preliminary Design Review (PDR).
- b. Action items and limited authorization to proceed is provided by the Project Manager.
- c. The design allocation to Configuration Items is unacceptable and the entire CI SR must be repeated.

## Preliminary Design Review (PDR)

### 1.0 PDR Summary

Description	A series of buyer/seller control gates to jointly approve the design-to specifications and associated verification plans. All hardware, software, support equipment, facilities, personnel, and tooling should be reviewed in descending order of system to assembly. Nothing is preliminary about a Preliminary Design Review. It is the final opportunity to approve the design-to baseline.
Objective	To prove that the concept and the specification for the concept is feasible and will satisfy the higher level requirements relegated to it
Host	Seller Project Manager
Chairperson	Buyer Project Manager
Presenters	Seller technical and business management personnel including consultants and key subcontractors
Location	Seller's facility to provide access to evidence and personnel
Process	The formal review is the culmination of previously held informal reviews and documentation review that should have resolved all questions and issues. The seller presents evidence that the design to baseline is complete, has acceptable risk, and is ready for inclusion into the baseline and formal configuration management. The conduct should be one of mutual cooperation and teamwork. An action item log should be maintained by the host and the review is not considered complete until the action items are complete.

<p><b>Required Evidence</b></p>	<p><b>Primary Evidence:</b>                  Design-to Specifications for the level being reviewed, including proprietary or restricted information                  Context of Implementation</p> <p>Concept trades and selection justification</p> <p>Verification Plan</p> <p>Cost and schedule status and Estimate at Complete</p> <p><b>Supporting Evidence:</b></p> <p>Proof of requirements traceability</p> <p>Proof of specification reasonableness</p> <p>Proof of cost and schedule realism and affordability</p> <p>Draft User's or Operator's Manual</p> <p>Integration Plan</p> <p>Deployment Plan</p> <p>Risk Analysis</p>
<p><b>Closure</b></p>	<p>Buyer decides one of the following:</p> <ol style="list-style-type: none"> <li>1. PDR is satisfactory and the Design-to baseline and Verification Plan are approved.</li> <li>2. Limited approval to proceed is granted and action items are assigned that require closure before the PDR is considered complete.</li> <li>3. PDR is declared unacceptable and must be repeated.</li> <li>4. Design-to baseline is deficient. Buyer initiates corrective action discussions with Seller executive management or initiates contract termination process.</li> </ol>

**2.0 PDR Design-to Development Considerations:**

Availability	Facilities	Reliability
Biomedical	Fault Tolerance	Requirements Flowdown
Computer Languages	Firmware	Safety
Concept Trade-off Analysis	Functional Interaction	Schedule
Context of Implementation	Handling	Schematic Diagrams
Cost	Human Engineering	Security
Critical Parts	Interfaces	Size
Critical Materials	Lessons Learned	Sparing
Critical Processes	Logistic Support	Standardization
Data Base Design	Maintainability	Survivability
Data Processing	Mandatory Constraints	Technical Performance Measurement
Development Environment	Margins	Testability
Development Test Results	Packaging	Thermal
Disposal	Political Issues	Transportability
Documentation	Power	Use of PDP (COTS, GOTS, NDI)
Electromagnetic Issues	Pre-planned Product Improvement	Value Engineering
Environment	Producibility	Vulnerability
Expendables	Qualification	Weight

### 3.0 Typical Past PDR Problems

- 3.1. Team does not understand that the PDR is really a series of PDRs held for the System and each CI
- 3.2. PDR is held without regard to seller readiness
- 3.3. Seller does not understand that design-to specifications and verification plans must be ready for approval at PDR
- 3.4. Seller believes review is "preliminary" and it's OK to be incomplete
- 3.5. Review material is not available in advance to permit buyer analysis
- 3.6. Buyer's comments to data package are not provided to seller prior to formal PDR
- 3.7. Review becomes a tutorial for buyer rather than a value added critique
- 3.8. Requirements flowdown is flawed
- 3.9. Context of Implementation is not available
- 3.10. Technical, cost, and schedule feasibility and associated risks are not addressed
- 3.11. Technical feasibility is not proven
- 3.12. Focuses on hardware requirements and software is ignored (or vice versa)
- 3.13. Hardware deficiencies are left to software for resolution by default
- 3.14. Software design constraints are not defined (memory reserve/allocation, timing, interfaces)
- 3.15. Hardware design constraints are not defined
- 3.16. NDI and COTS are not reviewed with regard to planned use and configuration stability
- 3.17. Seller incorrectly assumes that proprietary information does not have to be reviewed at PDR
- 3.18. Verification plans are not available
- 3.19. Seller does not understand that the review is not complete until the action items are complete

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## Critical Design Review (CDR)

### 1.0 CDR Summary

Description	A series of buyer/seller control gates to jointly approve the build-to and code-to documentation and associated draft verification procedures. All hardware, software, support equipment, and tooling should be reviewed in ascending order of unit to system. There is nothing uniquely critical about the Critical Design Review. All control gates are critical to the success of the project.
Objective	To prove that the design presented is producible and will be proven to meet its specification during verification
Host	Seller Project Manager
Chairperson	Buyer Project Manager
Presenters	Seller technical and business management personnel including consultants and key subcontractors
Location	Seller's facility to provide access to evidence and personnel
Process	The formal review is the culmination of previously held informal reviews and documentation review that should have resolved all questions and issues. The seller presents evidence that the build to and/or code-to baseline is complete, has acceptable risk, and is ready for inclusion into the baseline and formal configuration management. CDR approval approves the start of production and coding. The conduct should be one of mutual cooperation and teamwork. An action item log should be maintained by the host and the review is not considered complete until the action items are complete.



