MSR cHecklisT

1. Identification: -V5.3
2. TITLE: INTEGRATED BASELINE REVIEW Checklist
3. DESCRIPTION and intended use

The Integrated Baseline Review (IBR) is an integral part of Earned Value Management (EVM), which provides for the review of the Contractor’s execution plans, focusing on the assignment, definition, scheduling and resourcing of work, thus establishing early visibility into the acceptability of the Contractor’s planning for the Contract. The IBR also reviews the methods and metrics used to measure Contractor performance and progress. The focus is upon reviewing the technical merits and resourcing of the plan, and to assess the risk associated with the baseline.

The objectives of the IBR are to:

ensure that the complete Contract scope of work is covered in the Contract Work Breakdown Structure (CWBS);

assess whether the technical scope can be accomplished within baseline cost and schedule constraints and that resources have been appropriately distributed to the Contract tasks;

assess that there is a logical sequence of effort that supports the Contract schedule;

identify areas of risk in resource allocations and in the technical performance of the Contract and understand the cost and schedule implications of that risk;

assess the validity and accuracy of the Contractor’s baseline by examination of at least one Earned Value Performance Report (EVPR);

review proposed Earned Value Techniques (EVTs) to be used to measure and report progress to ensure that the measures are appropriate and will provide meaningful indicators of work completed; and

improve Commonwealth understanding of the Performance Measurement Baseline (PMB), resulting in a better appreciation of the Contractor’s performance management process and the techniques used to measure performance. This common understanding of the baseline plan should enable improved partnering throughout the Contract and reduce misunderstandings.

This Mandated System Review (MSR) Checklist sets out the Commonwealth’s requirements and minimum expectations for the conduct of an IBR. The level of consideration needed to address each of the checklist elements is dependent up on the scale and risks for the Contract. Further detailed guidance on the conduct of an IBR is provided in the CASG-2-Instruction (PM) 003, *Integrated Baseline Review and EVM System Review*.

Capitalised terms used in this MSR Checklist, where these terms are not included in the Glossary to the Contract, have the meaning given in:

CASG Manual (PM) 006 Defence Supplement to the Australian Standard for Earned Value Management, AS 4817; and

AS 4817:2019 Earned value management in project and programme management.

1. INTER-RELATIONSHIPS

The IBR shall be conducted in accordance with the Approved System Review Plan (SRP), and shall be consistent with the following data items, where these data items are required under the Contract:

Project Management Plan (PMP); and

Earned Value Management Plan (EVMP).

The IBR inter-relates with the following data items, where these data items are required under the Contract:

Contract Work Breakdown Structure (CWBS);

Contract Master Schedule (CMS);

Earned Value Performance Report (EVPR);

System Review Plan (SRP);

Mission System Technical Documentation Tree (MSTDT);

Measurement Plan, including the Information Needs and Measures Specification, which the Contract may require to be delivered separately from the Measurement Plan; and

Australian Industry Capability (AIC) Plan.

Note: The Status column in the following three tables indicates whether or not the associated Checklist items are able to be tailored by the Contractor in its SRP, based on the following definitions:

1. Mandatory items are not to be tailored;
2. Highly Desirable items should not be tailored, but may be tailored depending upon the specifics of the Contract and the Contractor’s internal processes; and
3. Optional items may be tailored, based upon the specifics of the Contract and the Contractor’s internal processes.

Notwithstanding the Status assigned to each Checklist item, the items are to be included in the SRP if they are applicable.

1. Review Entry Criteria

| Item | Entry Criteria | Status |
| --- | --- | --- |
| 1. 1. | 1. All data items required to be delivered before IBR have been delivered (including the IBR agenda, the EVM System documentation, and at least one complete Earned Value Performance Report (EVPR)), and the Commonwealth Representative considers these documents to be suitable for the purposes of conducting IBR. | 1. Mandatory |
|  | 1. The CWBS reflects the entire scope of work for the Contract and is defined to an appropriate level of detail. The delivered CWBS complies with the requirements of DID-PM-DEF-CWBS. | 1. Mandatory |
|  | 1. Subcontractor baselines, where applicable, have been incorporated into the PMB, and IBRs on those Subcontractors have been successfully completed by the Contractor. | 1. Mandatory |
|  | 1. Risks with the potential to impact upon the viability of the PMB have been identified and documented, including any assumptions that may need to be referenced in the future. | 1. Mandatory |
|  | 1. Action items from any previous System Reviews or prior risk-reduction activities (eg, an Offer Definition and Improvement Activities phase), which affect IBR, have been successfully addressed or action plans agreed with the Commonwealth Representative. | 1. Mandatory |

