



# Submarine Delivery Agency

## SUBMARINE DELIVERY AGENCY BACKUP ATMOSPHERE MONITORING SYSTEMS (BAMS) STATEMENT OF REQUIREMENT



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PEDT/DPCE/SOR/BAMS

**APPROVALS**

Name	Email Signature	Post Title	Date
<div>Redacted Under FOIA Section 40, Personal Information</div>			

**VERSION CONTROL**

Issue	Description of Change	Date	Requestor
V1	Initial SoR	05.09.23	<div>Redacted Under FOIA Section 40, Personal Information</div>

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# STATEMENT OF REQUIREMENT FOR BACKUP ATMOSPHERE MONITORING SYSTEM FOR SUBMARINES

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## Introduction

1. This document sets out the Statement of Requirement (SoR) for the Backup Atmosphere Monitoring System (BAMS) in submarines, which will be used in the event of failure of the existing Atmosphere Monitoring Systems.

## Background

2. The existing Atmosphere Monitoring System is obsolete with increasing fragility. A Back up system was previously used however this is no longer suitable and cannot be supported.

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3. This SoR defines the Authorities technical requirement to ensure the ongoing monitoring of a breathable atmosphere in submarines, via a backup solution to reduce the safety risks in the event of failure to the existing Atmosphere Monitoring system.

### Top Level Requirement

4. The requirement is for the provision of **Redacted Under FOIA Section 24, safeguarding national security** BAMS units. The units shall be a mitigation in the event of the existing embedded atmosphere monitoring solution failing.
5. All units supplied shall be subjected to Testing and Evaluation in accordance with the Authority's Change Implementation and Assurance Process (CIAP) for major safety modifications in accordance with submarine design authority policy, to ensure a fully accredited system is provided to meet the capability gap.
6. This requirement is to include:
  - a. Provision of **Redacted Under FOIA Section 24, safeguarding national security** BAMS units
  - b. Provision of any required spares (component parts) to support each unit, whether used for carry-on board spares (COB) or stock items, inclusive of a mechanism to replenish any spares throughout the life of the Contract, ensuring spares life is not compromised.
  - c. Capability to purchase additional units and spares (component parts) as and when required by the Authority.
7. The full list of the Authorities denoted requirement can be found at **Annex B** to this SoR.

### Ordering Procedure

8. Order(s) shall be placed by the Authority using the CP&F system. Contractor will be required to be registered with Exostar, to receive orders from CP&F. 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.
9. Receipt of each Order shall be acknowledged by the Contractor within one working day. The lead time stated against each item will commence upon issue of the Order by the Authority once acknowledged by the Contractor. The lead times for each article from acceptance of order up to the date of dispatch to the Authority, or its nominated agent, are Firm and detailed within Schedule 2 – Schedule of Requirements and Schedule 13 – Additional Items Price List. These lead times are the maximum timescales acceptable.
10. Should the Authority require to reduce the quantity ordered, cancel the Order, change 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. 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 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 Ten 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.

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11. Where packaging standards are increased above the level defined within the Original Order, the Contractor shall submit a Firm Price quotation for any additional cost incurred to meet the new packaging standards, within five Business Days from receipt of the amended Order. No additional work beyond the original agreed Order shall begin until the Authority has authorised any additional costs.
12. When circumstances require the Article(s) to be diverted from the original consignment address direct to a vessel the Authority shall amend the original BPA Release, detailing the revised consignment requirements/address. In the event that this requires the Contractor to deliver the items in accordance with Condition 28 then Contractor shall submit a Firm Price quotation for any additional cost incurred within five Business Days from receipt of the amended Release. No additional work beyond the original agreed Order shall begin until the Authority has authorised any additional costs.
13. The Contractor shall dispatch Article(s) to the Consignee address detailed within the BPA Order Release in accordance with Defcon 5J and accompanied DEFFORM 129J.
14. The Contractor shall submit their invoice electronically via CP&F.
15. The Contractor shall supply articles to the specification and part number identified within the characteristics of 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 robustness that will meet the fit, form and function criteria specified.
16. 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.

