Ministry of Defence

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Man-Portable Surveillance and Target Acquisition Radar (MSTAR)

Obsolescence Replacement Programme (ORP)

Acceptance Process

Artillery Systems Programme

Issue 0.3 dated 17 May 2019

ISSUE STATUS

ID	Issue	Date	Baseline description
1	0.1	06th December 2017	Initial draft.
2	0.2	11th July 2018	Updated of draft for pre-ITT review
3	0.3	19th March 2019	Update of draft for pre-ITT review

Contents

Acceptance Process

Scope

1. The scope of this Acceptance Process includes all the equipment, logistics and training deliverables and all the factors that render them safe, and fit for purpose at the date of acceptance, into the future and when operating with other systems.

Acceptance Event Sequence

2. For the Contractor to achieve system acceptance, the Contract deliverables must pass a series of Acceptance Events as directed by the Authority. The Acceptance Events demonstrate that the Contract deliverables meet the requirements and the order in which these events are carried out is important. Figure 1 is a diagram showing the planned sequence of Acceptance Events for each of the three deliverable types: equipment, logistics and training. The following notes apply to the diagram:

    2.1. The diagram is divided into three rows representing the equipment; logistics; and training deliverables. These align with three of the UK MOD's Defence Lines of Development (DLODs)[1]. The other five DLODs do not form part of this Contract.

    2.2. Each row contains circles representing Acceptance Events in the Acceptance Process. Tests represented by purple circles are expected to be hosted and administered by the Authority and those with orange circles by the Contractor. Exceptions to this principle would be if the event were run because the Contractor did not achieve the standards required of a chronologically earlier event. In these cases, the event would be run by the Contractor at a location convenient to the Authority.

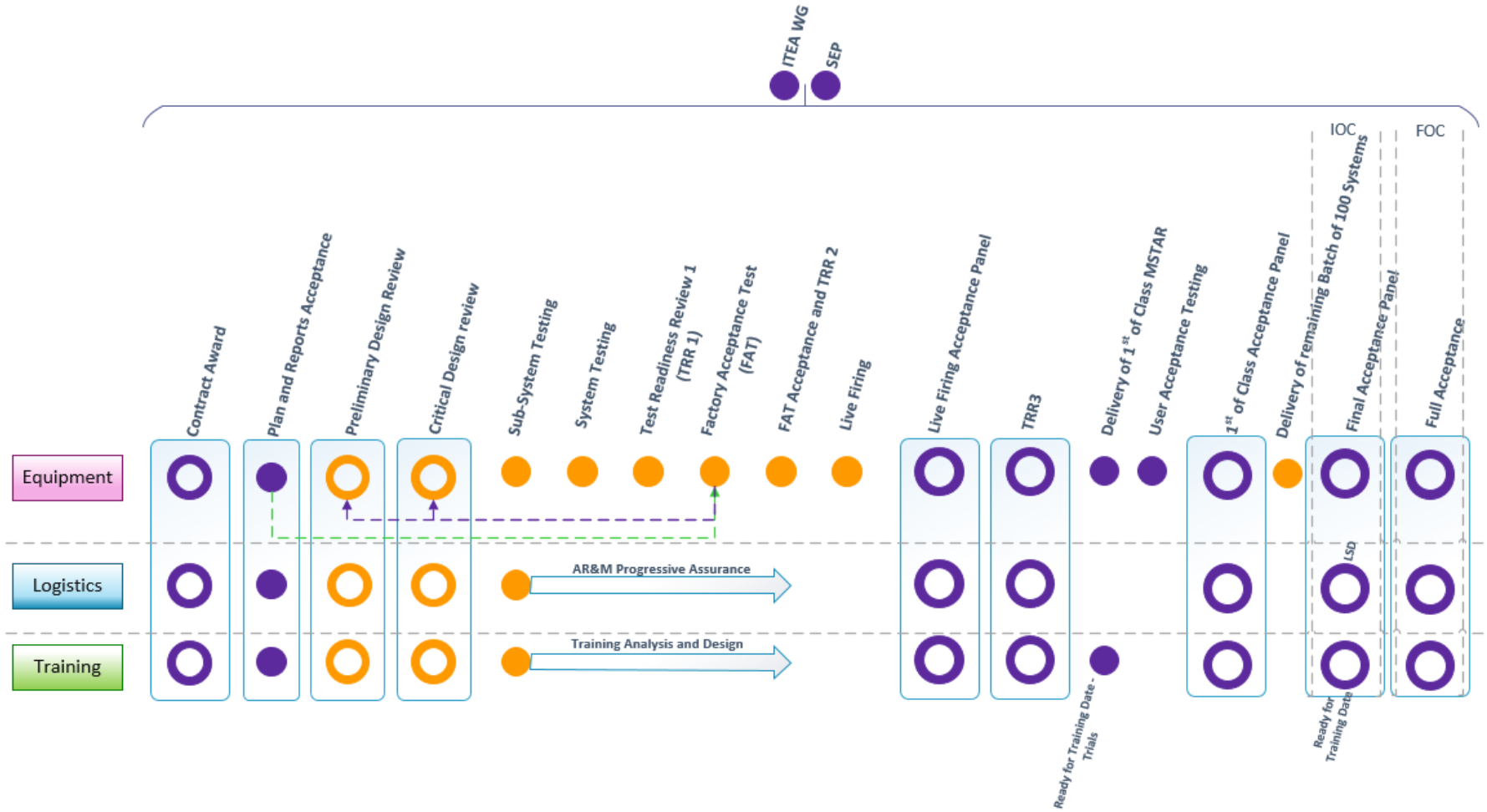
    2.3. The pale blue vertical bars indicate groups of tests that must all be passed before any line can progress to the next test.

    2.4. The green dashed line represents the Authority's preferred route to acceptance. The blue dashed lines represent alternative routes with regression if the green route fails (see Approach below).

    2.5. Governance for the Acceptance Process rests with two bodies: The Integrated Test, Evaluation and Acceptance (ITEA) Working Group (WG) and the Safety and Environmental Panel (SEP). Both are described in the Governance section in more detail.

    2.6. Two project milestones are relevant to the test and Acceptance Process: The Initial Operating Capability (IOC), and the Full Operating Capability (FOC), as defined at Appendix 3 to the Statement of Requirement at Annex A to the Contract.

[1] There are eight DLODS; Training, Equipment, Personnel, Information, Doctrine and concepts, Organisation, Infrastructure, and Logistics



Key					
→	Accelerated process at the Authority's discretion		Gates through which no DLOD can pass without all DLODs passing		Contractor led activity probably at the Contractor's location.
←	Example of reversion at the Authority's discretion if FAT not passed		Authority led activity probably in the UK		Process of any Pre-Contract Paper Based Assessment Acceptance

Figure 1 – Acceptance Process and Milestone

Approach to Acceptance

3. The Contractor shall concentrate the initial test effort on a demonstration at the Factory Acceptance Test (FAT). The Contractor shall provide evidence if requested at all stages of the Acceptance Process shown at Figure 1, but the Authority may choose not to employ some of the tests if the FAT test results are conclusive and satisfactory. If the FAT test does not achieve the standards required, the Authority will revert to the preceding tests.

4. For the logistics and training deliverables, the Acceptance Process will be as shown in Figure 1 and there is no intention by the Authority to omit any of the prescribed tests.

How Acceptance relates to the Requirement – The 'Golden Thread'

5. The Authority's Acceptance Process relies on a particular methodology to demonstrate that the delivered system meets the contracted requirement. This methodology ensures that the documented, logical connection between system requirements and delivery – the 'Golden Thread' is maintained and visible. Whilst it is in the interests of both the Authority and the Contractor to minimise the cost and time required to prepare a bid and accept the equipment, logistics and training into service, the Contractor shall maintain the 'Golden Thread' principle throughout its test processes.

6. For this MSTAR Obsolescence Replacement Programme (MSTAR ORP), a Cardinal Point Requirement Document (CPRD) will be employed in place of a detailed System Requirement Document. The CPRD is deliberately high level and sets out the most important operational requirements that must be maintained through the programme. The CPRD has its roots in the User Requirement Document (URD) and connects in turn to the Validation and Verification Requirements Matrix (VVRM) and the Supportability Test, Evaluation and Verification (STEV) Plan. The 'Golden Thread' can thus be traced from requirement to delivered product. The Authority uses the DOORS system[2] to record the CPRD and the links to URD and VVRM. It is the Contractor's Master Test Plan (CMTP) and Design Proposal that complete the body of evidence that will prove that the MSTAR ORP system is at least as good as the current MSTAR Mk IV. A thorough CMTP that refers to the existing requirements and the Battlefield Mission (BFM) is therefore vital.

7. The Authority's acceptance criteria for an obsolescence mitigation programme is expressed as delivering an equivalent level of operational performance when compared to the pre-mitigated equipment. Performance enhancements are not sought but will be accepted as a natural consequence of product development, if such enhancements do not come at the expense of performance degradations elsewhere.

Adapted approach for MSTAR ORP

8. The Authority's default approach to setting requirements and accepting them is to use the 'Engineering V' shown in the diagram at Figure 2.

    8.1. The system is defined through the development of stakeholder requirements with increasing analysis to mature and de-risk the solution. At each level there are corresponding activities across the V that progressively assure and accept the system

[2] DOORS stands for Dynamic Object Oriented Requirements Management System

(represented by the double ended arrows) ensuring the Golden Thread is maintained throughout. This is a widely accepted model and is not bespoke to the MOD[3].

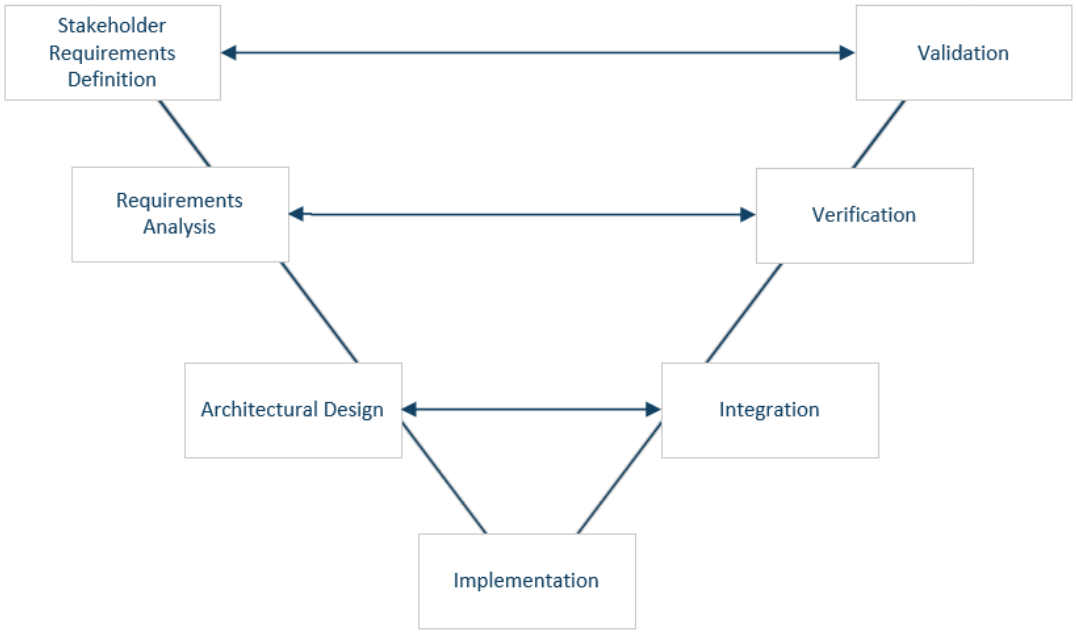


Figure 2 – The Engineering V diagram.

