

Warning

This statement of requirements is an early draft assessment of the three General Lighthouse Authorities' needs for a helicopter service to deliver personnel and equipment / materials to and from their lighthouses and other Aids to Navigation.

This draft may change and will only be finalised prior to the issue of an invitation to tender. It may be subject to changes as a result of:

- Further GLA inputs;
- Ideas and initiatives which candidates are encouraged to propose during the market engagement process.

Requirement Specification

Contents

1.	Scope of Service	2
2.	Location of the Service.....	3
3.	Flight Operations, General	4
4.	Service Availability	5
5.	Forecast Flying Hours	6
6.	Refuelling	6
7.	Operating Procedures	8
8.	Aircraft and Equipment Specification	9
9.	Aircraft Maintenance	11
10.	Contractor's Aircrew.....	11
11.	Services and Facilities Provided by the GLAs.....	14
12.	Training for GLA Personnel.....	15
13.	Safety.....	16
14.	Organisation and Management.....	18
15.	Mobilisation Programme.	18
16.	Operational Scenarios.....	19

1. Scope of Service

1.1. **Outline.** From 1 December 2015, the Northern Lighthouse Board (NLB), the Commissioners of Irish Lights (CIL) and Trinity House (TH), together comprising the three General Lighthouse Authorities (GLAs) will require a single helicopter service provider to meet their helicopter needs for a 7-year period, with options to extend for a further two one-year periods.

1.2. **Objective.** The GLAs' helicopter services support their Marine Aids to Navigation Strategy to 2025 by providing the means to access and maintain their more remote Aids to Navigation. An effective helicopter service is a vital element in the provision of the GLAs' service to the mariner: a reliable, efficient and cost-effective network of marine Aids to Navigation. Air travel is the only means of access for many of the Aid to Navigation sites due to their location and the nature of the work that needs to be undertaken there. Not having an effective helicopter service, even for a short period of time, has the potential to make a serious impact upon the critical, statutory services the GLAs deliver around the UK and Ireland.

1.3. **Typical Tasks.** Most helicopter flights will carry both passengers and freight to off-shore lighthouses to undertake maintenance and renovation. The passengers are the GLAs' or their subcontractors' personnel and approved third-parties, always wearing survival suits (provided by the GLAs) and life jackets and headsets (provided by the Contractor). The freight is their tools, materials and personal

equipment and may include Dangerous Goods or goods of a magnetic nature which shall be cleared before flight. A small task would be to carry a couple of technicians with small tools and emergency overnight kit to a lighthouse in the morning and return later the same day; the range is likely to be between 5 and 100 nm. A large task might require a dozen workers, their tools and several tons of underslung material to be carried out in several trips from a vessel close by and brought back a few days or weeks later. In practice there will be a wide variety of tasks in terms of size, distance and complexity.

- 1.4. **Underslung loads** to and from lighthouses are usually flown from a GLA vessel close by or from a point on the nearest mainland to reduce the range and duration of the operation. The support of building and renovation tasks at lighthouses creates the requirement for a great variety of weights, shapes, sizes, and natures of underslung loads with different flying characteristics. Whilst GLA personnel trained in preparing, dispatching and receiving underslung and internal loads will at times be available to support operations, the ultimate responsibility for the preparation, safety and security of underslung and internal loads shall rest entirely with the Contractor.
- 1.5. **Landing Sites.** Many of the landing sites are very small, either on top of lighthouses, on tidal rocks, or close to cliffs and exposed to considerable turbulence. It is often impossible for passengers to approach the helicopter from 2 o'clock because of the limited space and the wind direction; the helicopter rotors are therefore sources of risk to passengers who may be out of sight of the pilot. In these exposed conditions, internal freight must be quickly and adequately secured to prevent injury in the event of a crash.
- 1.6. **Safety.** GLA helicopters work alone without the panoply of safety measures available on the North Sea (trilateration to enable air traffic control to monitor flights, helipads which comply with Commercial Air Transport requirements and are manned and equipped for crash rescue etc). They undertake a wide variety of tasking, positioning and recovering subcontractor and GLA personnel at each end of the day under pressure from weather, darkness and turbulence without the ability to do task work under instrument flying conditions. Many GLA helipads would no longer meet the international standard but are permitted under grandfather rights for flights undertaken in the public interest, and it is not possible to make these pads fully compliant. Similarly, GLA vessels are not entirely compliant with CAP437; some lack lighting for night operations and on others the lighting protrudes more than 5 cm above the landing surface.

2. Location of the Service

- 2.1. **Operating Areas.** The helicopter service will be required throughout the operating areas of the GLAs, but principally:
 - 2.1.1. NLB: north from the Isle of Man through all the Scottish coast and islands including the Orkneys and Shetlands, and south-east to Bell Rock.
 - 2.1.2. CIL: All around the island of Ireland.
 - 2.1.3. TH: from Anglesey south and east along the coasts of Wales and South West England, through the Isles of Scilly and Channel Islands to the Isle of Wight.

