# Candidate Preparation Pack

## 1. Overview

This document outlines the technical standards and equipment requirements for the Day 1 skills assessment and Ghost Fishing UK diving. Candidates are expected to demonstrate a high level of buoyancy control and trim and efficient use of finning techniques before progressing to the following two course days (Survey and Recovery). Ghost Fishing UK will help where possible if certain areas are not as well developed, but candidates should be aware that the aim of Day 1 is to assess skills, not teach them. Therefore, candidates should come adequately prepared to demonstrate the required skills.

Ghost Fishing UK is dedicated to locating, surveying and removing abandoned, lost and discarded fishing gear (ALDFG), also known as 'ghost gear', which poses a severe threat to marine life and ecosystems around the UK coast. We strive to achieve this mission through technical excellence and by working collaboratively with the fishing industry to promote responsible marine practices and mitigate future gear loss.

The standards and equipment configuration outlined in this document are required to ensure diver safety, operational efficiency, and the protection of the fragile environments we operate in. Your success in meeting these standards is a direct contribution to the overall safety and effectiveness of our complex survey and recovery missions.

## 2. Prerequisites

Candidates for Ghost Fishing UK must meet the required skills levels in Section 5, plus:

- Be a minimum of 18 years of age
- Have conducted 100 total dives, with 20 in the last 12 months
- Hold a Sports Diver / Rescue Diver certification or equivalent
- Hold a nitrox certification
- Hold any certification completed using a twinset or sidemount configuration.
- Have conducted 25 dives in a drysuit
- Be able to answer ‘No’ to all questions on the UKDMC Recreational Diver Medical Form, or be certified as fit to dive by a UKDMC Medical Referee or hold a valid HSE medical.

# 3. Definitions

For the purposes of this document:

- ‘Must’ means that this is mandatory and non-negotiable.
- ‘Should’ means that divers are strongly recommended to do this, but it is not mandatory.

# 4. Equipment Configuration

To ensure safety and efficiency during Ghost Fishing UK operations, all candidates must adhere to a standardised equipment configuration. This simplifies planning, ensures equipment familiarity between the teams and minimises entanglement hazards. **Ghost Fishing UK accepts divers using open-circuit twin backmount or open-circuit sidemount configurations. Ghost Fishing UK does not use single cylinders or closed-circuit rebreathers.** Section 4 describes a backmount configuration. For sidemount configurations, please refer to your agency's training.

## 4.1. Standardised Configuration (Backmount)

- **Cylinders:** Twin 12 litre cylinders with a minimum working pressure of 232 bar must be used. These must be oxygen clean. These should be manifolded but independent configurations are accepted. Where independents are used, divers must be proficient in gas management. Standard gas is nitrox 32%. Ghost Fishing UK does not dive using air.
- **Backplate:** A backplate with a webbing harness, a crotch strap, and at least 5 D-rings (2 shoulder, 1 left hip, 2 crotch) must be used.
- **Wing:** A doughnut or horseshoe style wing, of appropriate size (typically ~40 lbs lift for twin 12’s) must be used. Bungee wings must not be used to minimise entanglement hazards. Traditional BCD’s must not be used.
- **Primary Light:** A high-output primary light must be carried. This should be able to be attached to the diver’s hand using a goodman handle (hard or soft). If using an umbilical torch, the battery canister must be mounted on the right hip.
- **Backup Light:** At least one compact backup light must be carried. This should be attached to the harness, but may be stored elsewhere as long as it is easily accessible. Divers should carry two backup lights.
- **Cutting Device:** Divers must have at least one cutting device (knife or line cutter) easily accessible. Ghost Fishing UK will provide a larger additional knife for active use on courses and project work.
- **DSMB and Spool:** These should be stored in a pocket to avoid becoming an entanglement hazard. The DSMB must be of an appropriate size and colour (red or orange and tall). Spools must have a minimum of 45m of line. Oral inflation should be used. Ghost Fishing UK does not prohibit the use of reels, but spools

should be used due to their compact nature and ability to be stored easily in pockets.

- **Cameras:** Small action cameras should be stored in pockets, or clipped to a chest D-ring. For the day one course, these are not required and must not be brought, but if owned should be brought for the later elements of the course. Ghost Fishing UK also welcomes photographers with larger professional setups. However, these must not be brought on any courses and are discouraged on projects until the diver has a degree of experience on Ghost Fishing UK projects due to the extra risks they present such as task fixation and entanglement. If in doubt, please ask the project manager.
- **Other Items:** Divers must have the following additional items:
    - A drysuit with at least one pocket
    - At least one depth and time measuring device (usually a dive computer)
    - Wetnotes and pencil
    - Spare mask
    - Sturdy, strong fins. Split fins must not be used.
    - Hood and gloves appropriate to the conditions

Extra items should be stored in pockets wherever possible. This includes wetnotes and spare mask. Divers must not use retractors, long bungee clips and carabiners to maintain a streamlined setup and ensure safety.

**Weight Check:**
Assuming twin 12 cylinders, when cylinders are full then there should be approximately 5-6L of gas in the wing. At 100bar this should be ~ 2-3L. At 50bar minimal gas should be present.