8.2. In this specific case the Authority considers that this approach will cause repetition of testing that the Contractor has almost certainly already done out of the Authority's sight to build its Off The Shelf (OTS) solution and sell it to other customers. However, not completing this process risks cutting the Golden Thread. The Golden Thread will be maintained by making explicit links between the Cardinal Point Requirement (CPRD) and the Live Firing Demonstration through the Contractor's Master Test Plan (CMTP) (see Contractor's Master Test Plan section below).

8.3. The Authority's Acceptance Process will therefore aim to minimise the number of demonstrations and tests employed shown in Figure 3. This approach requires a degree of trust on the part of the Authority and openness on the part of the Contractor and it is essential that the Contractor and Authority work together to achieve common understanding whilst respecting each other's roles in the process. The success of the approach will depend on the Contractor being open and forthcoming, demonstrating an understanding of the Authority's requirements, volunteering information, and producing test results and certificates according to a demanding test plan. The Authority expects this approach to have a direct effect on the cost of acceptance and the size of any contingency the Contractor may apply against the risk of having to repeat the lower level acceptance tests.

3 ISO 15288:2015

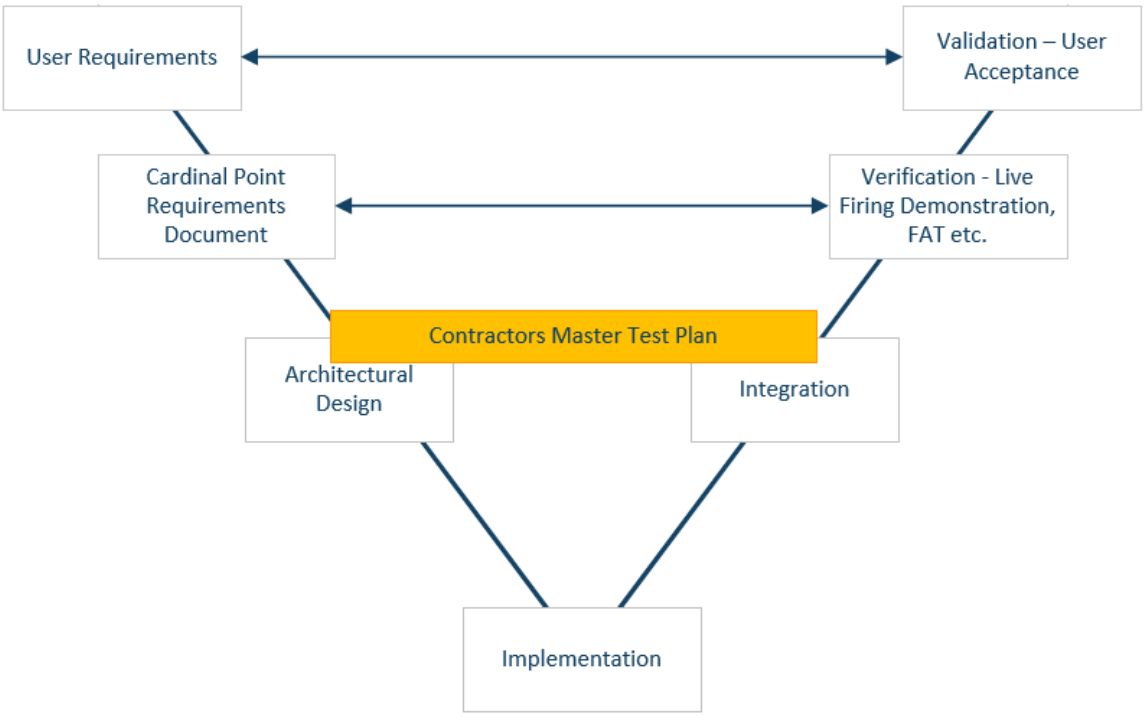


Figure 3 – Adapted approach to maintaining the Golden Thread for MSTAR ORP

The CMTP

The Role of the Contractor's Master Test Plan (CMTP)

9. The CMTP is defined at paragraph 17. The role of the CMTP in maintaining the 'Golden Thread' is to demonstrate how the Contractor will fill in the evidential gaps that exist at Contract Award considering any evidence produced as part of the Tender. The evidence available at Contract Award combined with the evidence gathered during Contract Delivery will provide the basis for the Authority's judgement on acceptance of the delivered solution as shown in Figure 4. This figure is not intended to show ownership of the various documents, only how they combine to achieve acceptance.

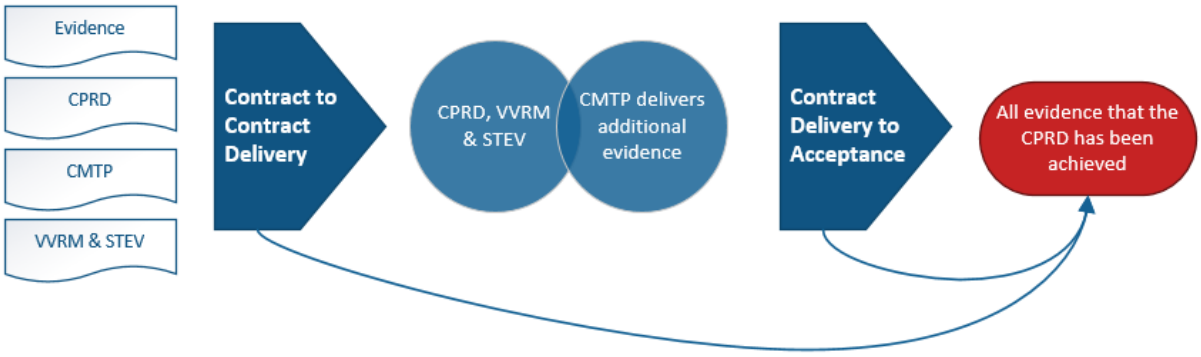


Figure 4 – The Build-up of Evidence

10. **The significance of FAT & Live Firing**. The Contractor shall demonstrate that the First of Class MSTAR ORP Systems meet the contracted requirements by conducting a FAT and Live Firing Demonstration. The success of these tests in demonstrating that the delivered MSTAR ORP meets the standard set out in paragraph 7 will justify the

omission of much of the normal progressive assurance. Design Reviews, Test Readiness Reviews are set aside so it is vitally important that the Contractor and the Authority understand the scope of the FAT and Live Firing exercises, what it is intended to achieve and, importantly, what it is not.

11. At the release to the Contractor of the CPRD and the Acceptance Process, large elements of the Authority's default processes are written out. This 'safety net' provides assurance if the FAT or Live Firing does not demonstrate that the Contractor's solution meets the Authority's needs then test processes may have to be repeated or new reviews added such as PDR and CDR, as shown in Figure 5. By the time the Live Firing comes about, large elements of the VVRM and STEV should have been completed with Contractor's existing evidence. The Live Firing can be tailored to demonstrate only those aspects that have not been proven to the Authority's satisfaction at that stage of assurance. Live Firing cannot be wholly avoided by Contractor's evidence, but it can be minimised.

12. The Contractor shall deliver the contracted requirement in accordance with this Acceptance Process using their CMTP which must give confidence to the Authority that the Contractor has a thorough understanding of the CPRD and how this relates to the Army's use of the equipment and the factors that are most important to its success on military Operations.

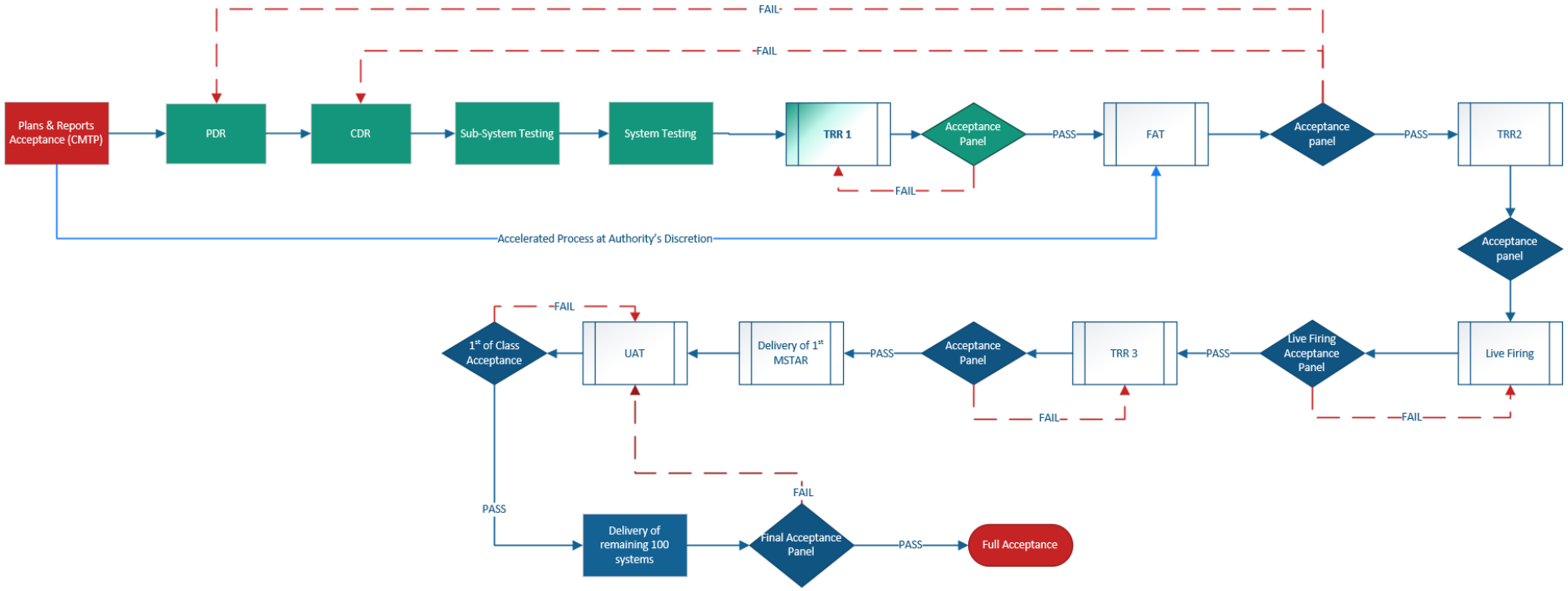


Figure 5 – Process flow for test and acceptance for MSTAR ORP. It should be noted that regression testing may be required if elements of the solution significantly change.

Governance

13. Governance of the Acceptance Process is provided through the following bodies:

13.1. The Integrated Test and Evaluation Working Group (ITEA WG);

13.1.1. The purpose of the ITEA WG is to maintain oversight and momentum of the Acceptance Process; providing clarification, disambiguation and, where necessary, recommending changes to enable smooth progress towards acceptance. It will do this through effective stakeholder engagement leading to agreement. The ITEA WG does not have authority to take decisions that have been delegated to other meetings (e.g. accept Contract deliverables).

13.1.2. The ITEA WG meets every 3 months alternating between Contractor's premises and Authority premises. The first meeting is to be held at the Contractor's premises within 2 months of Contract Award.

13.1.3. The Contractor shall provide all secretariat support to the ITEA WG and the Authority provides facilities and access for meetings held at the Authority's premises.