- 2.2. **Operating Bases.** Each GLA has principal Operating Bases, some with fuel, offices, communications and storage for GLA equipment. It is expected that the helicopter will overnight in the open at an Operating Base, on a vessel or at an airport for the duration of the Service Availability Period (SAP). The GLA Operating Bases are at Oban (NLB), St Just (TH), and Castetownbere and Blacksod (CIL).
- 2.3. **Landing Sites.** All the required landing sites are listed currently in individual Landing Site Registers for each GLA. All three are available to tenderers at [<http://nlb.XXX>]. The successful Contractor will be required to unite these into a single Register prior to commencing the Service and approve all the sites for operations. The new Register shall include detailed plans, photographs, dimensions, contact details and required aviation/safety data. The Contractor will then be responsible for reviewing the Register at least annually and updating it as necessary. The GLAs will retain the IPR of the Register.
- 2.4. **Vessels.** The GLAs own and operate four vessels used to deploy buoys and to support work on other Aids to Navigation, and may lease in suitably equipped contract vessels from time to time. The vessels are used as a base for one helicopter when required, and to mount helicopter flights. They have fuel and crew overnight accommodation, and are described in the Landing Site Registers. GLA helidecks are not certified by the Helideck Certification Agency because the data is not required by multiple operators. The helidecks will be used only by the Contractor who will bear the responsibility of approving them (and all the other Landing Sites). The vessels are:
- 2.4.1. NLV Pharos: maximum AUM 3,200 kg, landing area 12.5 m in diameter.
 - 2.4.2. ILV Granuaile: maximum AUM 3,200 kg, landing area 12.5 m in diameter.
 - 2.4.3. THV Galatea: maximum AUM 3,200 kg, landing area 12.5 m in diameter.
 - 2.4.4. THV Patricia: maximum AUM 10,000 kg, beam width 11.94 m, fore and aft length 8.8 m.

3. Flight Operations, General

- 3.1. **Planned Routine Operations.** The helicopter service will be tasked by the Tri-GLA Operations and Planning Group (OPG). The Group meets twice per year and will plan the helicopter programme of SAPs for the following 18 months based on the GLAs' requirements and the Contractor's proposals. Once the helicopter service is allocated to a GLA for a SAP, operations will be controlled by the relevant GLA Helicopter Operations Planning Manager. However SAPs may overrun or be altered at short-notice due to weather and operational considerations. Routine operations are usually reduced during winter months and more intense during the summer.
- 3.2. **Short-Notice Operations.** The failure of an Aid to Navigation (termed a "Casualty") may require the redeployment of the helicopter at short notice either within the same GLA area or into another GLA's area. Decisions on diverting a helicopter from routine operations to a Casualty in another GLA area will be made by the Chair of the OPG in consultation with the relevant Helicopter Operations Planning Managers and the Contractor. Options may include diverting a helicopter from Planned Routine Operations, employing a second helicopter, and repairing the

Casualty by other means. The GLAs seek a cost-effective response appropriate to the urgency of the situation.

- 3.3. **VFR/IFR.** Whilst normal support operations will be conducted under Day VMC conditions, the helicopter service must provide a single pilot IFR capability. Night transit flying may be required subject to the Contractor's minimum weather and operating conditions. None of the lighthouses or vessels and few of the GLA shore stations are equipped with lights for night operations.
- 3.4. **Weather.** The Contractor shall operate to weather minima and limitations provided in the Contractor's Operations Manual which shall be quoted in the Tri-GLA Helicopter Operations Manual.
- 3.5. **Routing.** The Contractor shall exploit fully the capacity of the Aircraft as far as possible on every flight and shall use its best endeavours to minimise flying time by taking the most economic routes permitted by prevailing conditions and restrictions.
- 3.6. **Contractor's Account.** The following facilities shall be for the Contractor's account:
 - 3.6.1. Any landing fees and other airport charges including handling agents, hangar facilities used for the storage and/or maintenance of the Aircraft at airfields.
 - 3.6.2. Flying hours used for the Contractor's own purposes (including planned and unplanned aircraft maintenance and the movement or changeover of the Contractor's personnel or materiel).
 - 3.6.3. All flying time and fuel consumed by the Aircraft for the sole purpose of site familiarisation and training activities for Contractor's personnel.
 - 3.6.4. All aircrew travel and subsistence costs except on GLA vessels, where crew accommodation and food will be provide free of charge.

4. Service Availability

- 4.1. **Requirement.** The GLAs have an estimated availability requirement for a helicopter service on [275] days during the first contract year, but the number will be reviewed annually and may decline in future years. The estimated 275 days comprises [120] days for NLB, [60] days for CIL and [95] days for TH. On routine operations, each GLA will plan to occupy the helicopter in SAPs of a minimum of five and a maximum of twelve consecutive days. NLB requires greater availability in the winter (to service Casualties). TH requires greater availability in the summer (for routine maintenance). CIL requires some SAP time in every calendar month.
- 4.2. **Transit Flights.** The estimated total service availability requirement includes the time required by the helicopter to transit within a GLA area during a SAP, but excludes transits between GLA areas en route to the next SAP or to a Casualty. The GLAs expect to plan at least 3 days between SAPs to allow for work overrunning and for the transit between GLA areas which may be delayed by bad weather.
- 4.3. **Casualties.** The estimated total service availability requirement includes the number of days each GLA predicts it will require a helicopter at short notice to

service a Casualty. However the unpredictable nature of Casualties means that the task may clash with high priority routine work in the same or another GLA's area.

- 4.4. **Daily Availability.** Ordinarily, the helicopter should be available for eight hours each day of a SAP. The ability to vary the start and finish times and very occasionally to increase the duration of the working day is important.

5. Forecast Flying Hours

- 5.1. At the commencement of the contract and annually thereafter the OPG will issue a core hours breakdown for all planned helicopter operations for a twelve month period. For the first year of the contract this is estimated at [990] hours comprising [400] hours for NLB, [340] hours for CIL and [250] hours for TH. The core hours include positioning the aircraft within the GLA area and time on operations. They exclude transit hours between SAPs and servicing Casualties in different GLA areas.
- 5.2. The GLAs would prefer flying time charged to be recorded automatically by the helicopter, to be traceable for audit purposes and to exclude time spent with rotors running on the ground.

6. Refuelling

The operation requires fuel readily available close to each operating area to ensure that the helicopter can lift large loads and not waste time flying off frequently to refuel. GLA vessels are used frequently for refuelling as they often carry the freight to be delivered to and recovered from the lighthouse. The GLAs intentions are as follows:

- 6.1. **Airports.** The Contractor shall recharge to the local GLA the cost of all fuel uplifted for GLA operations by the helicopter at airports.