<p><b>Required Evidence</b></p>	<p><b>Primary Evidence:</b>                  Build-to and code-to documentation for the level being reviewed</p> <p>Process and Material Specifications</p> <p>Draft Verification Procedures</p> <p><b>Supporting Evidence:</b></p> <p>Proof of requirements traceability</p> <p>Proof of producibility</p> <p>Proof of cost and schedule realism and affordability</p> <p>Draft User's or Operator's Manual</p> <p>Integration Plan</p> <p>Deployment Plan</p> <p>Risk Analysis</p>
<p><b>Closure</b></p>	<p>Buyer decides one of the following:</p> <ol style="list-style-type: none"> <li>1. CDR is satisfactory and the Build-to and/or Code-to baseline with their draft verification procedures are approved.</li> <li>2. Limited approval to proceed is granted and action items are assigned that require closure before the CDR is considered complete.</li> <li>3. CDR is unacceptable and must be repeated.</li> <li>4. Build-to/Code-to baseline is deficient. Buyer initiates discussions with Seller executive management or initiates termination process.</li> </ol>

**2.0 CDR Design-to Development Considerations:**

Availability	Human Engineering	Qualification
Biomedical	Interfaces	Reliability
Computer Languages	Layout Drawings	Requirements Flowdown
Context of Implementation	Lessons Learned	Safety
Cost	Logistic Support	Schedule
Data Base Design	Maintainability	Security
Data Processing	Mandatory Constraints	Size
Disposal	Manufacturing and Coding Environment	Sparing
Documentation	Manufacturing Process Flow	Standardization
Electromagnetic Issues	Margins	Survivability
Environment	Material selection	Technical Performance Measurement
Expendables	Packaging	Testability and Methods
Facilities	Piece part selection	Thermal
Fault Tolerance	Power	Transportability
Firmware	Pre-planned Product Improvement	Use of PDP (COTS, GOTS, NDI)
GIDEP Alert relevance	Process Control	Value Engineering
Handling	Producibility	Vulnerability
Higher Level Trade-off Results	Producibility Test Results	Weight

**3.0 Typical Past CDR Problems**

- 3.1. Team does not understand that the CDR is really a series of CDRs held for each CI and the System
- 3.2. CDR is scheduled without regard to seller readiness
- 3.3. Seller does not understand that build-to and code-to documentation, and verification procedures must be ready for approval at CDR
- 3.4. Review material is not available in advance to permit buyer analysis
- 3.5. Buyer's comments to data package are not provided to seller prior to formal CDR
- 3.6. Review becomes a tutorial for buyer rather than a value added critique
- 3.7. Requirements flowdown flawed
- 3.8. Technical, cost, and schedule feasibility and associated risks are not addressed
- 3.9. Producibility is not proven
- 3.10. Focuses on hardware and software is ignored (or vice versa)
- 3.11. Hardware deficiencies are left to software for resolution by default
- 3.12. Software development environment is ignored
- 3.13. NDI and COTS are not evaluated for planned use, reliability, and configuration stability
- 3.14. Seller incorrectly assumes that proprietary information does not have to be reviewed at CDR
- 3.15. Draft Verification Procedures are not available
- 3.16. Seller does not understand that the review is not complete until the action items are complete

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## Test Readiness Review (TRR)

### What is it?

A series of Joint Control Gates at which the Government COTR concurs that the Contractor is ready to conduct official “sell-off” tests during which official verification data will be produced. Each TRR is the decision point for COTR approval to proceed with planned qualification tests or acceptance tests that will produce evidence to verify that performance specifications have been satisfied in accordance with the Verification Plan. Since TRRs are conducted to approve official data-gathering tests, they may occur at all levels of system integration, starting at assembly level testing, and ascending through system level testing. For tests below the Configuration Item level, the TRR is usually a Contractor Control Gate rather than a Joint Control Gate.

### Who are the host, chairperson, and reviewers?

The COTR is the chairperson. The Contractor Project Manager is the usually the host and the co-chairperson. The reviewers are the Government Project Team including technical advisors.

### Who are the presenters?

Contractor Test Manager, Contractor test personnel, Contractor Chief System Engineer, Contractor technical personnel, and Contractor technical consultants.

### Where is it held?

The review is usually held at the Contractor’s facility to provide access to the test facility, pertinent evidence, and Contractor personnel.

### How is it conducted?

The Contractor presents evidence accumulated and summarized from lower level testing and internal Contractor reviews verifying test readiness. Government personnel provide sufficient challenge to the documentation to achieve the required confidence to authorize proceeding with official testing. The project team responds to all Government challenge with sound rationale that was developed to provide confidence in test readiness. Both Contractor and Government chairpersons are responsible to ensure that the review is properly managed and that irrelevant discussions are relegated to meetings that are unique to the subject. The review should be conducted to maintain a positive environment of mutual cooperation throughout the conduct of the project.

