



**Scottish
Sub-Aqua
Club**

Scottish Sub Aqua Club Boathandling Information

Objective

The Boathandling section of the SSAC website is intended to provide guidance to members and non-members on topics related to the operation of dive boats.

It will include:

- Legal aspects of boat handling.
- Minimum standards to which a dive boats should be equipped.
- Suggested distances for the dive boat operation from safety.
- The training and recommended qualifications of the coxswain and crew.
- General boat operations.
- The appropriate awards.
- Launch site (description and where possible pictures)

Visit the site at www.scotsac.com

Legal status and responsibilities.

Status.

Private boats and club boats are exempt from the requirements of the Maritime Coastguard Agency (MCA) provided they comply with the exemption clauses of the: -

Statutory instrument 1998 No 2771 Merchant Shipping Safety.

The Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Regulations 1998

Water based activities

Extract form the statutory instrument.

Interpretation

2. (1) (a) (1) (aa) in the case of a vessel wholly owned by an individual or individuals, used only for the sport or pleasure of the owner or the immediate family or friends of the owner.

2. (1) (a) (11) on a voyage or excursion which is one for which the owner does not receive money for or in connection with operating the vessel or carrying any person, other than as a contribution to the direct expenses of the operation of the vessel incurred during the voyage or excursion.

2. (1) (b) any vessel wholly owned by or on behalf of a members' club formed for the purpose of sport or pleasure which, at the time it is being used, is used only for the sport or pleasure of members of that club or their immediate family, and for the use of which any charges levied are paid into club funds and applied for the general use of the club.

2. (1) (b) in the case of any vessel referred to in paragraphs (a) or (b) above no other payments are made by or on behalf of users of the vessel, other than by the owner.

Interpretation of the statutory instrument

2. (1) (a) (1) (aa)

Refers to the ownership of the boat.

The boat is owned by an individual, syndicate, branch or club and is not used for any commercial activity or the owners are not being paid for completing the voyage.

Passengers on the boat must be a member of the club, branch, friends or immediate family of a member that will be on the boat.

2. (1) (a) (11)

This applies to a commercial vessel which at the time of its use or not engaged in commercial operation. No payment other than a contribution to the fuel or any other direct running costs (oil, harbour dues, launch fees etc.) shall be asked for or offered.

2. (1) (b)

This refers to any charges that may be made.

If charges are being made, the boat must be used for its intended recreational purposes by members of the club or their friends and immediate family.

All payments made must be paid into club funds.

2. (1) (b)

This refers to other costs not specifically related to the journey.

All other running costs and depreciation shall be met by the owner.

Shore based activities

Shore based activities are not within the jurisdiction of the Marine and Coastguard Agency (MCA).

Legal responsibilities of the coxswain

The non-professional coxswain has a duty of care to members of the crew and 'passengers'. Reasonable steps have to be taken to ensure the safety of all on board.

Moral responsibilities of the coxswain

To ensure the safe transport of the crew and 'passengers' and their belongings to and from the planned destination.

Maintain the boat in a seaworthy state.

Insurance

There is no legal requirement to carry any insurance when at sea unless demanded by local bylaws:

It is strongly advised to have insurance covering the following:

The vessel, machinery and equipment.

Third party.

The passengers, crew and their belongings.

The presence of divers in the water.

The transport of the boat while on the road trailer.

Boat and equipment & distance from a safe shore or haven.

General

If the boat is to operate further away from a safe shore or haven and there is the possibility of more extreme the sea conditions the boat must be more sea worthy and better equipped. The equipment lists give minimum equipment for the different operating 'areas'.

A safe shore or haven

For the purposes of these guides a safe shore is a beach of sufficient length and free from objects onto which a powered boat can safely land the crew and passengers so that assistance can be obtained (habitation is close to hand).

For the purpose of these guides a haven is any form of harbour or recognized safe anchorage in

the prevailing conditions having appropriate communications in order to obtain assistance.

Equipment lists

Equipment recommendations

The 'equipment lists' that follow are based on the recommendations given by the Royal National Lifeboat Institute (RNLI) when carrying out a 'Sea check'.


Consideration should be given to the fact that many dive boats are rigid-hull inflatable boats (RIBs) and it may be impractical to fit or unsafe to use some equipment.

Consideration should be given to the use of a piece of equipment for 2 or more tasks.

Each 'list' will be appropriate to the type (distance from a safe shore or haven, exposure to weather and sea state) of water on which the boat will be normally used.

Items marked '●' are considered essential for any journey.

In addition to the equipment recommended by the RNLI, the SSAC recommend that any boat used as a diving platform or for diver transport should have carry:-

- A dive flag (international 'A' ) and a means of deploying it.
- An oxygen administration kit with sufficient reserve to support the diver until medical assistance is at hand.

Sheltered waters.

These would normally be small (sea or fresh water) lochs, lakes, large harbours and would generally be less than 0.5 mile in length in any direction or long and narrow e.g. sheltered sea lochs on the west of Scotland.

Items marked '●' are considered essential for any short journey.