13.1.4. The Terms of Reference of the ITEA WG are set out in Appendix A.

14. The Safety and Environmental Management Panel (SEMP).

14.1. The Safety and Environmental Panel (SEP) is the Authority body charged with making decisions relating to the safety and environmental impact of the Contract deliverables. The Contractor has no role on the SEP but can send an observer, subject to agreement by the Authority's Project Manager. The SEP meets every 6 months.

14.2. The SEP uses the Safety and Environmental WG (SEWG) to monitor, gather evidence, and make recommendations for SEP approval. The Contractor is represented on the SEWG by the Project Manager and Safety Manager as a minimum to all SEWGs and Panels. The SEWG meets every 6 months or as required, and is chaired and administered by the Authority.

14.3. The SEP is subordinate to the Authority's Safety and Environmental Management Committee (SEMC). The SEMC sets safety and environmental policy and takes decisions on the overall levels of acceptable risk and the suitability of risk management plans. The Contractor shall not be required to attend this meeting. The SEMC meets every 4 months.

15. Logistic Support Committee (LSC)

15.1. A formal Logistic Support Committee (LSC) meeting will be convened to review the Contractor's Integrated Logistic Support (ILS) deliverables and to confirm that the necessary ILS elements are in place in order for Logistic Support Declaration (LSD) to be declared. This will be in accordance with the LSC Terms of Reference at Appendix 1 to the Meeting Matrix at Annex T.

16. Training Steering Group (TSG)

    16.1. A formal Training Steering Group (TSG) meeting will be convened to review the Contractor's Training Needs Analysis and Training deliverables to confirm that the necessary elements are in place in order for the Contractor's Train the Trainer (T3) course can commence. The contractor shall attend TSG in accordance with Annex T.

Contractor's Master Test Plan

17. The Contractors attention is drawn to Annex C to the Contract Master Test Plan (CMTP) in accordance with Plan and Report (P&R) 11.

18. The CMTP shall explain in detail how the Contractor shall achieve acceptance of the Contract deliverables, including participation in the Authority's Acceptance Process set out in Figure 1 as directed by the Authority. The CMTP shall include the relevant testing undertaken by the Contractor prior to Contract Award and show how such testing contributes to the overall acceptance of the deliverables.

19. The Contractor shall maintain the CMTP, so that any changes in test sequences are accurately reflected.

20. An up to date and accurate CMTP forms part of the Entry Criteria for all Acceptance tests.

Supportability Test, Evaluation and Verification Plan

21. The Contractors attention is drawn to the Supportability Test, Evaluation and Verification Plan P&R 07 at Annex C to the Contract.

22. The Supportability Test, Evaluation and Verification (STEV) Plan shall describe the parameters and requirements of each type of acceptance test for the ILS deliverables including training, support services and Support and Test Equipment (S&TE). The CMTP details how the Contractor shall execute the STEV Plan. The STEV includes at least the following content:

    22.1. Test entry criteria, to include pre-requisites such as, but not be limited to, use cases; test scripts; pass and fail criteria and Government Furnished Assets;

    22.2. The specific test activities, steps and expected outcomes;

    22.3. Result recording (format and responsibility);

    22.4. Test review, sentencing and Incident resolution process;

    22.5. The verification detail (What, When, How, Where, Who);

    22.6. References to supporting documentation;

    22.7. Success and exit criteria for each phase of testing.

23. The Contractor shall keep the STEV Plan up to date, so that any changes in test requirements are accurately reflected. An up to date and accurate STEV forms part of the Entry Criteria for all Acceptance tests

24. Updates to both the CMTP and STEV are subject to agreement by the Authority following discussion at ITEA WG meetings.

Validation and Verification Requirement Matrix

25. The Contractors attention is drawn to the Authority's Validation and Verification Requirement Matrix (VVRM) P&R 12 at Annex C to the Contract.

26. The Authority will use a VVRM tool to model the acceptance plan and to record progress against the plan, including decisions made at the various milestones shown in Figure 1. The Authority will update the VVRM as the Contract and delivery progresses. The VVRM will be a key source of evidence underpinning the Acceptance Case and the Acceptance Case Report. The populated VVRM tool holds the following key acceptance information:

    26.1. What will be measured;

    26.2. How it will be measured;

    26.3. When it will be measured (what event and trial);

    26.4. What good looks like – criteria for success;

    26.5. Who generates the evidence;

    26.6. Who evaluates whether criteria have been met.

Contractor's Evidence

27. The Authority will consider written evidence during the Acceptance Process in coming to its decision on acceptance of the Contract deliverables, which must be agreed by the relevant Acceptance Panel. This written evidence must conform to the standards below:

    27.1. Content:

        27.1.1. Executive summary.

        27.1.2. Recommendations.

        27.1.3. Methodology.

        27.1.4. Discussion, including salient data and evidence and the full rationale for the Recommendations and Conclusions.

        27.1.5. Rectification Plans (see Rectification Plans below) for Incidents and Concessions (see Compliance and Incidents below).

        27.1.6. Conclusions.

        27.1.7. References.

        27.1.8. Evidence data (as annexes).

    27.2. Format:

        27.2.1. UK English.

27.2.2. ISO page sizes.

27.2.3. Drafts in Microsoft (MS) Office 2016 compatible format.

27.2.4. Final versions in Adobe Portable Document Format (PDF).

27.3. Timing:

27.3.1. The Contractor shall deliver draft evidence to the Authority no less than 15 working days prior to the scheduled end of each Acceptance Event. The Authority will review and provide any comments to the Contractor within 10 working days from receipt.

27.3.2. The Contractor shall deliver final versions to the Authority within 15 working days of receipt of Authority's comments. In this way full reports will be available to achieve the Exit Criteria of each Acceptance Event. Submission of a final version does not guarantee acceptance of the report, its conclusions or recommendations. Nor does it guarantee achieving the exit criteria. For example, further iterations; additional evidence; clarification; further testing; or other activities may be required to achieve the exit criteria.

27.4. Quality:

28. The Contractor may present evidence that pre-dates the Contract where it can demonstrate to the Authority's satisfaction that such evidence has sufficient relevance to the Contract deliverables. The Authority reserves the right to accept or reject any such evidence for the purpose of Annex M.

29. The Contractor may present evidence from trials for other customers where it can demonstrate to the Authority's satisfaction that such evidence has sufficient relevance to the Contract deliverables. The Authority reserves the right to accept or reject any such evidence for the purpose of Annex M.

30. Where the Contractor has proposed providing evidence under paragraphs 27 and 28 above (e.g. test results, test meeting minutes, test outcomes, summary sheets, certificates and images), it must provide such evidence within 15 working days of receiving Authority agreement to consider, or another period as agreed.

3rd Party Test Evidence

31. The Authority will consider 3rd party test results and other evidence in support of documentation analysis (e.g. test reports and certificates from environmental test chambers) in accordance with the VVRM, if the Contractor can demonstrate that the tested item has not been modified or materially altered between the original certifying test event and the provision of the item to the Authority.

32. The Authority reserves the right to accept or reject any such evidence for the purpose of Annex M.

33. Where an item has been modified, or altered, to the extent of affecting the original certification, the Contractor shall provide evidence to the Authority from new tests as directed by the ITEA WG, within 15 working days of completion of such new tests.

Compliance Judgement

34. The Authority will consider the evidence provided by the Contractor and decide on the degree to which compliance with the relevant requirements has been met.

35. The Authority will notify the Contractor in writing of its decision as one of the following:

    35.1. **Compliant.** The evidence provided fully demonstrates compliance of the Contract deliverable with the relevant requirement with no observations. The Acceptance Process moves automatically to the next stage.

    35.2. **Conditionally Compliant.** The evidence provided partially demonstrates compliance of the Contract deliverable with the relevant requirement. Some observations have been made that prevent acceptance. The Authority will describe the observations in writing and the Contractor shall deliver a Rectification Plan to address the issue. The Authority will decide whether the Acceptance Process can move to the next stage.

    35.3. **Non-Compliant:** The evidence provided does not meet one or more of the standards. The Acceptance Process cannot move to the next stage until either further evidence is received that overturns the result, or the Authority provides a concession through a Contract amendment.

Incidents

36. Incidents include any event or outcome from an acceptance test that, in the opinion of the appropriate Acceptance Panel or ITEA WG indicates a possible non-conformance with the requirement. This includes, but is not limited to, any defect, test failure, non-compliance, incomplete test, partial compliance, deviation, unknown cause, process, outcome, output, observation or aspect of the Contract deliverables.

37. Both the Contractor and Authority will identify and report Incidents throughout the Acceptance Process. Incidents will be reported to the appropriate Acceptance Panel or ITEA WG and the Authority will assign a priority to all Incidents based on a recommendation from the appropriate Acceptance Panel or ITEA WG. The following Incident priority classifications will be used:

    37.1. **P1 (Highest Priority)** – An incident that affects safety, security or a key system requirement. An incident classified as P1 has the effect of preventing exit from the current test. To remove or downgrade the Incident, the Contractor and the Authority will work together to rectify the Incident and the acceptance test must be repeated to demonstrate compliance. Where such rectification cannot take place within the period allowed for the test, the Contractor shall provide a Rectification Plan (see below) that is acceptable to the Authority.

    37.2. **P2 (High Priority)** - As above but with a workaround acceptable to the Authority which will be rectified to meet the Exit Criteria for the test;

    37.3. **P3 (Medium Priority)** - Other Functional Incident that the Authority is prepared to accept with a concession. Concessions require a Contract amendment. All concessions will be identified and agreed prior to achieving the Exit Criteria for the test;

37.4. **P4 (Low Priority)** - Potential new, positive or enhanced functionality. All P4s will be identified and recorded in the relevant test event report prior to achieving the Exit Criteria for the test.

Rectification Plans

38. The Contractor shall provide a Rectification Plan in response to a P1 incident for agreement by the Authority. The content of the Rectification Plan includes at least the following:

38.1. Details and signatures of the Rectification Plan author and responsible executive.

38.2. Description of the Incident, action or observation.

38.3. Explanation in detail of how the Incident, action or observation will be rectified, to include required resources including facilities and personnel.

38.4. Names and responsibilities of the Contractor staff assigned to carry out the Rectification Plan.

38.5. A schedule based on three-point estimated timescales. The Authority will consider alternative estimation techniques.

38.6. A section for the Authority to sign to indicate acceptance of the Plan.

Appendix A – ITEA WG Terms of Reference

1. The objectives of the ITEA WG are to;

   1.1. Maintain the test, evaluation and acceptance plan and schedule.

   1.2. Identify and manage test, evaluation and acceptance risks (for inclusion in the Project Risk Register).

   1.3. Prioritise test, evaluation and acceptance activities.

   1.4. Make updates to the CMTP and STEV (subject to Contract amendment).

   1.5. Manage test, evaluation and acceptance resources (including equipment and people).

   1.6. Disambiguate the ITEA process.

2. The following people will form the core of the ITEA WG and will have the responsibilities shown:

   2.1. For the Authority: Project Manager (Chair), Requirements Manager, Engineering Manager, Commercial Manager, Technical Through-Life Support Manager, User representative.

   2.2. For the Contractor: Project Manager, Test Manager (Secretariat).

3. Each meeting of the ITEA WG will use the following standing agenda. ITEA WG members can invite additional, non-voting, attendees, subject to approval by the Chair.

Table 1 – ITEA WG Agenda

Serial	Agenda Item
1	Opening remarks from the Chair and Contractor's PM
2	Introductions
3	Progress against the Process and Schedule
4	Activities to recover the Process and Schedule
5	Identify Risks to the Process and Schedule
6	Manage Risks to the Process and Schedule
7	Manage resources
8	Update the CMTP and STEV (subject to Contract amendment)
9	Disambiguate the ITEA process.
10	Date of next meeting

4. **Output.** The main outputs of the ITEA WG will be; mutual understanding; reduced cost and time through efficient acceptance; and occasional reports and advice to the Project Board.

