

Schedule 9

Ballistic Calculator (BC) Project & Engineering Statement of Work (SOW)

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FOREWORD

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STATEMENT OF WORK (SOW)

The Contractor shall ensure Programme/Prime Contractor activities are coordinated and coherent, enabling successful delivery of the Ballistic Calculator (BC) to Performance, Time and Cost parameters. The SOW covers the following processes:

Section 1	Project Schedule
Section 2	Project Reviews & Progress Reports
Section 3	Risk & Opportunity Management
Section 4	System Acceptance (SA) Process
Section 5	Engineering
Section 6	Safety

PLANS AND REPORTS

The following list summarises the deliverable documents that shall be provided by the Contractor as evidence that they have processes and procedures in place to meet or have met their Project & Engineering Management obligations.

a. Documents required in the delivery of Project & Engineering Management

- (1) Project Schedule
- (2) Project Progress Reports
- (3) Factory Acceptance Test (FAT) Evidence
- (4) Risk / Issue Registers
- (5) Safety and Environmental Management Plan (SEMP)
- (6) Safety & Environmental Case Report (SECR) Part2
- (7) Technical Design Safety Assessment (DSA)

SECTION 1 - PROJECT SCHEDULE

1.1 The Contractor must:

- (i) plan, manage, coordinate, and administer all aspects of the Agreement, including the administration of any subcontractors; and
- (ii) establish effective controls for the delivery of the Contract and Deliverables; and
- (iii) provide early indication to the Authority of problems encountered and their resolution activities in order to reduce risk to Performance, Time and Cost parameters.

1.2 The Contractor must provide a detailed Project Schedule in the form of a Gantt Chart which identifies all tasks required to bring BC into service from contract award and must include:

- Task description
- Task duration
- Task start and finish dates
- Component procurement
- Licencing applications
- Sub-contractor deliveries
- Manufacturing process and assembly
- First Article Inspection
- Factory Acceptance Testing
- Quality Assurance
- Initial equipment delivery to support Authority Acceptance trials
- System Acceptance Trials (assume 5 working days)
- All deliverables as per the Delivery Plan including breakdown of each ILS deliverable
- Identify task dependencies through linking of tasks.
- All tasks must have successors and predecessors, except for start and finish Milestones.
- Identify all project Milestones.
- Identify tasks on the critical path
- Total float on each task.
- Produce resource histogram by month from contract award to final delivery.

SECTION 2 - PROJECT REVIEWS AND PROGRESS REPORTS

2.1 Project Review meetings will be held initially on a monthly basis. The frequency of these Project Review meetings will vary as the contract progresses. The Contractor shall invite the Authority to all Project Review meetings giving not less than seven calendar days' notice. The meetings shall be held at a venue agreed with the Authority and will cover as minimum the following topics:

- Agreement of the minutes of the previous meeting
- Review of actions from previous meeting
- Financial Review
- Project Schedule/progress report
- Contracted requirements
- Safety and environmental
- Contract performance review
- Subcontractor performance review

- Supply chain activities
- Risk Review
- Quality management issues (to Inc. Quality Performance Indicator review)
- Supportability / ILS
- Joint action register

- 2.2 The Contractor shall be responsible for taking the minutes and these shall be submitted to the Authority for review within seven calendar days of each meeting. These shall be agreed at the next meeting.
- 2.3 The Contractor shall support the Authority in delivering a cost effective BC solution by attending other relevant meetings as required by the Authority. The Authority will provide a minimum of seven calendar days' notice where such attendance is required.
- 2.4 The Contractor shall provide every two weeks by close of play on Thursday, Project Schedule and Project Progress update reports to the BC Project Manager until Equipment Delivery Date (EDD) is achieved, after which reports shall be provided once a month on the last working Thursday of the month until final delivery is complete.
- 2.5 The Progress Report shall detail the Contractor's progress and planned activity against each of the contracts deliverable elements as listed below:
- (i) System Design
 - (ii) Equipment Manufacture
 - (iii) Spares Provision
 - (iv) Technical Documentation
 - (v) Safety Documentation
- 2.6 The Contractor shall produce and maintain a joint action register. The Contractor shall hold weekly telecons to primarily record and review project actions including status and progress to completion on a day and time to be mutually agreed with the Authority from contract award until final delivery is complete.