1. Review Checklist

| Item | Checklist Item | Status |
| --- | --- | --- |
|  | 1. Were all entry criteria satisfied before starting IBR? | 1. Mandatory |
|  | 1. Has the impact of Approved and pending CCPs been assessed? | 1. Highly Desirable |
|  | 1. Have all Commonwealth Representative review comments against data items been adequately addressed? | 1. Mandatory |
|  | 1. Is all of the work defined in the Contract (including through the Price and Payments Schedules, SOW, CDRL and the implied work through the DIDs) fully incorporated into the CWBS? Do the CWBS and CWBS Dictionary provide a direct cross-reference to the Contract? | 1. Mandatory |
|  | 1. Is all of the work defined in the Contractor’s management plans (eg, PMP) fully incorporated into the CWBS? | 1. Mandatory |
|  | 1. Is all of the work defined in the Subcontracts, including the Contractor’s work associated with managing the Subcontracts, fully incorporated into the CWBS? | 1. Mandatory |
|  | 1. Is the CWBS structured around the major products to be delivered under the Contract (eg, Mission Systems) and is the breakdown of each Mission System in the CWBS consistent with the product breakdown structure for that Mission System? | 1. Mandatory |
|  | 1. Is the CWBS and associated CWBS Dictionary internally consistent (ie, no overlaps or gaps)? | 1. Mandatory |
|  | 1. Does the CWBS Dictionary clearly describe the full scope of work for each CWBS element? | 1. Mandatory |
|  | 1. Does each product in the CWBS have an associated specification, with a plan to develop and baseline the specification at an appropriate time? | 1. Mandatory |
|  | 1. Does the hierarchy of specifications and design documents defined in the MSTDT map to the CWBS? | 1. Mandatory |
|  | 1. Do key CWBS elements have defined entry and exit criteria, including, where applicable, acceptance requirements? Are the entry and exit criteria for Milestones and System Reviews, which are defined in the Contract (including, where applicable, the Approved SRP), traceable to the applicable CWBS elements? | 1. Mandatory |
|  | 1. Has responsibility been assigned for each Control Account and Work Package (eg, through the Organisation Breakdown Structure (OBS) or the Responsibility Assignment Matrix (RAM)) to an appropriate Control Account Manager (CAM) and Work Package manager, respectively? | 1. Mandatory |
|  | 1. Is the work assigned to one responsible organisation in a manner that represents the way in which work is to be performed? | 1. Mandatory |
|  | 1. Is the RAM consistent with Control Account authorisations? | 1. Mandatory |
|  | 1. Do the CAMs and Work Package managers have an adequate understanding of EVM and its implementation for the Contract, including the proposed tools to be used? | 1. Mandatory |
|  | 1. For each component product within the Mission System product breakdown structure, does the CWBS facilitate clear and visible accountability for ensuring that the delivered component product meets its specification? | 1. Mandatory |
|  | 1. Has an appropriate division of responsibility been defined; firstly, for the overall management of Subcontracts and, secondly, for the management of those elements of Subcontracts, which either interface with, or are subordinate to, other CWBS elements (eg, lower-level products within the Mission System product breakdown structure)? | 1. Mandatory |
|  | 1. Are the work authorisation documents consistent with the SOW, CWBS and CWBS Dictionary? | 1. Mandatory |
|  | 1. Is the organisation assigned in the RAM, also the responsible organisation identified in the work authorisation documents? | 1. Mandatory |
|  | 1. Are the work authorisation documents approved and signed by the responsible functional managers designated in the RAM? | 1. Mandatory |
|  | 1. Are the Contractor’s risk treatments, which involve work, identifiable in the CWBS? | 1. Mandatory |
|  | 1. Is the process for risk management clearly defined and understood? Do CAMs understand processes for elevating risks, communicating changes, and statusing their progress? | 1. Mandatory |
|  | 1. Is the process for escalating issues within teams and between teams defined and understood? | 1. Mandatory |
|  | 1. Is the CMS derived from, and traceable to, the CWBS? | 1. Mandatory |
|  | 1. Does the draft CMS comply with DID-PM-DEF-CMS? | 1. Mandatory |
|  | 1. Does the CMS represent a logical sequence of activities to satisfy the Contract requirements? | 1. Mandatory |
