



# Annex A STATEMENT OF SUPPORT REQUIREMENTS MSS/107 - Incentivised Upkeep Process Improvement:

(MTU Diesel Generator Support Contract)
REDACTED FOR PUBLICATION

# **Document Administration & Authority**

# **Author**

# Reviewed by

# Approved by

Name	Signature	Post Title	Date

In line with Transparency legislation and the Security Aspects Letter for this requirement, any information within this Invitation to Negotiate considered to fall under the following categories has been redacted.

- 1. Military sensitive technical information
- 2. Tenderer's commercially sensitive information
- 3. Personal data

In accordance with the above, all Annexes and Appendices have been redacted in FULL as they are either considered to contain military sensitive technical information and are classified as OFFICIAL-SENSITIVE within the Security Aspects Letter

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# **Introduction – Summary of Requirements**

- The Ministry of Defence (MoD), Defence Equipment and Support organisation (DE&S), Marine Systems Support Output Business Unit (MSS OBU) (hereinafter referred to as MSS) has an enduring requirement to deliver high levels of equipment availability installed in Royal Navy Surface Ship Platforms, Submarine Platforms and Training Establishments throughout their service life.
- 2. Within MSS, the Marine Diesel Engine (MDE) Service Delivery Group (hereinafter referred to as The Authority), holds responsibility for through life support of the marine diesel generators within this Statement of Support Requirements (SOSR).
- 3. The scope of the contract within this Lot shall cover the following Master Equipment's that are all currently in-service with further detail in the Equipment Definition Sheets at Annex B to this SOSR:
  - a. MTU Diesel Generators;
    - i. 396 (Astute Class SSN)
    - ii. 183 (Hunt Class MCMV)
    - iii. 4000 12 Cyl (Duke Class Upgraded FF Type 23)
    - iv. 4000 20 Cyl (Daring Class DD Type 45 and City Class FF Type 26)
- 4. As well as providing a support solution for the MTU 396 & 183 diesel generators, the purpose of this Statement of Support Requirement is to also deliver a common support solution to the MTU 4000 diesel generators fitted to Type 23s, Type 45s and Type 26s. All the above applications are used for routine and emergency power generation on Royal Navy surface vessels and submarines and will include acoustic enclosure where fitted.
- 5. The future scope of support is to include any MTU engines and/or diesel generators fitted to Type 31.
- 6. The contractual requirements will be to:
  - a. Deliver key products relating to equipment safety, assurance and Legislation Compliance within the defined scope of Activity 1 (Service Management);
  - b. Supply and overhaul all spare parts and service kits within the defined scope of Activity 2 (Supply Support (Spares));
  - c. Deliver within the defined scope of Activity 3 (Repair Support (Spares));
  - d. Provide technical service support and post design services in supporting of the equipment as detailed in Activity 4 to include:

- i. Routine servicing for the equipment when installed onboard or when removed and recovered to factory as appropriate;
- ii Routine, emergent and warranted repair support for the equipment when installed onboard or when removed and recovered to factory as appropriate;
- iii. Set to Work (STW engine commissioning from installation), engine testing, diagnostic and technical support for the equipment when installed onboard or when removed and recovered to factory as appropriate; and
- iv. Design and manufacture of modifications to the equipment as authorised by the Authority to address safety, Legislation Compliance, obsolescence or performance risks or issues that may develop through life.
- e. Provide and manage the 2x Dashboards (Maintenance/Technical Support & Inventory Management) outlined at Activity 5 and use the analysis of the data passed from the Authority to the Contractor to recommend through life efficiencies and savings using that will deliver process improvements as outlined in the scope of Activity 5.
- 7. To note that the following terminology used within this SOSR is defined as follows:
  - a. Shall this implies a mandatory requirement which the Contractor shall undertake;
  - b. Should this implies a desirable requirement which the Contractor should undertake but may be tradable by the Authority.
  - c. MTU Diesel Generators this generic term encompasses the MTU engine, the attached generator in its entirety and any control cabinets or systems supplied as an integral part of the MTU Diesel Generator set.

# **Activity 1 – Service Delivery Management**

# 1. Scope of Activity

- 1.1 Service Management defines the core operational framework under which the Contractor can optimize the Services provided to the Authority. The Contractor shall provide the Project Management Services and Products defined in this section of the SOSR to ensure support to the effective delivery of Activities 2-5.
- 1.2 Without prejudice to the specific rights and obligations of the Contractor and the Authority under the Contract; the parties will seek to foster an open working relationship with frequent communication and discussion to identify, notify and resolve issues as they arise and for the benefit of both parties.

# 2. Roles and Responsibilities of the Contractor

- 2.1 The Contractor shall be fully responsible for all aspects of the Contract including management of all work resulting from Activities 1-5. The Contractor shall establish and maintain the necessary project and technical experience and resources to define, conduct, place and manage sub-contracts covering all Activities.
- 2.2 The Contractor shall nominate and maintain a dedicated and permanent Project Manager (PM) who is a Suitably Qualified and Experienced Person (SQEP) to interface with the Authority and is sufficiently senior in the management organisation of the Contractor, holding the commercial and financial delegations and authorisations, to enable the requirements of the Authority and Key Performance Indicators (KPIs) to be met. The PM shall be in place by the Commencement Date and be responsible for the conduct of business for the Term.
- 2.3 The Contractor shall identify from within its organisation key Finance, Commercial, Commodity Management, Safety and Environmental Legislation compliance, Technical and Quality Assurance (QA) personnel to act as Subject Matter Experts (SME) and to support and expedite the range of activities specified in this document. The Contractor shall identify this team of SQEP and describe their respective specialist areas, roles, qualifications and experience in direct support of the PM to enable the delivery of Activities as defined in this SOSR. The key individuals shall include Single Points Of Contact (SPOC) for technical and commodity support who will also be responsible for the progressing of orders during the normal working day.
- 2.4 The Contractor shall deliver a Communications Plan, including an organisational chart to the Authority within 4 weeks of the Commencement Date showing the PM and the SMEs referred to in 2.2-2.3 above.
- 2.5 Within 4 weeks of a change to any of the persons referred to in 2.4 above, the Contractor shall deliver an appropriately amended Communications plan to the Authority.

# 3. Contract Deliverables – Project Management and Plans

- 3.1 The Contractor shall, within 6 weeks of the Contract Commencement Date, submit to the Authority a Project Management Plan (PMP) meeting the requirements BS6079 1:2010, 2:2000 and 3:2000 (Project Management). This shall be briefed to the Authority at the second monthly review (para 17.1 refers) and the Contractor shall operate in accordance with the requirements of the agreed plan for the duration of the contract.
- 3.2 The Authority shall review and report findings within 30 Business days from receipt of the PMP.
- 3.3 The PMP shall be developed in a way such that it describes how the project will be executed, monitored and controlled. The Contractor shall produce and maintain documented processes and procedures within the PMP for the management of each Activity. It shall integrate and consolidate all the subsidiary plans and baselines from the planning process and shall include, but shall not be limited to:
  - 3.3.1 Project Baselines:
    - 3.3.1.1 Scope Baseline;
    - 3.3.1.2 Schedule Baseline;
    - 3.3.1.3 Cost Baseline.
  - 3.3.2 Summary of subsidiary Plans:
    - 3.3.2.1 Scope Management to include Technical Assistance Agreements (TAA);
    - 3.3.2.2 Requirements Management;
    - 3.3.2.3 Schedule Management to include levels of contingency to meet emergent work;
    - 3.3.2.4 Cost Management to include transparent material and labour charges;
    - 3.3.2.5 Communication Management to include routine, high priority and project review;
    - 3.3.2.6 Procurement and Inventory Management to include planned stockholdings and the generation of accurate and timely delivery forecast for non-stock items;
    - 3.3.2.7 Technical Through Life Support Management:
      - 3.3.2.7.1 Quality Management to include processes for technical review;
      - 3.3.2.7.2 Warranty Management;
      - 3.3.2.7.3 Risk Management in relation to both this contract and equipment risk:
      - 3.3.2.7.4 Safety Management to include support to the Review of the Authority's Safety Case;
      - 3.3.2.7.5 Obsolescence Management to include trigger dates for supply of alternative components/systems that flow up from TAAs;

3.3.2.7.6	Change Management, with a focus on control and update of support documentation;
3.3.2.7.7	Configuration Management to include accurate recording against serialised engines;
3.3.2.7.8	Disposal Management in compliance with UK environmental law.

#### 3.3.3 Execution:

- 3.3.3.1 Organisation structure delivering the requirement;
  3.3.3.2 Project Manager's contractual delegations/authorisations;
  3.3.3.3 Description of processes to be executed to accomplish the project objectives;
  3.3.3.4 Any project processes specific to the Authority;
- 3.4 The PMP shall be a live document, updated by the Contractor as necessary or as required by the Authority for the duration of the contract and subject to review at routine project reviews.

#### 4. Quality Management

- 4.1. The Contractor shall comply with the Quality Assurance Standards and Conditions at Section 1 (General Conditions) of these Terms and Conditions, shall maintain and implement a Quality Management System (QMS)/Business Management System (BMS) that is third party certificated to the requirements of BS EN ISO 9001:2015 and shall be able to demonstrate that they have control of their processes.
- 4.2 When called up in standards invoked by this Contract, Quality Assurance Representative (QAR) is to read as Government Quality Assurance Representative (GQAR and /or Acquirer). Only MOD GQAR organisations or individuals that have been assessed, registered and authorised by the Defence Quality Assurance Authority (DQAA) can conduct Government Quality Assurance Surveillance (GQAS) on behalf of the MoD or overseas Governments.
- 4.3 The Contractor shall implement and maintain a Contract specific deliverable Quality Plan (QP) in accordance with the requirements of Allied Quality Assurance Procedure (AQAP) 2105. The QP shall address two complementary roles:
  - 4.3.1 Describe and document the quality management system requirements "contract-specific" necessary to satisfy the contract requirements (making reference, where applicable, to the "company-wide" quality management system);
  - 4.3.2 Describe and document the planning of the product realisation in terms of quality requirements for the product, needed resources, required control activities (verification, validation, monitoring, inspection, testing), and acceptance criteria. This shall include specific arrangements and communication requirements where work is to be conducted at locations external to the Suppliers premises.

- 4.3.3 Document, and maintain traceability of requirements from the planning process by including a requirement and solution compliance matrix, justifying fulfilment of all contractual requirements (making reference where applicable).
- 4.4 The QP shall address all areas of AQAP 2105 but will describe in detail:
- 4.4.1 Staff directly involved with QA (AQAP 2105 Sect. 4.7.1);
  - 4.4.2 Planning and control procedures for product realisation (AQAP 2105 Sect 4.10.1);
  - 4.4.3 Planning and control of design (AQAP 2105 Sect. 4.10.5);
  - 4.4.4 Configuration management control including application for concessions (AQAP 2105 Sect 4.10.2);
  - 4.4.5 Purchasing including control of sub-suppliers and 'flow down' of prime contract conditions (AQAP 2105 Sect. 4.10.7 and AQAP 2110 Sect 5.4.6.1);
  - 4.4.6 Records of Contract/management review carried out both within a Contractors Company and with all sub-contracts (AQAP 2110 Sect. 5.5.3);
  - 4.4.7 Control of non-conforming product including corrective action (AQAP 2105 Sects. 4.11.2 and 4.12.2);
  - 4.4.8 Monitoring and measurement of Customer satisfaction (AQAP 2105 Sect. 4.13.1);
  - 4.4.9 Avoidance of Counterfeit Materiel (Def Stan 05-135):
  - 4.4.10 Control of MOD supplied or owned material:
  - 4.4.11. Agreed Quality Plan update and review periodicity to be included.
- 4.5 The QMP shall be delivered in a draft form as part of the tender response and shall be converted to a deliverable, to be delivered for approval by the Authority, no later than 6 weeks following the Contract Commencement Date. A response will be provided by the Authority within 30 Business days of receipt of the deliverable QMP. Once agreed the QMP will be issued by the Contractor within 30 Business days.
- 4.6 The QMP shall be maintained for the duration of the Contract and shall be reviewed by the Contractor at least annually. Amendments shall be submitted to the Authority who will provide response within 30 Business days. Once agreed the revised QMP will be issued by the Contractor within 30 Business days.
- 4.7 The Contractor shall throughout the Contract Term advise the Authority of revisions or changes to the Contractor's QMS/BMS which may impact on the quality of the delivered product and / or service.
- 4.8 The QMP may be subject to Government Quality Assurance (GQA) to ensure alignment with the Contract requirements.
- 4.9 The following Quality Indicators shall be applied, measured monthly and reported by the Contractor at planned project meetings:
  - 4.9.1 Performance Indicator 1 (PI 1) Table 1 used to measure of the quality of Articles supplied and repaired. The measurement will cover Articles supplied in the previous month and

found to be defective on receipt and Articles supplied previously that have been stored and have subsequently been found to be defective.