Appendix B - Acceptance Tests

Factory Acceptance Tests (FAT)

1. The Contractor shall host and perform the Factory Acceptance Tests at the Contractor's premises with the support of the Authority and its stakeholders. The Contractor shall issue the FAT reports.

    1.1. The Factory Acceptance Tests will follow the CMTP to verify the Contract deliverables against the CPRD, SOR and VVRM.

    1.2. The Contractor shall execute the detailed step-by-step test scripts approved at the TRR1 or another appropriate forum. The Authority reserves the right to select a small number of tests to demonstrate that no undue regression has occurred. If there is evidence of regression, then the trial will be re-run after rectification.

    1.3. If a test deviates from a script it may be necessary to restart the script to ensure that the requirement is demonstrated.

Entry Criteria

2. To commence this phase of testing the Contractor shall meet the following Entry Criteria:

    2.1. Successful conclusion of TRR1;

    2.2. Test scripts including pass and fail criteria as agreed in TRR1;

    2.3. All necessary equipment and test personnel in place.

    2.4. An invitation to the Authority to attend. The Authority's attendance or consultation with subject matter experts (including representatives of the PT, the Safety WG and representatives of the stakeholder community) to perform an adequate review will be the responsibility of the Authority.

Substance of the Event

3. The conduct of trials will be as follows:

    3.1. Trials will precisely follow the approved test scripts. Test scripts can be stopped or repeat by agreement of Authority and Contractor's personnel at the test, by their line-management or by using the resolution mechanism in the Contract.

    3.2. Incidents will be recorded and sentenced

    3.3. Incidents will have a Rectification Plan.

    3.4. Statistical data will be produced to inform Acceptance Panels and the Logistics Support Committee (LSC);

Exit Criteria

4. To conclude the FAT, the Contractor shall meet the following exit criteria:

    4.1. The Contractor shall issue the FAT Report within 15 working days of test completion.

4.2. The Authority has approved the FAT Report.

4.3. On conclusion of FAT, the Authority will hold a FAT Acceptance Panel in the UK. The FAT Acceptance Panel will comprise the members of the Authority Working Group. The Contractor shall present evidence to the FAT Acceptance Panel that the exit criteria has been met. The final decision will remain with the Authority through the Acceptance Panel.

User Acceptance Testing (UAT)

5. The UAT will be hosted and administered by the Authority and supported by its stakeholders and the Contractor on Salisbury Plain Training Area (SPTA).

6. The UAT will follow the UAT Plan (written by the Authority) that will be based around the BFM, as defined at Part 4 of the CPRD. The UAT is to validate that all the DLODs are fit for purpose i.e. they combine to deliver the MSTAR ORP capability at least as well as the in-service MSTAR MkIV. The focus will therefore be on the Equipment, Training and Logistics DLODs, although sufficient regression testing will be included for the other DLODs.

Entry Criteria

7. To commence UAT, the following entry criteria will be met:

7.1. Successful conclusion of FAT;

7.2. All Cat 1 and 2 Rectification Plans have been executed and the outcome is satisfactory to the Authority.

7.3. Test scripts are available including pass and fail criteria as approved in FAT;

7.4. All necessary equipment and trained personnel are in place.

7.4.1. The Contractor has delivered the new MSTAR ORP System to RATDU.

7.4.2. The soldiers conducting the UAT have been trained as approved by FAT.

7.4.3. The soldiers conducting the UAT are in place.

7.4.4. The logistics are in place as agreed by FAT e.g. spares, tools and publications

7.4.5. RATDU staff are in place.

7.4.6. RATDU facilities are available, including the training area.

7.4.7. Royal Artillery (RA) support is in place.

Substance of the Event

8. The conduct of trials will be as follows:

8.1. Trials will follow the Authority's test scripts. Test scripts can be stopped or repeated by agreement of Authority and Contractor personnel at the test, by their line-management or by using the resolution mechanism in the contract;

8.2. Incidents will be recorded and sentenced and the Contractor shall produce a Rectification Plan for each.

8.3. The Contractor shall produce statistical data to inform the Logistic Support Declaration (LSD) and Logistic Support Committee (LSC);

8.4. The Authority will issue the UAT report within 15 working days of trial completion for the Acceptance of the First of Class MSTAR ORP Systems.

Exit Criteria

9. To exit UAT, the Contractor shall meet the following exit criteria:

9.1. The MSTAR ORP System shall have passed all of the test scripts.

9.2. The DLODs shall have worked together to produce a MSTAR ORP capability that is at least as good as the in-service MSTAR MkIV.

9.3. The RATDU report shall recommend a pass.

9.4. All issues (action items, schedule etc.) related to the UAT will have been approved by the Authority.

9.5. Current risks and any new risks, including mitigation plans, are identified, assessed and approved by the Authority to be at an acceptable level to continue.

9.6. A finalised VVRM will have been approved by the Authority. A finalised VVRM will show all the evidence of Validation and Verification and how it demonstrates that every Cardinal Point has been fully satisfied.

9.7. The Authority has approved the UAT Report.

On conclusion of UAT, the Authority will hold a UAT Acceptance Panel in the UK. The UAT Acceptance Panel will comprise the members of the Authority Working Group. The Contractor shall present evidence to the UAT Acceptance Panel that the exit criteria has been met.The final decision will remain with the Authority through the Acceptance Panel.

Appendix C – Live Firing

1. The Live Firing tests will compare the measured performance of a MSTAR ORP System that has been subject to the obsolescence mitigation required as a Contract deliverable, with the measured performance of the Authority's in-service MSTAR MkIV, in terms of the ability to accurately detect mortar firings, artillery shells (both guided and dumb) and rockets. The tests will include but not be limited to; time into and out of action, radiation emissions, reliability and human factors. The Battlefield Mission (BFM) is defined at Part 4 of the CPRD and describes the operational use of MSTAR and should form one of the pillars of the CMTP. The tests will run concurrently for each equipment so far as possible to eliminate variability due to weather. Crews will be provided for each MSTAR by the Authority to be equivalent to each other in training, experience and capability. The capabilities of the crews shall not give either equipment an advantage.

2. The objective of the Live Firing test is to show that obsolescence in the In-Service MSTAR MkIV has been mitigated with no reduction in performance.

Entry Criteria

3. To commence Live Firing, the following entry criteria must be met:

   3.1. Successful conclusion of the FAT Acceptance Panel and TRR2;

   3.2. Test scripts including pass and fail criteria as agreed in TRR2;

   3.3. All necessary equipment and test personnel in place.

   3.4. Up to date and accurate CMTP.

Substance of the Event

4. Live Firing will have 3 phases;

   4.1. **Preparation**: meetings, reconnaissance of the test site, development of test scripts; rehearsals of the test, exchanges of information by email and through shared working areas and other such preparations to maximise the probability of a successful demonstration.

   4.2. **Execution**: the running of the tests with the in-service MSTAR MkIV and the Contractor's solution performing side by side on the same targets, in the same conditions, with similar crews, to the same test standards and measured in the same way.

   4.3. **Exploitation**: use of the data gathered during the execution phase to form the Acceptance Case and justify and remedial actions required.

Preparation

5. The Contractor shall schedule Live Firing working groups (LFWG) starting at the Contractor's premises and alternating with the Authorities premises. The first LFWG is to be held within 2 months of Contract award. Membership and secretariat responsibilities for the LFWG are the same as for ITEA WG. LFWGs should be arranged coincidentally with other meetings where possible to reduce costs and travel.

6. The Objectives of the Preparation Phase are to;

   6.1. Ensure that the Live Firing Test Plan in the CMTP can achieve the requirements of the Live Firing Trial.

   6.2. Identify risks and manage risks to the Live Firing Trial.

   6.3. Ensure that the necessary resources (including manpower) have been allocated to the trials.

   6.4. Ensure that appropriately resourced contingencies (including manpower) have been made for rectifying partial or non-compliances with the CPRD, SOR and VVRM.

   6.5. Ensure the Live Firing Schedule is robust and accurate enough to achieve the requirements of the Live Firing Trial.

   6.6. Approve the Life Firing Test Plan in the CMTP.

   6.7. The LFWG will use the following standing agenda during the Preparation Phase. Additional items within the scope identified at 5.2 above can be added, subject to agreement by the Chair.

Table 2 – LFWG Agenda for Preparation Phase

Serial	Item
1	Opening remarks from the Chair and Contractor's PM
2	Introductions
3	Progress towards approving the CMTP
4	Activities to recover the process and schedule
5	Identify risks to the process and schedule
6	Manage risks to the process and schedule
7	Manage resources
8	Update the CMTP (subject to Contract amendment)
9	Date of next meeting

The Execution Phase

7. The Live Firing Test will have the MSTAR MkIV and the Contractor's proposed solution perform side by side on the same targets, in the same conditions, with similar crews, to the same test standards and measured in the same way. It will have detailed test scripts agreed in the Preparation Phase with observers from the Authority and the Contractor to witness that the test scris have been followed correctly. It will be managed in detail by the LFWG.

8. For each test the Contractor must demonstrate that:

    8.1. Both MSTAR systems under test are functioning correctly;

    8.2. Both MSTAR systems are set up correctly to undertake the test script; all personnel involved are SQEP and trained for their roles

    8.3. The munitions can be fired safely;

    8.4. The performance of the equipment can be observed and measured;

    8.5. The crews can measure the precise location of Points of Origin and Points of Impact;

    8.6. Both the Contractor and Authority observers are recording all data (including Incidents) on the test script.

9. The Contractor shall prepare and submit a report on the Live Fire tests to the LFWG within 20 working days of the end of the Live Fire tests. The LFWG will consider the report and its own observations and confirm achievement of the test objective, or provide a list of remedial activities together with justification. Remedial activities that cannot be performed within the agreed Trial Plan will be transferred to the Exploitation Phase.

10. The Contractor shall conduct the Execution Phase at its test location in XXX. The LFWG will meet daily (unless otherwise agreed with the Authority) during the Execution Phase at a location near to the test site facilitated by the Contractor. The first Execution Phase LFWG meeting will be held on the working day before the trial commences.

11. The Objectives of the Execution Phase are to;

    11.1. Ensure that the Live Firing Test Plan in the CMTP is delivered.

    11.2. Identify risks and manage risks to the Live Firing Trial.

    11.3. Ensure that the necessary resources (including manpower) are present for the trials.

    11.4. Ensure that appropriately resourced contingencies are executed for rectifying partial or non-compliances with the CPRD, SOR and VVRM.

    11.5. Ensure the Live Firing Schedule is delivered to achieve the requirements of the Live Firing Trial.

    11.6. Categorise Incidents (P1, P2, P3, P4).

    11.7. Ad hoc and 'live' management of the trials within the boundaries of the CMTP.

11.8. Anticipate the requirements of the Exploitation Phase.

12. The LFWG will use the following standing agenda during the Execution Phase. Additional items within the scope identified at 5.2 above can be added, subject to agreement by the Chair.

Table 3 – LFWG Agenda for Execution Phase

Serial	Item
1	Opening remarks from the Chair and Contractor's PM
2	Introductions
3	Progress towards Live Firing Trial Plan
4	Activities to recover the trial and schedule
5	Identify risks to the trial and schedule
6	Manage risks to the trial and schedule
7	Manage resources
8	Make ad hoc changes to the Live Firing Trial Plan
9	Categorise Incidents
10	Date of next meeting

The Exploitation Phase

13. The Exploitation Phase will take maximum advantage of the data and information gathered from the trial.

13.1. VVRM updated with evidence.

13.2. Trial observations will be recorded and sentenced in accordance with Incidents with actions and observations including a detailed Rectification Plan agreed by both parties.