#### **Tasking Process and Authorisation Form**

17. The Authority may need to initiate additional Tasks to undertake further packages of work. Such Tasks will be initiated by means of a Task Authorisation Form (TAF) which can be found at Schedule 14 of the Contract. The tasking process is outlined at Clause 52 of the Contract.
18. The Tasking process shall be used to manage emerging obsolete items under the Contract.

#### **Spares**

19. The Contractor shall provide:
  - a. List of items within the COB spares package to support a BAMS unit during deployment of **Redacted Under FOIA Section 24, safeguarding national security**
  - b. List of any other spares or components parts required to support a BAMS unit
  - c. The life for any components which are required to support a BAMS unit.

#### **NATO Codification**

20. All BAMS units and spares required to support units are to be codified.
21. The Authority shall initiate the codification process once all technical details and drawings have been provided by the Contractor in accordance with DEFCON 117. The Contractor shall provide ongoing support to ensure this activity is completed.
22. Technical data as defined in DEFCON 117, is required for all items specified in this Contract and not already in the NATO Codification System. The Contractor shall dispatch

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the data or arrange for dispatch of the data from sub-contractors or suppliers on request from the Authority within 30 Business Days.

23. 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.

### **Packaging, Handling, Storage and Distribution**

24. The Contractor shall be responsible for all work and services needed for the procurement of material, the manufacture, installation, testing, preservation, packing, despatching, shipment, and provision of all relevant documentation needed to ensure through life support requirements for the units are met.

#### **Packaging**

25. The Contractor shall comply with the requirements of DEFSTAN 81-41 (Parts 1 to 5) 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:

<b>Packaging Code</b>	<b>Packaging Level</b>
05	UK Level J
06	UK Level N
07	UK Level P
08	Retail Trade Pack

26. The Contractor shall either maintain Military Packager Approval Scheme (MPAS) certification /registration for the Term of this Contract or shall sub-contract such services to an MPAS certified / registered Company against the requirements set out for the design of Military level packaging in accordance with DEFCON 129.
27. 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**

28. 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 61340-5-1:2007 (Basic Specification for Protection of Electrostatic Sensitive Devices).
29. Where static sensitive devices or assemblies are known to be or are suspected to be sensitive to static generated voltages, such Articles shall at all times be handled, identified, and packed in accordance with the requirements of BS CECC 00015 Part 1:1991 (Handling of Electrostatic Sensitive Devices).
30. 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.
31. 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**

32. The Contractor shall identify whether BAMS units or spares require special storage requirements or have a life. Details are to be clearly displayed on the packaging.

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33. Where the Authority places an Order for any spares that has a shelf life then the Contractor shall ensure that the spares have a minimum of **Redacted** Under FOIA Section 24, safeguarding national security of its life remaining on the date of dispatch to the Authority.

### **Distribution**

34. The Contractor will be responsible for all distribution of assets in accordance with the Authorities requirements. All deliveries will be made via MOD FORM 650, the Contractor shall send email copies of 650s to Authority prior to issue to Front Line Customers.
35. If there is a requirement for magnetic assessment, they shall be identified as such on the Purchase Order and consigned via the Land Magnetic Range.
36. The Contractor shall comply with the requirements of DEFSTAN 81-130/1 in respect of the packaging, handling, storage, and distribution of magnetically sensitive Articles.

### **Testing**

37. Factory Acceptance Testing (FAT) per unit shall be completed by the Contractor to demonstrate compliance against the requirements with the testing of the first unit being witnessed by the Authority. The Contractor is to invite the Authority to all FATs and as a minimum the first FAT must be signed off by a member of the Authority. The FAT will take place following Contract award.
38. The Contractor shall test Electro Magnetic Compatibility (EMC) for all units iaw DEFSTAN 59-411, Version 3 and report the findings to the Authority.
39. The Contractor shall test Shock requirements for all units iaw DEFSTAN 08-120 and report the findings to the Authority.
40. Following successful completion of the first FAT, the Authority will request the first BAMS unit is sent by the Contractor to the Authority nominated independent test house (with in the UK) for independent testing with their approved test house to ensure compliance against the requirements and compatibility with the existing atmosphere monitoring system. This independent testing of a BAMS units (not a prototype unit) can take up to 4 months.

