

## RAF Centenary Project

### Provision of Cover Structure for Boats

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## 1. Introduction

In 2018, the Royal Air Force Museum moved two historic post-war boats to a new outdoor location from a central outdoor location on its London site. The Museum is seeking a contractor to design, build and install a semi-permanent structure to cover these boats.

## 2. General Information

The Royal Air Force Museum is the National Museum telling the story of the RAF through its people and collections.

It receives Grant-in-Aid from the Ministry of Defence to support the National Collection and is a non-departmental public body audited by the National Audit Office. The RAF Museum is constituted as a charity which employs the Museum staff. It is regulated by the Charities Commission and is governed by a Board of Trustees.

It operates a trading arm, the RAF Museum Enterprises Ltd, through which it raises funds from its commercial operations – principally retail and catering functions.

New activities and capital projects are funded through traditional philanthropic sources, such as the Heritage Lottery Fund, trusts & foundations, grant-making bodies, corporate sponsorship and private individuals.

The Royal Air Force Museum has two sites in the United Kingdom that are open to the public; one in Colindale in North London and one just outside Wolverhampton located next to RAF Cosford.

Both Museum sites are free to enter and contain a world-class collection and display of aircraft, integrated with special exhibitions, films, interactives, artwork, engines, missiles, photographs, medals and uniforms. With research and education facilities, the Museum takes an innovative approach to telling these stories through new exhibitions and interpretation.

The ambition of the Museum is to ensure that the Royal Air Force's story endures and enriches future generations.

The vision of the RAF Museum is to be a world-leading museum that engages, inspires and connects everyone with the RAF story through the exploration of its people and its collections.

The Royal Air Force has shaped our nation and our society. It has influenced how we live our lives today through its impact on world events, society and technology.

The Museum's Purpose is to tell the story of the Royal Air Force through its people and collections.

- For our visitors, we make our collections and the RAF story relevant and stimulating
- For current and former RAF personnel and their families, we preserve, honour and share the stories of their service
- For our nation, we help people to understand the impact of the RAF in the world

### 3. The Historic Boats

The two boats date from the post-war period. They were craned onto new stands in early 2018. The purpose of this move was to open up access and views across the middle of the site. The boats have been exposed for a long period and need drying out.

#### 3.1 Boat heights

One of the boats (RTTL High Speed Launch) could potentially be reduced to half-mast height.

See below for the upper heights of the boats. As this is a potentially limiting factor, the Museum is prepared to be flexible. The upper height can be altered by removing either half of the mast in the case of the RTTL and/or by removing the entire mast in the case of either boat. However, it should be stated that the Museum would prefer to leave the masts intact if this does not have an impact on cost/programme.

It should be noted that the below figures are based on the boats' previous location. They have since moved and are on different support structures (meaning a slight variance to the below). The Museum is seeking to verify the heights of the boats in particular and this information will be published on contracts finder or can be requested from the Museum.

	Weight (Unladen)	Length		Width		Height full mast		Height half mast		Height mast removed	
	<i>Tonnes</i>	<i>ft</i>	<i>m</i>	<i>ft</i>	<i>m</i>	<i>ft</i>	<i>m</i>	<i>ft</i>	<i>m</i>	<i>ft</i>	<i>m</i>
<b>RTTL High Speed Launch</b>	25 *	68	20.7	20	6.1	36	11.9	28	8.5	19	5.8

<b>Pinnacle</b>	20	63	19.2	16	4.9	34	11.3	not possible	15'6	4.7
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\*Engines have been removed from the HSL so published weight is reduced by circa 2 tonnes.

## 4. Objectives

The structure will allow the boats to dry out, having been outdoors for some years. The boats cannot be brought inside as they will dry too quickly and will suffer damage. The drying process needs to be carried out slowly, outdoors. This means that the boats will need adequate cover, but that the structure will be open at opposite ends to allow airflow all the way through.

The Structure will be an attractive and unobtrusive means of protecting the boats and shall visually complement the other structures on the site.

## 5. Requirements

### 5.1 Design

- The structure is to have no interface with the boats
- The structure must contain the boats in their current configuration
- The on-site dimensions are to be verified by the contractor
- The composition will be metal framework open at both ends, with provision for wind protection on any open sides
- Design of the structure to be in accordance with necessary regulations

### 5.2 Foundations

The Contractor will specify a base and fixings suitable for the structure. The boat's platform has its own foundations, but these do not extend beyond the current outer footprint of both boats.