- Fuel for the planned journey + minimum of 20% reserve.
- 'Kill chord' fitted to the engine (and used).
- Emergency steering.
- A second means of propulsion (paddles, reserve engine dependant on the boat size) and of starting the engine.
- A means of summoning effective help, (flares, marine band VHF radio, mobile phone if known to operate in the area, torch).
- Anchor and warp of appropriate length to achieve anchorage and suitable point for attachment.
- Inflatable / RIBs carry an inflation pump.
Compass (Diving compass is adequate).
Suitably protected chart (photocopy in a plastic bag).
Echo sounder
- Bailer / pump, the plastic 'drum used to store an anchor & warp can be used as a bailer).
- Suitable buoyancy aid for all members of the passengers and crew.
- First aid kit.
Emergency oxygen.
Suitable additional protective clothing.
Engine repair kit
Hull repair kit.
Fire extinguisher.
A means of making sound signals.
Mooring lines & fenders.
Heaving line & rescue quite.
- Watch (means of telling the time).

For operation at dusk & at night additional equipment is required.

Navigation lights (dependent on the size and maximum speed of the boat).

Anchor light (all round white light).

Light for deck work.

Appropriate additional flares (red and white)

Inshore use.

These would normally be exposed the entrances to sea locks, larger sea lochs, estuaries, within 3 nautical miles of a safe shore or haven. .

Items marked '●' are considered essential for any journey.

- Fuel for the planned journey + minimum of 20% reserve.
- 'Kill chord' fitted to the engine.
- Emergency steering.
- A second means of propulsion (paddles, reserve engine dependant on the boat size) and of starting the engine.
- A means of summoning effective help, (flares, marine band VHF radio, mobile phone if known to operate, torch).
- Anchor and warp of appropriate length to achieve anchorage and suitable point for attachment.
- Inflatable / RIBs carry an inflation pump.
- Compass (Diving compass is adequate).
Echo sounder.
Global positioning system (GPS)
- Suitably protected chart (photocopy in a plastic bag).
- Bailer / pump, the plastic 'drum used to store an anchor & warp can be used as a bailer).
- Suitable buoyancy aid for all members of the passengers and crew.
- First aid kit.
Emergency oxygen.
- Suitable additional protective clothing.
- Engine repair kit
- Hull repair kit.
- Fire extinguisher.
A means of making sound signals.
Radar reflector
Mooring lines & fenders.
Heaving line & rescue quite.
- Watch (means of telling the time).

For operation at dusk & at night additional equipment is required.

Navigation lights (dependent on the size and maximum speed of the boat).

Anchor light (all round white light).

Light for deck work.

Appropriate additional flares (red and white)

Offshore use.

These would normally be any waters within 10 nautical miles from land.

Items marked '●' are considered essential for any journey.

- Fuel for the planned journey + minimum of 20% reserve.
- 'Kill chord' fitted to the engine.
- Emergency steering.
- A second means of propulsion (reserve engine dependant on the boat size) and starting.
- A means of summoning effective help, (flares, marine band VHF radio).
Emergency position indication radio beacon (EPIRB)
- Anchor and warp of appropriate length to achieve anchorage and suitable point for

- attachment.
 - Inflatable / RIBs carry an inflation pump.
 - Compass.
 - Echo sounder.
 - Global positioning system (GPS)
 - Suitably protected chart (photocopy in a plastic bag).
 - Bailer / pump, the plastic 'drum used to store an anchor & warp can be used as a bailer).
 - Suitable buoyancy aid for all members of the passengers and crew.
 - First aid kit.
 - Emergency oxygen.
 - Suitable additional protective clothing.
 - Engine repair kit
 - Hull repair kit.
 - Fire extinguisher.
 - A means of making sound signals.
 - Radar reflector
 - Mooring lines & fenders.
 - Heaving line & rescue quite.
 - Watch (means of telling the time).
- For operation at dusk & at night additional equipment is required.
- Navigation lights (dependent on the size and maximum speed of the boat).
 - Anchor light (all round white light).
 - Light for deck work.
 - Appropriate additional flares (red and white)

Training of the coxswain and crew.

General

It is not considered essential for the coxswain to be trained and proficient in every aspect of the desired skills detailed as follows.

It is recommended that the crew as a whole have the skills as detailed and that the skills be duplicated throughout the crew.

E.g. There are 2 members of the crew qualified as coxswain.

Sheltered water coxswain qualification / training requirements of the crew.

For operations in generally benign conditions the coxswain should be skilled at general boat handling, keeping in mind the safety of the crew, passengers both in and out of the water.

Appropriate training.

Attendance at a Basic Diver coxswain course for daylight operations.

Attendance at the Advanced Diver coxswain course for night time operations.

Short range VHF radio qualification.

A member of the crew should be able to perform basic first aid and administer oxygen.

Appropriate training.

Attendance at an oxygen administration course.

Attendance at a heart start course.

Inshore water coxswain qualification / training requirements of the crew.

For operations in generally benign conditions the coxswain should be skilled at general boat handling, keeping in mind the safety of the crew, passengers both in and out of the water.

Appropriate training.

Attendance at a Basic Diver coxswain course for daylight operations.