### **Documentation**

41. The following documentation and supporting material shall be provided, where applicable, by the Contractor for acceptance by the Authority, including any other supporting documentation identified by the Contractor. Timelines for the provision of these documents are to be confirmed at the initial kick off meeting between the Contractor and the Authority:
- a. Factory Acceptance Test specifications,
  - b. Source data including User manual with suitable drawings of explanation, in accordance with DEFCON 117,
  - c. Calibration certificates,
  - d. Documentation which evidences that the BAMS units supports all required standards,
  - e. Environmental test data for each unit,
  - f. Operator's manuals,
  - g. Maintenance manual with a maintenance schedule and Job Information Cards (JIC), to support a Reliability Centred Maintenance (RCM) study,
  - h. Training manuals,

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- i. Guidance relating to the transportation and storage requirements for the BAMS units,
- j. Certificates of conformity,
- k. EMC test data for individual detectors. In accordance with (iaw) DEFSTAN 59-411,
- l. Safety Case Report,
- m. Transportation and Storage information iaw DEFSTAN 08-123,
- n. Spares list,
- o. Details of Commercial warranty arrangement for the Contract.

## Standards

42. The Contractor shall have a Quality Management System (QMS) certified to ISO9001:2015 or have previously demonstrated that they will obtain ISO9001:2015 certification prior to Contract Award.
43. The following standards and any others referenced throughout this SoR are the target standards to be achieved for this requirement to ensure compatibility with UK submarines. Any proposal will be assessed against these standards and the Authority's concession and agreement process.

Standard	Description
AQAP-2105 Edition 2	NATO Requirements for Quality Plans
AQAP-2110 Edition D Version 1	NATO Quality Assurance Requirements for Design, Development & Production
AQAP-2310 Edition B Version 1	NATO Quality Management System Requirements for Aviation, Space and Defence Suppliers
DEF STAN 05-057	Configuration Management of Defence Materiel
DEF STAN 05-061 Pt: 1	Quality Assurance Procedural Requirements – Concessions-Issue 6
DEF STAN 05-135	Avoidance of Counterfeit Materiel
DEF STAN 05-138	Cyber Security for Defence Contractors- Issue 2
DEF STAN 59-411	Electromagnetic Compatibility
DEF STAN 08-120	Requirements for Determining the Shock Strength of Equipment
DEF STAN 00-056	Safety Management Requirements for Defence Systems
DEF STAN 00-051	Environmental Management Requirements for Defence Systems
DEF STAN 81-41	Packaging and labelling

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44. In addition, to the aforementioned standards, all data sheets for materials used must be submitted to the Authority to check compliance against the Submarine Toxicity Database (STD). The Authority will request updates where necessary to ensure compliance with the STD.

### **Project Management Requirements**

45. The table of Project Management contract deliverables can be found at **Annex A**.

### **Project Reviews**

46. The Contractor shall support and attend the following meetings to support the delivery of all requirements throughout the term of the Contract. These meetings shall be captured within the Contractors PMP.
- a. Contract start up meeting,
  - b. Monthly Project reviews throughout the unit production period and/or delivery period for initial **Redacted Under FOIA Section 24, safeguarding national security** units,
  - c. Quarterly Project reviews following delivery of initial **Redacted Under FOIA Section 24, safeguarding national security** units,
  - d. Contract close meeting,
  - e. The Contractor shall maintain the minutes or record of decisions from each meeting and shall review and publish them within 5 working days.
47. The Contractor shall provide a Performance and Financial Report (P&FR) in accordance with DEFSTAN 647. These shall be provided initially at the monthly project reviews during the unit production/delivery period. Upon completion of the unit production/delivery period, these shall be submitted quarterly. **[CDRL 1]** The P&FR shall consist of, but not be limited to, the following:
- a. Details of and progress on delivery of BAMS units **Redacted Under FOIA Section 24, safeguarding national security**
  - b. The value of work completed as a % against the total Order value, to initiate from the 0% through to completion with report finalisation at 100%
48. The Contractor shall support ad-hoc meetings and reviews identified during the course of the Contract.