6.2. Other Land-Based Fuel.

- 6.2.1. **TH** owns two 1,900-litre trailer-bowsers, one based at St Just and one at Swansea. TH will:

- 6.2.1.1. Replenish them at St Just or other airports with fuel bought on the Contractor's account.
- 6.2.1.2. Manage the fuel.
- 6.2.1.3. Drive the trailer-bowsers to appropriate locations and assist with issuing the fuel.

- 6.2.2. **NLB** owns one 30,000-litre static tank and dispensing system at Oban. The Contractor shall order, pay for and own the fuel in the tank, always keeping sufficient in it for impending NLB requirements. NLB personnel will manage the fuel and issue it to NLV Pharos and to the Contractor's helicopter for GLA operations.

- 6.2.3. **CIL** owns two static tanks and dispensing systems, a [XXXX-litre] tank at Casteltownbere and a [XXXX-litre] litre tank at Blacksod. CIL wishes to shed its ownership of these tanks but will ensure that access is retained to both facilities for the duration of this contract. Until any disposal:

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- 6.2.3.1. The Contractor shall order, pay for and own the fuel in the tanks, always keeping sufficient in both for impending CIL and Irish Coast Guard requirements.
- 6.2.3.2. CIL personnel will manage the fuel and issue it to the Contractor's (and Coast Guard) helicopters.
- 6.2.3.3. CIL shall report uplifts by the Coast Guard to the Contractor who shall invoice the Coast Guard directly at cost.
- 6.2.3.4. Given one month's warning, CIL may also employ the TH bowser from Swansea. The Contractor shall arrange its delivery (including the ferry passage) and provide a driver for the whole period it is away from Swansea. This requirement is expected to arise on half the CIL SAPs.

6.2.4. **The Contractor shall:**

- 6.2.4.1. Arrange and pay for scheduled and unscheduled maintenance of the trailer-bowsers, static tanks and dispensing systems including parts, and copy inspection and maintenance reports to the relevant GLA. Should any of the trailer-bowsers or static tanks need replacing, this will be to the GLA account.
- 6.2.4.2. Invoice the relevant GLA for the cost of Contractor-owned fuel uplifted for GLA operations from the trailer-bowsers and static tanks.

6.3. **GLA Vessels.**

- 6.3.1. **ILV Granuaile** has a single 1,800 litre Jet A1 tank; **THV Galatea** has a single 6,000 litre Jet A1 tank; **NLV Pharos** has two 6,000 litre Jet A1 tanks; all three vessels have the associated dispensing equipment. The GLAs will:
 - 6.3.1.1. Own the tanks and associated dispensing equipment.
 - 6.3.1.2. Arrange and pay for fuel system inspection and maintenance (by a qualified subcontractor where appropriate), and copy inspection and maintenance reports to the Contractor.
 - 6.3.1.3. Order, pay for and own the bulk fuel. For ILV Granuaile and THV Galatea, it may be purchased from the Contractor and delivered by one of the trailer-bowsers. For NLV Pharos, it may be purchased from the Contractor's fuel stock in the Oban static tank.
 - 6.3.1.4. Manage and issue the fuel in accordance with the Contractor's instructions.
 - 6.3.1.5. Issue the fuel to the Contractor's helicopter for GLA operations free of charge.
- 6.3.2. **THV Patricia** requires drummed fuel to be provided by the Contractor; TH will pay for the fuel on delivery to the vessel and own manage and issue it free of charge using a TH pump. The expected requirement is 20 drums per year. This process may also be followed should the GLAs lease in a vessel without refuelling facilities.

6.4. **General.**

- 6.4.1. The Contractor shall be responsible for the quality of the fuel. Where fuel facilities are owned and/or managed by a GLA, the Contractor must assure himself of that quality as his own expense.

- 6.4.2. The Contractor will be able to train, approve and audit GLA personnel in bulking, storage, testing and dispensing of the fuel in accordance with the Contractor's instructions which will be incorporated in the GLA Helicopter Operations Manual.
- 6.4.3. All fuel costs invoiced by the Contractor to the GLAs shall be at cost and evidenced by receipts.
- 6.4.4. Airport and Contractor's fuel uplifted for the helicopter to transit to another GLA area shall be charged to the GLA in whose area the fuel is uplifted.

7. Operating Procedures

7.1. **Operational Certification and Permissions.** The Contractor will be required to operate and maintain the service in accordance with:

- 7.1.1. An Air Operators Certificate for Commercial Air Transportation under EU Ops and the associated Operations Manual including the carriage of Dangerous Goods by air.
- 7.1.2. Exemptions to Dangerous Goods regulations which the Contractor will be required to seek from the relevant Aviation Authority as necessary to undertake the operation efficiently. Current contractors hold exemptions in accordance with Part 1;1.1.2 of the Technical Instructions and JAR-OPS 3.1165(b)(1) for flights undertaken on behalf of GLAs related to the maintenance of vessels and lighthouses covering:

- The quantities and weights of some Dangerous Goods carried;
- The dimensions of hazard warning labels on cylinders of compressed gas and the use of "Cargo aircraft only" labels;
- Emergency response information, the use of the Dangerous Goods Transport Document for a series of related flights, and a single notification to the pilot-in-command on a series of related flights;
- The inspection of dangerous goods by the shipper on behalf of the Contractor;
- The carriage of aerosols in passenger baggage and of butane gas powered soldering irons;
- The carriage as underslung loads of wet filled batteries not packed in accordance with the requirements.

- 7.1.3. Such other licences and permits as are required under appropriate national and European Legislation including authorisation to operate the Aircraft in the passenger and cargo roles, to undertake aerial work and to fly throughout the GLA areas and land at the Landing Sites specified by the GLAs in the Landing Site Register(s).