### What is the evidence that is evaluated?

Evidence of test readiness including:

- Applicable verification plans
- Test procedures
- Test configuration
- Test equipment/facilities
- Test equipment calibration
- Personnel responsibilities and qualifications
- Data to be collected, expected results, acceptable results, and methods
- Safety procedures for personnel and project deliverables
- Security
- Other data required to ensure test readiness
- Quality Assurance
- Test failure procedures
- Test data analysis plan and procedures
- Lower hierarchy test results
- Method of accepting test results
- Test site and preparation status

### What are the actions?

The Contractor and Government chairpersons maintain the review minutes and co-sign them on completion of the review as evidence of concurrence with the accuracy of the records. The Contractor Chairperson discusses the content of the assigned action items with the COTR and documents the results in the action item log. Both the COTR and Contractor Test Manager sign the action item log as evidence of the required actions necessary to complete the review.

### What is the closure?

The COTR should conclude one of the following:

- a. Test preparation is acceptable, the Contractor is ready to begin official testing, and the COTR provides the Contractor with written authorization to proceed.
- b. Exceptions noted in the review are assigned action items by the COTR and limited authorization to proceed with testing is provided. Actions must be completed and accepted by the COTR before affected testing is authorized.
- c. The test readiness is unacceptable and the TRR must be repeated before authorization to proceed is provided.
- d. The Contractor's test readiness is significantly deficient and flawed. The COTR will initiate discussions with the Contractor Project Manager to affect improvements to test readiness, or to terminate the contract.

## Qualification Acceptance Review (QAR)

### What is it?

A Joint Control Gate at which the Government COTR, based on test data, past environmental history, and analysis, determines that the Contractor's design survives the qualification environment as defined in the system verification plan. The QAR (also known as FQR, or Formal Qualification Review) is the decision point for the Government COTR approval of the qualification certification of the design. Configuration Items subject to contractual qualification should be reviewed in the ascending order of the system hierarchical structure i.e., assembly to system. For high risk systems all configuration items and the integrated system should be qualified.

The philosophy of approach to qualification and design margins must be established and documented in the System Verification Plan and System Performance Specification at the Performance Specification Review (PSR).

### Who are the host, chairperson, and reviewers?

The COTR is the chairperson. The Contractor Project Manager is the host and the co-chairperson. The reviewers are Government technical experts cognizant of the technical areas being reviewed.

### Who are the presenters?

Contractor system engineering, technical, and reliability experts responsible for the configuration item.

### Where is it held?

The review is usually held at the Contractor's facility to provide access to pertinent evidence, and to Contractor personnel.

### How is it conducted?

The Contractor presents evidence that has been accumulated and summarized from Contractor internal qualification reviews that verify design qualification meets the contractual requirements. Government personnel provide sufficient challenge to the documentation to achieve the required confidence to approve configuration item qualification. The project team responds to all Government challenge with sound rationale to provide confidence in the design solution proposed by the engineering documentation. Both Contractor and Government chairpersons are responsible to ensure that the review is properly managed and that irrelevant discussions are relegated to meetings that are unique to the subject. The review should be conducted to maintain a positive environment of mutual cooperation throughout the conduct of the project.

### What is the evidence that is evaluated?

Evidence that the completed design will survive the qualification environment including:

- Qualification test results
- Qualification by similarity analysis
- Field use data
- Qualification Item history
- Environmental retest following corrective action of any failures
- The Operations Manuals for the CI being reviewed
- The Maintenance Manuals for the CI being reviewed

### What are the actions?

The Contractor and Government chairpersons maintain the review minutes and co-sign them on completion of the review as evidence of concurrence with the accuracy of the records. The Contractor Chief System Engineer discusses the content of the assigned action items with the COTR and documents the results in the action item log. Both the COTR and Contractor System Engineer sign the action item log as evidence of the required actions necessary to complete the review.

### What is the closure?

The COTR should conclude one of the following:

- a. Qualification is proven and the COTR provides the Contractor with qualification approval by signing the Qualification Certificate.
- b. Deficiencies noted in the review must be resolved. If a subsequent QAR is not required, action items and limited authorization to proceed are provided by the COTR to the Contractor. The qualification certificate is signed at action item closure.
- c. Qualification is unacceptable and the QAR must be repeated before qualification approval can be provided.
- d. The Contractor's qualification status is unacceptable. The COTR should initiate discussions with the Contractor Project Manager to rectify the significant deficiencies, grant specification waivers, or terminate the contract.



## Acceptance Review (AR)

### What is it?

A Joint Control Gate at which the Buyer determines that the item presented for acceptance complies with its specification. Acceptance Reviews occur at all levels in the system hierarchy. The verification results obtained by following the Verification Procedures are presented as evidence of specification compliance. Based on a constructive challenge to this evidence, a decision is made regarding the acceptance of the item. The Acceptance Reviews serve as the decision point to confirm the design is ready for either integration, acceptance or replication. The term Acceptance Review is preceded with a system hierarchical or location descriptor (e.g., Configuration Item Acceptance Review, Segment Acceptance Review, System Acceptance Review at Seller's Facility, System Acceptance Review at Operational Site).

For a contract having a single deliverable system, the AR consists of a Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA). For a contract with repetitive deliveries of identical units, the first unit AR will include FCA and PCA. The AR for subsequent units may consist of a subset of the first unit AR requirements.

### Who are the host, chairperson, and reviewers?

The senior member of the reviewing organization is the chairperson. The senior member of the team responsible for the reviewed item or system is the host and the co-chairperson. Reviewers are technical and operational specialists to provide constructive challenge.