### **Business Continuity**

49. The Contractor shall have a Business Continuity Plan detailing the procedures and facilities that will be in place to ensure a continuity of service in the event of occurrences such as, but not limited to, unexpected failures of equipment or loss of one or more key members of staff and loss of premise due to fire, flood etc.
50. A full business continuity plan is to be submitted to the Authority Project Manager for comment, consideration, and approval, within 6 weeks from contract start-up meeting. All associated risks are to be captured in the Contractor's risk register along with identified mitigations and resultant actions.

### **Project Management**

51. A draft Project Management Plan (PMP) shall be submitted by the Contractor with their tender response. A final version of the PMP shall be submitted by the Contractor for approval by the Authority within 6 weeks of the contract start date. **[CDRL 3]**

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52. The PMP shall incorporate all scope under the Contract, reflecting the full programme of work and shall include, but not be limited to:
- a. Scope & Objectives
  - b. Project governance
  - c. Risk & issue management
  - d. Schedule management
  - e. Cost management
  - f. Audit and verification activities to ensure compliance with the Contract
  - g. Earned Value Management
53. The PMP shall be a 'live' document, updated by the Contractor as necessary throughout the duration of the Contract but particularly prior to each Project Review Meeting, to show proposals and details of all activities necessary to meet the requirements of the Contract.

### **Schedule Management**

54. The Contractor shall provide a delivery schedule which is to be included in the draft and final PMP and shall be based upon the requirements set out within this SoR. **[CDRL 4]**
55. The schedule shall be maintained and updated by the Contractor to reflect any changes, within the requirements set out within this SoR, and the Tender response. Any changes to the schedule shall be communicated to the Authority Project Manager for review and acceptance/rejection no later than 1 week of the change being proposed. The schedule and any updates are to be provided for review at all project review meetings. **[CDRL 5]**

### **Risk and Issue Management**

56. The Contractor shall conduct a full Risk and Issues assessment with particular attention to schedule, technical, performance, cost, proposed mitigation actions and commercial risks associated with the project. The assessment shall be included within a risk register, which shall be supplied to the Authority 6 weeks after contract award. **[CDRL 6]**
57. The Contractor shall make the Authority aware of emergent risks which will impact upon the Contract within 20 Business Days of identification, regardless of whether the Contractor is responsible for taking mitigation action. The Risks and Issues register shall be reviewed at project review meetings and updated as required. **[CDRL 7]**

### **Safety and Environmental Management**

58. The Contractor shall undertake Safety and Environmental Management for the duration of the Contract, in accordance with MOD Safety and Environmental Policy, associated Legislation, Defence Safety Authority (DSA) and Defence Maritime Regulator (DMR) publications, including but not limited to:
- a. Health and Safety at Work Act 1974
  - b. ISO 14001 Environmental Management Systems
  - c. ISO 45001 Health and Safety Management Standard
  - d. DEFSTAN 00-056 Safety Management System Requirements for Defence Systems
  - e. DEFSTAN 00-051 Environmental Management Requirements for Defence Systems
  - f. DSA01.1 Defence Policy for Health, Safety and Environmental Protection

- g. DSA02-DMR Defence Maritime Regulations for Health, Safety and Environmental Protection
- h. DSA03-DMR Naval Authority Rules for the Certification of MoD Shipping
- i. DSA02-DNSR Defence Nuclear Safety Regulations of the Defence Nuclear Enterprise
- j. DSA03-DNSR Defence Nuclear Safety Regulations of the Defence Nuclear Enterprise – Guidance