7.2. **Tri-GLA Helicopter Operations Manual.** The Contractor shall conduct all the helicopter service operations in accordance with the Tri-GLA Helicopter Operations Manual, a draft copy of which is available online at <http://nlb.XXX>. The Contractor shall review the Manual prior to commencing the service and at least annually thereafter, and propose amendments as necessary to improve the service and the clarity and accuracy of the Manual. The Manual will also be the foundation of the Contractor's training of GLA personnel.

8. Aircraft and Equipment Specification

8.1. **General.** The choice of helicopter type and the number of aircraft provided rests with the tenderer. If more than one helicopter is provided, those used for transporting passengers must be identical and identically equipped so that passengers can learn standard drills and procedures. A different type may be proposed for the delivery of freight only; such helicopters may be less well-equipped at the Contractor's discretion. The passenger-carrying helicopter(s) must meet the following specification and carry the equipment described below:

8.2. Key Requirements:

- 8.2.1. Capable of landing on a helipad with a safe loading of four tonnes on a footprint of 250mm x 250mm.
- 8.2.2. Capable of operating from the helidecks of the four GLA vessels listed in the Landing Site Registers, including a compatible Maximum All Up Mass.
- 8.2.3. Equipped, certified and operable under EASA rules for single pilot IFR operations.
- 8.2.4. Able to land on rough, uneven ground containing bird nesting holes and burrows.
- 8.2.5. Capable of carrying at least a 500 kg stable underslung load for 50 nm at ISA Sea Level in calm winds and return to the starting point with at least minimum landing fuel.

8.3. **Performance.** The helicopter(s) must be certified to Category A and to fly a Performance Class 1 helipad take-off profile at maximum all up weight in ISA conditions (sea level, 15°C, 1013 mb).

8.4. Passenger and Freight Capabilities.

- 8.4.1. Crashworthy seating for at least 4 passengers not including the pilot's and co-pilot's seats. The ability to carry additional seats is highly desirable. Each passenger seat must have a harness with at least four attachment points.
- 8.4.2. A cargo hook system and a means for the pilot to monitor the load in flight. The system must include a strop, at least three metres in length which can be flown without a load and which has a bottom hook which can be opened by the pilot and/or crewman so that the strop remains attached to the helicopter when the load is released. The system must also indicate to the pilot the load weight on the hook. The helicopter must always be prepared to operate in the underslung load role at no notice.
- 8.4.3. A baggage area which can be loaded quickly and easily, preferably separate from the passenger area of the cabin. When four passengers are on board, the baggage area should offer a single contiguous space of at least one thousand litres above a cargo floor which includes load securing points.
- 8.4.4. The ability to convert passenger space to baggage space during a SAP.

- 8.5. Survival Systems.** The pilot, and Aircrewman if carried, must be equipped with a short term air supply system carried in their lifejackets, and be trained in their use. The Aircraft must be equipped to comply in all respects with JAR-OPS 3 requirements or subsequent legislation for helicopters operating over water in a hostile environment, for helicopters operating at a distance from land corresponding to more than ten minutes flying time at normal cruise speed and for helicopter flights in connection with the offshore exploitation of mineral resources. The requirements include but are not limited to:
- 8.5.1. An emergency flotation system with automatic and manual firing systems.
 - 8.5.2. A suitably sized and equipped life raft.
 - 8.5.3. Life jackets for all occupants, of a waistcoat-type which cannot be inadvertently donned twisted or otherwise incorrectly.
 - 8.5.4. Radar altimeter with cockpit indicator and audio alert at a preset height.
 - 8.5.5. Externally mounted, automatically deployable Emergency Locator Transmitter.
 - 8.5.6. Emergency egress lighting.
 - 8.5.7. Pyrotechnic distress signalling equipment.
 - 8.5.8. Emergency cabin illumination powered by an independent source is desirable.
- 8.6. Additional Systems/Facilities.** The following systems must be included:
- 8.6.1. A high-visibility livery optimised for locating the helicopter after a forced landing in the sea.
 - 8.6.2. Avionics optimised for low-level navigation and airfield approaches, including a moving map with installed mapping of all Ireland and UK and surrounding seas out to 50 nm.
 - 8.6.3. Weather radar.
 - 8.6.4. Mode S transponder.
 - 8.6.5. Traffic Collision Avoidance System.
 - 8.6.6. Marine band radio integrated into the cockpit intercom system. [Channels 30, 67 and 95 must be included although the three GLAs intend to adopt a single common frequency].
 - 8.6.7. Radios to enable two Aeronautical Band VHF frequencies to be motored concurrently (normally the GLA frequency and the local ATC)
 - 8.6.8. Intercommunication including sockets or splitters, headsets and headset hooks or stowages for all the passengers to listen to intercom and radio traffic.
 - 8.6.9. A simple aircraft location tracking device, preferably satellite-based, for display on a remote laptop or office PC.
 - 8.6.10. Cabin air heating.
 - 8.6.11. Removable co-pilot's flight controls and covers for when the controls are removed.
 - 8.6.12. Rotor brake.
 - 8.6.13. Windshield wipers.
 - 8.6.14. Lockable cockpit/cabin doors.
 - 8.6.15. A simple one-handed latching system for freight bay doors.
 - 8.6.16. A warning for the pilot if any cabin or freight-bay doors are not latched is desirable.
 - 8.6.17. Hold-open catches or struts for all cockpit/cabin and freight bay doors.
 - 8.6.18. A baggage bay load spreader if the floor should be protected from mixed freight loaded in haste.
 - 8.6.19. A variable tie-down system for baggage in the cabin and any freight bays to include strong points, and strops if specific.