### Who are the presenters?

Responsible experts from the team responsible for the item being reviewed.

### Where is it held?

The review is usually held at the facility of the organization being reviewed.

### How is it conducted?

The presenting team presents evidence that has been accumulated and summarized from official acceptance tests and associated analyses that provides evidence of compliance with the performance verification requirements. Reviewing personnel provide sufficient challenge of the evidence to achieve the required confidence to approve verification acceptance. The presenting team responds to all challenge with sound rationale to provide confidence in verification compliance. Both chairpersons are responsible to ensure that the review is properly managed and that irrelevant discussions are relegated to meetings that are unique to the subject.

### **What is the evidence that is evaluated?**

Evidence that the system or member of a system performs as specified and is ready to be further integrated into higher levels of the system and/or accepted by the receiving organization.

- Verification Requirements
- Test results
- Demonstration results
- Inspection results
- Analysis results
- Lessons Learned

### **What are the actions?**

The chairpersons maintain the review minutes and co-sign the minutes on completion of the review as evidence of concurrence with the accuracy of the records. The presenter chairperson discusses the content of the assigned action items with the reviewer chairperson and documents the results in the presenters action item log. Both chairpersons sign the action item log as evidence of the required actions necessary to complete the review.

### **What is the closure?**

The reviewer should conclude one of the following:

- a. The Verification results are acceptable and approved. If contractual acceptance is required, the COTR officially accepts for the receiving organization.
- b. The action items identified in the review must be resolved to establish performance verification.
- c. The Verification results are unacceptable, corrective action must be implemented and the Acceptance Review must be repeated.

## Deployment Readiness Review (DRR)

### What is it?

The Joint Control Gate to determine that the system presented for review and all supporting systems and functions are ready for system deployment into the operational environment. For space systems this review is the Launch Readiness Review. For ground based systems this review is the Consent to Ship Review.

### Who are the host, chairperson, and reviewers?

The Government Project Manager is the chairperson. The System Integration Manager is the host and the co-chairperson. The reviewers are experts from the Government Project Office and the Operations Organization.

### Who are the presenters?

All organizations participating in the deployment, responsible technical experts, and system operators.

### Where is it held?

The review is usually held at the site the system is being deployed from.

### How is it conducted?

All teams participating in the deployment present evidence of their individual readiness. The system integrator confirms to the Government Project Manager total system readiness. Reviewing personnel provide sufficient challenge to the evidence to achieve the required confidence to approve deployment. The presenting team responds to all challenge with sound rationale to provide deployment confidence. Both chairpersons are responsible to ensure that the review is properly managed and that irrelevant discussions are relegated to meetings that are unique to the subject.

### What is the evidence that is evaluated?

- Evidence that the system is capable of being deployed and operated as specified
- Evidence of credible resolution of all discrepancies experienced since System Verification
- Unverified failures with proposed risk management plan

### What are the actions?

The chairpersons maintain the review minutes and co-sign the minutes on completion of the review as evidence of concurrence with the accuracy of the records. The System Integrator chairperson discusses the content of the assigned action items with the Government chairperson and documents the results in the system integrator's action item log. Both chairpersons sign the action item log as evidence of the required actions necessary to complete the review.

### What is the closure?

The Government Project Manager should conclude one of the following:

- a. The shipping or deployment procedures, instructions, and personnel are ready and approval to proceed is documented by signing the Consent to Deploy or Ship Certificate.
- b. The action items identified in the review must be resolved to establish deployment readiness.
- c. The results of the Deployment Readiness Review are unacceptable, corrective action must be taken and the Deployment Readiness Review must be repeated.

## Final Contract Review (FCR)

### What is it?

A Joint Control Gate at which the Government COTR reviews and approves the Contractor's contract closeout. The FCR is the last joint Government and Contractor Control Gate and signals the end of the Government/Contractor relationship on the project.

### Who are the host, chairperson, and reviewers?

The COTR is the chairperson. The Contractor is the host and the Contractor Project Manager is the co-chairperson. The reviewers are the Government Project Team including the Government Contracting Officer.

### Who are the presenters?

Contractor Project Manager, Contract Administrator, and Contractor specialists involved in the closure of action items.

### Where is it held?

The review is usually held at the Contractor's facility to provide access to pertinent information, documentation, and Contractor personnel.

### How is it conducted?

The Contractor presents evidence of having satisfied all provisions of the contract. Government and the Contractor personnel engage in a dialog as to lessons learned from the total project experience and document these findings in the minutes of the review.

### What is the evidence that is evaluated?

Evidence of having satisfied all contract requirements including:

- Verification matrix
- Action Item close out log
- Lessons Learned document
- Other data pertinent to the ending of the contractor's participation on the project
- Plan for disposition of Government owned property

### What are the actions?

The Government and Contractor co-chairpersons maintain the review minutes and co-sign them on completion of the review to signify concurrence with the accuracy of the records.

### What is the closure?

The COTR shall conclude one of the following:

- a. All contract requirements have been satisfied and the project is ended.
- b. Action items are assigned to complete the review and end the project.

Note: The contract is not considered complete until all action items are complete.