SECTION 3 - RISK AND OPPORTUNITY MANAGEMENT

- 3.1 The Contractor shall plan and manage risks in accordance with JSP 892 and the project Risk/Issue Registers during the life of BC contract.
- 3.2 The Contractor shall provide and maintain the Joint Project Risk and Opportunities Register which shall describe how the Contractor will identify, record and manage risks, issues and opportunities in a structured and timely manner to ensure risks are mitigated, issues are addressed and agreed opportunities are delivered.
- 3.3 The Risk and Opportunities Register must include:
- Identifier
 - Description
 - Cause
 - Consequence/impact
 - Risk owner
 - Pre mitigation probability score

- Pre mitigation impact score against Performance, Cost Time (PCT)
- Pre-Mitigated Risk Score derived from the Probability Impact Diagram (PID)
- Mitigation action(s)
- Treatment strategy (Treat, Tolerate, Transfer)
- Action completion date.
- Post mitigation probability
- Post mitigation impact score against PCT
- Post Mitigated Risk Score derived from the PID
- Fall back plan
- Risk status (Closed, Draft and Live Risk)
- Identify in the schedule the task that the risk will likely impact? (List Task ID).

In addition to the Risk and Opportunities Register, the Contractor must provide:

- Probability Impact Diagram (PID)
- Provide details of the scoring criteria (i.e. performance, cost, time and probability) associated with the PID

SECTION 4 – SYSTEM ACCEPTANCE (SA) PROCESS

4.1 Schedule 8 to Contract Number. 700941373 details the acceptance procedures for all deliverables under the contract as stated in Schedule 2 – Schedule of Requirements

SECTION 5 - ENGINEERING

- 5.1 The Contractor shall provide the information detailed below at the tendering stage for assessment, to assist the Authority in delivering a positive Design Safety Assessment (DSA). The information requirements set out below should be regarded as the minimum provided.
- a. Identify lifed items - clearly identify the design life of components which either affect safety or functioning of the system.
 - b. Interchangeability - identify any component within the system that is not interchangeable and detail how its uniqueness to a particular Ballistic Calculator is identified.
 - c. Cleaning and User maintenance - provide a recommended cleaning and User maintenance regime.
 - d. Extreme Service temperatures – state the upper and lower extreme Service temperatures.
 - e. Instructions for use - provide detailed documentation covering the handling, operating/use and storage of the system.
 - f. Identification of any Hazardous material contain within the system

SECTION 6 - SAFETY

- 6.1 The Contractor shall provide a Safety and Environmental Management Plan (SEMP) in accordance with Def Stan 00-56 Part 1 section 6.1 and DEF STAN 00-051 Part 1 section 3.2.
- 6.2 The SEMP defines and demonstrates how the contractor implements a coherent approach to the management of all safety and environmental-related activities, throughout the life of the BC contract. It should demonstrate the programmes of activities to generate the production of the Part 2 Safety and Environmental Case Report (SECR). It shall be reviewed and updated where necessary at the Progress review meetings.
- 6.3 As a minimum, the SEMP must cover all safety and environmental-related activities to a level of detail that is reasonably practicable, so as to determine what activities are to be performed, by whom, at what time, and with what methods and tools, throughout the contract.
- 6.4 The SEMP must cover the work of all Sub-Contractors, including the mechanisms that the Contractor will use for oversight of Sub-Contractor work, such as auditing.
- 6.5 The safety process and activities that are proposed are coherent and consistent with the Service being supplied within Contract.
- 6.6 It should support the activities to generate the production of the Part 2 Safety and Environmental Case Report (SECR).
- 6.7 The Contractor shall provide a detailed Part 2 Safety and Environmental Case Report (SECR) in accordance with
- DEFSTAN 00-56 Part 1 section 6.1
 - DEFSTAN 00-51 Part 1 section 3.2
 - DSA02.DLSR.LSSR & DSA03.DLSR.LSSR Land System Safety & Environmental Protection Directive
 - JSP 418
 - POSMS and POEMS as required under MOD policy.
- 6.8 This document is an expansion on the DSA report to include hazard log and environmental impact assessment supported by any manufacturing test/trials to demonstrate mitigations against inherit design/operating hazards.
- 6.9 The Part 2 Safety and Environmental Case Report (SECR) must identify as a minimum how safety management activities will be conducted including the classification, sentencing and reporting hazards for all in-scope Main Equipment.
- 6.10 The contractor shall provide updates at the Project Review meetings of any SQEP competencies (Organisation and Individual's) that were originally provided at the tendering stage which have changed during the life of the contract.