To check weighting, drain cylinders to 50bar at the surface and attempt to descend. If descent is not possible add 1kg in increments until descent is possible. Aim to be neutrally buoyant just under the surface with no gas in the wing or suit.

## 4.2. Regulator Setup (Twinset)

The following assumes the use of a backmount twinset. For those diving sidemount, adaptations must be made where required, principally the length of hoses and the number of SPGs to conform with a standard sidemount setup.

All regulators and cylinders must be serviced and in-test / within their maintenance period.

- **First Stages:** Divers must use two first stages suitable for use in cold water. These should use a DIN fitting.
- **Second Stages:** Divers must use a primary donate configuration. This is a primary regulator on a 2.1m hose that is routed down your right hip, across your

chest, and back around your neck from the right post, together with a back up regulator on a short hose mounted on a necklace from the left post.

- **Submersible Pressure Gauge (SPG):** Must be positioned on the left hand side. The hose must be an appropriate length and not cause the SPG to hang excessively low and / or become an entanglement hazard. Divers may use wireless pressure gauges, but these must always be in addition to a traditional analogue SPG and not a replacement for one. For those diving with independent cylinders, one SPG must be used on each side.
- **Drysuit Hose:** This must be on the left post.
- **Wing Inflator Hose:** This must come from the right post and cross over behind the head, with the wing inflator on the left hand side.

# 5. Required Skill Levels

**Gas Analysis:**
Divers must be familiar with analysing nitrox gasses and marking cylinders appropriately. This includes noting the mix, maximum operating depth, date and their name / initials. Divers are **not** expected to own a nitrox analyser.

**Static Buoyancy and Trim:**
The diver must be able to hold a fixed position in the water without significant arm/hand or leg movement. They must maintain buoyancy within 0.5m of a static reference position for approx 1 minute.

Trim must be 30° or better from horizontal. The body must be in a relatively straight line from shoulder to knee, with the angle/extension of the knee being used as a balance/counterweight.

**Propulsion:**
The diver must be able to swim 30cm from the seabed without impacting the environment or silting up the visibility. A frog kick is an appropriate kick for this. Other techniques are acceptable if they meet the objective.

The diver must be able to turn within their own body length using fin movements rather than hand wafting (helicopter turn).

The diver must be able to swim 1m in reverse using fin movements rather than hand wafting (backfin).

***The following skills should be performed within the Static Buoyancy and Trim Specifications:*** *The diver must remain in trim and must not move more than 0.5m from the static reference position.*

**Gas Check:**
The diver must be able to look at their SPG and communicate their gas pressure to the team with hand signals. This should be done with one hand.

**Wetnotes Use:**
The diver must be able to remove wetnotes from their pocket and write their name and/or draw a simple sketch, and replace the notes in their pocket. This should be a simple motion with the pocket kept clear of extraneous items.

**Mask Clearing/Swap:**
The diver must be able to clear and / or replace a mask

**DSMB Deployment:**
The diver must be able to remove a spool and DSMB from its storage, perform an overhead check and then inflate it, and send it to the surface. There should be minimal slack line, and the line must subsequently be kept tight on the ascent without impacting the divers buoyancy.

For added task loading the diver should be capable of 'building' the spool and DSMB in water (connecting them together).

**Ascent:**
The diver must be able to ascend, managing expanding gas, stopping for 1-2min @ 6m & 3m. The diver must always maintain the same depth as the team and in an appropriate formation to allow communication as required.

**Stage: pick up, drop, and handing off: (if previously trained)**
The diver should be able to pick up and put down a 7l aluminium stage cylinder, This includes connecting and disconnecting it from their harness.
The diver should be able to pass the stage cylinder mid-water to another diver.

**Out-of-Gas (OOG) Ascents:**
The diver must be able to donate a long hose regulator to simulated out-of-gas (OOG) buddy (giving OOG signal with hand and light).

Deployment must prioritise getting the regulator to the buddy, with picking up the backup regulator being a secondary action. The full length of hose must be deployed. Contact between OOG and donor should be maintained.

Once the OOG diver is stabilised, a DSMB should be deployed by 3rd team member (or the donor in a buddy pair) and a controlled ascent conducted.

**Communication:**

The diver must understand and be proficient in the following signals:

**Hand Signals**

- OK 👌
- Thumb at the end of the dive👍
- Direction (U.D.L.R) 👍👎👈👉
- Out of gas
- Gas check and communicating numbers (should be with one hand)

**Light Signals**

- OK
- Attention
- Emergency

# 6. Further Information

Following the Day 1 assessment, all candidates will receive a full debrief.

- **Successful Completion:** Candidates who meet the required standards will be invited to attend the Day 2 and Day 3 Survey and Recovery elements of the course at a later date. Completion of these will progress you towards being a full Ghost Fishing diver who may attend their first project.
- **Development Areas:** If the standards are not met by the end of Day 1, you will receive a specific list of areas to improve and actionable feedback.
- **Reassessment:** Candidates are welcome to practice and return for a future assessment day. In some circumstances, your instructor may allow for video feedback of the skills to be submitted as proof of proficiency instead.

If you have any questions regarding these standards or your equipment configuration, please contact your course instructor.