MINISTRY OF DEFENCE

DIVING LIFE SUPPORT TEAM

de&S MCS

STATEMENT OF WORK FOR THE IN-SERVICE SUPPORT OF TRANSPORTABLE MANNED COMPRESSION CHAMBERS

Introduction

This Statement of Work (SOW) defines the scope for the In-Service Support of Transportable Manned Compression Chambers (TMCC). The requirement is for the activities specified in the table below.

1. Activities to be undertaken

SOR Item Number	Title	Description
1	**Core Activities**	To include management of the project, data, configuration, safety, technical support, documentation and customer meetings, quality, risk, obsolescence.
2	**Provision of Spares**	Supply of spares as and when required by the Authority in accordance with the conditions of contract.
3	**Repair Services**	Repairs conducted as and when required by the Authority in accordance with the conditions of contract.
4	**Programmed Refurbishment**	Planned refurbishment to maintain chambers and comply with Navy Command availability programme.
5	**Non Core tasking**	Miscellaneous tasks which arise in response to a specific unplanned event, problem or requirement.
6	**Option: Development of AC/BS and CCBS Development**	Design and development of an updated AC/BS and CCBS system to address current obsolescence concerns.

The following tasks are to be completed. They are detailed as concurrent work packages and will likely be iterated throughout the duration of the project.

1 : Core Activities	
1.1 : Project Management & Documentation	
1.1.1	Interface management and co-ordination with UEW, including any necessary liaison with the Ministry Authorities and subcontractors, and the planning, progress reporting and resource monitoring of activities essential to the successful completion of the equipment programme.
1.1.2	**Project Management Plan (PMP)**

	The Contractor shall produce and maintain a Project Management Plan. This shall be delivered within 3 months of contract award and reviewed on a quarterly basis throughout the Contract. The PMP shall include the following as a minimum: i) Details of key project objectives and/or requirements, scope and exclusions, constraints, ii) Identification and management of stakeholders, iii) Risks, issues and assumptions, likely to refer to the related registers and plans iv) Description of project approach, including project management lifecycle and its relationship with other applicable lifecycles such as the acquisition lifecycle v) Project organisation, including key role descriptions, terms of reference and authority levels vi) Plans for the management of subcontractors vii) Plans for the management of GFA, viii) High level project plan / schedule, including key products, activities and resources
1.1.3	The Contractor shall maintain a Business Continuity Plan (BCP) for the duration of the Contract and shall deliver a copy of the BCP to the Authority upon request. This shall be reviewed on an annual basis.
1.1.4	The Contractor's BCP shall set out the arrangements that are to be invoked to ensure that the business processes and operations, required by the Contractor to provide the services covered under this Contract remain supported, including but not limited to: a) the alternative processes, (including business processes), options and responsibilities that may be adopted in the event of a failure in or disruption to the business processes and operations; and b) the steps to be taken by the Contractor upon resumption of the business processes and operations in order to address any prevailing effect of the failure or disruption including a root cause analysis of the failure or disruption.
1.1.5	Obligations for submission frequency of any Plans stated in this document are in accordance with Annex L(Deliverable Documentation)
1.2 : Data and Configuration Management	
1.2.1	Maintain a history of equipment / system design development and modification and available to the Authority upon request.
1.2.2	The monitoring of design database for incidence of re-active obsolescence insofar as it affects equipment support and notification of the Authority.
1.2.3	Contractor shall complete and maintain the Intellectual Property Register at Annex K. It is the Contractor's obligation to notify the Authority of any changes to the IPR information at Annex K. Changes will be implemented through a formal contract amendment.
1.2.4	Contractor shall maintain the GFA list and report in accordance with DEFCON 611 and 694. GFA list shall be issued by the Contractor prior to contract award and maintained on an annual basis.
1.2.5	Contractor shall produce and maintain equipment handbook – [redacted] The equipment handbook shall include all fault finding, preventative and corrective maintenance. The equipment handbook shall be produced in the agreed DLS format initially and subsequently updated to comply with Def Stan 02-40.
1.2.6	An annual review of the BR is to be undertaken and all extant issues captured. Editorial changes are to be made within 6 months, routine changes within 2 months and safety related changes within 2 weeks. A Microsoft Word copy of the BR is to be available to the APM to enable changes to be drafted.