PI	PI	PI Measure	Targets		
	Description				
	·		Green	Amber	Red
1	Quality	Percentage of defective Articles found in	<1%	≥1%-<2%	≥2%
		previous month			

Table 1 – Performance Indicator 1 (Quality Performance Standard)

4.9.2 Performance Indicator 2 (PI 2) – Table 2. Articles reported in the previous month which have been supplied previously, been stored and have subsequently been found to be defective on supply, reported as a percentage of the total number of items delivered in the month of supply.

PI	PI	PI Measure		Targets	
	Description		Green	Amber	Red
2	Quality	Percentage of defective Articles found on	<1%	≥1%-<2%	≥2%
		fitting			

Table 2 – Performance Indicator 2 (Quality Performance Standard)

4.9.3 Performance Indicator 3 (PI 3) – Table 3. The number of QMS / BMS audits completed by the Contractor in the reporting period reported as a percentage of those planned.

PI	PI	PI Measure	Targets		
	Description		Green	Amber	Red
3	Quality	The number of QMS audits completed in	100%-	<75%-	<50%
		the reporting period as a percentage of	≥75% ≥50%		
		those planned.			

Table 3 – Performance Indicator 3 (Quality Performance Standard)

4.9.4 Performance Indicator 4 (PI 4) – Table 4. Measured in each reporting month, the number of Major NCRs / QDRs from any source remaining outstanding against the suppliers QMS for more than one month.

PI	PI	PI Measure	Targets		
	Description		Green	Amber	Red
4	Quality	The number of Major NCRs / QDRs outstanding against the suppliers QMS for more than one month.	≥1	2	>2

Table 4 – Performance Indicator 4 (Quality Performance Standard)

4.9.5 Performance Indicator 5 (PI 5) – Table 5 - will be used to measure the quality of Articles subject to a concession. The measurement will cover Articles supplied in the previous month which are subject to a request for concession.

PI	PI Description	PI Measure	Targets		
	Description		Green	Amber	Red
5	Quality	All non-conforming products offered to the Authority for acceptance are offered with a clear and demonstrable benefit in terms of time, cost or performance.	100%	<100%-≥95%	<95%

Table 5 – Performance Indicator 5 (Quality Performance Standard)

# 5. Risk Management

- 5.1 The Contractor acknowledges that any risk assessment which has been, or maybe, undertaken in connection with this Contract, has been, or will be, a project management function only. Such risk assessment does not affect the legal relationship between the Parties. The process of risk assessment consists generally, including without limitation, the identification of (or failure to identify);
  - 5.1.1. Risks and their impacts; or
  - 5.1.2. Risk reduction measure, contingency plans and remedial plans shall not in any way limit or exclude the recipient's obligations under this Contract and shall be entirely without prejudice to the Authority's rights, privileges and powers under this Contract and are not assumed by the Authority except to the extent that the Authority expressly and unequivocally accepts those risks under the Contract.

- 5.2 The Contractor shall provide, maintain and implement a Risk Management Plan (RMP), which shall describe how risks will be controlled during the term of this Contract. The RMP shall include, but not be limited to, the following:
  - 5.2.1 A description of the Contractor's proposed risk management organisation, including subcontractors;
  - 5.2.2 The definition, categorisation and classification of risks;
  - 5.2.3 Early identification of risk;
  - 5.2.4 A procedure for the management of residual risk and for ensuring that new potential risks are identified as they arise; and
  - 5.2.5 A risk reporting procedure.
- 5.3 Draft updates shall be submitted to the Authority monthly except where the RMP remains unchanged. All updates will be agreed with the Authority and issued within 20 Business days of submission to the Authority.
- 5.4 The RMP shall be delivered to the Authority for approval no later than 6 weeks following the commencement date.
- 5.5 The Contractor shall provide risk reports consisting of updates to all risks that impact upon the scope of the Contract. These will include risks sub-let by the contractor to their suppliers, sub-contractors and partners. The Prime contractor still holds the risk even if a task has been contracted out.
- 5.6 The Contractor shall identify to the Authority all risks of which he is aware which impact upon the Contract within 20 Business days of identification, regardless of responsibility for taking mitigation action. These are to be identified in the Risk Report.
- 5.7 A formal risk review will be held annually, initiated by the Contractor and jointly chaired by the Authority and the Contractor. The RMP, identified risks, opportunities and new risks will be reviewed at this meeting.

#### 6. Safety & Environmental Management

- 6.1. The Contractor shall, within 4 weeks of the Contract Commencement Date, submit to the Authority a Safety and Environmental Management Plan (S&EMP) to meet the requirements of DEFSTAN 00-056 (Safety Management Requirements for Defence Systems) and DEFSTAN 00-051 (Environment Management Requirements for Defence Systems), Parts 1 (Requirements) and 2 (Guidance) in both. The S&EMP shall be briefed to the Authority at the first monthly review (para 17.1 refers) and the Contractor shall operate in accordance with the requirements of the agreed plan for the duration of the contract.
- 6.2 The Authority shall be made aware of any potential safety issues arising due to proposed modifications/new design and should be informed of all measures required to limit the risk to safety

and supply supporting evidence as required in order that a safety assessment/safety case can be conducted.

- 6.3 The Contractor shall make available SQEP representation at review of the Authority's hazard log and safety case with the date of review agreed between the Authority and the Contractor. The meetings will be chaired by the Authority and will be held at the Authority's facility at MOD Abbey Wood unless otherwise advised. The Authority shall be responsible for the update of the safety case hazard log.
- 6.4 The Contractor may be required to attend at a Government Establishment to conduct investigations, install equipment, conduct modifications or repair in accordance with DEFCON 76 (Contractor's Personnel at Government Establishments). Specific requirements for each visit will be covered by the associated task, with attendance onboard to be arranged by the Authority. The nominated ship representative must be contacted on arrival and prior to completion of the prescribed work/investigation.
- 6.5 The Contractor's staff or nominated representatives that attend on-board an HM vessel may possibly be exposed to potentially hazardous situations. The Contractor will therefore ensure that all staff in his direct and indirect employment has the necessary safety training for attendance on-board HM Ships and Submarines and receive local mandatory security and safety briefs prior to entering. Furthermore, the Contractor shall ensure that all staff are conversant with the Health and Safety at Work Act 1974 and with any safety precautions put in place on HM vessels upon which they are working. The Contractor's staff or representatives must comply with all local security, safety and environmental requirements.

#### **Control of Hazardous Articles and Substances**

- 6.6 Notwithstanding the obligations under the Health and Safety at Work Act 1974 and any other statutory requirements, throughout the duration of the Contract the Contractor shall provide the Authority with full written information concerning every Article or substance which is hazardous or a risk to health and which is to be supplied in its own right or incorporated into or supplied with Article(s), including the Contractor's proposals for the safe and controlled disposal of every Article or substance which is hazardous or a risk to health.
- 6.7 The information required under paragraph 6.6 above shall be provided in the form of a Safety Data Sheet in accordance with the DEFCON 68 (Supply of Data for Hazardous Articles, Materials and Substances) which the Contractor shall complete and forward to the Authority in accordance with the instructions in the DEFCON.
- 6.8 Where a Safety Data Sheet has been produced in relation to a specific Article, a copy of the Safety Data Sheet shall also accompany each such Article delivered under the Contract.
- 6.9 No asbestos, cadmium or mercury of any type shall be incorporated into the Articles without obtaining the prior written consent of the Authority.

6.10 The Contractor shall ensure that these provisions are included in any Contracts let with the wider supply chain.

#### **Montreal Protocol Substances**

- 6.11 If, at any time, in relation to work under the Contract, the Contractor becomes aware that they may need to use a Montreal Protocol listed substance that has not hitherto been notified to the Authority, they shall, before proceeding with that work, advise the Authority giving details of the requirement and then the Authority will/will not provide official concent.
- 6.12 The Authority reserves the right, throughout the duration of the Contract, to amend the list of substances on which the Contractor is required to make such a return, to align with changes in legislation including Protocols and / or any other form of obligation by which the Authority may be bound or choose to bind itself.
- 6.13 No additional cost shall be incurred by the Authority because of the Contractor's obligations under this Condition.

# **Disposal Management**

- 6.14 The Contractor shall produce a Disposal Management Plan (DMP), which shall be submitted to the Authority for approval within 12 weeks of the date of the Contract Commencement Date. The Contractor shall maintain the DMP for the duration of the contract. The Contractor shall submit to the Authority full details of any Article(s) that are considered to be Beyond Economic Repair (BER) and surplus material at the earliest opportunity with disposal proposals. Disposal must not be initiated without the prior agreement of the Authority.
- 6.15 The Contractor is to maintain a Control of Substances Hazardous to Health (COSHH) Register of all MoD assets and a record of the disposal of hazardous material(s) related to equipment within scope. This requirement shall be included within the S&EMP. Where such disposal is necessary then the Contractor shall generate a protocol that will satisfy the appropriate authorities, describing the means by which such materials are disposed of and shall include methodology, quantity and certification.
- 6.16 Disposal of Articles owned by the Authority may be undertaken by the Defence Equipment Sales Authority (MOD-DESA) or their designated/authorised contractor. The Contractor shall permit access to their site to vehicles and personnel to dispose of these items.
- 6.17 Where it can be demonstrated that retention of part repairable items for reuse will deliver savings to the MoD, without compromising availability, reliability or safety, then the Contractor shall demonstrate such savings to the Authority for agreement.

# 7. Reliability Centred Maintenance (RCM)

- 7.1 There may be a requirement for RCM reviews to be undertaken throughout the duration of the Contract. These reviews will be tasked under cover of individual TAFs under Activity 4. RCM reviews will meet the requirements of DEFSTAN 00-045 Parts 1 and 2 (Issue 4) and Part 3 (Issue 3) (Using RCM to Manage Engineering Failures). The RCM elements that may be covered under TAF will include, but not be limited to:
  - 7.1.1 Participation in a function-based Failure Modes, Effects and Criticality Analysis (FMECA);
  - 7.1.2 Support to maintenance/maintainability assessment in accordance with RCM/UMMS methodology;
  - 7.1.3 Review and updating of Job Information Cards (JICs);
  - 7.1.4 Review and updating of manufacturers drawings within Integrated Parts Catalogues (IPCs);F
  - 7.1.5 Review and updating of manufacturers technical manuals or MoD equivalent Books of Reference (BRs).

