Flight Simulation and Synthetic Trainers (FsAST PT)

Scope Document

For The

THE PROVISION OF TRAINING LIFE RAFTS FOR THE AIR MOBILITY FORCE – RAF BRIZE NORTON

Version 1

**Reference Documents**

Reference A. The Provision of Training Life Rafts for the Air Mobility Force – RAF Brize Norton Statement of Requirement (SOR) Ver 4.

Reference B RA 2130

Reference C Defence SERE Training Organisation - Pool Continuation Training - Learning Specification (LSpec).

**Policy Documents**

Policy 1 AP3342, Section 8, Leaflet 804 - Policyfor RAF Personnel Undertaking Aircrew Maritime Survival Drills.

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| **Version** | **Details Of Amendments Made** | **Amended By** | **Date** |
| 1 | Initial | D Macintosh | 12 Sep 23 |
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**THE PROVISION OF TRAINING LIFE RAFTS FOR THE AIR MOBILITY FORCE – RAF BRIZE NORTON**

1. **Purpose**

This Scope document sets out the specification for the Provision of Training Life Rafts for The Air Mobility Force – RAF Brize Norton, Contract number 704250452. It should be considered a supplementary document to Reference A – SOR, which details individual Requirements and to Contract 704250452 which details all the terms and condition which apply to this scope of work unless explicitly ruled out.

1. **Background**

# Reference B specifies the Requirement for military aircrew to be Qualified to use all Safety Equipment (SE) used onboard their aircraft. Furthermore, they are also required to complete recurrent training in the use of such equipment. SE used for training is to be suitably representative and exhibit the same dynamics and principles of operation as the live aircraft version. This Requirement specifically addresses the procurement of Training Life Rafts (TLRs) for the Air Mobility Force at RAF Brize Norton.

# 3. Issue

The Atlas and Voyager aircraft life raft equipment is not suitable for training use. This is due to cost, durability, and size (in the case of Voyager). Currently, only generic training can be delivered using C130 equipment, which is not compliant with Reference B. The inability to carry out specific to type critical emergency equipment training carries a potential increased Risk to Life (RtL). This level of continued RtL is not considered tolerable by the Duty Holder (DH). Therefore, there is a Requirement for reproduced and representative[[1]](#footnote-2) equipment to support ‘wet’ life raft training.

4. **Training Requirement**

The Requirement is to provide 3 of each specific to type Atlas and Voyager Training Life Rafts (TLRs) to RAF Brize Norton to support initial and recurrent SE training. Specific equipment Requirements are laid down in Reference A.

Live aircraft life raft examples are available for training in a dry static classroom environment for general familiarization and survival accessory location. This Requirement relates specifically to the achievement of wet life raft training, typically in a chlorinated swimming pool environment. The Training Objectives to be enabled are as follows:

* 1. Carry out Multi Engine (ME)[[2]](#footnote-3) survival drills in a pool utilising specific to type Aircrew Equipment Assemblies (AEA) and associated safety Equipment (SE).
  2. Demonstrate operating procedures for specific to type ME Life Preservers (LPs) in association with a life raft and ancillary equipment in a pool.
  3. Demonstrate life raft righting drills in a pool using specific to type ME life raft and ancillary equipment.
  4. Demonstrate life raft pre-boarding actions in a pool using specific to type ME life raft and ancillary equipment.
  5. Demonstrate life raft after-boarding actions in a pool using specific to type ME life raft and ancillary equipment.

1. **Production Strategy**

The Requirement is for 3 TLRs for each of the Voyager and Atlas types. The first instance of each type shall be known as the prototype, and will be used during the initial site acceptance. During the site acceptance, if any discrepancies or requests for improvement are noted, then by mutual agreement of the Authority and Contractor the prototypes shall be modified. The resultant final design shall be used to complete the production run.

# Project Milestones:

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| **System Milestone** | **Expected Deliverable/s** | **Delivery** |
| Preliminary Live Raft Survey | * Contractor to confirm that they have sufficient data to commence design. | T0+5 Days |
| Critical Design Review (CDR) | * Authority to confirm that the design presented is of sufficient maturity for the Contractor to proceed to prototype. * SAT Schedule agreed. | T0+30 Days |
| Test Readiness Review (TRR) | * Authority confirm that the design presented is of sufficient maturity for the Contractor to proceed to testing. | T0+90 Days |
| Site Acceptance Testing (SAT) completed | * Authority to confirm that prototype design, with any agreed changes, can be embodied be taken forward in the production of the remaining rafts. * Authority acceptance that Contractor provided training for the equipment and infrastructure is complete. | T0+90 Days |
| Acceptance Review Meeting (ARM) | * Authority accepts delivery of full order of final standard 6 TLRs. * Authority acceptance of the final Signed Certificate of Design DID 002. | T0+120 Days |

1. **Infrastructure Requirements**

The existing infrastructure at RAF Brize Norton (Survival Equipment Section – Life Raft Bay) will be used to store and maintain the TLRs. The current support contract with SERCO will read across from the out going C130 equipment to the new Voyager/Atlas TLRs.