1.2.7	The BR shall be delivered to the APM on disk in indexed .Pdf format to enable upload to BR1.
1.2.8	AIL's shall be sent to the APM by the contractor for distribution to Unit's holding the BR.
1.2.9	TMCC Equipment / maintenance LSPECs shall be maintained by the contractor ensuring all maintenance / BR changes are captured.
1.2.10	Each TMCC shall have a 'Log Book' in which all maintenance is recorded and certification held. The log book shall be issued with each TMCC.
1.2.11	Contractor shall apply to codify new items within 3 week of request by the Authority in iaw DEFCON 117. Evidence of application to codify new items shall be provided upon request
1.2.12	Where a life extension by concession to a refurbishment is required, the Contractor shall ensure that all necessary documentation to support and justify the concession will be provided to the Authority – this shall include the postponement of examination certificate from the relevant Insurer.
1.2.13	Pursuant to DEFCON 606 (Change and Configuration Control Procedure), the Contractor shall implement and maintain a Configuration Control Management Plan in accordance with DEFSTAN 05-57 (Issue 6) which defines the configuration control process to be followed for the duration of the Contract. This shall be provided within 6 months of contract award and reviewed on an annual basis.
1.3 : Technical Support	
1.3.1	Investigations of Defect Reports (S2022) received, including recording, collating and analysis (DRACAS), and provide a technical written response through to completion. The contractor shall complete its obligations within the following time scales: [redacted]
1.3.2	Provision of an APM enquiries point during normal office hours to provide a technical information service; respond to specific equipment-related minor queries from APM/UEW DLS Team and provide written response. An enquiry shall be no more than three man day's effort, with a maximum of 60 man days per year. Over and above the aforementioned periods, Non-Core Tasking shall apply.
1.3.3	The Contractor shall maintain a minor concession log and process major[1] concessions in accordance with DEFSTAN 05-61 part 1.
1.4 : Customer Meetings & Progress Reports	
1.4.1	In-Service Support (ISS) meetings between the Contractor and the Authority shall be held on the basis of two per year.
1.4.2	Project Safety Committee (PSC) meetings between the Contractor and the Authority shall be held on the basis of one per year. Extra ordinary PSC's shall be held if required.
1.4.5	All meetings shall be held at the Contractor's premises, MOD Abbey Wood or an agreed location such as Horsea Island, Portsmouth.
1.4.6	The distribution of formal minutes shall be provided by the Contractor for all meetings. Minutes shall be approved by the APM prior to release. Draft minutes shall be provided by the Contractor to the APM within 10 working days of the meeting.

[1] deficiency that could adversely affect diving & life support worthiness, safety, configuration, maintenance, life, reliability or functioning of the equipment, or when cost or agreed delivery date is likely to be impacted, or when a departure is readily apparent and might cause concern for the user