13.3. The acceptance status against trial pass and fail criteria will be agreed during the Live Firing acceptance Panel shown in figure 5. Pass and fail criteria will be measured against the Live Firing Trials Plan. Written by the Contractor and agreed with the Authority.

13.4. The Contractor shall issue the Live Firing trial report within 15 working days of trial completion for agreement by the Authority.

Exit Criteria

14. To conclude the Live Firing, the following exit criteria must be met by the Contractor;

14.1. The Live Firing Report has been delivered.

14.2. The Authority has approved the Live Firing Report

14.3. The Contractor's proposed solution is shown to be at least as good as the in-service MSTAR MkIV as agreed in the CPRD, SOR and the VVRM.

14.4. The Contractor's proposed system has passed all the Live Firing Test Scripts or exceptions agreed by the Exploitation Phase WG.

14.5. Risks to the Acceptance Process have been identified and assessed with mitigation plans;

14.6. The reports required by the Exploitation Phase WG have been delivered to the Authority.

14.7. Statistical data has been produced to inform the Live Firing Acceptance Panel and LSC;

Appendix D – Plans and Reports (P&Rs) and Contract Data Requirements (CDRs)

Acceptance of Plans and Reports and Contract Data Requirements

1. The Contractor shall deliver draft and final versions of Plans and Reports (P&Rs) and Contract Data Requirements (CDRs) to the Authority in accordance with Annex C, Annex D, and the Statement of Requirement at Annex A to the Contract. The Authority will review and provide any comments to the Contractor within 30 working days from receipt, using an agreed format. Rejection of an initial draft shall only be in circumstances where an initial draft is deemed unsuitable to be considered as a draft due to a lack of appropriate content.

2. The Contractor shall either action comments or amendments for incorporation in the final document or shall discuss with the Authority to reach mutual agreement on the appropriate changes necessary to enable a resubmission within a further 10 working days after receipt of the Authority's comments to allow a further 10 working days review by the Authority by the appropriate due date as stated in the Schedule of Requirements. Where discussions are deemed necessary to agree changes or incorporation of comments, the Contractor shall agree a mutually convenient time for such a meeting with the Authority, providing at least 5 working days' notice. The Contractor may make such resubmissions by email if appropriate according to size and classification in the required format stated in the Schedule of Requirements. The Authority may provide its agreement, further comments or amendments for incorporation or its rejection if the document is still significantly lacking in appropriate content. Such rejection will be provided in writing and contain reasons for such rejection.

3. Where a draft is not required or where a document has been agreed by the Authority in writing, the Contractor shall submit the final version with any Authority signatures as required in the required format / medium by the due date, as stated in the Schedule of Requirements.

4. All Plans and Reports will be delivered as follows:

    4.1. Draft versions in electronic versions in MS Office 2016 compatible format.

    4.2. Final versions in Adobe PDF format.

Appendix E – Design Reviews

Acceptance of Design Reviews

1. The Contractor shall issue draft Design Review (DR) documentation to the Authority for review and comment no later than 15 working days before each DR. Any review comments from the Authority will be sent to the Contractor no later than 5 working days before the event.

2. Final reports will be delivered to the Authority 15 working days after the DR for review and comment. Any review comments from the Authority will be sent to the Contractor 10 working days from receipt. The Contractor will deliver the Final version to the Authority within 15 working days of the return of the Review comments.

3. The Contractor shall keep a record of each DR in the form of minutes to include a record of actions and decisions which will be issued to Authority within 5 working days of the Review. The Authority will comment on the draft minutes and return to the Contractor within 10 working days of receiving the draft minutes. The final version of the minutes will be issued by the Contractor within 10 working days of the return of comments.

4. After a DR, the Authority will confirm whether the DR objectives have been met or whether further action is required to meet those objectives. For clarity, DRs are considered complete when all actions raised during the review have been rectified or have an agreed Rectification Plan.

5. All documents and reports will be delivered as follows:

    5.1. Draft versions in electronic versions in MS Office 2016 compatible format.

    5.2. Final versions in Adobe PDF format.

6. DRs will not be repeated unless both parties agree that proposed changes are significant enough to invalidate the previously agreed DR objectives. These changes must be agreed and incorporated into the design before progression to the next phase, unless agreed by both parties to defer.

7. DRs must satisfy the following criteria:

    7.1. Verify that the detailed design meets the specified requirements;

    7.2. Demonstrate compatibility among the configuration items and other items of equipment, facilities, software, and personnel has been established;

    7.3. Demonstrate that the risk for each configuration item has been assessed and plans agreed for all mitigations;

    7.4. Enable an evaluation of preliminary manufacturing viability analyses, product specifications, test plans, operation and support documents;

    7.5. Establish the feasibility of entry to design implementation.

Preliminary Design Review (PDR)

8. The PDR is the formal technical review of the design approach. It will be held prior to the start of preparing a detailed design. The scope of the PDR is the equipment and logistics Contract deliverables.

9. The PDR will establish a baseline design for MSTAR ORP from the following artefacts:

    9.1. Functional Descriptions.

    9.2. Design Decisions.

    9.3. Software Design.

    9.4. Equipment Descriptions.

    9.5. Use Cases & Use Case Scenarios.

    9.6. System Configuration baseline.

    9.7. Support and Test equipment.

    9.8. Technical Specification, incorporating:

        9.8.1. CPRD, SOR and VVRM.

        9.8.2. CMTP and STEV updates.

        9.8.3. ILS deliverables.

        9.8.4. Training deliverables.

        9.8.5. Test events

    9.9. Plans and deliverables

    9.10. Evaluate the progress, technical adequacy, and risk resolution of the selected design, support and training approaches.

    9.11. Establish the existence and compatibility of the physical and functional interfaces among the configuration items and other items of equipment.

    9.12. Assess current risks; identify any new risks and agree plans for mitigation.

Entry Criteria

10. To commence PDR, the Contractor shall meet the following Entry Criteria at least 20 working days before the event:

    10.1. An agenda including specific objectives agreed with the Authority.

    10.2. Supporting material describing the scope of recommendations and changes.

    10.3. A detailed schedule in Primavera P6 compatible format, showing activity by day and including any dependencies on Authority provision of GFE or resources.

10.4. Identified risks and proposed risk management

10.5. An up to date CMTP

10.6. An invitation to the Authority to attend.

10.7. An up to date AR&M Case report.

Substance of the Event

11. The PDR shall be a meeting hosted and managed by the Contractor. The Contractor shall present, with supporting documentation, what it has done to date and how it intends to do to achieve Acceptance of the Contract deliverables. It is an opportunity for the Contractor to demonstrate that it has assembled the resources and plans necessary to achieve the Requirements of the Contract at an acceptable level of risk.

Exit Criteria

12. To conclude PDR, the Contractor shall meet the following exit criteria:

12.1. Design baseline has been established for every element of the solution;

12.2. Technical adequacy, and risk resolution of the selected design and support approach has been evaluated and recorded;

12.3. The existence and compatibility of the physical and functional interfaces among the configuration items and other items of equipment and support have been established and agreed;

12.4. Current risks have been re-assessed, any new risks have been identified and mitigation plans agreed by both parties;

12.5. Approval by the Authority of the Logistic Demonstration Plan.

Critical Design Review (CDR)

13. The objective of the CDR is to confirm that the necessary design maturity has been achieved to commence manufacture of the Contract deliverables.

14. The CDR will:

14.1. Verify that the detailed design satisfies specified requirements in the CPRD, VVRM and SOR;

14.2. Establish compatibility among the configuration items and other items of equipment, facilities, software, support, training and personnel;

14.3. Assess current risks; identify any new risks and agree plans for mitigation;

14.4. Evaluate preliminary, product specifications, test plans, operation and support documents, including training;

14.5. Establish the feasibility of entry to design implementation in the system and sub-system testing stages, as shown in figure 5.

15. The CDR will consider the set of artefacts forming the Functional Baseline for the MSTAR ORP including:

    15.1. Functional descriptions

    15.2. Design decisions

    15.3. Software design (inclusions)

    15.4. Equipment descriptions

    15.5. Use Cases & Use Case Scenarios

    15.6. System configuration baseline

    15.7. Support and Test equipment

    15.8. Technical Specification, incorporating:

        15.8.1. CPRD, SOR and VVRM

        15.8.2. CMTP and STEV updates

        15.8.3. Logistic Support deliverables

        15.8.4. Training deliverables

        15.8.5. Test Events

    15.9. Plans and Arrangements above CDR activities.

Entry Criteria

16. To commence CDR, the following Entry Criteria must be met by the Contractor at least 20 working days before the event.

    16.1. Successful completion of the PDR including completion of all applicable actions raised in the final version of the minutes from the PDR Review meeting;

    16.2. An agenda including specific objectives for CDR agreed with the Authority

    16.3. Supporting material describing the scope of recommendations and changes

    16.4. A detailed schedule in Primavera P6 compatible format, showing activity by day and including any dependencies on Authority provision of GFE or resources.

    16.5. Identified risks and proposed risk management

    16.6. Up to date CMTP

    16.7. A completed System Design Document (SDD);

    16.8. Up to date Integrated Support, AR&M Case Report and STEV Plans, seen and approved by the Authority;

16.9. Final and up to date versions of Support Analysis Plan, Data Reporting Analysis and Corrective Action System (DRACAS) Plan, Supply Support Plan, Obsolescence Management Plan, Technical Documentation Management Plan and Training Skills Review seen and approved by the Authority

16.10. Evidence provided by the Contractor that the System Requirements (SR) within the CPRD, SOR and VVRM will be achieved;

16.11. Draft Factory Acceptance Test (FAT) Verification Cases and Procedures.

16.12. An invitation to the Authority to attend.

Substance of the Event

17. The CDR will be a meeting hosted and run by the Contractor. The Contractor shall present, with supporting documentation, what it has done to date and how it intends to do to achieve Acceptance of the Contract deliverables. It is the opportunity for the Contractor to demonstrate that it has assembled the resources and plans necessary to achieve the Requirements of the Contract at an acceptable level of risk.

Exit Criteria

18. To conclude CDR, the following exit criteria will be met and agreed by the ITEA WG;

18.1. The detailed design is agreed between both parties and satisfies the requirements in the CPRD, SOR and VVRM;

18.2. Compatibility among the configuration items and other items of equipment, facilities, software, support and personnel established and results recorded;

18.3. Preliminary, hardware product specifications, test plans including pass and fail criteria and operation and support documents assessed and agreed;

18.4. The feasibility of entry to design implementation is agreed;

18.5. Current risks are re-assessed; any new risks are identified and mitigation plans are agreed by both parties;

18.6. The baseline detailed design is agreed, frozen and ready for manufacture.

Appendix F – Sub-system and System Testing

Sub-system Testing

1. The Contractor shall conduct sub-system testing prior to System Testing to confirm that the various modules and sub-systems required for the equipment Contract deliverables meet their specifications. Sub-system testing is conducted as an internal process by the Contractor to establish confidence prior to the first Test Readiness Review (TRR1).