# 8. Obsolescence Management

- 8.1 It is MoD policy to apply the procedures and processes within BS 62402:2007 Obsolescence Management Application Guide. This requires the implementation of a proactive Obsolescence Management Plan.
- 8.2 The type and depth of monitoring will depend on the age of the Equipment and/or number of available suppliers. Obsolescence monitoring will be managed by the Contractor as being best placed to understand the market availability. The Authority will agree with the Contractor:
  - 8.2.1 the level at which the monitoring will be conducted (assembly, LRU, component etc.);
  - 8.2.2 how the monitoring will be conducted (tool, process etc.); and
  - 8.2.3 how the results will be collated and communicated (means & frequency).
- 8.3 The Contractor shall notify the Authority within 5 Business days of the Contractor becoming aware of any current or future supply concerns regarding materials within their planned period of use via an Obsolescence Notice Template (Annex E) which will define the issue, cause and a broad outline of what investigative work would be required to put in place a mitigation strategy.
- 8.4 The Authority will review the Obsolescence Notice and advise as to what action to take. The Contractor shall not undertake any work unless formally tasked in accordance with the process

defined under Activity 4. The Contractor may however resolve obsolescence issues affecting maintenance stores without seeking approval from the Authority only where all the following criteria are met:

- 8.4.1 Where there is no change to material specifications;
- 8.4.2 Where there is no impact on fit, form, function;
- 8.4.3 Where there is no impact on safety; and
- 8.4.4 Where there is no impact on cost to the Authority
- 8.5 Where the Contractor has not sought approval, they shall still notify the Authority in writing of any actions taken under 8.4.
- 8.6 Mitigation strategies may include, but are not limited to:
  - 8.6.1 Recovery (and repair) of additional parts from stored (removed) equipments;
  - 8.6.2 Supply an alternative part with equivalent fit-form-function;
  - 8.6.3 Modify the equipment or system to accept an alternative part;
  - 8.6.4 Conduct a lifetime buy of current part;
  - 8.6.5 Re-establishment of manufacture against the latest version of the drawings; and
  - 8.6.6 Modification of the equipment performance requirements to remove the requirement.

# 9. Configuration Management

9.1. The Contractor shall establish, document and maintain a Configuration Management system compliant with DEFSTAN 05-057 (Configuration Management of Defence Materiel) which defines the configuration control processes to be followed for the duration of the contract.

# **Configuration Management Plan**

- 9.2 The Contractor shall create and maintain a Configuration Management Plan (CMP) in accordance with DEFSTAN 05-057.
- 9.3 The format for Books of Reference and Illustrated Parts Catalogues shall be agreed with the Authority based on guidance in accordance with DEFSTAN 00-600 (Part 1: Integrated Logistics Support Requirements) and draft DEFSTAN 00-601 (Contracting for Technical Documentation MARITIME S1000D Business Rules).

9.4 The CMP shall be delivered in draft form with the tender and shall be submitted as a deliverable for agreement with the Authority no later than six weeks following the Contract Award Date.

# 10. Inventory Planning

- 10.1 The Authority will share with the Contractor on a quarterly basis, its forward inventory plan to allow the Contractor to plan his capacity (i.e. materials, tooling, workshops space, labour etc.) against the Authority's anticipated future requirements.
- 10.2 The inventory plan is not a commitment by the Authority and due to the exigencies of military operations provides no guarantee as to the likely level of throughput to be ordered under the Contract.

# 11. Asset Management Reporting

- 11.1 In accordance with DEFCON 694 (Accounting for Property of the Authority) the Contractor shall be responsible for the provision of a report of assets held on behalf of the Authority and shall cover all repair work being undertaken by the Contractor or their designated sub-contractor. The Report shall be incorporated into a monthly Progress Report.
- 11.2 The Contractor shall maintain procedures to ensure that Government Furnished Assets (GFA) or Government Furnished Equipment (GFE) issued under this Contract is properly recorded to prevent loss, theft or deterioration of assets.
- 11.3 The Contractor shall achieve substantial assurance or full assurance during the annual audits conducted by the Asset Accountancy Centre (AAC).
- 11.4 The Contractor shall deliver an updated register of Special Jigs, Tooling and Test Equipment held in accordance with DEFCONs 23 (Special Jigs, Tools and Test Equipment) & 611 (Issued Property) to the Authority within 1 month of the Commencement Date and annually thereafter.

#### 12. Technical Assistance Agreements

- 12.1 Technical Assistance Agreements (TAAs) are key agreements established with Suppliers/Original Equipment Manufacturers (OEMs) to supplement and support service delivery. TAAs are individually tailored to fit the Contractor's needs and are governed around principles, philosophy and value statement(s) mutually agreed between the Parties. TAAs or similar arrangements are to ensure that:
  - 12.1.1 Safety aspects of the equipment and its operation are maintained;
  - 12.1.2 Modification data will be kept up to date;
  - 12.1.3 Current performance and reliability criteria is maintained and/or improved upon; and

- 12.1.4 Advice on repair and maintenance of the equipment is provided; and
- 12.1.5 Security of the supply chain is maintained.
- 12.2. The Contractor shall ensure that TAAs are established and maintained for the duration of the contract as required.

#### 13. Technical Advice

- 13.1 The Contractor shall provide any necessary support to ensure the continued and safe operation of the equipment covered under this SoSR by maintaining suitably qualified; security cleared and experienced engineers who shall:
  - 13.1.1 be contactable during core working hours Monday to Friday via telephone to discuss technical issues with Authority staff, across the range of equipments within the scope;
  - 13.1.2 provide suitable advice to the satisfaction of the Authority within 24 hours or email acknowledgement of the issue and estimated timescale to provide all necessary advice within the same period; and
  - 13.1.3 with the assistance of Ships and Forwards Support Unit (FSU) Staff, diagnose and rectify any defect or problems which can be rectified in situ on the equipment, and give informed advice to Ships Staff on the safe operation of the equipment.

# 14. Documentation and NATO Codification

- 14.1 The Contractor shall:
  - 14.1.1 Supply copies of existing drawings and reports as requested; and
  - Supply copies of updated documentation (to include but not be limited to; Customer Test Schedules (CTS), Repair Notes (RNs), Service Bulletins (SBs), Product Improvement Letters (PILS) Overhaul Information Alerts (OIAs) to the Authority for use by the Authority.
- 14.2 Technical data is required for all items specified in this Contract and not already in the NATO Codification System. The Contractor shall dispatch the data or arrange for dispatch of the data from sub-contractors or suppliers on request from the authority within the timescale specified in the Contract. The Contractor shall provide or arrange to have provided updated information regarding modifications; design or drawing changes to all items specified in this Contract in accordance with the provisions of DEFCON 117 (Supply of Information for NATO Codification and Defence Inventory Introduction).

#### 15. Communications Plan

15.1 The Contractor shall produce a Communications Plan detailing the method of recording discussions and decisions between the Contractor and the Authority. The Communications Plan shall be submitted to the Authority for approval within 4 weeks of the Contract Award Date. The Contractor shall maintain this document throughout the duration of the Contract.

# 16. Performance Management

- 16.1 Performance management is a critical activity that will be used to evaluate the Contractor's performance and assist in determining the appropriate level of performance fee. It will also generate information used by the Authority to monitor and maintain the availability of systems and equipments across the business. Therefore, timely and accurate performance management information will be critical in supporting the outputs under this Contract.
- 16.2 Performance under the Contract will be measured through Key Performance Indicators (KPIs). These KPIs will focus on performance that directly impacts equipment availability. The KPIs together with their associated targets are detailed within Annex D1 (Performance Management).
- 16.3 Quality Performance Indicators (PIs) shall be applicable as detailed within section 4.

#### **Performance and Financial Reporting**

- To enable the Contractor and the Authority to monitor both performance and financial activity, the Contractor shall provide a monthly Performance and Financial Report (P&FR). Reports shall be submitted within 5 Business days after the end of each month covering the preceding calendar month. Monthly P&FR shall be issued in an electronic format for use with Microsoft Office Suite applications
- 16.5 The monthly P&FR shall include but not be limited to:
  - 16.5.1 A statement on the status of each Activity, identifying any current or perceived problems and actions intended to resolve or mitigate these;
  - 16.5.2 For each relevant Activity: details of and progress on orders placed in the reporting period; to include, items and quantities ordered by NSN, prices invoiced, monthly and cumulative value of orders received;
  - 16.5.3 For each relevant Activity: details of and progress on deliveries due in the reporting period; to include where delivery took longer than contracted, when delivery was made and reason for delay;
  - 16.5.4 For each relevant Activity: delivery forecasts for those deliveries expected to be missed in the next reporting period and the reasons for the delay;

- the value of work completed as a % against the Order value, to start being reported from 50% and (greater) through to completion, anything less than 50% will not be accrued, report of finalisation at 100%; assessment against Key Performance Indicators and Performance Indicators;
- 16.5.6 In respect of each Activity: A summary of all identified residual risks, risks resolved, solutions proposed and adopted;
- 16.5.7 In respect of Activity 4: the status of each TAF;
- 16.5.8 Details of parts where obsolescence issues have arisen, covering details of parts affected and potential options for continued support;
- 16.5.9 A review of safety related issues, with mitigation and resolution proposals;
- 16.5.10 Defective material/non-conformances;
- 16.5.11 A graphical representation and numerical report of the Authorities spend profile against each Activity and spend on the Contract overall (figures to be ex VAT);
- 16.5.12 Progress on any demands made by the Authority for the supply and codification of non-patternised items; and
- 16.5.13 Opportunities identified within the supply chain to improve reliability of the Asset(s) or reduce lead times.
- 16.6 A template for the Performance & Financial Report (P&FR) is attached at Annex D2 to this SOSR and should be completed and submitted to the Authority within 5 Business days of the end of the month.

#### 17. Project Review Meetings

- 17.1 A joint Project Review meeting covering performance and financial matters will be held between the Contractor and the Authority at monthly intervals for the initial six months of the Contract and at quarterly intervals thereafter. The Project Review meeting will be chaired by the Authority with secretarial services provided by the Contractor. The Contractor will be responsible for drafting the agenda for all Project Review meetings and submitting it for agreement to the Authority 5 Business to all Project Review meetings. Draft Minutes of each project Review meeting shall be submitted to the Authority for approval within 5 Business days following the meeting being held. The Project Review meeting will be held at the Contractor's premises and Abbey Wood on an alternate basis, unless mutually agreed otherwise.
- 17.2. The Project Review meeting shall address, but not be limited to, the issues captured within the monthly P&FR.

# 18. Annual Strategic Review

- 18.1. An Annual Strategic Review will be held at the Contractor's premises to review progress through the year and agree priorities and objectives for the following two years. The Contractor's overall performance against each Activity shall be reviewed and anticipated future requirements under each Activity shall be discussed. The Authority shall Chair the meeting and the Contractor shall provide Secretariat services. Draft Minutes shall be supplied by the Contractor to the Authority for approval within the two weeks following the Strategic Review meeting.
- 18.2. The Contractor shall submit an Annual Strategic Review Report to the Authority two weeks prior to the Annual Strategic Review. The Annual Strategic Review Report shall include but not be limited to:
  - 18.2.1. A statement on the status of each Activity under the Contract, identifying outstanding problems or delays and proposed resolutions;
  - 18.2.2. A programme plan that indicates progress made against planned completion;
  - 18.2.3. A summary of the future committed programme indicating milestones to be achieved;
  - 18.2.4. A summary of all identified residual risks, risks resolved, solutions proposed and adopted;
  - 18.2.5. A listing of all major problems outstanding and proposals for their resolution. Where tradeoffs are proposed the effect on the overall programme against service requirements shall be presented;
  - 18.2.6. A spend profile against each Task and the total contract spend overall (all figures to be Inc. VAT); and
  - 18.2.7. A summary of annual KPI performance metrics.
  - 18.2.8. A progress report on the implementation of the digital solutions taken forward at Activity 5 (option) and any additional process improvements that can be implemented to make administrative efficiencies and where possible save money over the life of the contract.