Attendance at a Basic Navigation course.

Attendance at an Advanced Diver coxswain course for nighttime operations.

Short range VHF radio qualification.

A member of the crew should be able to perform first aid.

Appropriate training.

Attendance at a Diver first aid course.

Offshore water coxswain qualification / training requirements of the crew.

For operations in any conditions the coxswain should be very skilled at general boat handling, keeping in mind the safety of the crew, passengers both in and out of the water and be able to navigate to and from the chosen dive site.

Appropriate training.

Attendance at a Basic Navigation course.

Attendance at the Advanced Diver coxswain course.

Short range VHF radio qualification.

A member of the crew should be able to perform first aid.

Appropriate training.

Attendance at a Diver first aid course.

Note

If the boat can only operate at displacement speeds, it is advised that the navigation training be upgraded to the: -

Advanced Navigation award.

General boat operations.

General

The boat must be structurally and mechanically sound.

The engine power must not exceed the design limits.

It must not be overloaded.

The reserve fuel (sufficient for the 'return journey' should be in a separate supply with appropriate fuel pipe).

Do not transfer fuel from one container to another while at sea unless absolutely necessary.

Do not smoke on board.

A weather forecast should be obtained prior to setting out and considered in the risk assessment.

It is suggested that a risk assessment be carried out for the launch/recovery and the journey.

(See health and safety web site or the SSAC Health & Safety manual)

The results of the risk assessment should be discussed with the crew and 'passengers' and the journey amended if necessary.

Provided the risks are understood by all on board then the coxswain has discharged a major element of their duties.

Launch & recovery

Do not restrict access to the slip by other users.

Prepare the boat / trailer for launch / recovery away from the slip, (it is safer to load / unload the boat while it is on the trailer).

Store dive equipment in the reverse order to which it will be used.

Ensure boat equipment is always accessible and in its 'normal' place.

Check the engine starts while on the trailer.

Organize launch / recovery activities before the boat / trailer is reversed on to the slip.

Launch / recover the boat, remove the trailer from the slip promptly & park it safely.

On launch move the boat clear from the slip.

Use displacement speeds when close to the slip (for the safety of other people launching / recovering their boat).

The journey.

Cruise at a speed at which the crew & passengers have a comfortable 'ride'.
Choose a course, which will keep clear of rough water.
Stay clear of other boats.
Travel through 'crowded' waters at an appropriate speed.
Keep the boat tidy and all equipment stowed.

The dive.

A trained coxswain should be in control of the boat at all times.
The coxswain has the **final authority** as to whether a dive site is safe for the deployment, recovery and safety monitoring of the divers.
Divers kit up in the agreed order.
Divers only enter the water after the coxswain has given permission.
Fly the dive 'A' when divers are in the water
The propeller **shall not be 'driven'** at the time of entry or recovery.
The propeller shall only be engaged in such a way that the wash will push the divers away from the propeller.
The divers should dive the plan.
The coxswain should monitor the progress of the divers and **should not leave** the dive site under any circumstances.

Appropriate courses.

General

SSAC is working to have all the courses, the details of which follow, recognized by the MCA as appropriate training for the sport / activity of diving.

Basic diver coxswain.

Course objective.

To produce a safety conscious diver coxswain, who can operate in generally benign conditions, thinks about their actions in advance and the consequences of those actions for the safety of the boat, passengers, crew and divers both in and out of the water.

To achieve that aim the candidate will develop skills of basic boat handling under a variety of conditions including simulated divers in the water, securing the vessel and when practical (weather permitting) high speed maneuvering in rougher conditions. The practical skills are supported with lecture and shore based exercises.

Because of the extensive course content course notes will be issued prior to the course for home study.

A short examination will be given during the lecture sessions.

It is expected the practical water based skills (4 candidates) will need 6-7 hours to develop.

Basic Navigation

Course objectives

To develop confidence in the use of tide tables, the selection and use of charts, plotting courses suitable for small high-speed craft to and from a dive site, and simple position fixing techniques. A number of related subjects are included as they can affect the major course subjects. The necessary skills will be developed using a combination of lectures and shore based exercises. Where possible the exercises are of a practical nature.

Advanced diver coxswain

Objective

To produce a diver coxswain with the necessary skills to cox of a diver support vessel in any conditions (including night time operations) and manage more than 1 group of divers in the water at any one time.

Advanced navigation.

Navigation for displacement boats. (Equivalent to the Royal Yacht Association (RYA) yacht master shore navigation based course). Basic navigation will be extended to include the effects of wind and current on the course of the boat.

Diver first aid award.

Objective

To carry out first aid on a person suffering injuries which divers may typically experience. Which includes:-

- Prevention & treatment of hypothermia.
- Treatment of cuts abrasions & stings.
- Treatment of broken bones & concussion.
- Treatment of heart attack & strokes.
- Administration of cardio-pulmonary massage & rescue breathing
- Treatment of decompression sickness / illness (Oxygen administration).
- Treatment of other diving related injuries

VHF RADIO

Objective

To cover the course outlined in the short-range VHF radio certificate requirements.