1.4.7	A Contract start-up meeting shall be held within six weeks of Contract placement at the Contractor's premises.
1.4.8	In accordance with DEFCON 604 (Progress Reports) the Contractor shall provide a monthly Progress Report to the APM no later than 5 working days after the end of the month. In accordance with DEFCON 604, the Progress Report shall contain as a minimum; i) Performance and Delivery of the Contractor Deliverables inclusive of a remarks column which provides an explanation for any work in progress (WiP), deliveries (planned and completed), configuration state (if any shortfall) or completed refurbished equipment, delays and what is being done to address them. ii) The Contractor's judgement of the current KPI rating for that quarter (including rationale). iii) A historical record of the KPIs The requirement to provide progress reports shall continue until such time as all outstanding deliveries and contractual obligations have been completed by the Contractor, even if the date for authorising new orders under the Contract has passed.
1.4.9	The Contractor shall submit financial reports quarterly iaw DEFCON 647.
1.5 : Safety Management	
1.5.1	The Contractor shall apply proactive Safety Management throughout the duration of the Contract including all the equipment within the bounds of this Contract. The Contractor shall operate a safety and environmental management system that is compliant with Def Stan 00-056 and the guidance within POSMS, POEMS and DSA02. The Contractor will produce and maintain a Safety & Environmental Management Plan iaw Def Stan 00-056, detailing the activities to be undertaken during the contract, providing this to the Authority for approval. The Contractor shall bring to the immediate attention of the Authority any issues that they identify, which could impact the safety case for the equipment and/ or harm users or maintainers of the equipment.
1.5.2	The Contractor shall maintain the Safety Case and Environmental Case and shall review and update the Safety Case Report (SCR) as required by the Authority. The Draft Safety Case Report shall be reviewed by UEW PT and any comments must be addressed prior to the SCR being submitted, by the UEW Safety Manager, to UEW-TL for his Authorisation signature. TL Signature shall signal acceptance of the deliverable. The hazard log and the underlying Safety Case shall be reviewed annually at the Authority-chaired Project Safety Committee. The Contractor shall support this meeting by providing appropriate SQEP representation. The Contractor may be required to provide secretarial support to the Committee.
1.5.3	The Contractor shall provide access to records, including Sub-Contractor records, for contractual purposes; to enable a MOD appointed Independent Safety & Environmental Auditor (ISA) to carry out safety audits and other assessment activities to meet MOD safety requirements.
1.5.4	Provision of Safety Management during the In-Service and Disposal phases. Maintain and update as required the TMCC Safety Case Report and Hazard Log, as directed by the Authority.
1.6 : Quality Management	
1.6.1	The Contractor shall produce and maintain a Quality Management Plan in accordance with the conditions and standards identified in table at 1.6.2, DEFCON 602A (Deliverable Quality Plan) and Annex L (Deliverable Documentation).

1.6.2 In addition to the General Conditions of the Contract, the Quality Assurance (QA) requirements herein and the Codes, Standards and Specifications detailed in the below table shall apply:

Serial No	Part/ Vol	Edition/Amdt/Issue	Title
AQAP 2210		Edition A Version 2	NATO Supplementary Software QA Requirements (dated Sept 15)
AQAP 2110		Edition D Version 1	NATO Quality Assurance Requirements for design, development and production (date June 16)
DEF STAN 05-61	Part 1	Issue 6	Quality Assurance Procedural Requirements – Concessions
DEF STAN 00-56	Part 1	Issue 6	Safety Management Requirements for Defence Systems
DEF STAN 05-57		Issue 6	Configuration Management of Defence Materiel
DEF STAN 02-41		Issue 4	Requirement for Configuration Management of Surface Ships
[redacted]		[redacted]	[redacted]
DEF Stan 05-135		Issue1	Avoidance of Counterfeit Materiel
DEF Stan 05-61	Part 1	Issue 6	Concessions
DEF Stan 05-61	Part 4	Issue 3	Quality Assurance Procedural Requirements - Contractor Working Party
DEF Stan 05-99		Issue 4	Managing Government Furnished Equipment in Industry
DEF Stan 08-107		Issue 4	Cutting, Welding and Corrosion Protection of Aluminium Alloy Military Equipment
DEF Stan 81-041	Part 1	Issue 8	Introduction to Defence Packaging Requirements
DEF Stan 81-130		Issue 4	The Transportation, Handling, Storage and Packaging of Magnetically Sensitive Equipment
ISO 9001:2008			Quality Management Systems
ISO 14001:2004			Environmental Management Systems
BS EN 61340-5-1:2007			Electrostatics. Protection of electronic devices.

1.6.3 The Contractor shall carry out the work to the requirements of ISO 9001:2008 and as applicable the appropriate standard in the table at 1.6.2. All materials and components employed in the repair of these equipments shall be appropriate for the task.

1.6.4 The Contractor shall ensure the protection of all equipment at risk of electrostatic discharge damage in accordance with DEF STAN 08-107 (Issue 4) and BS EN 61340-5-1: 2007. All PECs, Modules, Sub-assemblies and Assemblies containing or comprising electronic components and individual components are defined as Electrostatic Sensitive Devices (ESSDs).

a) The Contractor when engaged in the repair, servicing and packaging of equipment containing such ESSDs shall provide adequate measures for protection. Similar facilities shall also be provided by the Contractor when their employees carry out work on-board or at shore bases.