#### 19. Transition to a New Contractor

19.1. The Contractor shall produce a contract Exit Plan. This document shall be submitted to the Authority for approval within 3 months of the contract completion date or contract termination. The plan shall include a programme of systematic reviews, audits and verification activities necessary to ensure implementation of and compliance with the requirements of the Contract.

19.2.	One month prior to the Contract completion date, or contract termination, the Contractor shall ensure
	that copies of all items including, but not limited to source data, software files and data-bases which
	contain information generated and used in support of the Contract, are available for delivery to a
	successor contractor. If a successor contractor is nominated, there will be a hand-over period during
	which the Contractor shall complete current work and the successor contractor shall commence new
	work. The Contractor shall be required to liaise with the successor contractor during this period, the
	duration of which will depend on the amount of current work but shall not exceed the period stated
	in the Contract Conditions.

# **Activity 2 – Supply Support (Spares)**

# 1. Scope of Activity

- 1.1 'Supply Support' means the manufacture, procurement or the supply of Articles.
- 1.2 'Articles' means new permanent capital and consumable spares or components as listed at Annex C (Price List).
- 1.3 Supply Support is to include a common support solution to the MTU 4000 diesel generators fitted to Type 23s, Type 45s and Type 26s.

# 2. Supply of Stock

- 2.1 The Contractor shall be required to supply Articles when demanded by the Authority to mitigate the risks to Equipment availability arising from routine maintenance and unforeseen in-service failures.
- 2.2 The contractor shall provide "Work Packages" against the defined maintenance intervals and tasks as requested in Annex C of DEFFORM 47. The Contractor is to provide the consumable and spare parts list, quantities and prices for each of the required service interval Work Packages.
- 2.2 There will be a requirement to demand Articles that both have or do not have a NATO Stock Number (NSN) but are not on the Contract. When the Contractor receives such a demand they shall acknowledge the demand via email within 24 hrs. Within 10 Business days of the demand being placed the Contractor shall offer a firm price and delivery lead time. Following agreement of the price the Article shall be included within the Contract subject to codification.
- 2.3 Where there is the requirement for codification action, this will be taken by the Authority in accordance with the latest UKNCB instructions (www.ncb.r.mil.uk). The Authority shall complete an F117 for amendment of any related IPCs based on the information provided by the Contractor under the obligations in Activity 1 Para 14.2. Following codification, the Article shall be included within the Contract.
- 2.4 The Contractor may identify alternative sources for supply of Articles but approval for use prior to order shall be obtained from the Authority. Equipments required to be maintained within Class may not have alternative items fitted unless approved by the Classification Society and the Authority.
- 2.5 The Contractor shall be required to supply the Article(s) listed in Annex C (Priced List) in accordance with the agreed lead times and all requirements described in the following paragraphs of this Activity.

# 3. The Ordering Process

- 3.1 Order(s) shall be placed by the Authority using the Electronic Contracting, Purchasing and Finance (CP&F) tool. Order(s) will be sent to the Contractor in the form of a Blanket Purchase Agreement (BPA) Release. Each Order will generate a unique BPA Release number, referring as a minimum, to the Contract and details of the associated order. No work shall commence by the Contractor without receipt of such authorisation.
- 3.2 Receipt of each Order shall be acknowledged by the Contractor by email within 2 Business days of the order date. The lead time stated against each item will commence upon receipt of the order acknowledgement from the Contractor to the Authority or 2 Business days from the date of the Authority placed the order whichever is the sooner. The lead times for each article from acknowledgement of Order up to the date of delivery to the Authority, or its nominated agent, are Firm and shall not be exceeded. This lead time is the maximum timescale acceptable.
- 3.3 The Contractor shall supply articles to the specification and part number identified within the NATO Stock Number. The Contractor shall check the latest drawing issue state and, if different to that identified by the NATO Stock Number/Part Number, notify the Authority to confirm the requirement. Where such specifications cannot be met, then the Contractor shall propose an alternative article of a similar specification that will meet the fit, form and function criteria.
- 3.4 Should the Authority require a reduction in the quantity ordered, cancellation of the Order, changing of the reference(s) or packaging requirements etc. prior to the item(s) being delivered then the Authority shall use an amendment to the Order via the BPA Release to notify the Contractor accordingly. If amendment or cancellation notification occurs within 7 days of placing the order the Authority will not be liable for any costs, unless the order has already been despatched. The amended Order shall refer to the original BPA Release and shall constitute a formal amendment to the Order. In the event of a reduction of quantity or cancellation the Authority, after 7 days of placing the order, the Authority may be liable to pay reasonable cancellation cost incurred by the Contractor, subject to a limit of the value of the original requirement. The Contractor shall provide the Authority with a full breakdown of these costs within 20 Business days from receipt of the amended/cancelled Order. In instances where the cancelled Order has articles that are complete, part built, and/or parts have been procured to meet the cancelled/amended Order, then these Articles shall be vested in the Authority to meet future requirements. Details of the Articles and/or parts consigned shall be provided to the Authority at the same time as the Contractor's breakdown of cancellation costs.
- 3.5 The Contractor shall dispatch Article(s) to the Consignee address detailed within the BPA Order Release in accordance with DEFCONs 5J (Unique Identifiers), 129J (The use of the Electronic Business Delivery Form) and accompanying DEFFORM 129J (The Use of The Electronic Business Delivery Form) or URRI Label from CP&F/Exostar.
- 3.6 The Contractor shall submit their invoice electronically via CP&F, in accordance with DEFCON 522 (Payment and Recovery of Sums Due).

3.7 Where the Authority place an order for an article that has a shelf life then the Contractor shall ensure that the article has a minimum of 11/12ths of its shelf life remaining on the date of dispatch to the Authority.

#### 4. Concessions

- 4.1 Should the Supplier wish to deliver a product to the Authority that does not comply in full with contract requirements, a request for concession must be raised in accordance with the requirements of DEFSTAN 05-061, Part 1, Issue 6 (Quality Assurance Procedural Requirements Concessions). The request for concession shall include full and comprehensive details of the variation from the Specified Article, the impact on the safety of the equipment, the changes in the cost and shall indicate the benefits to the Authority of its acceptance. Requests for concession shall be submitted to the Authority's designated Quality Assurance Focal Point (QAFP).
- 4.2 The Contractor is responsible for processing concession applications from their sub-contractors; this responsibility is to be flowed down to all levels of the supply chain. If the prime Contractor identifies that the application pertains to a major non-conformance, the Contractor must submit it to the Authority for a final decision. If the sub-contractor is the equipment Design Authority, the sub-contractor must indicate their support by endorsement of the concession application form. When the Authority has decided, the concession form is returned to the Contractor who will forward it to the sub-contractor.
- 4.3 The Contractor is required to ensure suitable arrangements are in place with sub-contractors for the processing of major and minor non-conformances. The Authority may consider using the services of the Government Quality Assurance Representative (GQAR) to ensure that the sub-contractor controls exercised by the Contractor are effective.

# 5. Testing, Calibration and Magnetic Signature

- 5.1 All testing shall be carried out to the latest Production Test Specification in accordance with DEFSTAN 00-052, Issue 4 (The General Requirements for Product Acceptance and Maintenance Test Specifications and Test Schedules).
- 5.2 The Authority may, at its discretion, attend any testing to review or witness the test processes and results.
- 5.3 Articles requiring calibration are identified at Annex G (Parts Requiring Calibration). The Contractor shall carry out the following activities when supplying Articles:
  - 5.3.1 All Articles shall be inspected for conformity prior to dispatch;
  - 5.3.2 All pressure gauges, switches or transmitters shall be calibrated, and a Certificate of Conformity/Pressure test certificate as appropriate issupplied with each gauge, switch or transmitter, with a copy retained by the Contractor for a period of 15 years;

- 5.3.3 All pressure relief valves shall be tested, and a Certificate of Conformity/Pressure test certificate as appropriate supplied with each valve and a copy retained by the Contractor for a period of 15 years. Flexible hoses need to be indelibly marked so the serial number is readable to ensure it can be cross-refd to the certificate;
- 5.3.4 All fabricated/assembled pressure retaining parts (i.e. flexible hoses) shall be pressure tested and a pressure test Certificate supplied with each Article iaw BR 2000(95), and a copy retained by the Contractor for a period of 15 years;
- 5.3.5 All Programmable Logic Controllers (PLCs) shall be programmed with software before dispatch; and
- 5.3.6 Classification inspection and certification as mandated or required by the Authority.
- Articles requiring Magnetic Ranging are detailed in Annex C (Price List) under column Magnetic Range. Articles for Magnetic Ranging shall be packaged for safe inland transit and consigned by the Contractor to the Land Magnetic Range (LMR), Portland Bill, Portland, Dorset, DT5 2JS for magnetic ranging in accordance with Def Stan 02-617 Issue 3 (Design Guide and Requirements for Equipment to Achieve a Low Magnetic Signature (Cat 2)). The LMR is open from 0800 to 1600 Monday to Thursdays and 0800 to 1200 on Fridays.
- 5.5 The Contractor shall advise the LMR when large Articles requiring the use of a crane at the LMR are to be dispatched. The LMR can be contacted on the following telephone number: +44 (0) 1305 862000

#### 6. Packaging, Handling, Storage and Distribution

#### **Packaging**

6.1 The Contractor shall comply with the requirements of DEFCON 129 (Packaging (for articles other than munitions)) in respect of the packaging of Articles. Where an Article requires a Military level of packaging, such Articles shall be identified through the packaging code on the Purchase Order. The relevant packaging codes are:

Packaging Code	Packaging Level
05	UK Level J
06	UK Level N
07	UK Level P
08	Retail Trade Pack

6.2 The Contractor shall notify the Authority if there is any change in the packaging authority or MPAS certification/registration during the Term of this Contract.

#### Handling

6.3 It is MOD policy to provide protection for all electronic equipment deemed to be at risk from electrostatic discharge. The requirements for such protection are stated in BS EN 61340-5-1:2016 (Electrostatics. Protection of electronic devices from electrostatic phenomena. General requirements).

- 6.4 Where static sensitive devices or assemblies are known to be or are suspected to be sensitive to static generated voltages, such Articles shall always be handled, identified and packed in accordance with the requirements of BS EN 61340-5-1:2016.
- 6.5 Contractors engaged in the design, production, repair, servicing and packaging of equipment containing such Electrostatic Sensitive Devices are to provide adequate measures for protection. Similar facilities are also to be provided when their employees carry out work at a Government Establishment.
- 6.6 Handbooks, Setting-to-Work Instructions and other equipment-related documents should include a "Warning Page" notifying the presence of Electrostatic Sensitive Devices. This page should appear, at least, in the Introduction and Maintenance Sections.

#### Storage

- 6.7 The Contractor shall identify Articles that either require special storage requirements or have a shelf life. Details are to be clearly displayed on the packaging.
- 6.8 Where the Authority places an Order for an Article that has a shelf life then the Contractor shall ensure that the Article has a minimum of 11/12ths of its shelf life remaining on the date of dispatch to the Authority.
- 6.9 The Contractor shall advise what in store maintenance is required for Articles and the periodicity.