### **Safety and Environmental Management Plan (SEMP)**

59. The Contractor shall deliver, maintain, and implement a SEMP which recognises and applies the principles within DMR DSA/02 and DEFSTAN 00-56.
60. The SEMP shall detail the application of an appropriate Safety and Environmental Management System and shall include, but not be limited to, the following elements:
  - a. Outline description. Description of the equipment, clearly defining the purpose and capability expected of the project. Clearly identify the range, or variants, of the equipment covered, its purpose, operating cycle and environment and defining interfaces with other equipment and levels of competence expected of the Operators/maintainers;
  - b. Safety & Environmental Management System (SEMS). Details of the SEMS including its aims and objectives, the managerial and technical tasks to be undertaken and the organisation responsible for implementing them;
  - c. Responsibilities, safety and environmental management procedures, and activities that are used to identify, analyse, describe, classify, and mitigate safety risks to As Low As Reasonably Practicable (ALARP) and environmental risks and issues to Best Practicable Environmental Option (BPEO);
  - d. the definition, categorisation, and classification of hazards;
  - e. early identification of hazards;
  - f. a procedure for the management of residual hazards and for ensuring that new potential hazards are identified as they arise;
  - g. Audit plan;
  - h. The Contractors obligations in supporting the management of the Authority owned Hazard Logs for the Master equipment, including but not limited to, attendance at Hazard Identifications (HAZID's) Hazard Review Groups;
  - i. Support to the Authority Safety and Environmental Committee as required;
  - j. Safety and environmental related documentation will be provided to the Authority upon request and periodic audits will be conducted, at the Authority's discretion, to ensure compliance with the overarching Safety and Environmental Cases. For each change-task raised, an assessment will be conducted to identify any impact on the overarching Safety and Environmental Cases;
  - k. Environmental Impact Screen and Scoping Study;
  - l. Environmental Impact Assessment (if applicable);
  - m. Legislation compliance matrix.
61. The Contractor shall deliver the initial draft SEMP with their Tender response. The final SEMP is to be delivered by the Contractor, 2 weeks following the first FAT. **[CDRL 8]**

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### **Safety Environmental Case Report (SECR)**

62. The Contractor shall deliver a SECR which recognises and applies the principles within Def Stan 00-056 – Safety Management Requirements for Defence, and Def Stan 00-051 – Environmental Management Requirements.
63. The Contractor shall deliver the final SECR 4 weeks following Contract award. **[CDRL 9]**
64. In support of the generation of the Authority SECR, the Contractor shall attend all Safety & Environmental meetings in support of hazard identification and assessment.

### **Information and Security Management**

65. The Contractor is to ensure any data relating to this Contract is stored and transferred in a manner which has high resilience, integrity, availability, and protection from unauthorised access commensurate with classification of the information. Any data transmitted through the use of magnetic or optical media, shall be done in accordance with extant MoD security guidance.
66. The Contractor must demonstrate their current level of compliance against the controls set out in DEFSTAN 05-138 Issue 3 (Cyber Security for Defence Suppliers). If necessary, a viable interim solution is to be provided for data interchange and storage to cover foreseen delays to the provision of the final secure service post contract start date. It is the Contractor's responsibility to ensure that any sub-contractor adheres to all MoD security requirements commensurate with task.
67. The Contractor shall create and maintain an Information and Security Management Plan (ISMP) in accordance with GovS: 007 Security and the HMG Security Framework Policy. The Information and Security Management Plan (ISMP) should detail the accreditation of the Contractor's IT System. The Contractor shall deliver a draft ISMP within 12 weeks of the contract start date. Following a review from the Authority, the Contractor shall amend the ISMP within 2 weeks to gain approval. **[CDRL 10]**

### **Quality Plan**

68. 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 (Edition C Version 1). The QP shall address two complementary roles:
  - a. It will describe and document the Contract specific QMS requirements necessary to satisfy the Contract requirements; and
  - b. It will describe and document the planning of product realisation in terms of quality requirements for the product, needed resources, required control activities (verification, validation, monitoring, inspection, and testing) and acceptance criteria.
69. The QP shall address all areas of AQAP 2105 but describe in detail:
  - a. Quality Management System activities as applied to the achievement of contractual requirements (AQAP 2105 Sect. 4.4);
  - b. Planning and control procedures for product realisation (AQAP 2105 Sect 4.7.1);
  - c. Planning and control of design (AQAP 2105 Sect. 4.10.5);
  - d. Configuration management control including application for concessions (AQAP 2105 Sect 4.10.2);

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- e. Purchasing including control of sub-suppliers and 'flow down' of prime contract conditions (AQAP 2105 Sect. 4.10.7);
  - f. Records of Contract/management review carried out both within the Company and with all sub-suppliers (AQAP 2110, Sect. 3.1);
  - g. Control of non-conforming product (AQAP 2105 Sect. 4.11
  - h. Improvement and corrective actions (AQAP 2105 Sect. 4.12); and
  - i. Monitoring and measurement of Customer satisfaction (AQAP 2105 Sect. 4.13).
70. The QP shall be delivered to the Quality Assurance Representative (in this case the Authority Project Manager) as identified on DEFFORM 111 within 6 weeks of the Contract Award Date. Following a review from the Authority, the Contractor shall amend the QP, if required, within 2 weeks to gain approval. **[CDRL 11]**
71. The Contractor shall throughout the duration of the Contract advise the Authority of any impact on product quality or on the process and controls detailed within the QP resulting from revisions or changes to the Contractors QMS. All updates will be agreed with the Authority and issued within 20 Business Days of submission to the Authority.