	b) Handbooks, Setting-to-Work Instructions and other equipment related documents should include a “Warning Page” notifying the presence of ESSDs. c) Contractors are to advise UEW Quality Focal Point of any areas where they are not compliant with BS EN 61340-5-1, and to advise if there are any associated risks. This shall be reviewed by UEW Quality Focal Point (at box 7 of DF111) who shall advise the APM accordingly.
1.6.5	[redacted]
1.6.6	With regards to the rectification of any Article(s) found magnetically unsuitable and where the Contractor is responsible for such failure, an investigation shall be carried out with the Authority and Contractors QA representative to establish what course of action is required. The investigation shall be undertaken within two weeks of notification of defect. Any additional costs to rectify the defective Article(s) shall be at the expense of the Contractor.
1.7 : Obsolescence Management	
1.7.1	The Contractor shall be responsible for the identification of obsolescence issues associated with TMCC equipment for the duration of the Contract and shall inform the APM of the consequent impact on the equipment’s build standard, in-service availability, reliability, maintainability and operational capability.
1.7.2	The Contractor shall develop and submit an Obsolescence Management Plan (OMP) for managing the transition from availability from the original manufacturer to unavailability, of parts and / or material required for the performance of this contract. This shall be delivered within 6 months of contract award and reviewed on a quarterly basis.
1.7.3	The Obsolescence Management Plan (OMP) shall detail all of the activities that the Contractor undertakes to identify and mitigate Obsolescence Concerns and to identify and resolve Obsolescence Issues. The activities detailed within the OMP shall cover all of the equipment that has been declared within the scope of this contract. The Contractor shall ensure and be able to demonstrate that any mitigation of Obsolescence Concerns, or resolution of Obsolescence Issues, are implemented for the most cost effective through life solution, regardless of contract duration. The APM will be responsible for advising the Contractor of any changes to the OSDs so that changes to through life assumptions can be made. The obsolescence plan shall be reviewed on a quarterly cycle and updated accordingly by the Contractor following agreement of any changes with the APM.
1.7.4	The Contractor shall implement a re-active Obsolescence Management strategy as agreed with the Authority. This shall include as a minimum: i) The on-going identification and review of Obsolescence Concerns and Obsolescence Issues on a re-active basis (i.e. when ordering parts) over the duration of the Contract. ii) The identification of mitigation action for Obsolescence Concerns as they arise throughout the duration of the Contract; iii) The identification of resolution action for Obsolescence Issues This strategy shall include, but is not limited to, obsolescence of components, assemblies, sub-assemblies, piece parts, and material (hereafter referred to for purposes of this section only as "parts and/or material").

1.7.5	Any configuration changes due to obsolescence shall be approved in accordance with the Configuration Management process defined in this contract under DEFCON 606.
1.7.6	The Contractor shall ensure all known Obsolescence Issues and forecasted Obsolescence Concerns have been identified and have mitigation plans. Not less than 12 months before contract end, the Contractor shall transfer this data to the Authority which shall fall within the negotiated contract price. The Contractor shall ensure that the Authority shall have the right to use this data.
1.7.7	The Contractor shall be liable for all costs incurred with the identification of Form Fit Function equivalents to resolve the Obsolescence Concern or Obsolescence Issue that require no re-design effort in accordance with Para 1.7.4. The costs for which the Contactor is responsible include, but are not limited to, the costs of investigating part availability, locating suitable part replacement, vendor interface, engineering efforts, and documentation changes. The contractor shall advise the APM if the embodiment of the Form Fit Function equivalents have an impact on the TMCC equipment refurbishment price schedule (Annex E to contract). Whenever applicable, the Authority shall authorise an amendment to the refurbishment price schedule prior to embodiment of the Form Fit Function equivalents. The contractor shall advise the APM if the Form Fit Function equivalents have an impact on the Spares List price schedule (Annex C to contract) or the Repairs List price schedule (Annex D to contract). The Authority shall authorise contract amendments as applicable prior to the placement of subsequent CP&F contract item orders.
1.7.8	The Authority shall be responsible for all other costs associated with: - the mitigation of Obsolescence Concerns by Planned System Upgrades and Risk Mitigation Buys; - the resolution of Obsolescence Issues excluding Form Fit Function (Equivalent) replacement. Obsolescence resolutions outside the scope of the Fit, Form and Function as identified above (and in Para 1.7.7) shall be funded by the Authority through a non-core task.
1.7.9	Any obsolescence that necessitates a Non-Core Task, the Contractor shall demonstrate VFM by submitting an Obsolescence Report to the Authority. This report will include but is not limited to: i) A minimum of three options to address the obsolescence issue, detailing the suitability of each option, including the overall costs and savings. ii) A background of how the pricing was sought to ensure best value (e.g. price comparison, competition) iii) A recommendation of the most preferential option for the Authority accompanied by a detailed rationale. It will be at the Authority's discretion which option is taken forward.
1.8 : Risk Management	
1.8.1	The Contractor acknowledges that any risk assessment, which has been, or may be, 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); i) Particular risks and their impacts; or