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## Operational Readiness Review (ORR)

### What is it?

A Government Control Gate involving the Government Project Office and the Operational User at which the User reviews and approves the readiness of the system to be operationally demonstrated to validate compliance with Operational Requirements. It is a constructive challenge of all hardware, software, handling equipment, support equipment, and documentation including O&M and training. The ORR is the decision point for initiating the Operational Demonstration.

### Who are the host, chairperson, and reviewers?

The Manager of the Operations Organization is the chairperson. The Government Project Manager is the host and the co-chairperson. Reviewers are Operational and Product Users.

### Who are the presenters?

The Government Project Manager, selected Contractor technical personnel, technical consultants from both Government and Contractor organizations, operational personnel, maintenance and field engineering personnel.

### Where is it held?

The review is usually held at the operational or staging facility.

### How is it conducted?

The GPO presents evidence that has been accumulated and summarized from all system operational tests and evaluations that substantiates that the system is ready to be tested to verify User operability. Reviewing operational personnel provide sufficient challenge to the evidence to achieve the required confidence to approve proceeding with operational performance verification. The presenting Government team responds to all challenges with sound rationale previously developed to provide confidence in operational readiness.

### What is the evidence that is evaluated?

- All previous verification evidence
- Operational Demonstration Procedures
- Personnel Training Certificates
- Operation and Maintenance Procedures
- Anomaly resolutions
- Unverified failure risk management and all other data pertinent to system integrity and readiness

### **What are the actions?**

The chairpersons maintain the review minutes and co-sign them on completion of the review. The Manager of Operations discusses the content of the assigned action items with the Government Project Manager and documents the results in the action item log. Both the Manager of Operations and Government Project Manager sign the action item log as evidence of the required actions necessary to complete the review.

### **What is the closure?**

The Manager of Operations should conclude one of the following:

- a. The system, personnel, and documentation are ready to support the official Operational Readiness Demonstration and approval is provided.
- b. The action items identified in the review must be resolved to establish operational readiness.
- c. The Operational Readiness Review is unacceptable and the ORR must be repeated.



# Operational Acceptance Review (OAR)

## What is it?

Government Executive Control Gate to validate that the system operates in the operational environment and complies with the operational requirements. The OAR is the decision point for Operational User acceptance of the delivered operational system.

## Who are the host, chairperson, and reviewers?

The Manager of the Operations Organization is the chairperson. The Government Project Manager is the host and the co-chairperson. The reviewers are operator and User personnel.

## Who are the presenters?

Government project organization experts and operations organization experts making up the operations team.

## Where is it held?

The review is usually held at the operational or staging facility.

## How is it conducted?

The operations team presents evidence that has been accumulated and summarized from official validation tests and associated analyses, that proves compliance with the operational performance requirements. Reviewing personnel provide sufficient challenge to the evidence to achieve the required confidence to approve acceptance. The presenting team responds to all challenges with sound rationale to provide confidence in specification compliance and safe operability.

## What is the evidence that is evaluated?

- Operational Demonstration Procedures
- Operational Test Results
- Corrective action results for discrepancy reports
- Operational Readiness Certificate

## What are the actions?

The chairpersons maintain the review minutes and co-sign the minutes on completion of the review as evidence of concurrence with the accuracy of the records. The Government Project Manager discusses the content of the assigned action items with the Manager of Operations and documents the results in the GPO action item log. Both chairpersons sign the action item log as evidence of the required actions necessary to complete the review.

### What is the closure?

The Manager of Operations should conclude one of the following:

- a. The System performs as specified, accepts the system, and notifies the User of system availability.
- b. The action items identified in the review must be resolved to establish Operational Performance Verification.
- c. The results of the Operational Acceptance Review are unacceptable and the OAR must be repeated. The User is notified of system delay.

## User Readiness Review (URR)

### What is it?

The User Government Control Gate at which the User concurs that the Government Project Office is ready to conduct official “sell off” validation tests required by the Validation Plan developed in compliance with the System Requirements Document at the outset of the project. The URR is the decision point for User approval for the GPO to proceed with the “official” System Validation.

### Who are the host, chairperson, and reviewers?

The User Manager is the chairperson. The Government Project Manager is the host and the co-chairperson.

### Who are the presenters?

Government operations team that will conduct the System Validation.

### Where is it held?

The review is usually held at the User’s facility.

### How is it conducted?

The Government operations team presents evidence accumulated and summarized from lower level testing and reviews verifying validation readiness. The User provides sufficient challenge to the documentation to achieve the required confidence to authorize proceeding with official validation. The operations team responds to all User challenges with sound rationale to provide confidence in the readiness for validation.

### What is the evidence that is evaluated?

Evidence of validation readiness including:

- Validation plans
- Validation procedures
- Configuration
- Equipment
- Equipment calibration
- Personnel responsibilities and qualifications
- Data collection
- Safety of personnel and project deliverables
- Security
- Other data required to ensure validation readiness

### What are the actions?

The chairpersons maintain the review minutes and co-sign them on completion of the review as evidence of concurrence with the accuracy of the records.

### What is the closure?

The User Manager should conclude one of the following:

- a. The preparation for User Acceptance is acceptable, and the User Manager provides the Government Project Manager with written authorization to proceed with validation.
- b. Exceptions noted in the review are assigned action items by the User Manager and limited authorization to proceed with User Acceptance is provided. Actions must be completed and accepted by the User before the affected validation is authorized.
- c. The User Readiness Review is unacceptable and the URR must be repeated before authorization to proceed is provided.
- d. User Readiness is significantly deficient and flawed. The User will initiate discussions with the Government executive management to affect corrective action.