#### Distribution

- 6.10 The Article(s) shall be delivered on an ex-works basis. The Consignee shall be identified on the Purchase Order.
- 6.11 Wherever possible Articles require magnetic assessment (see paragraph 4.4 above), they shall be identified as such on the Purchase Order and consigned via the Land Magnetic Range. For the avoidance of any doubt the Annex C should always be consulted.
- 6.12 The Contractor shall comply with the requirements of DEFSTAN 81-130 Issue 4/1 (The Transportation, Handling, Storage and Packaging of Magnetically Sensitive Equipment) in respect of the packaging, handling, storage and distribution of magnetically sensitive Articles.

#### 7. Performance Standards

7.1 Performance under this activity will be measured against a Key Performance Indicator (KPI) relating to the fulfillment of order lines against the contracted Procurement Lead Time in accordance with Activity 1, Condition 16 (Performance Management) of the Contract. The performance standard is set out at Table 6 below:

KPI KPI Description KPI Measure		VDI Massura	Targets			
		KPI Measure	Green	Amber	Red	
1	Procurement Lead Time	Percentage of Supply Support Order lines due for delivery in previous month Delivered On Time in Full.	= or >97%	=>95% <97%	<95%	

Table 6 – KPI 1 (Procurement Lead Time Performance Standard)

7.2 The period is measured from order acknowledgement (para 2.2 and 3.2 refer) and ends on the requested date for MoD transport collection.

# **Activity 3 – Repair Support (Spares)**

# 1. Scope of Activity

- 1.1 'Repair Support (Spares)' means the provision of Repair and Technical Requirements to bring Articles to a serviceable condition.
- 1.2 'Articles' means permanent spares requiring repair or maintenance.
- 1.3 Articles returned to the Contractor for repair or maintenance shall, subject to their condition on receipt, be 'Stripped, Surveyed and declared Beyond Economical Repair' or 'Stripped, Surveyed and Repaired or Maintained' at the fixed price as contained at Annex C.
- 1.4 Repair Support (Spares) is to include a common support solution to the MTU 4000 diesel generators fitted to Type 23s, Type 45s and Type 26s.

# 2. Repair and Maintenance

#### **Articles:**

- 2.1 Articles that are deemed repairable are specified in Annex C (Price List), and as required will be forwarded by the Authority to the Contractor under an individual Repair Order for repair to 'serviceable, not new' condition and testing to the Manufacturer's Commercial Standard, unless otherwise stated by the Authority.
- 2.2 The Contractor shall supply repaired Articles packaged in accordance with the requirements of paragraph 5 of this activity (below) to Ministry Stores inwards shippers as specified in the Repair Order or under a Diversion Order/Direct Delivery for urgent items.
- 2.3 The Contractor shall be required to account for the property of the Authority as defined in DEFCON 694 (Accounting for the Property of the Authority) and DEFSTAN 05-99, Part 1 (Managing Government Furnished Equipment in Industry).
- 2.4 Modifications agreed by the Authority shall be incorporated by the Contractor at the time of the repair or refurbishment.
- 2.5 If the item for repair is subject to emergent component obsolescence which creates unacceptable operational risk to the Authority then all work on this item is to cease and the Authority is to be advised of the problem immediately and the Obsolescence Notice template (Annex E) issued within five Business days of the cessation of work. The revised actual cost and the revised timescale to affect the repair will be notified to the Authority within two weeks from the date of cessation of work. Repair

- can only continue after written authorisation has been received from the Authority. The Contractors should also refer to the section on Obsolescence in Activity 1.
- 2.6 The Contractor shall be responsible for shelf-life and maintenance of the data sheets for the Hazardous Stores Information System (HSIS) in accordance with DEFCON 68 (Supply of Hazardous Articles, Materials & Substances) of all equipment.

#### **Engines (Repair/Overhaul Services)**

- 2.7 For MTU Diesel Generators provided by the Authority to the Contractor for maintenance, repair or overhaul as required, the Contractor shall allocate a SQEP Engineering Manager to maintain oversight of MTU Diesel Generators that are provided for maintenance, repair or overhaul.
- 2.8 The engines issued by the Authority to the Contractor and should arrive at the Contractors works within 15 Business days from the date of the Order. If the Article(s) do not arrive within the timescales stated above the Contractor shall notify the Authority by email.
- 2.9 Upon receipt of the engines, the Contractor shall notify the Authority via email and undertake a survey of the engines to determine the material condition of the engines to return to a "serviceable, not new" condition. The contractor shall report any missing/damaged items in a timescale of receipt (5 working days) if no report is provided it will be assumed that there are no issues. In consultation with the Authority in cross checking the Engine Log Book the engine may be defined as:
  - 2.9.1 Service whereby the engine is subject to an overdue, scheduled or near future Maintenance event as agreed with the Authority and/or;
  - 2.9.2 Repair whereby work on an engine which has suffered a failure but where full overhaul is not required. A Strip and Survey shall be conducted with repair conducted from the point of failure and/or;
  - 2.9.3 Modification –engines may be subject to any outstanding modification programmes as advised by the Contractor and/or Authority;
  - 2.9.4 Overhaul whereby the engine is subject to Life Expiry and a complete strip to component level with full inspection is completed prior to re-build and test in accordance with the OEM guidance;
  - 2.9.5 Test all engines regardless of Service, Repair, Overhaul or Modification will be subject to full load testing prior to an engine being declared as Available for use by the Authority. The Contractor is to provide the Authority confirmation of the engine test date no later than 5 business days prior to test. All Factory Acceptance Testing will be attended by the Authority wherever possible to confirm engine status as Available and;

- 2.9.6 Preservation All engines are to be subsequently fully preserved to be fully inhibited, placed in engine bags with sufficient desiccant before being loaded into a MoD supplied or approved engine box and labelled with the engine serial number on all 4 sides prior to being placed into store;
- 2.9.7 Storage Where storage at the 4LME facility is not feasible either due to capacity or where the Authority would incur additional cost, then MoD storage may be used provided that this does not impact warranty cover for any 4LME engine work undertaken by either time spent in storage or when subsequently operated on a Platform;
- 2.9.8 Where engines are stored for more than the Warranty period, these engines will be returned to the Contractor for survey and Test prior to re-preservation; and
- 2.9.9 The contractor will have a maximum period of 26 weeks for each engine to return it to an Available status unless subject to consultation with the Authority whereby the engine is deemed Beyond Economical Repair (BER) and purchase of the same make and model of engine is more economically advantageous to the Authority.
- 2.10 The Contractor shall provide security of supply for all parts for the service and repair of all MTU Diesel Generators within MSS/107. The diesel generator shall be Serviced, Repaired, Modified or Overhauled in accordance with the recommendations of the OEM and/or the established routines as directed by the Authority.
- 2.11 Except for Repair activities detailed in para 2.9.2, all other activities listed at 2.9.1-2.9.6 will be subject to a Firm price and the process for order will be in accordance with the procedures detailed in Section 3 to this Activity. A Firm Price for any modification required by the Authority will be agreed by the Authority using the process identified at paragraph's 3 & 4 in Activity 4.
- 2.12 For Repair activity detailed in para 2.9.2 the Contractor, on receipt of all engines for the purposes of either specific Repair or routine Service only, shall conduct a detailed examination of the engine to assess the degree of repair required to return to a 'serviceable, not new' condition. The Repair activity shall address any faults, damage or missing Articles not covered as part of a routine Firm Price Service as detailed in para 2.9.1. A schedule of work shall be prepared by the Contractor detailing the extent of the work and the standard of repair to be performed on the engine, considering the current modification state. The schedule of work shall be forwarded to the Authority with a Firm Price quotation no later than 10 Business days from receipt of the engine. For the purposes of the KPI, the start date for engines subject to any Repair activity which will require an Order from the Authority based on the schedule of works will be subject to the processes detailed in Section 3 of this Activity.
- 2.13 The Contractor shall be liable for any further emergent work contained within either Service or Repair activity (para 2.9.1 and 2.9.2 respectively) not identified by the Contractor within the schedule of work detailed in para 2.12 above. The Contractor shall also be liable for any failures that occur during Test activity as detailed in para 2.9.5, any repairs required because of Test and liable for re-Test without any further cost to the Authority.

2.14 The Authority shall not be liable for any additional costs or exclusions to the Firm price agreed for full engine Overhaul at planned engine LIFEX. Any engine that has sustained an in-service failure prior to LIFEX will be subject to Repair activity para 2.9.2 cognisant of engines BER detailed in para 2.9.9. and 3. 1.6.

# 3. The Ordering Process

#### 3.1 Repair Orders

- 3.1.1 Order(s) shall be placed by the Authority using the Electronic Contracting, Purchasing and Finance (CP&F) tool. Order(s) will be sent to the Contractor in the form of a Blanket Purchase Agreement (BPA) Release. Each Order will generate a unique BPA Release number, referring as a minimum, to the Contract. Item repair price and details of the associated order. No work shall commence by the Contractor without receipt of such authorisation.
- 3.1.2 Receipt of each Order shall be acknowledged by the Contractor by email within 2 Business days of the order date. The lead time stated against each item in Annex C (Price List) will commence upon receipt of the order acknowledgement from the Contractor to the Authority or 2 Business days from the date of the Authority placed the order whichever is the sooner subject to the Contractor being in receipt of the Article. Where the contractor is not in receipt of the Article, the lead time will commence on delivery of the Article to the Contractor's premises via MoD transport. The Contractor will notify the Authority by email within 24hrs of receipt of the Article to ensure alignment with MoD transport reporting and this date will be used as the lead start time.
- 3.1.3 The Contractor shall submit their invoice electronically via CP&F, in accordance with DEFCON 522 (Payment and Recovery of Sums Due).
- 3.1.5 The Contractor shall dispatch Article(s) to the Consignee address detailed within the BPA Order Release in accordance with DEFCONs 5J (Unique Identifiers), 129J (The use of the Electronic Business Delivery Form) and accompanying DEFFORM 129J (The Use of The Electronic Business Delivery Form) or URRI Label from CP&F/Exostar.
- 3.1.6 Should the Authority require a reduction in the quantity ordered, cancellation of the Order, changing of the reference(s) or packaging requirements etc. prior to the item(s) being delivered then the Authority shall use an amendment to the Order via the BPA Release to notify the Contractor accordingly. If amendment or cancellation notification occurs within 7 days of placing the order the Authority will not be liable for any costs, unless the order has already been dispatched. The amended Order shall refer to the original BPA Release and shall constitute a formal amendment to the Order. In the event of a reduction of quantity or cancellation the Authority, after 7 days of placing the order, the Authority may be liable to pay reasonable cancellation cost incurred by the Contractor, subject to a limit of the value of the original requirement. The Contractor shall provide the Authority with a full breakdown of these costs within 20 Business days from receipt of the amended/cancelled Order. In instances where the

cancelled Order has articles that are complete, part built, and/or parts have been procured to meet the cancelled/amended Order, then these Articles shall be vested in the Authority to meet future requirements. Details of the Articles and/or parts consigned shall be provided to the Authority at the same time as the Contractor's breakdown of cancellation costs. Where the engine is BER the repair order shall be cancelled by the Authority and a replacement engine ordered if required by the Authority as per Activity 2.

# 4. The Repair Process

- 4.1 For the avoidance of doubt, the firm price provided at contract placement for each repair or maintenance activity shall be the total price payable by the Authority for all work required to affect the repair or maintenance activity. Where any item is deemed Beyond Economical Repair (BER) at the strip survey point, the Authority will be subject to the cost of the strip survey only.
- 4.2 The Articles for assessment will be issued to the Contractor under Contract Work Item terms and should arrive at the Contractors works within 15 Business days of the date of the Repair Order. The Contractor shall notify the Authority when the Article(s) arrive. If the Article(s) do not arrive within the timescales stated above the Contractor shall notify the Authority by email and the Authority will hasten MoD transport.
- 4.3 Where the Authority place an order for an article that has a shelf life then the Contractor shall ensure that the article has a minimum of 11/12ths of its shelf life remaining on the date of dispatch to the Authority.