	ii) Risk reduction measures, contingency plans and remedial actions shall not in any way limit or exclude the Contractor's obligations under the Contract and shall be entirely without prejudice to the Authority's rights, privileges and powers under the Contract. The risks identified remain the risk of the Contractor and are not assumed by the Authority except to the extent that the Authority expressly and unequivocally accepts those risks under the Contract. Notwithstanding the foregoing, the Authority accepts responsibility for the risks identified as the Authority's risk, and shares responsibility with the Contractor for the risks identified as joint risk in the Risk Register. The Contractor accepts responsibility for the risks identified as the Contractor's risk.
1.8.2	The Contractor shall maintain a Risk Management Plan (RMP) inclusive of a Risk Register identifying the procedures that will be adopted to manage and control risk. This shall be delivered within 6 months of contract award and reviewed on a quartely basis.

2 : Provision of Spares	
2.1	The Articles shall conform to the latest issue of the approved drawings and specifications relating to the Reference and Part Numbers stated in the E-Purchasing order and shall incorporate all relevant modifications unless otherwise instructed by the APM or their Authorised Representative. The spares within scope of this Contract are listed at Annex C.
2.2	The Contractor shall inform the Authority should any deliveries be delayed, providing the reason for delay, revised delivery date and course of action taken to expedite the delivery. Such notification shall not override any performance measure against the original Contracted date.
2.3	An electronic Purchase Order (PO), issued to the Contractor by the Authorised Demander, will constitute the Authority's approval to proceed with the supply of the items listed thereon. The Contractor shall acknowledge receipt of the Purchase Order within three working days of the order being made.
2.4	Should the Contractor order any items in anticipation of a requirement it does so entirely at its own risk and the Authority will accept no liability should any requirement not be authorised.
2.5	Any reductions, cancellations, changes in Reference Numbers, Part Numbers, Packaging Requirements, diversion orders etc., shall be notified to the Contractor by a revised Purchase Order and these shall constitute offers of amendment to the original Purchase Order. The Contractor shall acknowledge the revised Purchase Order within three working days.
2.6	The ordered items shall be delivered within the specified timescale stated against that item under Annex C to this Contract. Payment shall be made upon delivery and acceptance of ordered items. Failure to provide the items in accordance with the terms and conditions of this Contract for example in terms of; timescales, quality, quantity etc. shall be recorded against the Key Performance Indicators at Annex G to this Contract.
2.7	Where, after delivery, an Article is rejected by the Authority in accordance with DEFCON 524 that Article shall, be returned to the Contractor at the Contractor's expense unless a notice of objection has been issued to the Authority in accordance with Clause 7 of DEFCON 524. Rejected items shall be recorded against the Key Performance Indicators at Annex G of the Contract.
2.8	Should the Contractor become aware that it will be unable to deliver the demanded items within the terms of the Contract he shall immediately provide a report to the Authority's Project Manager detailing the nature of the issue, the Contractor's immediate actions to resolve the issue and the Contractor's steps to prevent the issue from reoccurring.