## User Acceptance Review (UAR)

### What is it?

Government User Control Gate to determine that the project product delivered by the operating system and personnel to the User meets the original User requirements as documented in the System Requirements Document thus validating the system. The UAR is the decision point for User acceptance of all aspects of the system as delivered. This review is the decision point for the User to accept the system and is also the Initial Operating Capability (IOC) milestone. The UAR is held after User Readiness Review (URR) have been successfully completed.

### Who are the host, chairperson, and reviewers?

The Manager of the product User organization is the chairperson. The Government Project Manager is the host and the co-chairperson. The reviewers are experts in the technology of the system and application of the product.

### Who are the presenters?

Product users and analysts.

### Where is it held?

The review is usually held at the facility of the organization being reviewed.

### How is it conducted?

The presenting team presents evidence that has been accumulated and summarized from the official validation tests and associated analyses that provides evidence of compliance with the validation requirements. The reviewing personnel provide sufficient challenge to the documentation to achieve the required confidence to prove validation. The presenting team responds to all challenge with sound rationale to provide confidence in validation compliance.

### What is the evidence that is evaluated?

- System Validation Report
- System deficiencies and workarounds
- Desired system performance

### **What are the actions?**

The chairpersons maintain the review minutes and co-sign the minutes on completion of the review as evidence of concurrence with the accuracy of the records. The presenter chairperson discusses the content of the assigned action items with the reviewer chairperson and documents the results in the action item log. Both chairpersons sign the action item log as evidence of the required actions necessary to complete the review.

### **What is the closure?**

The Manager of the Product User Organization should conclude one of the following:

- a. The Validation results are acceptable and approved.
- b. The operational action items identified in the review must be resolved to establish performance validation.
- c. The results of the User Acceptance Review are unacceptable and the system has failed to meet the original requirements. A corrective action plan must be developed.

# Annual System Certification Review (ASCR)

## What is it?

Government User Control Gate to determine that the product delivered by the operating system and personnel to the User continues to meet the original User requirements as documented in the System Requirements Document. The ASCR may cause the initiation of system modifications to improve performance.

## Who are the host, chairperson, and reviewers?

The cognizant Government System Manager is the host and the chairperson. The reviewers are experts from the using community interested in the usability of the product and the overall system capability.

## Who are the presenters?

Product User experts.

## Where is it held?

The review is usually held at the System Operations facility.

## How is it conducted?

The presenting team presents evidence that has been accumulated and summarized from operational experience and associated analyses that provides evidence of actual performance. The reviewing personnel provide sufficient challenge to the documentation to achieve the required confidence to prove validation. The presenting team responds to all challenge to provide confidence in the results presented.

## What is the evidence that is evaluated?

- System Product
- Activity Reports
- Status Reports
- Failure Reports
- Maintenance Reports
- System Change Reports
- Personnel Training Certificates

## What are the actions?

The chairpersons maintain the review minutes and co-sign the minutes on completion of the review as evidence of concurrence with the accuracy of the records. The presenter chairperson discusses the content of the assigned action items with the reviewer chairperson and documents the results in the action item log. Both chairpersons sign the action item log as evidence of the required actions necessary to complete the review.

### What is the closure?

The reviewer should conclude one of the following:

- a. The results of the Annual System Certification Review are acceptable and documented.
- b. The action items identified in the review must be resolved to establish quantitative performance experience.
- c. The Annual System Certification Review reveals that the system performance must be improved and a new Program Plan is requested of the Project Office to initiate a new project for system enhancement.