## Glossary of Abbreviations

72.

ALARP	As Low As Reasonably Practicable
AQAP	Allied Quality Assurance Procedure
BAMS	Back-up Atmosphere Monitoring System
BPEO	Best Practicable Environmental Option
BR	Book of Reference
CIAP	Change Implementation and Assurance Process
CMP	Configuration Management Plan
COB	Carry on board (COB)
DEFCON	Defence Condition
DEFSTAN	Defence Standard
DMR	Defence Maritime Regulator
DSA	Defence Safety Authority
EMC	Electro Magnetic Compatibility
FAT	Factory Acceptance Testing
HAZID's	Hazard Identification
IAW	In accordance with
ISMP	Information and Security Management Plan
JIC	Job Information Cards
MPAS	Military Packager Approval Scheme
OF	Order Form
P&FR	Performance and Financial Report
PMP	Project Management Plan
RCM	Reliability Centred Maintenance
QMS	Quality Management System
QP	Quality Plan
QPR	Quarterly Progress Review
SECR	Safety & Environmental Case Report
SEMP	Safety & Environmental Management Plan
SEMS	Safety & Environmental Management System
SOR	Statement of Requirement
STD	Submarine Toxicity Database

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TAF

Task Authorisation Form

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**ANNEX A- Project Management Requirements**

Reference	Title	Description	Due	Format (where applicable)
CDRL 1	Performance and Financial Reports.	Update on performance.	Performance report provided monthly during unit production/delivery period. Once unit production/delivery period has ended, Performance reports are to be provided quarterly.	MS Word.
CDRL 2	Business Continuity Plan.	Plan detailing continuity for the project.	6 weeks from Contract Kick off meeting.	MS Word.
CDRL 3	Project Management Plan. (PMP)	Plan detailing how the project is to be managed and delivered.	Draft to be returned with Tender. Final version of the PMP is to be submitted 6 weeks after Contract award for approval by the Authority.  Updated when required to support project review meetings.	MS Word.
CDRL 4	Project Schedule. (To be provided with PMP)	Schedule of project delivery.	Draft to be returned with Tender. Final version to be submitted with the PMP 6 weeks after Contract award.	MS Word.
CDRL 5	Project Schedule maintenance.	Update to the Schedule of Delivery.	To be communicated to the Authority Project Manager for review and acceptance/rejection no later than 1 week of the proposed change.	MS Word.

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			Schedule to be reviewed at project review meetings.	
CDRL 6	Risks and Issues Register.	Risk and Issues Register.	6 weeks after Contract award.	MS Word, Excel.
CDRL 7	Risks and Issues Management.	Identification of new risks that impact the project.	Within 20 days of the risk/issue being recognised. Risks and issues are to be reviewed at project review meetings.	MS Word, Excel.
CDRL 8	Safety & Environmental Management Plan.	Plan detailing the strategy for assessing Safety & Environmental matters and outlines the Safety and Environmental Management System.	Draft to be returned with Tender. The final version is to be submitted 2 weeks following the first FAT.	MS Word.
CDRL 9	Safety & Environmental Case Report.	Report summarising the Safety & Environmental case.	4 weeks after Contract award.	MS Word.
CDRL 10	Information & Security Management Plan.	Plan detailing information and security.	12 weeks after Contract award.	MS Word.
CDRL 11	Quality Plan.	Plan detailing the quality requirements for products, required control activities and acceptance criteria.	6 weeks after Contract award.	MS Word.