2.9	Spares prices as detailed at Annex C shall include all costs including, but not limited to, certification.

3 : Repairs	
3.1	The articles and equipment sent for repair are to be restored to a “serviceable” condition so they will meet the performance and design intent specified when new, taking into account the effects of Ministry approved modifications subsequently incorporated, or later agreed by formal concessions granted by the Ministry.
3.2	The Contractor shall conduct repair work to rectify operational damage.
3.3	Equipment which can be repaired is listed at Annex D of the contract. The Contractor shall incorporate modifications to bring the equipment to the latest approved standard whilst undertaking the repair
3.4	Notwithstanding the provisions of DEFCON 601, items found to be beyond economical repair (BER) shall be the subject of MOD Form 651/650A action. MOD FORM 651 details the reason an article is considered BER and will be signed off by the APM. The commodity manager will return the 651 amend the E-Purchasing order and the Contractor shall ‘dispose by mutilation’, issuing a 650a when action complete.
3.5	The Contractor shall, given the written agreement of the Authority by a signed MOD FORM 651, dismantle the Article to recover any components/assemblies that are considered by the Contractor appropriate to enable future repairs to be carried out in an economical way. Any serviceable components/assemblies shall be retained and stored for future use against the Contract in accordance with Def Stan 05-99
3.6	The APM will advise the Contractor whether they wish to inspect the BER article. If an inspection is required, the APM will arrange with the Contractor to view the article within 15 working days from the date the Contractor informs the Authority of the BER.
3.7	An E-Purchasing Purchase Order (PO), issued to the Contractor by the Authorised Demander, will constitute the Authority’s approval to proceed with a repair. The Contractor shall acknowledge receipt of the Purchase Order within three working days of the order being made. Projected repair times will be measured from the point that the parts/equipment is received by MSI.

4 : Programmed Refurbishment	
4.1	The Authority’s requirements for the refurbishment of equipment are detailed below and at Appendix 2 to this Annex.
4.2	The Contractor is to carry out the refurbishment of Ship Fit Chambers, Containerised TMCC Systems and Support Units over the 3-year contract period in order to achieve the refurbishment programme.
4.3	The Authorisation to Proceed procedure is detailed at Clause 30 of the Terms and Conditions.
4.4	The Contractor shall issue a spares pack with each refurbishment consisting of frangible wire and interior paint to enable corrective maintenance and cosmetic repairs to be undertaken by users / maintainers.
4.7	All lifed items shall have maximum life available on completion of each refurbishment.
4.8	Following completion of the refurbishment period, the Contractor shall wait to complete Factory Acceptance Testing (FAT) and Zurich certification (in accordance with the latest version of Contractor Factory Acceptance Test – Chambers document) until immediately prior to the chamber being required iaw the agreed chamber refurbishment plan or as

	requested by the Authority. The contractor shall be given a minimum of 3 weeks' notice from the required delivery date. The Acceptance report shall be signed by the Contractor and copied to the Authority. The Acceptance Testing shall be witnessed by Contractor QA and acceptance will be to their satisfaction. The Authority, or its nominated representative, reserves the right to witness acceptance testing.
4.9	The APM or his nominated representative shall provide the Contractor with delivery details. The TMCC shall be delivered to a UK address by the contractor or their sub-contractor.
4.10	On receipt of Ship-Bourne Chambers staff/SFM shall undertake setting to work. STW should take place within 2 weeks from delivery. Following installation MCTA shall produce an Installation Inspection/Installation Trial (II/IT) Report. The II/IT Report, as defined in MCTA Form 233, shall be produced within 30 working days. Contractor shall investigate and rectify all TMCC specific defects and discrepancies highlighted in the II/IT Report within 5 working days unless agreed to by the APM.
4.11	Failure to achieve II/IT and/or on receipt inspection, shall constitute a failure of performance, unless the failure can be rectified during the II/IT period and provided that Contractor is in attendance.
4.12	In the event the Contractor does not carry out the II/IT, any defects or discrepancies will be discussed with the APM to establish fault prior to any rectification.
4.13	The Contractor is required to ensure the testing and certification of ISO containers and lifting equipment when required. After equipment enters service it will be the responsibility of the operational user (unit) to ensure all equipment is serviceable and in date with periodic inspections.
4.14	All TMCC ancillary items listed in BR 2807(5)(P)shall be included in the refurbishment.
4.15	If the Contractor requires a TMCC reference unit for training purposes, it shall use a chamber within the refurbishment loop provided it does not impact the refurbishment programme.
4.16	Quantity two off new Hyperbaric fire extinguishers (HBFX) shall be provided with each refurbishment. A copy of the certification shall be included within the Log Book.
4.17	The Contractor shall ensure Rubber and Synthetic Seals are fit for purpose iaw Appendix 1 to this document.
4.18	The delivery of chambers, as priced at Annex E, shall include transportation via the Land Magnetic Range where applicable.