- 8.6.20. Aircraft tie-downs, lashings and covers for parking outdoors.
 - 8.6.21. The facility (lashing points, and strops if specific) to tie the Aircraft down to the deck of a ship in winds up to 40 knots.
 - 8.6.22. A mobile phone and a lap-top or similar device with internet access, always carried in the helicopter for use on the ground between flights
- 8.7. Six safety helmets incorporating radio transceivers on Marine Band Channel [30] which are compatible with the Aircraft communications equipment for the ground staff to manage operations and assist with underslinging. The [safety helmets](#) shall be [approved under to marine, construction and other appropriate standards](#)
- 8.8. During the Mobilisation Period the GLAs and the Contractor shall agree on design and layout of the Aircraft equipment and systems to meet this Specification. The Contractor shall ensure that the Aircraft is equipped in accordance with the GLAs' requirements in advance of the commencement of the Services as part of the Mobilisation Programme.

9. Aircraft Maintenance

- 9.1. The Contractor shall at all times maintain the Aircraft and such equipment as is necessary to provide the Services in a safe and airworthy condition in accordance with the manufacturers' recommendations, EASA Part 145 and relevant legislation.
- 9.2. The Contractor shall provide such workshops, stores, spare parts, tools, equipment and supplies as are necessary for the operation and maintenance of the Aircraft to perform and complete the task.
- 9.3. The Contractor shall be responsible for planning all scheduled maintenance such that it does not impact the GLA operational requirement.
- 9.4. **Unavailability during Planned Routine Operations.** In the event of the unscheduled unavailability of the helicopter during a SAP, the Contractor shall restore the service with the helicopter as soon as possible and within at most 24 hours from the beginning of the unavailability or be subject to liquidated damages.
- 9.5. **Presentation.** The condition of the helicopter(s) will reflect on the image of the GLAs. The Contractor shall ensure that they present a clean and smart appearance internally and externally at all times.

10. Contractor's Aircrew

- 10.1. **General.**
 - 10.1.1. The Contractor shall retain, train and assign sufficient aircrew to maintain the Services. In the event that sickness or other unscheduled absences prevent the Contractor from delivering replacement aircrew within 24 hours, the Contractor shall be liable for liquidated damages.
 - 10.1.2. The Contractor shall nominate aircrew in accordance with this Requirement and subject to the GLAs' Approval of each person nominated; such Approval shall not to be unreasonably withheld.

10.2. **Quality.** The provision of suitably qualified and experienced aircrew is key to the success and safety of the GLA helicopter operation. The demanding weather conditions and topographical constraints at some of the more remote operating sites demand a high standard of piloting and decision making skills. A proven depth of experience in sling load operations is essential as the load configurations will vary greatly and will often involve a ship-borne pick-up to a precision drop point including helipads immediately beside and atop lighthouses.

10.3. **Minimum Criteria.** All pilots assigned to this Contract by the Contractor shall:

10.3.1. Hold a current EASA Commercial Pilot's Licence (Helicopters) or Airline Transport Pilot's Licence (Helicopters).

10.3.2. Hold and maintain the appropriate instrument rating qualification to fly under Instrument Flight Rules (IFR) as a single pilot in the Aircraft.

10.3.3. Be trained in and have extensive demonstrable experience of mountain flying, underslung load, maritime (including overwater navigation, maritime survival and deck landings), and confined landing site operations in turbulent environments.

10.3.4. Have not less than the following experience:

10.3.4.1. Total flying time (helicopters) 2000 hours.

10.3.4.2. Total time in command (helicopters) 1000 hours.

10.3.4.3. Total time in command (multi-engine helicopters) 500 hours.

10.3.4.4. Total time in command (proposed helicopter(s)) 100 hours.

10.3.4.5. At least [200] hours of sling load operations.

10.4. **Initial Training.** Pilots who are new to the Service shall have conducted the following training and familiarisation under the supervision, and to the satisfaction, of a suitably qualified Line Training Captain within the GLA area they are to operate:

10.4.1. Familiarisation at the Operating Bases.

10.4.2. Take-offs and landings at a representative rock station where turbulence is predictable, including emergency handling.

10.4.3. Take-offs and landings at a representative lantern-top lighthouse including emergency handling.

10.4.4. Take-offs and landings at a representative tidal helipad including emergency handling.

10.4.5. Underslung load-lifting evolutions to a representative rock station, lantern top lighthouse and GLA vessel, including emergency handling and operations.

10.4.6. Deck landings and ship operations (including emergency handling) with a representative GLA vessel. Training on one GLA vessel must qualify the pilot for all other GLA vessels.

10.5. **Six Month Re-currency Training.** A pilot trained for providing the Services who has not carried out any one of the following activities within the past 6 months will

become time expired for that activity. The pilot must undertake two re-qualification evolutions under the supervision of a suitably qualified Line Training Captain before employing the activity to provide the Service:

- 10.5.1. Take-offs and landings at a rock station where air turbulence is expected.
 - 10.5.2. Take-offs and landings at a lantern top lighthouse.
 - 10.5.3. Take-offs and landings on a GLA vessel.
 - 10.5.4. Load-lifting evolutions to/from a rock station where air turbulence is expected.
 - 10.5.5. Load-lifting evolutions to/from a lantern top lighthouse.
 - 10.5.6. Load-lifting evolutions to/from a GLA vessel.
- 10.6. **Aircrewman.** An engineer licensed on the helicopter type and trained in his roles shall be available to accompany the helicopter at all times unless a GLA provides at least two weeks' notice that his presence will not be required for a particular SAP. The Aircrewman's roles will be:
- 10.6.1. To improve the efficiency of ground operations (including schedule management, cabin role changing, refuelling, loading and securing internal freight, briefing and directing occasional flyers, and packing and approving Dangerous Goods for carriage).
 - 10.6.2. To fix minor aircraft malfunctions and to request the correct assistance if a more complex repair is required, enabling the service to be restored quickly.
 - 10.6.3. To fly as an Aircrewman when required by the individual GLA. In general, the Aircrewman will assist and offload the pilot (including radio calls and providing local knowledge to new pilots), will check passenger drills and passenger and load security and hatches before take-off, will brief direct and manage passengers and survival equipment in the event of an emergency, and will direct the pilot during complex or precise underslung load operations. However, differences between the three GLA operations may result in different uses of the Aircrewman. For example, NLB operates long transits to some tidal sites which allow only one landing per tide so may lack the payload to carry an Aircrewman. Similarly CIL must cover the whole of Ireland (starting at Dublin) within short SAPs and may also need to dispense with the Aircrewman for productivity reasons. TH expects to fly the Aircrewman on all flights except, for example, simple heavy underslung loads.
 - 10.6.4. To conduct on-the-job training and checking of HLOs and Groundcrew.
- 10.7. **VVIP Flights.** The Contractor will be required to operate the helicopter with two pilots for very occasional VVIP flights, given at least two months' notice.
- 10.8. **Language.** The Contractor will conduct all operations in the English language. Any aircrew who do not have English as their first language must have passed the International English Language Testing System (IELTS) at a minimum level of 7.5.
- 10.9. **Removal of Contractor's Aircrew.**

- 10.9.1. The GLAs may with due cause, give notice to the Contractor that a member of the Contractor's aircrew should be removed from providing the Services. If such notice is given the Contractor shall promptly comply with that notice by removing that member of the Contractor's aircrew from providing the Services and promptly replace that person with another (subject to Approval of the GLAs) who is fit, qualified, and properly licensed in accordance with the Legislation and shall have the necessary experience and training as required by this Contract and the Service Specification.
- 10.9.2. The decision of the GLAs on whether any person is to be removed from or Approved for involvement in the provision of the Services, and whether the Contractor has furnished all information or taken steps required of it by this Clause, shall be final and conclusive.
- 10.9.3. The Contractor shall bear the cost of any notice, instruction or decision of the GLAs under this Clause.

11. Services and Facilities Provided by the GLAs

- 11.1. The GLAs shall make their best endeavours to provide and maintain the following items at their sole expense:
 - 11.1.1. Routine and back-up telephone and e-mail contact details for the GLA management personnel.
 - 11.1.2. The Tri-GLA Helicopter Operations Manual, maintained as a controlled document within the GLAs' Rotary Aviation Specialist's Quality System.
 - 11.1.3. Helicopter landing pads or suitable areas of ground at all GLA Operating Bases and lighthouses where the Services are to be provided.
 - 11.1.4. Trained and experienced Ground Crew and Helicopter Landing Officer (HLO) personnel to assist with marshalling, loading, refuelling and communications in support of Aircraft operations.
 - 11.1.5. Underslung load equipment (nets, bags, containers, scaffolding binders etc) below the hook on the long strop, including maintenance, certification and replacement when necessary.
 - 11.1.6. Fuelling and fuel-testing facilities as described at paragraph 6.
 - 11.1.7. Fire fighting and rescue equipment in support of the Aircraft operations at GLA Landing Sites and on vessels in accordance with Certifying Authority requirements or as agreed by the Contractor to be reasonable.
 - 11.1.8. Windsocks and telephones at all Operating Bases, and Marine and Aeronautical Band VHF radios (fixed or portable) at all GLA Landing Sites.
 - 11.1.9. Survival suits for GLA personnel and subcontractors.
 - 11.1.10. Aircraft tie-down points, strops and crews trained in their use on vessels.

12. Training for GLA Personnel

- 12.1. **Initial Familiarisation.** The Contractor shall, at its own cost, provide all necessary conversion and familiarisation training on the Aircraft for existing GLA Helicopter Groundcrew prior to the commencement of the Services. Approximately twenty [20] NLB personnel, [20] CIL personnel and [20] TH personnel will require the training.
- 12.2. **Initial Training.** The Contractor shall provide training courses within each GLA area for new GLA appointees during the Contract Term as follows:
- 12.2.1. A Helicopter Landing Officer Course for approximately [XXX] personnel in each GLA area every year, to enable them to undertake the duties of a HLO. The syllabus shall be modified to include specific training for ship operations when given to marine personnel.
- 12.2.2. A Helicopter Groundcrew Course for approximately [XXX] personnel in each GLA area per year.
- 12.2.3. A Helicopter Operational Planning Course (as required for new GLA management personnel).
- 12.3. **Recurrent Training.** HLOs and Groundcrew will require refresher training and approval by the Contractor at least every two years, either on a dedicated course in the GLA area or by progressive on-the-job training and assessment.
- 12.4. **Training Topics.** HLO and Groundcrew training courses shall include safety in and around the helicopter, passenger, internal and underslung load operations, refuelling, hand and radio marshalling, the transport of Dangerous Goods, radio communications, and actions in the event of emergencies in the air and on or near a landing site. The training should allow every trainee to practice all relevant exercises with a live helicopter. GLA personnel nominated to carry out the packaging of Dangerous Goods for air transport will have passed an International Air Transport Association (IATA) approved course (refreshed in accordance with IATA guidelines).
- 12.5. **Training Support.** Each of the training courses shall be based on the Tri-GLA Helicopter Operations Manual, amended as required by the Contractor.
- 12.6. **Training Records.** Each GLA shall hold and maintain training records for all their ground crew and other personnel involved in lighthouse operations and will provide up-to-date copies of these records to the Contractor. Any records held by the Contractor must be held in accordance with current Data Protection regulations.
- 12.7. **Remedial Training.** The Contractor shall bring to the attention of GLAs any GLA personnel who are unable to achieve the required standards in training or to maintain those standards on operations, and shall propose remedial training or withdrawal as appropriate.
- 12.8. **Training Development.** The detail and duration of training courses will be developed after contract. For the purposes of the tender, bidders are to propose outline training methods, syllabi and durations for Initial and Recurrent Training, and a daily rate for such courses. Training will be invoiced and paid separately from and in addition to payments for the service.
- 12.9. **Recurrent Briefing Materials.**