|  | 1. Does the CWBS capture a feasible integration and test strategy and is this reflected in the CMS with appropriate linkages and timescales? | 1. Mandatory |
|  | 1. Is the CMS structurally sound (eg, are all tasks suitably linked, have the appropriate precedence relationships, and minimise the use of forced constraints, such as ‘must start on’)? | 1. Mandatory |
|  | 1. Does the CMS comply with any Contract constraints (eg, production cannot commence until Verification of the first article is complete)? | 1. Mandatory |
|  | 1. Does each task in the schedule have a well-defined outcome or deliverable (with the exception of level-of-effort tasks)? | 1. Mandatory |
|  | 1. Does the CMS identify all Commonwealth interactions and dependencies that impact upon the Contract timeframes (eg, delivery of Government Furnished Material (GFM) and Government Furnished Services (GFS), attendance at System Reviews and review of data items)? | 1. Mandatory |
|  | 1. Are the Commonwealth’s interactions and dependencies in the CMS (eg, for GFM and GFS) tied to the Contractor’s CMS activities that reflect the Contractor’s actual need / consumption points? | 1. Mandatory |
|  | 1. Are significant decision points, constraints, and interfaces identified as key milestones in the CMS? | 1. Mandatory |
|  | 1. Are the Planning Packages readily identifiable? Have the Planning Packages been defined appropriately, such that they are neither too general nor too large in scope, value, and duration? | 1. Mandatory |
|  | 1. Are the lower-tier schedules vertically traceable to the CMS? | 1. Mandatory |
|  | 1. Are the estimates for task times and resource requirements for both Work Packages and Planning Packages stable, reasonable and precedented? Are these task times and resource requirements based on sound estimating principles and practices (eg, historical, quantitative, performance estimates)? | 1. Mandatory |
|  | 1. Have the task times and resource requirements for the higher-risk tasks (eg, software-development activities) been validated using multiple methods (eg, historical data and software-estimating models and tools)? | 1. Mandatory |
|  | 1. Is the basis of estimate for all task times and resource requirements for both Work Packages and Planning Packages documented and agreed by those who will be doing the work? | 1. Mandatory |
|  | 1. Are all of the dependencies between Control Accounts clearly defined in the CMS, and is the meaning / expectations of each dependency clearly understood by each CAM and reflected in their respective plans? | 1. Mandatory |
|  | 1. Have all internal and external dependencies been identified and assessed for feasibility? (External dependencies include interfaces, facilities, works and other services, etc.) | 1. Mandatory |
|  | 1. Does the CMS include sufficient contingency to absorb “normal” variance (eg, expected levels of rework) as well as some level of unanticipated events? | 1. Mandatory |
|  | 1. Has the CMS been constructed bottom up from quantitative estimates, not driven by predetermined dates? | 1. Mandatory |
|  | 1. Has the CMS been resource levelled to reflect realistic staff availability, including Contract ramp‑up, staff leave/absences, public holidays, training, Contract ramp‑down, etc? | 1. Mandatory |
|  | 1. Have the critical and near-critical path activities been identified? | 1. Mandatory |
|  | 1. Have the implications of parallel activities in the schedule been analysed to produce a clear understanding of the risks, including resource overlaps? | 1. Mandatory |
|  | 1. Has schedule risk analysis been undertaken to assist in evaluating whether the schedule is achievable? | 1. Mandatory |
|  | 1. Are the Subcontractor’s schedules vertically and horizontally integrated with the CMS? | 1. Mandatory |
|  | 1. Does the schedule reflect learning curve inefficiencies? | 1. Mandatory |
|  | 1. Where available, have purchase orders, drawing releases, Subcontract schedules and material ordering schedules been examined to confirm consistency between the order and delivery dates and between material milestones and material EVTs? | 1. Mandatory |
|  | 1. Is the Contractor’s staff/skills profile reasonable, achievable, and derived from the CMS (particularly for critical skills where there may be known shortages, such as systems engineers, software engineers and integrated logistic support staff)? | 1. Mandatory |
|  | 1. Has the dependence on Key Persons been addressed in the schedule? | 1. Mandatory |