1. **Quality Assurance**

The Contractor shall comply with:

* AQAP 2110 Edition D - NATO QA Requirements for design, development, and Production.
* DEFCON 627 - Certificate of Conformity.
* DEF CON 68 - Supply Of Data For Hazardous Articles, Materials And Substances.

1. **Warranty**

The TLRs shall be subject to a 12 month warranty for non-wear and tear type faults from the acceptance date, recognizing the predicted average usage for each raft type of two immersions per month.

1. **Acceptance**

The Authority shall provide a Test and Acceptance Plan (DID-001) for the equipment, which will be agreed with the Contractor during the CDR.

1. **Safety & Environmental Requirements**

The TLRs, or more appropriately their use, falls under the RAF Brize Norton Survival, Evasion, Resistance and Extraction (SERE) Section Safety Case.

1. **Security**

Security classification of the project will be UK Unclassified.

1. **Data Item Definitions (DIDs)**

The Data Items Definitions (DIDs) define the minimum levels of data required for the documents required under this Contract. The Contractor may include additional information where it adds value or provides clarity.

AMF Training Life Rafts DIDs:

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| **DID No.** | **Scope** |
| DID-001 | Test and Acceptance Plan |
| DID-002 | Certificate of Design (CofD) |

**DID-001 – Test and Acceptance Plan:**

**Pre Design Survey**. The Authority shall facilitate a survey of the 2 live aircraft Life Raft examples (A400M and Voyager) in order for the Contractor to measure the devices to enable the design of the prototypes to commence.This will take place at the Tenderer’s Conference as outlined in DEFFORM 47 Section B.

**Critical Design Review (CDR)**. The Contractor shall conduct a CDR, where the Authority will assess the solution in order to ensure that it meets the SOR and will achieve the Contracted delivery dates. The agenda shall be submitted by the Contractor to the Authority not less than 5 business days in advance of the meeting. The review shall include but is not limited to:

1. CDR Entry and Exit Criteria.
2. Design.
3. Documentation.

(4) Non-compliances.

(5) Test Schedule.

(6) Quality Assurance.

(7) Risks and Opportunities

Drafts of presented material shall be provided to the Authority in electronic format at least 5 Business Days in advance of the CDR.

The minutes from the CDR shall be produced by the Contractor and provided to the Authority for agreement within 5 Business Days of the meeting. The minutes shall be accompanied by copies of all material presented during the meeting.

* 1. **Test Readiness Review (TRR)**. At the start of the site acceptance, the Contractor will present their product and declare any non-compliances. The Authority shall evaluate the product and decide to proceed to acceptance testing. It is expected that the TRR will immediately preceed the start of the SAT.
  2. **Site Acceptance Test (SAT)**. A SAT will be carried out in the RAF Brize Norton swimming pool, and will take the form of an end to end practical pool drill. This will include SERCO Safety Equipment fitters, Brize Norton SERE, RAF DSTO, and DES test personnel along with a representative number of drill participants. The Test Schedule will be provided by the Authority and agreed with the Contractor during the CDR. Any discrepancies or required refinements identified during the SAT will be agreed by the Authority and Contractor, and incorporated before the final delivery.
  3. **Acceptance Review Meeting (ARM)**. The ARM will be carried out following the final delivery of all items, with any deficiency rectification embodied.

**DID-002 – Certificate of Design**

1. The Contractor shall provide a Certificate of Design for each type of TLR that details the following:
2. Description of Configured item.

b. Safety Instructions – If applicable.

c. Any Hazards.

d. Restriction of Hazardous Substances (RoHS) compliance statement – If applicable.

e. Any supporting design certificates.

f. Any Limitations of Use.

g. Installation Instructions.

1. The Design Certificate shall also detail any agreed deviations and if appropriate their rectification agreement.

**14. Confirmation that the Scope is a Contract Document**

Signed by or on behalf of:

**THE SECRETARY OF STATE FOR DEFENCE**

**…………………………………………….**

Signed by or on behalf of:

**THE CONTRACTOR**

**………………………………………………..**

1. Representative in this context refers to a targeted fidelity training device, that will enable specific to type training. Dimensions may be approximate. [↑](#footnote-ref-2)
2. The term Multi Engine implies the use of large multi-seat life rafts. [↑](#footnote-ref-3)