- 12.9.1. The Contractor shall provide two versions of a pre-flight safety briefing for the initial and frequent refresher training of passengers in routine and emergency drills in DVD format. The two versions should be slightly different to keep the attention of regular viewers; the differences might be in animation, the order of content, and the voice-over (one might be by a male and one by a female).
- 12.9.2. The Contractor shall provide one separate DVD as a refresher on underslung load operations.
- 12.9.3. [Thirty] copies of all three DVDs shall be passed to the GLAs prior to commencing the service.
- 12.9.4. The Contractor shall conduct at least an annual review of the DVDs, make revisions where necessary, and provide updated copies to GLAs.
- 12.9.5. The Contractor shall grant permission to the GLAs to copy this briefing for use by their staff, maintenance contractors and approved passengers. If the material is subject to copyright, a copyright assignment must be made in the favour of the GLAs at no cost.
- 12.9.6. The safety briefing DVDs shall address at least the following:
 - 12.9.6.1. Aircraft safety and danger areas.
 - 12.9.6.2. Safe approach to aircraft during all phases of helicopter operations.
 - 12.9.6.3. Entering the aircraft.
 - 12.9.6.4. Hatches and harnesses.
 - 12.9.6.5. Communications in flight.
 - 12.9.6.6. Safe departure from the aircraft.
 - 12.9.6.7. Emergency drills in the event of a forced landing on sea and land.
 - 12.9.6.8. Safe carriage of internal freight.
 - 12.9.6.9. Personnel protective equipment for flight and full life jacket briefing.
- 12.9.7. The underslinging DVD shall address at least the following:
 - 12.9.7.1. Protective equipment to be worn/operated by ground personnel.
 - 12.9.7.2. Roles/designation of ground crew.
 - 12.9.7.3. Safe approach to cargo handling zone.
 - 12.9.7.4. Communications during underslinging operations.
 - 12.9.7.5. Use of static probe.
 - 12.9.7.6. Operation of remote release cargo hook.

13. Safety

- 13.1. The GLAs operate an open reporting system and require the Contractor to do the same, and to work jointly on the safety management of the operation.
- 13.2. **Pilot's Responsibility.** The safety of the Aircraft and crew will remain the responsibility of the pilot, as Aircraft Commander, and his decisions on safety will be accepted by the GLAs as overriding in the event that they impinge on the effectiveness of the operation including without limitation whether a flight should be undertaken, the manner of performing the flight, helicopter serviceability, routes, weather, flying and landing site conditions prevailing at the time.

13.3. **Risk Management Plan.** The Contractor shall submit a Safety Risk Management Plan specific to the Services prior to commencing operations, shall review it after four months operational experience and at least annually thereafter, and shall discuss changes with the GLAs. The Plan will include the assessment and mitigation of all the principal safety risks.

13.4. **Safety Management System.** The Contractor shall operate a Safety Management System approved by the Certifying Authority. The Contractor shall demonstrate the operation of processes and programmes to encourage a safety ethos amongst all staff. The Contractor shall also demonstrate the operation of processes and programmes to manage, report, investigate, resolve and learn from all safety issues including those reported by GLA personnel. The processes shall include:

13.4.1. **Safety Management Record.** The Contractor shall keep a Safety Management Record available to all personnel where any member of the Contractor's and appointed subcontractors' staff can record any incident or comment relevant to safety, and where the management will respond with actions and record closure. The GLAs reserve the right to review this Record.

13.4.2. **Safety Meetings.** The Contractor shall hold Flight Safety Meetings and provide copies of the minutes to the OPG. All Contractor's Personnel principally assigned to the GLA contract shall attend at least two meetings per year. The Flight Safety Meetings should be a forum where all aspects of safety can be discussed openly. The agenda must include the following items as a minimum:

13.4.2.1. Flight Safety and incident updates from the Certifying Authority and other similar organisations.

13.4.2.2. Flight Safety-related events, reports and incidents raised on the Services, by the Contractor's other personnel, and by other operators using similar helicopter types or operating in similar roles where these can be made available.

13.4.2.3. CRM, operational, support, tasking and equipment issues.

13.5. Incident Reporting

13.5.1. The Contractor shall immediately inform the GLAs of any accidents or incidents involving the Service which result in any damage or injury, which are likely to attract public interest, or which have immediate implications for the safety or availability of the Service.

13.5.2. The Contractor shall inform the GLAs within 48 hours of any reportable incidents or other safety-related occurrences which could have implications for the safety or availability of the Service.

13.5.3. The Contractor shall provide summaries of relevant incidents and closure actions drawn from the Service and across the industry in a format which the GLAs can circulate to inform and educate their personnel.

13.5.4. The Contractor shall use the 6-monthly Contract Review Meeting to review any incidents, accidents, other safety-related occurrences and trends involving the Service and the Contractor's other flying and, where possible, other operators, where the circumstances might be relevant to the safety of

the Service. The GLAs will also raise safety and availability issues with the Contractor. The Contractor and the GLAs shall then review whether any modifications to procedures or equipment are required and if so, shall agree and implement such modifications.