2. The Contractor may invite the Authority to its Sub-System testing but is not obliged to do so.

Entry Criteria

3. To commence this phase of testing, the following entry criteria must be met by the Contractor:

    3.1. Configuration for the sub-systems to be tested has been baselined against the CPRD, SOR and VVRM;

    3.2. Sub-system test environment has been agreed and baselined;

    3.3. Ensure all verification cases and procedures are baselined and ready to support the test event.

    3.4. Prior to the commencement of sub-system testing activities all actions and observations from the DRs will have been assessed, planned and addressed and actioned.

    3.5. Test scripts will have been prepared complete with the basis for pass or failure criteria;

    3.6. Notification to the Authority that testing is occurring and an invitation to the Authority to observe at the Contractor's discretion.

Substance of the Event

4. This event is expected to be run at the Contractor's site and potentially at Sub-Contractors' sites. It will be a mixture of evidence presentation, discussion and practical testing in laboratory, workshop and simulation environments. It will test every sub-system's ability to make its contribution to meeting all the requirements of the CPRD, this Acceptance Process, the SOR and the VVRM as appropriate. It will test that the interfaces are also performing to design. The Contractor is not required to deliver all the test documentation from this event to the Authority, unless requested to do so to support subsequent investigations, meetings or as evidence of compliance.

Exit Criteria

5. To conclude Sub-System Testing, the Contractor shall meet the following exit criteria:

    5.1. Provide a Sub-System Testing Report to the Authority on completion of the sub-system testing. An authorised representative of the Contractor shall sign the report as being a true record of the testing and the results and include all observations noted.

    5.2. Pass or failure of each sub-system test script is agreed;

5.3. The Verification approach agreed by both parties has been followed correctly;

5.4. All actions and observations raised during the event have been concluded and sentenced or a plan to rectify has been agreed between both parties;

5.5. Risks have been identified and assessed with mitigation plans.

System Testing

6. The Contractor shall conduct MSTAR ORP Testing prior to TRR1. This System test event is required to demonstrate to the Authority at TRR1 that the MSTAR ORP is sufficiently mature for the Factory Acceptance Tests to begin.

7. The Contractor shall detail the System Testing in the CMTP.

8. The Contractor may invite the Authority to its System Testing but is not obliged to do so because System Testing is primarily an internal Contractor process to establish confidence prior to TRR1 unless Verification is to be inspected, tested and demonstrated at System Testing. If invited, the Authority must be given sufficient notice to make travel arrangements. The Authority reserves the right to decline the invitation or only witness a portion of System Testing. The Contractor shall ensure that System Testing is witnessed by their own QA representative.

Entry Criteria

9. To commence System Testing, the following entry criteria must be met by the Contractor:

9.1. All Incidents from the Sub-System Testing will have been Sentenced then concluded or have a Rectification Plan;

9.2. Configuration for the solution to be tested has been baselined against the CPRD, SOR and VVRM;

9.3. System test environment has been agreed and baselined;

9.4. Ensure all verification cases and procedures are baselined and ready to support the test event;

9.5. Test scripts will have been prepared complete with the basis for pass or failure criteria.

9.6. Notification to the Authority that testing is occurring. Optionally, an invitation to the Authority to attend each element of testing. The Authority's attendance or consultation with subject matter experts (including representatives of the PT, the Safety WG and representatives of the stakeholder community) to perform an adequate review will be the responsibility of the Authority.

Substance of the Event

10. This event is likely to be run over several days or weeks at the Contractor's site. It will be mixture of evidence presentation, discussions and practical testing in laboratory, workshop and simulation environments. It will test the ability of the Systems to make their respective contribution to meeting all of the requirements of the CPRD, this Acceptance Process, the SOR and the VVRM as appropriate. It will test the interfaces are also performing to design. It is anticipated that this event will produce much documentation that the Authority does not require to see if the testing is successful. The Contractor shall produce any or all

documentation from this event if requested by the Authority to support subsequent investigations, meetings or evidence of compliance.

Exit Criteria

11. In order to conclude System Testing, the following exit criteria must be met by the Contractor;

11.1. The MSTAR ORP had passed all of the System testing test Scripts;

11.2. Risks have been identified and assessed with mitigation plans;

11.3. The Contractor shall provide a System Testing report to the Authority on completion of the System Testing at least 15 working days prior to TRR1. An authorised representative of the Contractor shall sign the report as being a true record of the testing, the results taken and all observations noted. The Contractor shall present the outcome of its Sub-System and System testing to TRR1.

11.4. Actions raised in the System testing report require completion prior to TRR1, unless agreed by both parties to defer.

11.5. All actions and observations raised during the event have been concluded and sentenced or a plan to rectify has been agreed between both parties;

11.6. System test report has been produced and delivered to the Authority in accordance with DEFFORM 111 Box 2 – Addresses and Other Information;

11.7. Recommendations and rationale provided to the Authority of the configuration of MSTAR ORP, for agreement between both parties prior to TRR1.

Appendix G – Test Readiness Reviews

Test Readiness Review 1 (TRR1)

1. TRR1 is the entry gate into the Factory Acceptance Tests. TRR1 is hosted and administered by the Contractor at the Contractor's premises with the support of the Authority and its stakeholders.

2. The primary purpose of TRR1 is to confirm and demonstrate to the Authority that the Contractor has achieved the appropriate levels of integration and test maturity to enable transition into Factory Acceptance Tests at an acceptable level of risk. The other purposes of TRR are;

    2.1. For the Contractor to present a summary of the extent of Contractor test activities and their results including but not limited to regression testing, hardware testing and environmental qualification testing carried out so far;

    2.2. Verify that the Sub-System testing and System testing have passed their respective exit criteria;

    2.3. Consider and sentence any open actions and observations from Sub-System testing and System testing;

    2.4. Verify Factory Acceptance Test scripts including the pass and fail criteria have been written and agreed between both parties including expected outcomes in accordance with the CPRD, SOR, VVRM and CMTP;

    2.5. For both parties to confirm that all necessary resources are available for Factory Acceptance Tests;

    2.6. In preparation for TRR1 the Contractor shall produce Rectification Plans for all outstanding actions, Incidents and observations.

Entry Criteria

3. In order to commence TRR1, the Contractor shall meet the following entry criteria:

    3.1. Have successfully completed the Sub-System testing and System Testing.

    3.2. Mapped and baselined the configuration for the solution against the CPRD and VVRM.

    3.3. All CPRD and VVRM elements that are verified by documentation or certification will be verified to confirm that they meet both the CPRD and VVRM.

    3.4. All verification cases and procedures will be baselined and ready to support the Acceptance trials and detailed in the CMTP.

    3.5. Open Incident will have updates to state their severity, and a Rectification Plan to rectify them.

    3.6. Open Incidents sentenced to Critical or considered as P1 or P2, regardless of whether these are system Incidents, will have Rectification Plans.

3.7. Sub-system and System Test reports have been delivered to the Authority 15 working days prior to TRR1.

Substance of the Event

4. The TRR1 will be a meeting hosted and administered by the Contractor. The Contractor shall present, with supporting documentation, what it has done, and intends to do, to ensure a successful FAT. The Authority will be most interested in the resources (including manpower) and the risk management that the Contractor shall use to minimise delay. The Authority will decide whether to start the FAT.

Exit Criteria

5. To conclude the TRR1, the Contractor shall meet the following exit criteria:

5.1. The basis for pass or failure of Factory Acceptance Tests will have been approved by the Authority.

5.2. All issues (action items, schedule etc.) related to the Factory Acceptance Tests will have been agreed by all stakeholders.

5.3. A finalised CMTP will have been approved by the Authority.

5.4. Verification approaches follow those agreed in the CPRD, VVRM and CMTP.

5.5. All actions and observations raised during TRR1 have an agreed plan to rectify in accordance with the CMTP.

5.6. Current risks and any new risks, including mitigation plans, are identified, assessed and agreed by both parties to be at an acceptable level to continue.

5.7. The Contractor has produced and delivered the TRR1 minutes to the Authority.

Test Readiness Review 2 (TRR2)

6. TRR2 is the entry gate to the Live Firing test. TRR2 is hosted and administered by the Contractor at the Contractor's premises with the support of the Authority and its stakeholders.

7. The purpose of the FAT Acceptance Panel is to:

7.1. Sentence Observations and Incidents;

7.2. Produce statistical data to inform decision makers (e.g. progress against SRs);

7.3. Establish whether the requirements of the FAT, the CPRD and the VVRM have been achieved

7.4. Identify lessons learnt from FAT;

7.5. Consider whether further tests are required or need repeating, or whether further verification evidence is required.

8. Test Readiness Review 2 (TRR2) is the entry gate for Live Firing. TRR2 is hosted and administered by the Contractor with the support of the Authority and its stakeholders.

9. The primary purpose of TRR2 is to confirm and demonstrate to the Authority that the Contractor has achieved the appropriate levels of test maturity to enable transition into Live Firing at a level of risk acceptable to the Authority. The other purposes of TRR2 are:

    9.1. Consider and sentence any open actions and observations from FAT and the FAT Acceptance Panel;

    9.2. Verify Live Firing Test scripts including the pass and fail criteria have been written and agreed between both parties including expected outcomes in accordance with the CPRD, VVRM and CMTP;

    9.3. For both parties to confirm that all necessary resources are available for Live Firing;

Entry Criteria

10. To commence the FAT Acceptance Panel, the following entry criteria will be met:

    10.1. All FAT test scripts will have been completed;

    10.2. The FAT test report has been produced and the Contractor has responded to all the outstanding actions and observations;

    10.3. The Contractor shall produce Rectification Plans for all outstanding actions, Incidents and observations.

11. To commence TRR2, the Contractor shall meet the following entry criteria:

    11.1. The Contractor shall have successfully completed FAT and the Authority has held a FAT Acceptance Panel.

    11.2. Configuration for the capability will have been baselined against the BFM.

    11.3. All verification cases and procedures will be base lined and ready to support Live Firing and detailed in the CMTP.

    11.4. Open Incident will have updates to state their severity, and a plan to rectify them.

    11.5. Open Incidents sentenced to Critical or considered as P1 or P2, regardless of whether these are system Incidents, will have agreed and detailed Rectification Plans.

    11.6. FAT Test reports have been delivered to the Authority 15 working days prior to TRR2.

Substance of the Event

12. The FAT Acceptance Panel will be a meeting hosted and administered by the Contractor. The Contractor shall present, with supporting documentation, the results of FAT. The Authority will be most interested in the resources (including manpower) and the risk management that the Contractor shall use to minimise delay. The Authority will decide whether the Contractor has passed FAT.

13. The TRR2 will be a meeting hosted and administered by the Contractor. The Contractor shall present, with supporting documentation, what it has done and intends to do to ensure a successful Live Firing. The Authority will be most interested in the resources (including

manpower) and the risk management that the Contractor shall use to minimise delay. The Authority will decide whether the Live Firing Test can start.

Exit Criteria

14. To exit TRR2, the Contractor shall meet the following exit criteria:

    14.1. The Authority has approved the basis for pass or failure of Live Firing.

    14.2. All issues (action items, schedule etc.) related to the FAT will have been approved by the Authority.

    14.3. A finalised CMTP will have been approved by the Authority.

    14.4. Verification approaches follow those in the CPRD, SOR, VVRM and CMTP.

    14.5. All actions and observations raised during TRR2 have Rectification Plans that the Authority has approved.

    14.6. Current risks and any new risks, including mitigation plans, are identified, assessed and approved by the Authority to be at an acceptable level to continue.

    14.7. The Contractor has produced and delivered the TRR2 minutes to the Authority.

    14.8. The TRR2 minutes have been approved by the Authority.

Test Readiness Review 3 (TRR3)

15. Test Readiness Review 3 (TRR3) is the entry gate for User Acceptance Testing (UAT) and the LSD. TRR3 is hosted and administered by the Contractor the UK.