|  | 1. Are the resources required to meet the schedule available (including personnel, facilities, subcontractor capacity, etc)? | 1. Mandatory |
|  | 1. Are Control Accounts adequately described, budgeted and decomposed to perform the work? | 1. Mandatory |
|  | 1. Are the CMS and PMB integrated? Is the scheduling system integrated with the budgeting and cost accumulation systems? | 1. Mandatory |
|  | 1. Are the schedule(s) and PMB identical in planning and consistent in their representation of progress? | 1. Mandatory |
|  | 1. Are Contractor staff able to substantiate their budgets in terms of the total amount (dollars or hours), mix of resources and time-phasing? | 1. Mandatory |
|  | 1. Is the phasing of the budget consistent with the schedule for achieving the work? | 1. Mandatory |
|  | 1. Are the budgets assigned to Planning Packages distributed appropriately to reflect the expected outcome of detailed planning? | 1. Mandatory |
|  | 1. Are there adequate procedures for converting a Planning Package into a Work Package, including for the establishment of EVTs for new Work Packages? | 1. Mandatory |
|  | 1. Are budgets allocated once and summed appropriately through the EVMS? | 1. Mandatory |
|  | 1. Are all budgeting documents consistent throughout the EVMS? Is the budget information in the work authorisation documents, the RAM, and the internal performance measurement reports reconcilable? Are the amounts on internal reports consistent with the external report being forwarded to the Commonwealth? | 1. Mandatory |
|  | 1. Are Control Accounts broken down into different cost elements (eg, labour, materials, and other direct costs)? | 1. Mandatory |
|  | 1. Is Management Reserve (MR) clearly identified as such? Is the amount of MR consistent with the Contractor’s assessment of risk? | 1. Mandatory |
|  | 1. Are appropriate arrangements in place for the management of MR, including authorising its use? | 1. Mandatory |
|  | 1. If MR or Undistributed Budget (UB) has been utilised, do the transfers reconcile with EVPR amounts? | 1. Highly Desirable |
|  | 1. For any aspects of the Contract where there is a high probability of rework occurring within scope (eg, document revisions and retesting), has appropriate provision for that work been included in the PMB? | 1. Mandatory |
|  | 1. Where rework is likely to be required, do the Contractor’s procedures ensure that zero-budget Work Packages will not be used and that budget will be assigned, the effort planned and performance measured? | 1. Mandatory |
|  | 1. Have the Work Packages been established so that, if different elements of cost (eg, labour and materials) have been included in a Work Package, a variance in the performance of one element will not make an assessment of earned value misleading or inaccurate? | 1. Mandatory |
|  | 1. Do the Control Accounts identify EVTs at Work Package level (or lower) to enable effective measurement of progress? | 1. Mandatory |
|  | 1. Are the EVTs objective, verifiable, and appropriate for the nature of the work being undertaken, including the length of each Work Package? | 1. Mandatory |
|  | 1. Will progress being reported using the EVT correlate with technical achievement? | 1. Mandatory |
|  | 1. Are the EVTs consistent with the measures identified in the Information Needs and Measures Specification (where a Measurement Plan or a stand-alone Information Needs and Measures Specification are a requirement of the Contract)? | 1. Mandatory |
|  | 1. Where the EVT is identified as ‘percent complete’, does the CAM have objective measures to identify the progress at a lower level? | 1. Mandatory |
|  | 1. Where progress has been claimed, is it in accordance with the EVT identified? | 1. Mandatory |
|  | 1. Are the EVTs to be used for measuring Subcontracted effort appropriate? | 1. Mandatory |
|  | 1. Is the Level of Effort (LOE) content of Control Account budgets only applied where appropriate? | 1. Mandatory |
|  | 1. Is the percentage of LOE across the Contract budget less than 20%? This percentage should be calculated across Contractor labour (ie, with materials and other costs (eg, Subcontractors) removed). | 1. Mandatory |
|  | 1. Do Control Account status sheets reflect that progress is being claimed appropriately? | 1. Mandatory |
|  | 1. Are the time-phased budgets (PVs) for the same Work Packages consistent with the start and finish dates on the baseline schedule? | 1. Mandatory |
|  | 1. Are actual costs being recorded in the same period as the related performance? | 1. Mandatory |