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## ANNEX B- Table of Requirements

ID	Requirement	Requirement Type	Required standard/measure for Contractor to achieve	Authority aim
R 1	Redacted Under FOIA Section 24, safeguarding national security	Technical.	Redacted Under FOIA Section 24, safeguarding national security	The units shall detect gas measurements to the required standard.
R 2	Redacted Under FOIA Section 24, safeguarding national security	Technical.	Redacted Under FOIA Section 24, safeguarding national security	The units shall detect gas measurements to the required standard.
R 3	Redacted Under FOIA Section 24, safeguarding national security	Technical.	Redacted Under FOIA Section 24, safeguarding national security	The units shall detect gas measurements to the required standard.
R 4	The BAMS unit must be capable of connecting to the existing atmosphere monitoring equipment to utilise the pump flow of gases.	Technical.	Redacted Under FOIA Section 24, safeguarding national security	To ensure that the units can connect to the existing equipment to utilise the pump flow of gases.
R 5	The BAMS shall be contained within a shock proof box in accordance with (iaw) DEF-STAN 08-120.	Operating standards.	The storage box is to be no larger than 450(w) x 340(d) x 820(l) mm in size.	The units shall be stored safely within the defined dimensions.
R 6	The BAMS units and all spares and component parts shall be able to operate and be stored onboard a submarine (within the specified environmental boundaries iaw DEFSTAN 08-123. (9.1 Design and Test requirements- Equipment Environmental Category C)	Operating standards.	Redacted Under FOIA Section 24, safeguarding national security	The units shall operate and be stored within the described environmental boundaries.
R 7	The BAMS unit shall be compatible with a submarine power supply.	Operating standards.	Redacted Under FOIA Section 24, safeguarding national security	The units needs to be compatible with a submarine power supply.

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ID	Requirement	Requirement Type	Required standard/measure for Contractor to achieve	Authority aim
R 8	Redacted Under FOIA Section 24, safeguarding national security	Operating standards.	Redacted Under FOIA Section 24, safeguarding national security	The units are a backup solution to the critical requirement to ensure that the monitoring of the atmosphere is maintained at all times, simplicity in calibration and the capability for RN ship's staff to maintain units supports this requirement.
R 9	All of the operating functions for the BAMS units will be within the capability of RN ship's staff.	Operating standards.	All operating requirements, including set to work, connection to the existing atmosphere equipment must be within the capability of RN ship's staff.	It is vital that the backup solution to atmosphere monitoring is simplistic in terms of its use to ensure that the units can be deployed and set to use with minimal effort and resource. RN Ship's staff are electrically trained, qualified, and responsible for operating the existing atmosphere monitoring equipment.
R 10	The Authority requires Redacted Under FOIA Section 24, safeguarding national security BAMS units to be delivered to MOD stores within the UK.	Delivery schedule.	Redacted Under FOIA Section 24, safeguarding national security	The Authority shall receive Redacted Under FOIA Section 24, safeguarding national security units within the required timescales. (Maximum 22 months from Contract award)
R 11	All relevant user guides or manuals are to be provided with BAMS units.	Training.	The BAMS units are to be simple in terms of their use and therefore maintainers and/or operators shall obtain competence in operating the units through viewing user guides or manuals.	The Authority require a backup solution which is simplistic in terms of use and one where operators and/or maintainers are not required to attend training courses in order to obtain competence.
R 12	The BAMS unit shall be able to be disposed of without negatively impacting the environment or causing danger to life, in a safe and environmentally compliant way.	Operating standards.	The Contractor is to provide a disposal plan which is appropriate to the Authority and will ensure that BAMS units can be disposed of without impacting the environment or causing danger to life. If units require a return to Contractor process to support disposal, this shall be costed within the Contract.	The units need to be able to be disposed of safely.
R 13	A technical support point of contact is to be provided for the BAMS units who can be contacted during normal office hours, Monday- Friday 09:00-17:00, to answer queries in relation to BAMS operating.	Training/support.	The Contractor is to provide technical support where required throughout the life of the contract.	The Authority require a process to mitigate any potential technical issues that may occur, outside the remit of onboard operators and/or maintainers.

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ID	Requirement	Requirement Type	Required standard/measure for Contractor to achieve	Authority aim
R 14	The BAMS units shall allow users to view information via a digital display, for the purpose of data capture.	Operating standards.	The BAMS unit shall have a digital display which allows users to view and record BAMS data.	Operators and/or maintainers require a digital display so they can view.

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