16. The primary purpose of TRR3 is to confirm and demonstrate to the Authority that the Contractor has achieved the appropriate levels of test maturity to enable transition into UAT, LSD and Ready for Training – Trials, at an acceptable level of risk. The other purposes of TRR3 are:

    16.1. Consider and sentence any open actions and observations from Live Firing and the Live Firing Acceptance Panel;

    16.2. Verify UAT Test Scripts lead up to validating the BFM including the pass and fail criteria have been written and approved by the Authority including expected outcomes;

    16.3. For both parties to confirm that all necessary resources are available for UAT;

17. In preparation for TRR3 the Contractor shall produce Rectification Plans for all outstanding actions, Incidents and Observations.

Entry Criteria

18. To commence TRR3, the Contractor shall meet the following entry criteria:

    18.1. The Contractor shall have successfully completed FAT and Live Firing and the Authority has held a Live Firing Acceptance Panel and approved FAT as successful.

18.2. The final Live Firing Trial reports have been delivered to the Authority 15 working days prior to TRR3.

18.3. Configuration for the capability will have been baselined against the CPRD, SOR and BFM.

18.4. Applicable DLODs will be baselined and ready to support UAT.

18.5. Open Incidents and Observations will have a Rectification Plan approved by the Authority.

18.6. Rectification Plans for open Incidents and Observations sentenced to Critical or considered as P1 or P2 will have been accepted by the Authority.

Substance of the Event

19. The TRR3 will be a meeting hosted and run by the Contractor. The Contractor shall present, with supporting documentation, what it has done and intends to do to ensure successful UAT. The Authority will be most interested in the resources (including manpower) and the risk management that the Contractor shall use to maximise success on its part e.g. the MSTAR is ready for transport; the right people are available to support the trial and act promptly to evidence gathered; planning to achieve the exit criteria is well advanced; the Training and Logistics DLOD are on schedule. The Authority will decide whether UAT can start.

Exit Criteria

20. To conclude the TRR3, the Contractor shall meet the following exit criteria:

20.1. The Authority has approved the pass or failure criteria of UAT. Please note, if the system design fails FAT/UAT and is changed, system modelling shall be re-visited and reviewed to address changes to spares provisioning/repair throughput forecasts

20.2. Preparations are in place for the declaration of the LSD.

20.3. All actions and observations raised during TRR3 have a Rectification Plan.

20.4. Current risks and any new risks, including mitigation plans, are identified, assessed and approved by the Authority to be at an acceptable level to continue.

20.5. The Contractor has produced and delivered the TRR3 minutes to the Authority.

Appendix H – Acceptance Panels

1. On conclusion of Factory Acceptance and prior to TRR2 a Factory Acceptance Panel will be convened in the UK. The purpose of the FAT Acceptance Panel is to:

1.1. Sentence Observations and Incidents;

1.2. Produce statistical data to inform decision makers (e.g. progress against SRs);

1.3. Establish whether the requirements of the FAT, the CPRD and the VVRM have been achieved

1.4. Identify lessons learnt from FAT;

1.5. Consider whether further tests are required or need repeating, or whether further verification evidence is required.

Entry Standard

2. To commence the Factory Acceptance Panel, the following entry criteria will be met:

2.1. All Factory Acceptance test scripts have been passed;

2.2. The Factory Acceptance Test Report has been produced and the Contractor has Rectification Plans for all outstanding Incidents;

Substance of the Event

3. The Factory Acceptance Panel will be a meeting hosted and administered by the Contractor. The Contractor shall present, with supporting documentation, the results of Live Firing. The Authority will decide whether Factory Acceptance has been passed.

Exit Criteria

4. On conclusion of the Factory Acceptance Panel a recommendation will be made to proceed to TRR2.

Live Firing Acceptance Panel

5. On conclusion of Live Firing and prior to TRR3 an Authority Live Firing Acceptance Panel will be convened in the UK. The purpose of the Live Firing Acceptance Panel is to:

5.1. Sentence test observations and Incidents in accordance with clause 4 Incidents and agree actions;

5.2. Produce statistical data to inform decision makers (e.g. progress against SRs);

5.3. Establish whether the requirements of the Live Firing, the CPRD and the VVRM have been achieved

5.4. Identify lessons learnt from Live Firing;

5.5. Consider whether further Live Firing is required or needs repeating, or whether further verification evidence is required.

Entry Standard

6. To commence the Live Firing Acceptance Panel, the following entry criteria will be met:

6.1. All Live Firing test scripts have been passed;

6.2. The Live Firing Test Report has been produced and the Contractor has Rectification Plans for all outstanding Incidents;

Substance of the Event

7. The Live Firing Acceptance Panel will be a meeting hosted and administered by the Contractor. The Contractor shall present, with supporting documentation, the results of Live Firing. The Authority will decide whether Live Firing has been passed.

Exit Criteria

8. On conclusion of the Live Firing Acceptance Panel a recommendation will be made to TRR3 and RFTD2.

First of Class Acceptance Panel

9. On conclusion of UAT, an Authority First of Class Acceptance Panel will be convened in the UK. The Acceptance Panel will include the Authority's ITEA WG stakeholders and test staff.

10. The purpose of the Acceptance Panel is to:

10.1. Sentence Incidents;

10.2. Produce statistical data to inform decision makers (e.g. progress against SRs);

10.3. Decide acceptance status against the CPRD, this Acceptance Process, the SOR and the VVRM;

10.4. Assess the acceptability of the applicable DLODs.

10.5. Identify lessons learnt from UAT;

10.6. Consider whether further tests and acceptance trials are required or need repeating, or whether further verification evidence is required.

Entry Criteria

11. To commence the First of Class Acceptance Panel, the following entry criteria will be met:

11.1. The Contractor has delivered the 1st MSTAR ORP System;

11.2. The Contractor has delivered a Certificate of Conformity for the system;

11.3. An Acceptance Certificate will be issued to the Authority by the Contractor using Part A of Annex X to the Contract;

11.4. UAT has been passed;

11.5. The Authority has produced the UAT Report;

11.6. Contractor has a Rectification Plan for all incidents;

Substance of the Event

12. The First of Class Acceptance Panel will be a meeting hosted and administered by the Authority. The DE&S Project Team will present, with supporting documentation, the results of all events across the Equipment, Logistics and Training DLODs to the CIWG's DLOD leads. The Sponsor, in his capacity as the Acceptance Authority will decide whether to accept the First of Class MSTAR ORP Systems. The Contractor shall be informed of the results in a formal report. If the Contractor is considered responsible for any shortcomings, then the Authority will make these clear in writing.

Exit Criteria

13. On conclusion of the Acceptance Panel a decision will be made on the acceptability of the 1st MSTAR ORP System and, if successful, an Acceptance Certificate will be issued to the Contractor by the Authority.

14. In order to conclude the First of Class Acceptance Panel, the following exit criteria will be met:

    14.1. A declaration regarding the Equipment, Logistics and Training Acceptance will be issued.

    14.2. The Acceptance Panel will inform all the non-equipment DLOD owners of their performance against their pass and fail criteria.

    14.3. The Contractor shall produce and deliver a Test Closeout Report to the Authority. In response, the Authority will provide its agreement, comments or amendments for incorporation or its rejection of the Test Closeout Report.

    14.4. An Acceptance Certificate will be issued to the Contractor by the Authority using Part B of Annex X to the Contract.

Production Delivery Acceptance Panel

15. On conclusion of the delivery of the 1st Batch of MSTAR ORP Systems an Authority Production Delivery Acceptance Panel will be convened in the UK. The Production Delivery Acceptance Panel will include the Authority's ITEA WG stakeholders and test staff.

Entry Criteria

16. To commence the Production Delivery Acceptance Panel, the following entry criteria will be met:

    16.1. The Contractor has delivered the 1st Batch of MSTAR ORP Systems;

    16.2. The Contractor has delivered a Certificate of Conformity for each system;

    16.3. An Acceptance Certificate will be issued to the Authority by the Contractor using Part A of Annex X to the Contract;

    16.4. Contractor has a Rectification Plan for all incidents.

Substance of the Event

17. The Production Delivery Acceptance Panel will be a meeting hosted and administered by the Authority. The Contractor shall be informed of the results in a formal report. If the Contractor is considered responsible for any shortcomings, then the Authority will make these clear in writing.

Exit Criteria

18. On conclusion of the Acceptance Panel a decision will be made on the acceptability of the 1st Batch of MSTAR ORP Systems and, if successful, an Acceptance Certificate will be issued to the Contractor by the Authority.

19. To conclude the Acceptance of the 1st Batch of MSTAR ORP Systems Panel, the following exit criteria will be met:

    19.1. The Authority has agreed any Rectification Plans;

    19.2. An Acceptance Certificate will be issued to the Contractor by the Authority using Part B of Annex X to the Contract.

Final Acceptance Panel

20. Final Acceptance incudes the requirements for a production delivery Final Acceptance Panel.

Entry Standard

21. To commence the Final Acceptance Panel, the following entry criteria will be met:

    21.1. The Contractor has delivered the 2nd Batch of MSTAR ORP Systems;

    21.2. The Contractor has delivered a Certificate of Conformity for each system;

    21.3. An Acceptance Certificate will be issued to the Authority by the Contractor using Part A of Annex X to the Contract;

    21.4. Contractor has a Rectification Plan for all incidents.

Substance of the Event

22. The Final Acceptance Panel will be a meeting hosted and administered by the Authority. The Contractor shall be informed of the results in a formal report. If the Contractor is considered responsible for any shortcomings, then the Authority will make these clear in writing.

Exit Criteria

23. To conclude the Acceptance of the 2nd Batch of MSTAR ORP Systems, the following exit criteria will be met:

    23.1. There are no outstanding Incidents or P1/P2 observations.

    23.2. The Contractor has fully delivered all Rectification Plans.

23.3. An Acceptance Certificate will be issued to the Contractor by the Authority using Part B of Annex X to the Contract.

Appendix I – Training

Training Analysis

1. On conclusion of Plans and Reports (P&R) acceptance by the Authority, Training Steering Group (TSG) progressive acceptance of Training Needs Analysis (TNA – P&R 06) and Training Packs (CDR 003) will take place against the Statement of Requirement, as described in the agreed STEV Plan.

Entry Criteria

2. To commence Training Analysis acceptance, the following entry criteria will be met:

    2.1. The STEV Plan has been accepted.

    2.2. The Contractor has completed a Role Review Scoping Report for all appropriate roles, as part of the TNA in accordance with P&R 06.

Substance of the Event

3. Internal quality assurance of all TNA products has been conducted by the Contractor.

4. Draft and final versions of each TNA product shall be delivered to the Authority in accordance with P&R 06 at Annex C and the Statement of Requirements at Annex A to the Contract. The Authority will review and provide any comments to the Contractor within 30 working days from receipt.

5. The Training Analysis process is iterative and all TNA products shall be updated accordingly to reflect amendments to any single one. Amended TNA products shall be resubmitted for acceptance.

6. All documents must meet the standards in the Contractor's ISO9001:2015 compliant Quality Management System (QMS).

Exit Criteria

7. Defence Systems Approach to Training (DSAT) compliant Training Analysis has been conducted in accordance with the agreed TNA.