|  | 1. Are the Control Account or WBS Element start and finish dates on the Control Account Plans consistent with the baseline schedule dates? | 1. Mandatory |
|  | 1. Is the progress recorded on the schedule reconcilable to the earned value? | 1. Mandatory |
|  | 1. Wherever schedules are updated or forecast completion dates amended by CAMs, are these changes reflected in supporting schedules? | 1. Mandatory |
|  | 1. Are any discrepancies between schedule progress and earned value able to be explained to ensure that they are consistent? | 1. Mandatory |
|  | 1. Are changes to the schedule(s) appropriately controlled? | 1. Mandatory |
|  | 1. Is the data reliable and producing information useful for management decisions? Is earned value being claimed in the same manner in which it was planned? | 1. Mandatory |
|  | 1. Is the Estimate At Completion (EAC) being updated and providing meaningful indication of the likely outcomes? | 1. Mandatory |
|  | 1. Is the effect of all known Contractor risks incorporated into the EAC? | 1. Mandatory |
|  | 1. Are the cumulative variances either explained and corrective action plans in place or are the variances reflected in the EAC? | 1. Highly Desirable |
|  | 1. Do the Actual Costs (AC) not exceed the EAC amounts for completed Control Accounts or Work Packages? | 1. Mandatory |
|  | 1. Does the EAC include Subcontractor updates for actual costs, material values, etc? | 1. Mandatory |
|  | 1. Are variance reports being generated that allow for effective management? | 1. Mandatory |
|  | 1. Are changes incorporated correctly and in a timely manner? Does traceability exist between the Control Account(s), change requests, MR, UB as appropriate (including current budget to original budget)? | 1. Mandatory |
|  | 1. Is Subcontractor earned value data being appropriately incorporated into the Contractor’s EVMS? | 1. Mandatory |
|  | 1. Are appropriate methodologies being employed by the CAMs to verify Subcontractor progress and manage their performance? | 1. Mandatory |
|  | 1. Is material being tracked effectively? | 1. Mandatory |
|  | 1. Are the budgets for material time-phased to support schedule requirements? | 1. Mandatory |
|  | 1. Is material managed against the original estimated requirement? | 1. Mandatory |
|  | 1. Are the systems for managing material integrated? | 1. Mandatory |
|  | 1. Is EAC data updated to account for actual material costs incurred and/ or committed? | 1. Mandatory |
|  | 1. Is the process used to track material issued from the Contractor to the Subcontractor for work appropriate (and vice versa)? | 1. Mandatory |
|  | 1. Have overheads / indirect costs been appropriately apportioned to the Contract? | 1. Mandatory |
|  | 1. Does a process exist for monitoring performance against overheads? | 1. Mandatory |
|  | 1. Is the company EVMS adequate to meet contractual requirements? | 1. Mandatory |
|  | 1. If applicable, is the integrity of the PMB sound enough to support payment by earned value? | 1. Mandatory |
|  | 1. Are the breakdown and the scheduling of activities in the CWBS and CMS consistent with the AIC Plan, and vice versa? | 1. Highly Desirable |

1. Review Exit Criteria

| Item | Exit Criteria | Status |
| --- | --- | --- |
|  | 1. All checklist items have been addressed to the satisfaction of the Contractor and the Commonwealth Representative. | 1. Mandatory |
|  | 1. All major problem and risk areas have been identified and resolved and, for minor problems and risks, corrective action plans have been recorded and agreed by the Commonwealth Representative. | 1. Mandatory |
|  | 1. The PMB has been Approved. | 1. Mandatory |
|  | 1. Plans for the measurement and analysis program for the next phase have been agreed by the Commonwealth Representative, including the measures to be collected, associated collection methods, and analysis techniques. | 1. Mandatory |
|  | 1. All risks identified during the course of IBR have been documented and analysed. | 1. Mandatory |
|  | 1. The risks with proceeding to the next phase are acceptable to the Commonwealth Representative. | 1. Mandatory |
|  | 1. All major corrective action requests have been closed. | 1. Mandatory |
|  | 1. All minor corrective action requests have been documented and assigned with agreed closure dates. | 1. Mandatory |
|  | 1. Review minutes have been prepared, Approved, and distributed in accordance with the Contract. | 1. Mandatory |