# 4.4 Repair Turn Round Time (TRT)

- 4.4.1 Upon receipt of the Repair Order as detailed in para 3.1.2 the Contractor shall undertake the repair or maintenance process to meet the contractual turn round times as detailed in Annex C (Price List). Repairs should not commence until the Contractor is in receipt of an order. Where the Article(s) is BER the repair order shall be cancelled by the Authority and a replacement item ordered if needed as per Activity 2 lead time. BER items will be discounted from KPI calculation for the purposes of Activity 3; and
- 4.4.2 The contract TRT for each Article will commence upon receipt of the relevant Article(s) by the Contractor detailed in para 3.1.2. The turn round time for each Article from receipt of Article(s) up to the date of delivery to the Authority or its nominated agent (inc works) or confirmation of request for dispatch via MoD transport (ex-works), are fixed.

# 5. Packaging, Handling, Storage and Distribution

#### **Packaging**

5.1 The Contractor shall comply with the requirements of DEFCON 129 (Packaging (for articles other than munitions)) in respect of the packaging of Articles. Where an Article requires a Military level of packaging,

such Articles shall be identified through the packaging code on the Purchase Order. The relevant packaging codes are:

Packaging Code	Packaging Level
05	UK Level J
06	UK Level N
07	UK Level P
08	Retail Trade Pack

5.2 The Contractor shall notify the Authority if there is any change in the packaging authority or MPAS certification/registration during the Term of this Contract.

#### Handling

- 5.3 It is MOD policy to provide protection for all electronic equipment deemed to be at risk from electrostatic discharge. The requirements for such protection are stated in BS EN 61340-5-1:2016 (Electrostatics. Protection of electronic devices from electrostatic phenomena. General requirements).
- 5.4 Where static sensitive devices or assemblies are known to be or are suspected to be sensitive to static generated voltages, such Articles shall always be handled, identified and packed in accordance with the requirements of BS EN 61340-5-1:2016.
- 5.5 Contractors engaged in the design, production, repair, servicing and packaging of equipment containing such Electrostatic Sensitive Devices are to provide adequate measures for protection. Similar facilities are also to be provided when their employees carry out work at a Government Establishment.
- 5.6 Handbooks, Setting-to-Work Instructions and other equipment-related documents should include a "Warning Page" notifying the presence of Electrostatic Sensitive Devices. This page should appear, at least, in the Introduction and Maintenance Sections.

#### **Storage**

- 5.7 The Contractor shall identify Articles that either require special storage requirements or have a shelf life.

  Details are to be clearly displayed on the packaging.
- 5.8 Where the Authority places an Order for an Article that has a shelf life then the Contractor shall ensure that the Article has a minimum of 11/12ths of its shelf life remaining on the date of dispatch to the Authority.
- 5.9 The Contractor shall advise what in store maintenance is required for Articles and the periodicity.

#### Distribution

- 5.10 The Article(s) shall be delivered on an ex-works basis. The Consignee shall be identified on the Purchase Order.
- 5.11 Wherever possible Articles requiring magnetic assessment shall be identified as such on the Purchase Order and consigned via the Land Magnetic Range. For the avoidance of any doubt Annex C should always be consulted.
- 5.12 The Contractor shall comply with the requirements of DEFSTAN 81-130 Issue 4/1 (The Transportation, Handling, Storage and Packaging of Magnetically Sensitive Equipment) in respect of the packaging, handling, storage and distribution of magnetically sensitive Articles.

## 6. Testing, Calibration and Magnetic Signature

- 6.1 All testing shall be carried out to the latest Production Test Specification in accordance with DEFSTAN 00-052, Issue 4 (The General Requirements for Product Acceptance and Maintenance Test Specifications and Test Schedules).
- The Authority may, at its discretion, attend any testing to review or witness the test processes and results.
- 6.3 Articles requiring calibration are identified at Annex G (Parts Requiring Calibration). The Contractor shall carry out the following activities when supplying Articles:
  - 6.3.1 All Articles shall be inspected for conformity prior to dispatch;
  - 6.3.2 All pressure gauges, switches or transmitters shall be calibrated, and a Certificate of Conformity supplied with each gauge, switch or transmitter, with a copy retained by the Contractor for a period of 15 years;
  - 6.3.3 All fabricated/assembled pressure retaining parts (i.e. flexible hoses) shall be pressure tested and a Pressure Test Certificate/ Certificate of Conformity is supplied with each Article, and a copy retained by the Contractor for a period of 15 years;
  - 6.3.4 All fabricated/assembled pressure retaining parts (i.e. flexible hoses) shall be pressure tested and a Certificate of Conformity supplied with each Article, and a copy retained by the Contractor for a period of 15 years;
  - 6.3.5 All Programmable Logic Controllers (PLCs) shall be programmed with software before dispatch;
  - 6.3.6 All electronic control/management items & sensors fitted or supplied shall be programmed with the latest software prior to dispatch;
  - 6.3.7 All classification society mandated inspection and certification as required for compliance and for the Authority requirments.
- 6.4 Articles requiring Magnetic Ranging are detailed in Annex C (Price List) under column titled Magnetic Range. Articles for Magnetic Ranging shall be packaged for safe inland transit and consigned by the Contractor to the Land Magnetic Range (LMR), Portland Bill, Portland, Dorset, DT5 2JS for magnetic

ranging in accordance with Def Stan 02-617 Issue 3 (Design Guide and Requirements for Equipment to Achieve a Low Magnetic Signature (Cat 2)). The LMR is open from 0800 to 1600 Monday to Thursdays and 0800 to 1200 on Fridays.

6.5 The Contractor shall advise the LMR when large Articles requiring the use of a crane at the LMR are to be dispatched. The LMR can be contacted on the following telephone number: +44 (0) 1305 862000

#### 7. Performance Standards

7.1 Performance under this activity will be measured against a Key Performance Indicator (KPI) relating to the fulfillment of order lines against the contracted Maintenance Turn Around Time, in accordance with Activity 1 - Condition 16 (Performance Management) of the Contract. The performance standard is set out at Table 7 below:

KPI	KPI Description	KPI Measure	Targets		
			Green	Amber	Red
2	Turn Round Time Performance Standard for Spares Repair	Percentage of Spares Repair Orders due for delivery in the previous month delivered on time in full.	= or >97%	=>95% <97%	<95%

Table 7 - KPI2 Turn Round Time Performance Standard for Spares Repair

7.2 The period measured commences at the point of order detailed in para 3.1.2 and ends at the point of delivery and ends at the point of dispatch or on the date requested for MoD transport collection in accordance with para 4.5.2.

# **Activity 4 – Technical Service Support and Post Design Services**

### 1. Scope of Activity

- 1.1 The Contractor shall provide when tasked by the Authority, Technical Services (TS) and Post Design Services (PDS) within the scope of the definitions in this Activity 4, to afford for continuing equipment availability to deliver continued platform (ship or submarine) operational capability.
- 1.2 The Contractor shall provide Suitably Qualified and Experienced Personnel (SQEP) to carry out any such tasks authorised by the Authority outlined in Activity 1. As far as is practicable, the Contractor should seek to ensure that the personnel deployed on a task remain the same throughout the period of that task to maintain continuity with Ship or Forward Support Unit (FSU) staff.
- 1.3 As per Activity 1, the Contractor may be required to attend a Government Establishment and in doing so is reminded of their obligations under DEFCON 76 (Contractor's Personnel at Government Establishments Clause 16) to notify the Authority of any health and safety hazards, risks associated with such hazards, or precautions which should be taken emanating from such risks, resulting from work performed at a Government Establishment under the Contract. The Contractor should familiarise itself with any entry restrictions, safety training or security clearances necessary for such attendance.
- 1.4 Technical Services (TS) and Post Design Services (PDS) are applicable to the MTU engines, attached generators in their entirety and any control cabinets or systems supplied as an integral part of the MTU Diesel Generator sets in the scope of the contract. TS and PDS are to include a common support solution to the MTU 4000 diesel generators fitted to Type 23s, Type 45s and Type 26s.

#### 2. Technical Services

- 2.1. The Contractor may, as tasked, be required to support the following TS activities:
  - 2.1.1 **Engineering Project Support** to include:
    - 2.1.1.1 Joint planning and programming of works with the Authority;
    - 2.1.1.2 Technical evaluations of equipment both onsite on a Platform or in a MoD/Commercial storage/repair facility;
    - 2.1.1.3 Technical review of equipment to include:
      - 2.1.1.3.1 Through life costings;
      - 2.1.1.3.2 Capability assessments;
      - 2.1.1.3.3 Risk assessments and analysis;
      - 2.1.1.3.4 Support to Reliability Centered Maintenance (RCM) studies;

- 2.1.1.3.5 Support to Safety Assessments, hazard assessments and the generation of the relevant safety case in accordance with DSA-02DMR and DEFSTAN 00-056, Part 1 (Safety Management Requirements for Defence Systems);
- 2.1.1.3.6 Provision of all OEM Service Bulletins (SBs), Product Improvement Letters (PILS) Overhaul Information Alerts (OIAs) to the Authority; and
- 2.1.1.3.7 Documentation updates of drawings and support documentation including Ships' datum pack drawings associated with the introduction of approved modifications and minor amendments in accordance with DEFSTANs 05-010 (Product Definition Information) and, 02-040, Parts 1 and 3.

#### 2.1.2 **Installation, Setting to Work & Commissioning** to include:

- 2.1.2.1 Embodiment/integration support to new auxiliary systems and equipments;
- 2.1.2.2 Updates and modification kits to systems and their associated equipment including setting to work and commissioning. To support the removal of equipment and, where disposal is required, conduct such activity in accordance with environmental legislation; and
- 2.1.2.3 To support any trials related to commissioning to include (but not limited to) turbo setup, load trials and generator 'finger print' tests detailing generator voltage, current and frequency output (where applicable).

#### 2.1.3 **Trials and Evaluations** to include:

- 2.1.3.1 Onboard support to Platforms emerging from extended periods of support/upkeep where equipment performance is sub-optimal against design requirements to enable Platforms to pass harbour or sea acceptance trials; and
- 2.1.3.2 Support to assist in diagnosis and repair to enable equipment optimization to return to manufacturers designed output requirements.

#### 2.1.5. **Training** to include:

2.1.5.1 Provision of support to the update or development of current military training course materials through provision of updated documentation or access to contractor/OEM 'Train the Trainer' training services.

# 2.1.6 **Continuous Through Life Engineering Support** to include:

- 2.1.6.1 Routine, emergent and warranted repair support for the equipment when installed onboard or when removed and recovered to a MoD repair facility/Commercial factory as appropriate;
- 2.1.6.2 Support in the investigation of design shortcomings, defect reports, equipment failures and operating problems reported by Ships' staff to the Authority;

- 2.1.6.2 Assistance as required for field engineer support to diagnose and repair operating problems reported by Ships' staff outside of maintainer capability as required by the Authority; and
- 2.1.6.3 Where there is a requirement to address consistent shortfall or failure the Contractor shall provide support as detailed in the PDS activities detailed below.