5 : Non-Core Tasking

5.1	Non-Core tasks are those which arise in response to a specific problem or requirement and will be identified and controlled in accordance with Item 5 of the SOR and Clause 20 of the contract. These tasks will cover, but will not necessarily be limited to, the following: [redacted] • Attend trials meetings and provide engineering support for trials. • Ad-Hoc Meetings • Call out and investigation • Modifications to TMCC equipment (see further information at 5.2) • Processing of modification proposals

	• Carry out design studies • Manufacturing and testing prototype MoD kits • Training for the Authority/end user (not 3rd party)
5.2	Modifications done under Miscellaneous Tasking shall be conducted under the DEFSTAN 05-57 process following APM approval. Each TMCC / Support Unit / ISO Container shall be at the latest Modification state when released from 5A refurbishment. The Mod state is to be recorded on a 'Mod strike plate' and in Cat 8 of the equipment handbook – [redacted]

6 : Option: ACBS & CCBS Modification Development	
6.1	The contractor shall design and develop an updated AC/BS and CCBS system that meets the requirements of the validated TMCC Original Cardinal Point Specification, MoD document DVG152/05/01, dated July 1997 (the "CPS") in accordance with the system engineering tasks described in section 6.2. The purpose of this development is to address the obsolescence issues. The contractor shall release necessary modification document i.e. leaflet in order to maintain TMCC Safety Case Report, MSI-DS document No. ER3182-2. The Contractor must demonstrate that the solution complies with all relevant safety standards.
6.2	The contractor shall define the necessary tasks and activities to be performed and shall include requirements analysis, functional analysis and allocation, and synthesis for the design of the AC/BS and CCBS system. The contractor's system engineering process shall transform the requirements stipulated in the CPS into a set of deliverables and process descriptions addressing the systems design, component specification, development, manufacture, test and qualification. The contractor shall generate and maintain a requirements verification matrix to provide an audit trail from requirements of the CPS to design implementation and verification, including key decisions to meet the requirements. The Contractor shall undertake incorporation of a modification into the build standard.
6.3	The Contractor shall provide a development cost plan (DCP) and progress schedule.
6.4	The Contractor shall provide all design and manufacturing data packs to the Authority upon completion.
6.5	The Contractor shall produce a prototype AC/BS system using a TMCC provided by the Authority. The Contractor will perform unmanned tests and deliver the prototype to the Authority for manned testing.

Glossary of terms

Abbreviation	Description
5A	'5 annuals' refurbishment of the TMCC chambers (Safety and legal requirement)
ACBS	Air Control Breathing System
AIL	Advanced Information Leaflets
APM	Authority Project Manager
BCP	Business Continuity Plan
BER	Beyond Economical Repair
BR	Book of Reference
CCBS	Closed Circuit Breathing System
COTS	Commercial Off The Shelf
CPS	Cardinal Point Specification
DDS	Defence Diving School
DE&S	Defence Equipment and Support
DEFCON	Defence Condition
DLS	Diving Life Support
DRACAS	Data Reporting Analysis and Corrective Action System
E-List	Establishment list
ESSDs	Electrostatic Sensitive Devices
GFA	Government Furnished Assets
HBFX	Hyperbaric Fire Extinguishers
HeO_2	Helium / Oxygen
HP	High Pressure
II/IT	Installation Inspection / Installation Trial
iaw	In accordance with
IEC	Internation Electrotechnical Commission
IPC	Illustrated Parts Catalogue
ISO	International Standards Organisation
ISPECS	Intructional Specification
JSP	Joint Service Publication
KPI	Key Performance Indicator
MCTA	Maritime Capability Trials and Assessment
MDMP	Maritime Defect Management Portal
OEM	Original Equipment Manufacturer
OPDEF	Operational Deficiency
OSD	Out of Service Date
PMS	Planned Maintenance Schedule
PoC	Point of Contact
POEMS	Project Oriented Environmental Management System
POSMS	Project Oriented Safety Management System
PSC	Project safety Committee
PSU	Power Supply Unit
QA	Quality Assurance
SC	Security Clearance

SEMS	Safety Environment Management System
STW	Set To Work
TMCC	Transportable Manned Compression Chamber
UEW	Underwater Electronic Warfare
VFM	Value For Money