# **Project Management Terminology and Documentation**

## **Section 5 Symbols**

## Typical Symbols Used for Master Schedule Status

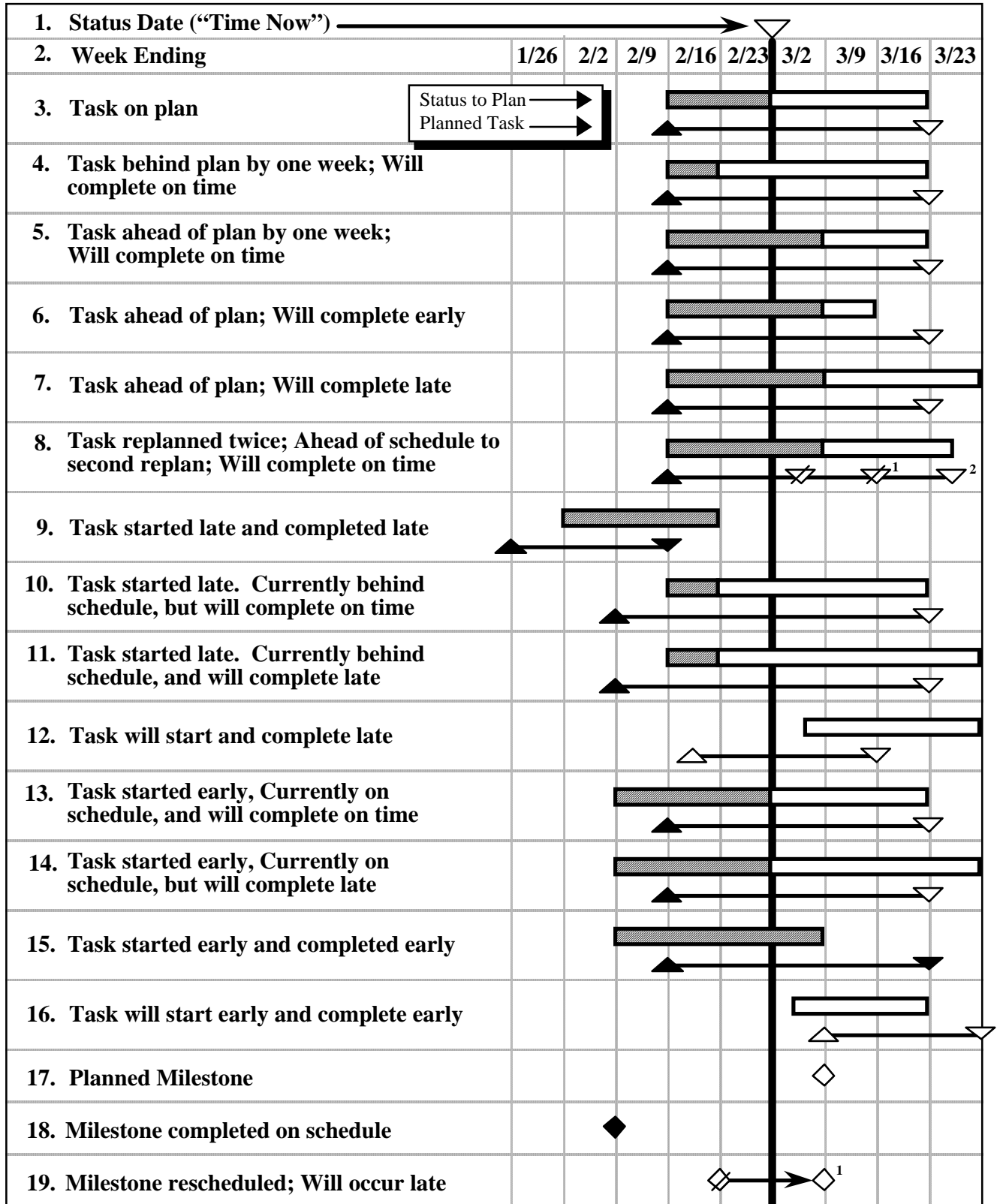
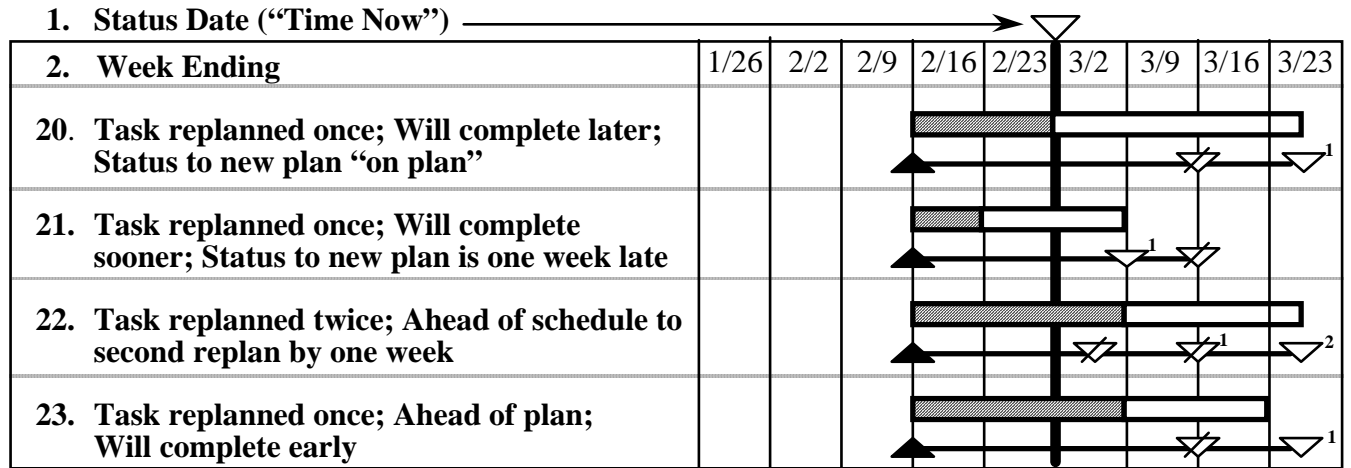