# 3. Post Design Services

- 3.1 The Contractor may, as tasked, be required to support the following PDS Activities:
  - 3.1.1 **Design Review and Modification** Where investigation into design shortcomings, defect reports, equipment failures reported by Ships staff to the Authority requires design change to affect a long-term sustainable solution the Contractor shall be tasked to conduct a Modification:
    - 3.1.2 To design, develop and manufacture a suitable engineering solution to address sub-optimal performance;
    - 3.1.3 That may be tested for equipment suitability prior to installation wherever possible;
    - 3.1.4 That may be installed direct on the Platforms or in a repair facility as appropriate;
    - 3.1.5 Ensuring that any change to fit, form or function to include risk assessment in enacting the change are captured for inclusion into the Authority's safety case;
    - 3.1.6 Ensuring that modification embodiment instructions are generated to include in-situ test instructions to confirm the correct operation of the new or revised functionality;
    - 3.1.7 Ensuring all supporting amendments for updates to technical support documentation is provided.
  - 3.1.2 **Obsolescence** As described in detail in Activity 1, to issue an obsolescence notice within 5 Business days of the Contractor becoming aware of future obsolescence. One of the mitigation strategies outlined in Activity1 is to investigate and design out obsolescence through appropriate modifications. This will accommodate changes with minimal disruption to existing equipments and without compromising safety, system operation or functionality and with the express approval of the Authority.

### 4. The Tasking Process

- 4.1 Tasks will be initiated by means of a formal Task Approval Form (TAF) a copy of which is enclosed as Annex F and consists of four parts:
  - 4.1.1 **Part A**: Proposal sets out the Authority's requirements and outputs of the task;
  - 4.1.2 **Part B/B1**: Proposition sets out the Contractor's solution, associated costs and **FIRM price** for the task;

- 4.1.3 **Part C**: Internal Approvals captures the internal approval of the task allowing formal authorisation to proceed; and
- 4.1.4 **Part D**: Completion captures and records the Contractors confirmation that all work and deliverables have been satisfied.
- 4.2 Each task will be allocated a unique and sequential reference number. Issue numbers will only vary where the TAF has been subjected to a duly approved amendment to the task.
- 4.3 On receipt of a TAF with completed Part A, the Contractor shall complete Parts B and B1 and return it to the Authority within the timescale stated in the TAF. The Contractor's Firm Price quotation shall be broken down under the headings specified in the TAF at Part B1 and shall utilise the parts, labour and travel/subsistence rates agreed under the Contract.
- 4.4 Where the task, by exception, requires the Contractor to procure Assets or Spares, for example in support of a modification activity, the Contractor shall confirm that such costs have been secured competitively or where this has not been possible shall justify within their proposition as to the reasons why.
- 4.5 Other than for those reasons set out at Condition 4.8 below, the Authority shall in no way be liable for any costs incurred by the Contractor until formal approval of the task and the agreement of costs have been provided by the Authority.
- 4.6 Upon approval by the Authority at Part C, the Authority shall raise a CP&F Standard Purchase Order (SPO) which will be sent to the Contractor as the approval to commence work and enable payment upon the satisfactory conclusion of the task.
- 4.7 Upon satisfactory completion of all activities authorised under the TAF, the Contractor shall complete Part D (Task Closure) and forward to the Authority for agreement. Following receipt by the Contractor of Part D signed by the Authority, the Contractor shall claim payment by raising an electronic invoice against the relevant CP&F SPO.
- In exceptional circumstances which requires the Contractor to operate at very short notice, for example over the course of a weekend, where it is not possible to fully prosecute the above process and agree a Firm Price in advance, authorisation for work to proceed may be given by the Authority Project Manager by email or, if outside normal hours, by telephone with an email confirmation on the very next working day. Such authorisations will include a Limit of Liability equating to a provisional price for the purposes of pricing under DEFCON 127 (Price Fixing Conditions for Contracts of Lesser Value) which, in any case, shall not exceed an equivalence of 48 man-hours plus any directly associated travel and subsistence costs.

# 5. Contractors on Deployed Operations (CONDO)

- 5.1 The Contractor and/or his sub-contractor(s) may be requested to provide direct support at a location defined as an Operations Area within the meaning and provisions of DEFSTAN 05-12 Issue 5 (CONDO Processes and Requirements).
- 5.2 The Contractor shall ensure that all service engineers have suitable up to date travel and medical documentation and that a minimum of 2 x service engineers always remain CONDO trained. This is to ensure support is available as required to expedite rectification of defects on vessels deployed overseas.

# **Activity 5 – Process Improvements**

#### 1. Scope of Activity - Overview & Background

- 1.1 MSS/107 makes use of an Incentivized Upkeep Process Improvement (IUPI) contract model. It is intended for the Contractor to demonstrate how the processes in Activities 1 to 4 can be improved through the analysis of data to provide intelligence-led engineering support solutions: improving technical decision making; optimizing equipment availability and rationalizing stores holdings. Data will be passed from the Authority to the Contractor for analysis or access to the data granted to the Contractor. The Contractor is to analyse data and then display the results on 2 dashboards which should then be updated when the data changes: one dashboard for maintenance/technical support and one for inventory management. These dashboards will then be used to manage MSS/107. The Contactor is to use this analysis to propose process improvements for MSS/107 with the incentivization being the Value Rebates initiative.
- 1.2 These dashboards will increase the utilization of the material state picture through the capture, manipulation and exploitation of data. They are to be web based, accessible online by logging on to the Contractor's proposed Website, externally to the MOD Defence Intranet, but accessed through a MOD Net computer. The dashboard is to be updated as information is passed to the Contractor and will be used to make both technical equipment decisions and inform wider contract management decisions. As part of the Tender Submission for MSS/107 the Contractor is to submit draft dashboards for specifically managing the MSS/107 requirements. These are to prove that the concept will work and demonstrate how the proposed Web Site can be accessed from MOD Net. The details of these required deliverables will be explained the in Sections 3 & 4 below.
- 1.3 While the Authority will pass across data to the Contractor much of this data is currently on legacy MOD computer systems, as outlined at Section 2 below, that will be in an analogue form<sup>1</sup>. The MOD has several separate projects aimed at digitalizing how this data is transmitted and used. As part of the Incentivized Upkeep Process Improvement (IUPI), as the MOD rolls out a digitalized solution for these individual systems then the Contractor is to interface with these digital solutions. This will also constitute part of the process improvements over the course of the contract, improving the quality of data and speeding up decision making. An outline of this future work is explained in Section 6 below.
- 1.4 The overall aim is to use data led solutions to; improve equipment availability; optimize life-cycle costs; obtain peak equipment performance and for the early detection and identification of failures. This will support the long term MSS aim of a data-led, digitally enabled support system, which will improve equipment availability and sustainability.

 $<sup>^{\,1}</sup>$  Analogue form means: soft copy word/excel/Adobe documents as opposed to real time digital information.

- 1.5 The Incentivization for the Contractor is through the Value Rebate scheme. Under this scheme the Contractor will be required to offer multiple levels of discount on annual spend under the contract. Depending on the improvements proposed and the level of depth they can reach within the supply chain or systems infrastructure, suppliers will be able to reduce the level of discount therefore increasing their margin of profit. See Annex C of the ITN for details on the value rebate scheme.
- 1.6 Included within the Process improvements are ensuring that the support solution is common to the MTU 4000 diesel generators fitted to Type 23s, Type 45s and Type 26s.

#### 2. Provision of Data from Authority to Contractor for Analysis

- 2.1 Figure 1 below details the MOD information architecture that current exists for managing support and availability of maritime equipment. The Authority will control access to the data required to be analyzed by the Contractor and will have responsibility for providing this data to the Contractor. At a minimum the Authority will provide this data to the Contractor on the first Wednesday of each month.
- 2.2 Table 8 below is an overview explanation to each of the components which makes up the MOD information architecture at Figure 1. Data to be analysed currently exists within MOD computer systems and databases. The Authority will be responsible for extracting this data, sanitizing it and then passing it across to the Contractor for subsequent analysis as detailed in paragraph 2.1 above. This will provide the Contractor with the information to build the 2 dashboards



Figure 1 - Current MOD Information Architecture

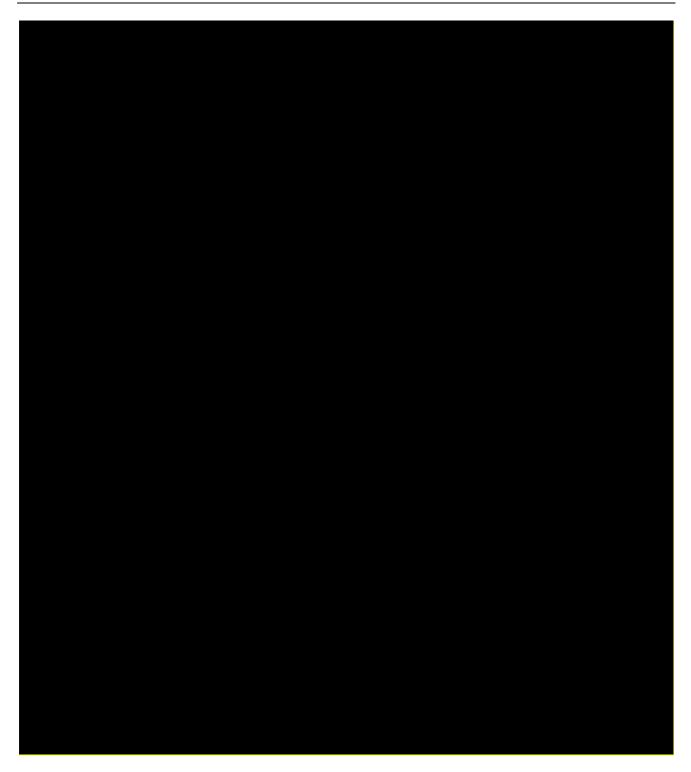


Table 8 - Key to Current MOD Information Architecture

#### 3. Maintenance & Technical Support

- 3.1 The Contractor is to produce a Maintenance and Technical Support Dashboard, using the data provided by the Authority, as per the requirement at Table 9. This indicates the limitations of the data that the Authority can provide to the Contactor due to the current limits of the MOD systems as explained under the "Current MOD Analogue Solution" column. The "Future Data Source" indicates the future MOD project aspirations that will act as sources of digital data once these Projects are delivered. The details and timings behind these future projects are explained in Section 6 below.
- 3.2 The Contractor is required to undertake the analysis requirements at the Outcomes from Data Analysis column at Table 9. The Contractor is to design a layout of the dashboard which will display the analysis requirements stipulated in Table 9. The Contractor is to ensure that the dashboard is web based, accessible online by logging on to the Contractor's proposed Website (external to the MOD Defence Intranet) but accessed through a MOD Net computer. As part of the MSS/107 Tender the Contractor is to submit a draft dashboard on the proposed web site to demonstrate that the concept will work and that the dashboard can be accessed from MOD Net.
- 3.3 Where hardware, licenses, software or special tools are required to access any on engine specific data not available from the Authority through initiatives such as Project Nelson, especially that of the diesel generator sets at the core of this contract, these will be codified & purchased as part of the spares list in Annex C. This will remain the property of the Authority beyond the termination or completion of the contract, and must be returned to the Authority with the relevant log in, usernames and passwords required to access the equipment.
- 3.4 The purpose of the Maintenance & Technical Support Dashboard is for the Contractor to analyze the data delivered by the Authority in order to then represent this information so that technical decisions can be made to optimize equipment availability. As part of this analysis the Contractor is to:
  - 3.4.1 Collate faults in-service by gathering and storing of fault data from the equipment, down to component/sub-assembly level; conduct research and analysis of both faults and repair activities to isolate root causes, identifying trends and contributing factors;
  - 3.4.2 Provide recommendations that avoid un-necesscary major sub-assembly overhauls by refining the tracking of usage/maintenance/overhauls of significant sub assemblies that reduces the requirment for un-necessary componet overhauls to reduce repair costs<sup>2</sup>;
  - 3.4.3 Provide recommendations so that diesel generator maintenance can be based on the actual condition of the equipment as opposed to the expected condition, maximising diesel generator availability and performing overhauls only when needed. The objective is to increase the lifetime of equipment, preserving its condition by obtaining feedback on the factors that cause excess wear and failure;

<sup>&</sup>lt;sup>2</sup> As an example: an opdef could lead to replacement of a turbo which could then end up being overhauled at a shorted period during major engine maintenance.