8. Comment sheets and records of amendment are up to date.

9. The following TNA products, consistent to a common date, have been accepted:

    9.1. Role Review Scoping Report.

    9.2. Role Scalars using Role Analysis.

    9.3. Training Gap Analysis Report.

    9.4. Training Options Analysis Report.

    9.5. Early Training Analysis Report.

    9.6. Role Performance Statements.

9.7. Formal Training Statements.

Training Design

10. On conclusion of Training Analysis acceptance by the Authority, progressive acceptance of Train the Trainer (T3) Course Training Packages against the Statement of Requirement will take place as described in the agreed STEV and TNA.

Entry Criteria

11. All TNA products have been accepted.

Substance of the Event

12. Internal quality assurance of all T3 Course Training Package elements has been conducted by the Contractor.

13. Drafts of each T3 Training Pack element shall be delivered to the Authority in accordance with Contract Data Requirement 003 at Annex D and the Statement of Requirement at Annex A to the Contract. The Authority will review and provide any comments to the Contractor within 30 working days from receipt.

14. The Training Design process is iterative and all Training Pack elements shall be updated accordingly to reflect amendments to any single one. Amended Training Pack elements shall be resubmitted for acceptance.

15. All documents must meet the standards in the Contractor's ISO9001:2015 compliant Quality Management System (QMS).

Exit Criteria

16. DSAT compliant Training Design has been conducted in accordance with the agreed TNA.

17. Comment sheets and records of amendment are up to date.

18. The following T3 Course Training Package elements, consistent to a common date, have been accepted for all roles:

18.1. Knowledge Skills and Attitude Report.

18.2. Course Directives.

18.3. Learning Specifications.

18.4. Block Syllabi.

18.5. Assessment Documentation, including:

18.6. Assessment Strategies.

18.7. Assessment Specifications.

18.8. Student Summative Assessment Records.

18.9. Amendment Records.

18.10. Methods and Media Selection Report.

Ready for Training - Trials

19. Ready for Training – Trials confirms that the training necessary to conduct UAT has been delivered in accordance with the agreed TNA, Statement of Requirement, Contract Data Requirement 003 and STEV Plan.

Entry Criteria

20. Training Design has been accepted.

21. One tailored Trials Course for up to 15 students, enabling the Authority to conduct trials/testing of the System as part of the User Acceptance Test, has been delivered at the Authority's specified location.

22. Assurance of the Contractor's TNA and training products has been completed by Army Joint Effects Training Development Team (JETDT).

Substance of the Event

23. The Contractor shall provide evidence that DSAT compliant training has been delivered and assured to meet the agreed Training Objectives in the TNA.

Exit Criteria

24. The Contractor shall provide a report to the Authority at least 15 working days prior to the proposed Ready for Training - Trials date, for acceptance. An authorised representative of the Contractor shall sign the report as being a true record, the results taken and all observations noted.

25. All actions and observations raised during the training have been concluded and sentenced or a plan to rectify has been agreed between both parties.

26. UAT can be run by the Authority to enable testing of the First of Class MSTAR ORP Systems.

Ready for Training Declaration (RFTD)

27. Ready for Training Declaration confirms that a DSAT training solution for the in-service user and maintainer has been delivered in accordance with the agreed TNA (P&R 06), Statement of Requirement, STEV and Training Packages (Contract Data Requirement 003).

Entry Criteria

28. Training Design has been accepted.

29. T3 training has been delivered by the Contractor.

30. Sufficient, competent MSTAR ORP Users and Maintainers are available to support IOC.

31. Assurance of the Contractor's TNA and training products has been completed by Army Joint Effects Training Development Team (JETDT).

32. Any additional training equipment, if required, has been accepted.

Substance of the Event

33. The Contractor shall provide evidence that DSAT compliant training has been delivered and assured to meet the agreed Training Objectives in the TNA.

Exit Criteria

34. The Contractor shall provide a report to the Authority at least 15 working days prior to the proposed Ready for Training Declaration date, for acceptance. An authorised representative of the Contractor shall sign the report as being a true record, the results taken and all observations noted.

35. All actions and observations raised during the training have been concluded and sentenced or a plan to rectify has been agreed between both parties.

36. Training can be run by the Authority to enable fielding of MSTAR ORP as specified in the Fielding Plan.

Appendix J – Logistics

Availability, Reliability and Maintainability (AR&M) Assurance

1. Acceptance of Contractor Plans and Reports (P&Rs) 01, 02, 03, 04, 05 and 07, and Contract Data Requirements (CDRs) 001 and 002 will be conducted via a formal Logistic Support Committee (LSC). The LSC will review all deliverables against the requirements given in the Statement of Requirement at Annex A, Data Item Descriptions (DIDs) at Annex B, P&Rs at Annex C and CDRs at Annex D to the Contract.

2. On conclusion of P&R acceptance by the Authority, progressive acceptance of Availability, Reliability and Maintainability (AR&M) against the CPRD and Statement of Requirement (SOR) will take place as described in the agreed STEV Plan, Support Analysis Plan (P&R 02) and its associated annexes. Evidence shall be provided in the Support Analysis Plan, Criticality Analysis Report, Level of Repair Analysis Report, Maintenance Task Analysis Report and AR&M Case Report, including evidence from Logistic (Reliability and Maintainability) Demonstrations. The accumulated body of evidence will comprise the AR&M Case which shall demonstrate that the Contractor has met the AR&M requirements.

Entry Standard

3. To commence the Assurance, the following entry criteria will be met:

    3.1. The STEV Plan (P&R 07) has been accepted.

    3.2. The Support Analysis Plan (P&R 02) has been accepted.

    3.3. The Criticality Analysis Report (P&R 02a) has been accepted.

    3.4. The Level of Repair Analysis Report (P&R 02b) has been accepted

    3.5. The Maintenance Task Analysis Report (P&R 02c) has been accepted.

    3.6. The Availability, Reliability and Maintainability Case Report (P&R 02d) has been accepted.

    3.7. The Logistic Demonstration Plan (P&R 14) has been accepted.

    3.8. The MSTAR ORP Design Proposal (P&R 13) has been accepted.

Substance of the Event

4. An Engineering Judgement Panel will be used for the formal validation and acceptance by the Authority of the Level of Repair Analysis (LoRA) Report.

5. An Incident Sentencing Panel will be used for the formal qualification and acceptance by the Authority of the progressive AR&M Case. This will confirm that the Contractor has delivered against the AR&M requirements and qualify areas that the Contractor must address.

6. The conduct of Progressive Assurance will be as follows:

6.1. The Contractor shall conduct analyses and demonstrations precisely in accordance with the approved plans. The Authority reserves the right to require analyses and demonstrations to be repeated at its discretion.

6.2. Incidents shall be recorded and sentenced.

6.3. Incidents shall have a Rectification Plan.

6.4. The results of demonstrations, trials and other tests shall be presented in the AR&M Case Report (P&R 02d), in accordance with the Statement of Requirement, during the Progressive Assurance.

6.5. The Case Report shall include accumulated statistical data to progressively build a body of evidence.

6.6. The evidence shall be used to create an argument for the claims that the AR&M requirements have been or will be met.

7. The Incident Sentencing Panel will be tasked with the following activities:

7.1. Review of Incident data.

7.2. Determination of the root cause of the Incident. Perform further investigations where there is a potential of secondary or interoperability AR&M issue.

7.3. Assessment and review of any recommended immediate rectification and corrective actions to restore functionality to the failed equipment or function.

7.4. Determination and verification of any proposed change in the design, operation, training or maintenance of the equipment and function.

7.5. Determination of sentencing classification of all AR&M Incidents and function related observations.

7.6. Maintenance of an auditable trail for each sentencing and Incident decision made (meeting minutes, evidence presented, rationale for decisions and resultant actions) which are included as part of the Logistics Information Repository (LIR).

7.7. Be responsible to and report findings to other key Governance Areas, LSC, Risk, Security, Safety and Environmental.

8. The Incident Sentencing Panel will fully evaluate all Incidents recorded or noted that occur during testing and trials, ascertaining their cause, applicability, severity and impact on the System and the justifications for meeting and failing AR&M requirements. Terms of Reference for the Incident Sentencing Panel can be found at Appendix 2 to the Meeting Matrix at Annex T to the Contract.

Exit Criteria

9. A body of evidence in the form of an AR&M Case, demonstrating that the Contractor has met the AR&M requirements in the CPRD and Statement of Requirement, has been accepted by the Authority.

Logistic Support Declaration (LSD)

10. Acceptance of LSD will confirm that the Contractor has completed the elements of the ILS programme of work needed for MSTAR ORP to transition to In-Service.

11. LSD shall be declared after the Contractor has delivered all of the contracted deliverables within the contracted period and they have been formally accepted by the Authority via a Logistic Support Committee (LSC). Faults or delays which are not attributable to the Authority and result in delays to RFTD and/or LSD will delay the transfer of support liability from the Contractor.

12. Following submission of the final versions of all ILS deliverables, as defined in the DIDs at Annex B, P&Rs at Annex C and CDRs at Annex D to the Contract, the STEV Plan shall be used to demonstrate to the Authority that the Contractor has delivered the required deliverables in line with the Schedule of Requirements, thus enabling declaration of LSD and transition to In-service following the manufacture of the first batch of MSTAR ORP Systems.

13. Following the Authority's acceptance of the final versions of all ILS deliverables, Logistic Support Declaration (LSD) can be declared.

Entry Criteria

14. AR&M Assurance has been granted by the Authority.

15. All P&Rs and CDRs have been delivered in accordance with Annex C, Annex D and the Statement of Requirement at Annex A, and formally accepted by the LSC.

16. Ready for Training Date has been accepted.

17. All in scope Technical Documentation have been Validated and delivered to the agreed category.

18. All Items of Supply agreed as candidates for codification have been codified and agreed with the Codification Authority.

19. The agreed Range and Scale of Spares required to support the fleet of MSTAR ORP systems, contained in the Initial Provisioning List (P&R 04a) and Deployment Spares Pack (P&R 04b) have been delivered into Leidos, Donnington, to meet the Fielding Plan of MSTAR ORP systems.

20. All Items of Supply are packaged and labelled to an agreed level, including identification of any special handling warning for hazardous items requiring special transportation measures.

21. All Complete Equipment Schedule (CES) parts are easily identifiable by the user with each part having supporting photographs converted to diagrams, in addition to the part number and codification details.

22. Depth repair (Level 4) support services have been agreed, established and are in place in time to enable the fielding of MSTAR ORP.

23. Any required Support and Test Equipment has been identified, detailed in the relevant publication, codified and delivered to meet the Fielding Plan of MSTAR ORP.

24. The level of service has been established, agreed and documented in the Supply Support Plan. These shall contain Key Performance Indicators for monitoring Contractor provided services, such as Repair Turnaround Times.

25. A DRACAS System has been established and demonstrated to prove the mechanisms of the Incident Sentencing Panel and information requirements in the reporting, sentencing and resolving of Incidents and Observations.

Substance of the Event

26. The Contractor shall provide evidence that they have completed the elements of ILS programme required for transition to In-Service, in accordance with the Statement of Requirement and STEV Plan, for acceptance by the Authority.

Exit Criteria

27. For LSD to be accepted the following exit criteria shall be met by the Contractor:

    27.1. The MSTAR ORP support elements have passed testing in accordance with the STEV Plan.

    27.2. Risks have been identified and assessed with mitigation plans;

    27.3. The Contractor shall provide a report to the Authority at least 15 working days prior to the proposed LSD acceptance. An authorised representative of the Contractor shall sign the report as being a true record of the testing, the results taken and all observations noted.

    27.4. All actions and observations raised during the event have been concluded and sentenced or a plan to rectify has been agreed between both parties.