14. Organisation and Management

- 14.1. The Contractor shall designate a Contract Operations Manager (or equivalent) who will be the principal point of contact on all day-to-day operational matters.
- 14.2. The Contractor shall designate a Lead Pilot for the GLA operation who might also be the Operations Manager.
- 14.3. **Contacts.** The Contractor shall provide and up-date as necessary routine and emergency contact telephone numbers and e-mail addresses for the designated Contract Manager, the Operations Manager, the Lead Pilot and Crewman both at the Contractor's base and mobile telephone numbers.
- 14.4. **Meetings.** The Contractor shall attend six-monthly Contract Review Meetings with the GLAs to review activities and operating and commercial procedures and progress. In addition, the Contractor will also be required to attend or be represented at other operational or contractual meetings to provide advice and assistance to the GLAs as they may reasonably require. The venue(s) for these meetings shall be at a place acceptable to the GLAs.
- 14.5. **Reports.**
 - 14.5.1. The Contractor shall submit a report within two weeks of the end of each SAP summarising the following data for the SAP and rolling totals for that calendar year:
 - 14.5.1.1. The duration in elapsed hours taken to transit to the SAP (with start and finish locations).
 - 14.5.1.2. The dates and total number of days planned in the SAP.
 - 14.5.1.3. The number of revenue flying hours flown.
 - 14.5.1.4. The total number of hours when the helicopter was expected but not available for reasons managed by the Contractor (principally aircraft serviceability and crew availability).
 - 14.5.1.5. The total number of passenger-miles flown.
 - 14.5.1.6. The total weight of cabin freight carried.
 - 14.5.1.7. The total weight of underslung freight carried.
 - 14.5.1.8. The number of underslung loads carried.
 - 14.5.1.9. The total number of flying hours flown empty within the SAP (with no GLA passengers or freight on board).
 - 14.5.2. The Contractor shall render any other reports on the Services at such times and in such form as the GLAs may reasonably require in addition to those required as performance metrics or in support of invoices.

15. Mobilisation Programme.

- 15.1. During the period between Contract Award and the start of the Services, the Contractor shall implement a Mobilisation Programme as tendered to ensure that

the Contractor and Aircraft are prepared and ready to provide the Services in accordance with this Contract. During the Mobilisation Period the Contractor and the GLAs shall attend regular formal Mobilisation Programme review meetings at least quarterly and the GLAs shall ensure that relevant personnel are available to assist the Contractor and provide information as required.

16. Operational Scenarios

16.1. Aircraft Performance Criteria. Tenderers are to provide the following data, supported by detailed calculations and Helicopter Flight Manual extracts, on the aircraft they propose, fully equipped as per the Aircraft and Equipment Specification (para 8 above):

16.1.1. The cruise speed at maximum continuous power, ISA Sea Level at 90% of Maximum Gross Mass (MGM).

16.1.2. The usual transit cruise speed at ISA Sea Level, at 90% of MGM.

16.1.3. The icing limitations on the helicopter.

16.1.4. The side- and tail-wind limitations for all phases of start-up, take-off, hover and flight including restricted and unrestricted helipad approaches and departures, with the relevant mass criteria.

16.1.5. The maximum range and the available payload in still air, ISA Sea Level calculated from the Zero Fuel Weight including one 85kg pilot (ZFW) and the weight then available for fuel less the VFR reserve, factored by the fuel consumption and usual transit cruise speed.

16.1.6. The range in still air, ISA Sea Level calculated from the ZFW and four 85kg passengers, and the weight then available for fuel less the VFR reserve, factored by the fuel consumption and usual transit cruise speed.

16.1.7. The maximum underslung load that can be carried in still air, ISA, calculated from the ZFW and the weight of fuel for 30 minutes flight at a nominated typical speed for a stable underslung load plus the VFR reserve.

16.1.8. The maximum temperature at which the helicopter could undertake a Performance Class 1 surface level restricted helipad take-off at MGM at sea level in still air.

16.2. Operating Options. Tenderers are to propose their preferred, most cost-effective options for making a helicopter available within each GLA area at least once per month for Routine Planned Operations under two conditions: a total of 275 days SAP per year and a total of 350 days SAP per year, apportioned 43% to NLB, 22% to CIL and 35% to TH, interspersed by inter-GLA or deployment transits. Indicate aircraft and crew numbers, basing and fuelling options, crew flight and duty time limitations where these impinge, and provide a chart showing proposed routine five- to twelve-day SAPs and three-day transit periods over a twelve-month period. Innovative solutions are encouraged.

16.3. Routine Transits between SAPs in different GLAs. Give the predicted elapsed time between a helicopter being released at a low fuel state from Location 1 at 1800 on Day 1 and starting to operate at Location 2, the route taken, flying hours

Draft Statement of Requirement – Tri GLA Helicopter Project
Commercial-in-confidence

consumed and any overnight stops. Indicate any subsequent limitations on crew flight and duty hours. Assume benign weather, calm winds and twelve hours of daylight:

- 16.3.1. Location 1: Stornoway; Location 2: St Just
- 16.3.2. Location 1: Stornoway; Location 2: Blacksod
- 16.3.3. Location 1: Blacksod; Location 2: St Just

16.4. **Short-Notice Operations.** Indicate how you propose to respond to each of the following Short-Notice Operations in response to a Casualty in another GLA's area. Give the predicted elapsed time between being released at a low fuel state from Location 1 at 1200 on Day 1 and starting to operate at Location 2, the route taken, flying hours consumed and any overnight stops. Indicate any subsequent limitations on crew flight and duty hours. Assume that the Casualty will take four hours to repair, preceded and followed by 30 minutes flying time; all five hours must be in daylight. Also assume benign weather, calm winds and twelve hours of daylight. In case a helicopter is deployed from the Contractor's base, provide the additional data required by paragraphs 16.4.4 to 16.4.6 below:

- 16.4.1. Location 1: Stornoway; Location 2: St Just
- 16.4.2. Location 1: Stornoway; Location 2: Blacksod
- 16.4.3. Location 1: Blacksod; Location 2: St Just
- 16.4.4. Location 1: Contractor's base; Location 2: Stornoway
- 16.4.5. Location 1: Contractor's base; Location 2: Blacksod
- 16.4.6. Location 1: Contractor's base; Location 2: St Just