- 3.4.4 Generate trend analysis & predictive maintenance through analysis of data for predictive condition monitoring (CM), to refine RCM data and make recommendations for when condition-based maintenance (CBM) could be undertaken, allowing CBM recommendations to run alongside RCM, thereby increasing availability and reducing breakdown costs;
- 3.4.5 Once the data becomes available, analyse of the load profile against the maintenance schedule allowing calculations of additional life consumption per hour outside of the optimum band and establishing average set of operating conditions, where the life metric is the load experienced by each diesel generator.
- 3.5 The Authority will provide the Contractor with the information in the MOD Inputs columns either by email or through the MCWE Drop Box. The information will be passed to the Contractor by the Authority on at least the first Wednesday of every month. Once the Contractor has received any information from the Authority then the dashboard is to be updated and any difference against previous analysis highlighted to allow technical decisions to be made by the Authority.
- As explained in Section 6 below, phase 1 of the Contract (the first 6 months) will provide both the Authority and Contractor the opportunity to refine Dashboard inputs and analysis in order to optimize the Dashboard outputs and recommendations to maximize equipment availability. There will remain the possibility that additional data sources outside of those identified at Table 9 can be provided by the Authority to the Contractor and that the frequency of data transfer might increase from the minimum of once a month, particularly with the development of the future projects identified in Section 6. Any time that the Contractor has received new data from the Authority then the dashboard is to be updated and any differences against previous analysis are to be highlighted. As the Contractor is able to automatically draw data under the developments outlined at Section 6 below, the Contractor shall match the drawing of this data to syncronise with the outstanding data provided by the Authority to avoid a mismatch of dashboard inputs and remain in step.



Table 9 - MSS/107 Maintenance Dashboard Requirements

#### 4. Inventory Support

- 4.1 The Contractor is to produce an Inventory Support Dashboard, using both the data provided by the Authority to the Contractor for the Maintenance/Technical Support dashboard alongside the demand data that will be generated through the Authority placing demands with the Contractor. Table 5below identifies the minimum data sets that will be provided by the Authority to the Contractor. This data is limited due to the limits of the current systems and is highlighted under the "Inputs" column.
- 4.2 The Contractor is required to undertake the analysis requirements at "Analysis Requirements" column at Table 10. The Contractor is to design a layout of the dashboard which will display the analysis requirements stipulated in Table 10. The Contractor is to ensure that the dashboard is web based, accessible online by logging on to the Contractor's proposed Website, which is to be external to the MOD Defence Intranet but accessed through a MOD Net computer. As part of the MSS/107 Tender the Contractor is to submit a dashboard on the proposed web site to demonstrate that the concept will work and that the dashboard can be accessed from MOD Net.
- 4.3 The purpose of the Inventory Support Dashboard is for the Contractor to analyze the data delivered by the Authority in order to represent this information so that inventory decisions can be made to optimize inventory stock holdings. A key element will be understanding the maintenance analysis and the impacts on inventory holdings derived from the Maintenance and Technical Support Dashboard. As part of this analysis the Contractor is to:
  - 4.3.1 Develop a systematic approach to measuring, analyzing and managing inventory provision to: ensure continual improvement throughout the life of the contract and improve stock holding efficiencies. This will ensure: optimum stock levels are sustained; repairable items are returned into the repair loop and consumption is accurately measured.
  - 4.3.2 Provide recommendations on Spare Procurement by analysing the purchase of items against the proposed maintenance plan and recommending changes in procurement requirements, in line with the optimization of the maintenance plan.
  - 4.3.3 Assess spares provisioning and future spares needs, scheduling purchases into the maintenance operation and recommending changes to the range of spares in scope using trending changes in consumption rates & associated spares.
  - 4.3.4 Propose alternative supply chains utilizing the Contractors distribution networks to improve efficiencies derived from data analysis to place the burden of supply on Contractors.
  - 4.3.5 Manipulate shared data to manage class issues and eradicate equipment obsolescence through timely upgrades as they become available and needed (shared with Maintenance & Technical Support in section 3 above).
- 4.4 The Authority will provide the Contractor with the information through as part of the information provided for the Maintenance/Technical Support dashboard either by e-mail or using the MCWE Drop

Box. This information will be provided to the Contractor by the Authority on at least the first Wednesday of every month. Once the Contractor has received any information from the Authority then the dashboard is to be updated and any difference against previous analysis highlighted to allow decisions to be made by the Authority.

- 4.5 The first 6 months, phase 1, of the Contract will provide both the Authority and Contractor the opportunity to refine both Dashboard inputs and the analysis in order to optimize the Dashboard outputs and recommendations, maximizing equipment availability. There will remain the possibility that additional data sources outside of those identified at Table 10, can be passed from the Authority to the Contractor. The frequency of data transfer might increase from the minimum of once a month, particularly with the development of the future projects identified in Section 6 below. At any time that the Contractor has received any new data from the Authority then the dashboard is to be updated and any difference against previous analysis highlighted to allow technical decisions to be made by the Authority.
- 4.6 Through the analysis of the Inventory Support Dashboard, and in dialogue with the Authority, the Contractor is to propose how the use of their global supply chain can be used to optimize MOD inventory stock holdings and reduce supply chain costs. The purpose of this work is to optimize inventory and will allow the Contractor maximize value rebates. The value of the rebate will be dependent on the improvement proposed and the level of depth they can reach within the supply chain or systems infrastructure as explained at Annex Q of the ITN. This is all predicated on effective Inventory Dashboard analysis by the Contractor with recommendations being made from the Contractor to the Authority.



Table 10 - MSS/107 Inventory Support Dashboard Requirements

#### 5. Technical Documentation

The Contractor is to update documentation as outlined at Figure 1 and explained in Table 3 for both Type 23 (hard copy documents) and Type 45 (Digital documents hosted on Data Integrated Services). The Type 26 technical documentation solution is still under development. All digital documentation must be compliant with: S1000D; Defstan 00/601 Part 2 Digital Technical Documentation & S2000M (Digital IPCs).

### 6. Future MOD Information Architecture Updates

- 6.1 The analysis of the data in the Maintenance and Inventory Support Dashboards will provide the detail to implement process improvements to MSS/107. The incentivisation will be the Value Rebate scheme.
- Over the duration of MSS/107 several of the systems at figure 1 will be updated to digital solutions. These will improve the speed at which the Authority can transmit the data highlighted in table 3 & 4 to the Contractor and therefore improve both the quality of data and the speed at which decisions can be made. These systems are still under development and are not currently available for immediate use by the Contractor but will become available over the life of the Contract. The Contractor is to work with the Authority when these projects become available.
- 6.3 Detailed in Table 11 below is the overview development plan for the systems identified at figure 1:



Table 11 - Current MOD Information Architecture Development Plan

6.4 Figure 2 below details the overview of the phased development programme for the Table 11 above:

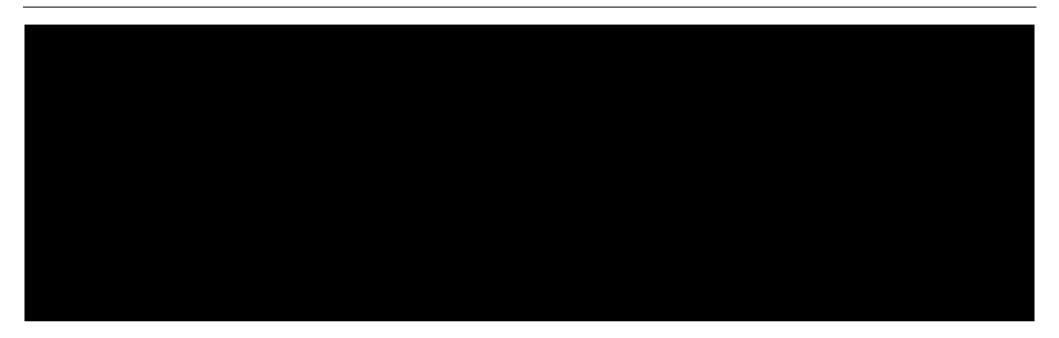


Figure 2: Phased Development Plan for Current MOD Information Architecture

- As part of the process improvement of MSS/107 the Contractor is to track the MOD development projects identified at Table 5 and Figure 2 so that both MSS/107, and the Contractor, can benefit from the wider MOD digitalization programme. In particular once information becomes available for the Support IKM then there will be further developments in the ability to transfer better quality data from the Authority to the Contractor.
- The Contractor is to complete the following phased development plan for receiving data from the Authority in the 3 phases identified within figure 2:
  - 6.5.1 **Phase 1**: Development of Dashboards with the Authority;
  - 6.5.2 **Phase 2**: Alignment to Project Nelson and the development of the transfer of data from a ship to the Contractor to support data inputs to the dashboards;
  - 6.5.3 **Phase 3**: Alignment to Future UMMS and MIMIC 4 and the development of the transfer of maintenance data to the Contractor to support data inputs to the dashboards.
- 6.7 The Contractor is to attend a 2-monthly meeting throughout the contract, Chaired by DES Ships MSS-MP-MDE-ILG-TLS3a in order to review the projects at Table 5 and Figure 2 and discuss how any changes can be incorprated into the data transfer and analysis process. These meetings are to take place using Microsoft Teams.
- Any infrastructure/architecture developments in the transfer of data resulting from the projects outlined in Figure 2 will need to be costed using the TAF process. As part of the Tender the Contractor is to provide the hourly rates for implementing this work.

#### 7. Incentivisation - Performance Standards

- 7.1 Performance for this Activity will be measured against a KPI relating to the delivery of the defined dashboards, and against the timeline submitted during the tender phase. The performance standard is set out at Table 12 below:
  - 7.1.1 Monthly reporting on progress against the delivery timeline and critical deliverables/milestones. The Critical deliverables for the dashboards are;
  - 7.1.2 Within 6 months of the start of the contract to have completed the development phase of the programme and have live dashboards with all required information live and accessible to the required MoD personnel via ModNet resources.
  - 7.1.3 Within 12 months of the start of the contract to have the first set of feedback and improvement suggestions utilising data gleaned from the dashboard data, proposing ways the MoD could improve its processes and reduce spend throughout the duration of MSS/107.

KPI	KPI Description	KPI Measure	Targets	
KPI	KPI Description	RPI Weasure	Green	Red
3	Process Improvement  – Dashboard Development	<ol> <li>Progress against timeline submitted post successful tender. Delivery against planned baseline monthly deliverables.</li> <li>Delivery of the two critical milestones</li> </ol>	95%	<95%

Table 12: KPI 3 – Process Improvement Performance Standard

- 7.2 Process Improvement Improvement submissions
  - 7.2.1 Performance under this Activity will be measured against a KPI relating to the delivery of the required, actionable process improvements being submitted. The performance standard is set out at Table 13 below.
  - 7.2.2 A minimum of one Process Improvement every 2 months must be submitted over the first 12 months of the contract, this number being reviewed annually, to assess what was and was not actionable, and what has been taken on board and implemented. These suggestions are to be submitted prior to the 2-monthly discussion, identified at paragraph 6.7 above.

KPI	KPI Description	I/DI Maccine	Targets	
KPI		KPI Measure	Green	Red
4	Process Improvement - Improvement Submissions	A Minimum of one per 2 months in the first year of the contract.	100%	<100%

Table 13: KPI 4 – Process Improvement – Improvement Submissions