### 5.3 Materials

Non-reflective surfaces are preferred to limit glare coming off this structure. Stakeholders at the museum have suggested using clear material to cover the sides and an opaque

material for the roof. The clear material will help the structure seem less obtrusive and keep the boats more visible. The opaque roof will reduce deterioration by light damage. Any clear materials should feature UV protection.

#### **5.4 Drainage**

Guttering will be required to drain water to soakaways (not existing).

#### **5.5 Electrical**

A conduit for basic electrics will be required in order to power tools and lighting equipment for regular maintenance, as well as dehumidifiers for the drying of the interiors of both boats. The Museum will specify this in due course.

#### **5.6 Lifespan**

The structure's design, manufacture and installation must be suitable for its use for a minimum of ten years.

### **6. Location**

The boats are located at the RAF Museum's London site, in Colindale. The boats are located prominently, directly outside the Museum's entrance hangar (Hangar 1). The adjacent exit from Hangar 1 is a busy intersection for visitors, as it is the gateway for visitors to the other five hangars on the site. A circular path leads from Hangar 1; visitors can navigate to the other hangars by walking both clockwise and anticlockwise.

### **7. Users**

The structure will serve as a shelter for the Museum's staff and volunteers while working on the boats.

There will be an access stair and platform located in the space in between the boats. During special events, visitors will use this to access the boats with assistance from staff. It will be locked during normal opening hours.

If the structure overhangs the area around the boats in anyway, the Museum would see this as an opportunity to provide visitors with a sheltered picnic space. However, this should not be viewed as a core requirement.

The Museum's visitors are roughly distributed as follows:

30% children under 10

10% children 11-16

10% disabled

10% over 65

## 8. Build

- The museum is open 7 days a week; 10am-6pm March - October, and 10am-5pm November – February. Deliveries will be outside those hours
- No works outside of 8am and 6pm due to presence of nearby residents
- Ensure the safety of the public at all times
- Construction will take place during museum opening hours. Suitable risk management measures will need to be put in place by the contractor.

## 9. Constraints

- Construction must be possible with the boats in situ
- There is a high voltage cable with a clearance requirement and easement that runs across the area
- The build site size for the structure and its foundations may be a potential constraint
- The location of the structure will be next to a housing development that borders the Museum's site. Many of the apartments overlook the site of the boats. The structure should not be a source of glare on sunny days
- Planning permission.

## 10. Contractor Deliverables

The final output of the brief will be the design, fabrication and installation of a structure that will cover the boats. This is to be delivered through:

- Appropriate surveys of the site and taking detailed dimensions
- Implementation of appropriate risk management measures
- Concept and detailed design drawings for the structure, to be discussed with and approved by Museum team
- Offsite and onsite construction with some activity restrictions during public opening hours including deliveries and noisy works
- Provide any necessary certification for the structure
- The contractor will provide a 12 months defect liability period and a five-year warranty.

## 11. Responsibilities

**The appointed individual or company will at all times ensure:**

- Compliance with Health & Safety at Work Act (including risk assessments, method statements, and relevant certification) and be able to show proof if required
- Adherence to all legislation and best practice for the construction of staircases in a public space

**The appointed contractor will also:**

- Provide all equipment necessary to carry out the agreed contract
- Be mindful of the Museum's visitors and local residents
- Show a willingness to reduce impact on the environment.

## 12. Not in Scope

- The support structures that support the boats
- The access stair between the boats (not existing, separate contract)
- Interior lighting, though electrical provision for this is within the scope of this contract

## 13. Programme

Subject to planning permission.

## 14. Tender Deliverables

The tender submission should consist of:

### A. Quality Submission

A maximum of 12 sides A4 featuring:

- Details of experience of successful delivery of similar projects
- Proposed methodology, programme and timescales
- Reference images of proposed materials
- A sketch of the proposed solution

### B. Cost plan

Please refer to Annex C of the Invitation to Tender for full details of the process.

## 15. Appendices

Appendices are attached to the tender package.

### 15.1 RAF Museum London Site Plan

### 15.2 The Historic Boats

### 15.3 Site Survey

### 15.4 Drains and cable runs airfield