Fig. 19-18a

## Typical Symbols Used for Master Schedule Status



Rev 9005

Fig. 19-18b

### Typical Symbols Used for Master Schedule Status with Plan and Status Bar shown on same line

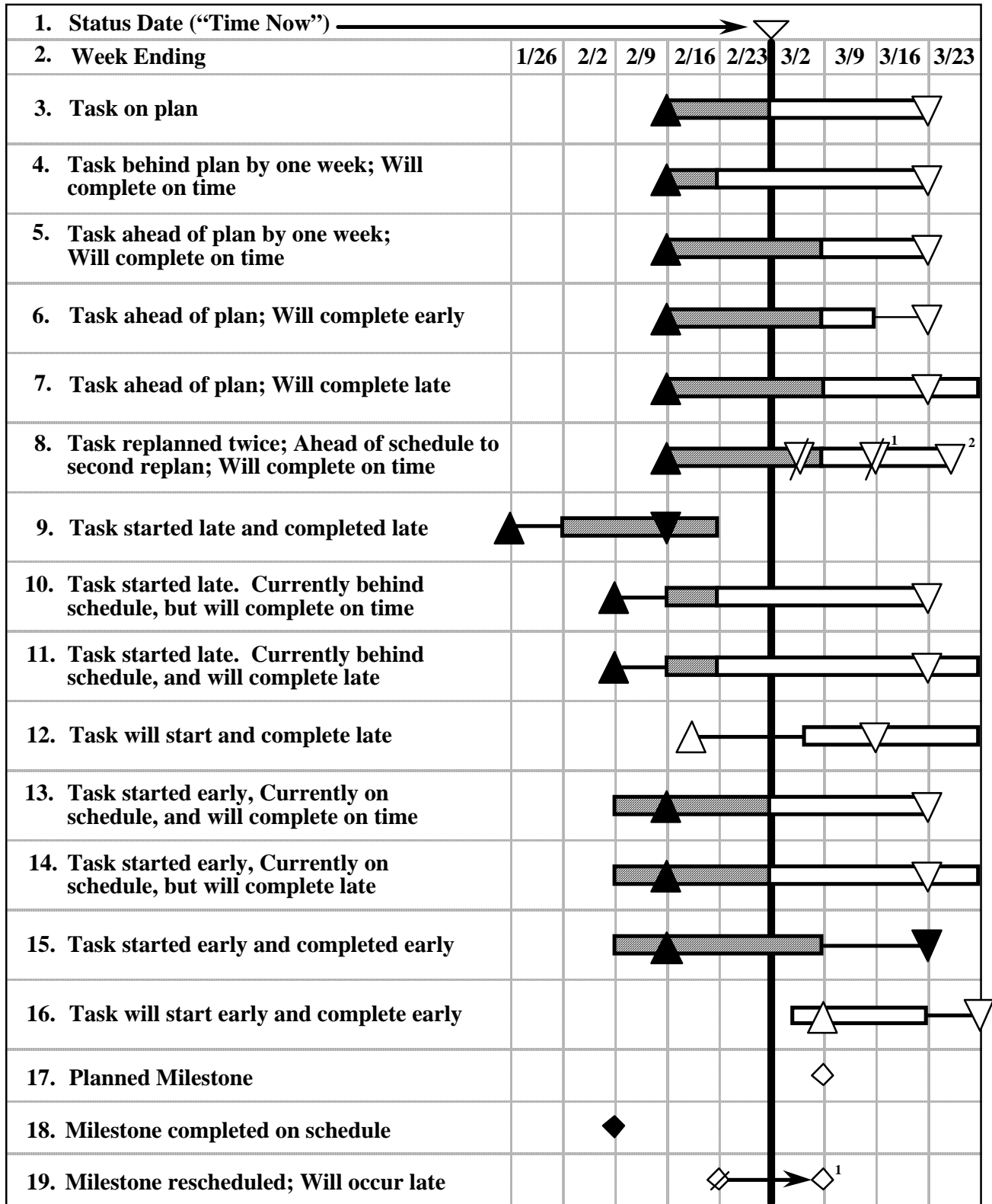
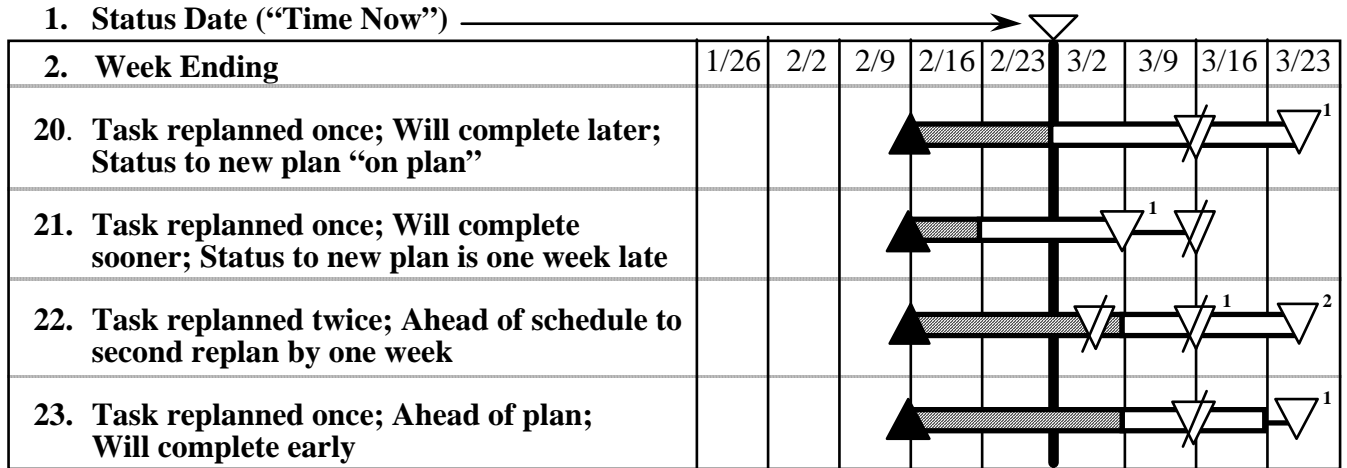


Fig. 19-18c

## Typical Symbols Used for Master Schedule Status with Plan and Status Bar shown on same line



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Fig. 19-18d