



Lifesaver Award

AIM The primary aim is to examine, under pool or sheltered water conditions, lifesaving proficiency specifically applicable to divers. A secondary aim is to examine the ability of divers to make use of their rescue skills in more general non-diving situations. The examination covers rescue methods suitable for use from shore or boat, by rescuers as they are likely to be dressed at the time, using aids that may reasonably be expected to be available.

REQUIREMENTS

Eligibility Current member of the BSAC. Club or Ocean Diver training completed and signed up in the member's Qualification Record Book.

Award Presentation and Qualification Record Book Certificates.

Cost Current price list obtainable from HQ.

Instructors Instruction must be supervised by a BSAC Nationally Qualified Instructor, preferably one who holds the BSAC Lifesaver Award.

Examiners Examiners will be appointed by the BSAC Rescue Skills Chief Examiner. No Examiner may examine a class that he or she has taught. Examinations conducted by unauthorised Examiners will be invalid. Application forms for appointment as a Lifesaver Examiner are available from the Technical Support Manager at BSAC HQ.

Administration When a group is ready to be examined for the Lifesaver Award, the Branch Diving Officer or group Instructor should contact their BSAC Regional Coach who will allocate an Examiner. Lifesaver Examination Report Forms should be obtained from BSAC HQ and prepared so that they list the personal details of all candidates in readiness for the Examiner's use. On completion of the examination the Branch Diving Officer or group Instructor should submit the completed Examination Report Forms, together with the appropriate fees, to the Technical Support Manager at BSAC HQ, who will issue the appropriate certificates and badges.

The dry and wet tests may be examined in either order and on separate occasions but both must be completed within two months. Should a candidate fail either section, it may be retaken once, for an extra fee, within two months of the successful section. If the retake is failed, then both sections of the Lifesaver Award must be retaken.

SYLLABUS

The examination comprises two sections - a dry theoretical and practical test and a wet practical test. In summary, the candidates will be required to:

- Answer questions on respiratory and circulatory anatomy, respiratory and circulatory physiology, lifesaving and relevant first aid.
- Demonstrate Artificial Ventilation (AV) for three minutes.
- Demonstrate diagnosis and treatment of cardiac arrest.
- Demonstrate action for vomit, and the recovery position.
- Perform a 10m rope throwing rescue.
- Perform a 10m buoyant aid rescue and tow.
- Perform a Snorkel Diver rescue and tow (50m).
- Perform an Aqualung Diver rescue and tow (50m) with AV in the water.
- Perform a 25m rescue swim and 10m tow of a swimmer, with AV in the water.
- Perform an endurance test supporting an unconscious casualty at the surface.

Club / Ocean Divers who wish to take this Award will require additional training for the resuscitation skills not included in their previous training. These skills can most efficiently be assimilated by completing the appropriate theory and pool practical lessons from the Sports Diver syllabus. Throwing exercises and swimming rescues will require specific additional training for all participants.

The general principles of lifesaving will apply through the examination, i.e.:

- Once the rescuer has made contact, it must be maintained without a break until the rescue is completed.
- Whenever AV is being applied during a rescue, the greatest training benefit and the most accurate assessment is obtained if the rescuer makes the appropriate seal over the subject's face (although the rescuer should only blow into the subject when a training manikin is being used). While rates of AV are quoted for guidance, the emphasis will be on **effective** AV rather than the maintenance of a precise rate.
- If any action or technique used by the rescuer reduces the safety or effectiveness of the rescue as demonstrated, the Examiner must take it into account when assessing the candidate. This especially applies where the candidate is given a choice of action.
- During the rescue the rescuer must demonstrate the appropriate sense of urgency compatible with the effective execution of the rescue.
- BSAC recommended rescue techniques are to be used throughout.
- During towing rescues, the rescuer should not deliberately discard his/her own mask and snorkel.

1. DRY TEST

1. (a) Theory

Answer correctly four out of five questions on each of:

- Respiratory and circulatory anatomy.
- Respiratory and circulatory physiology.
- Lifesaving and relevant first aid.

The questions and answers will be based on these notes and the current edition of the BSAC Manuals 'The Diving Manual' and 'Safety and Rescue for Divers'. Questions on resuscitation are dealt with during the practical assessment.

Sample questions and answers: The following examples illustrate the standard of theoretical knowledge which candidates will be expected to attain:

- What muscles cause air to be drawn into the lungs? (*Diaphragm, Intercostal muscles*)
- What three things are produced when oxygen and food combine? (*Energy, water, carbon dioxide*)
- From which direction should you NOT make contact with the subject? (*From the front*)

1. (b) Practical Resuscitation

(i) Using a resuscitation training manikin, demonstrate effective Artificial Ventilation (AV) as directed, for a period of at least three minutes to the satisfaction of the Examiner. Where a manikin is not available, the candidate should demonstrate *simulated* AV on a live subject.

The Examiner will question the candidate during and after the demonstration to clarify details.

(ii) Demonstrate and explain to the Examiner the diagnosis of cardiac arrest. The candidate will check the carotid pulse on a live subject, counting out loud to the Examiner who is checking the subject's radial pulse.

(iii) With the help of a resuscitation training manikin, demonstrate effective Chest Compression (CPR) combined with AV. The Examiner will question the candidate during the demonstration to clarify details. The recommended sequence is two breaths of AV, followed by fifteen compressions of CPR at a rate of 100 compressions per minute. **The use of a training manikin is mandatory for this section of the assessment.**

(iv) Demonstrate with a live subject the action when vomiting occurs and the recovery position.

2. WET TEST

Dress: Both the subject and the rescuer are to be dressed in accordance with the instructions below. Subject and rescuer are to be of a similar size and build.

'Normal protective clothing' is to be interpreted as clothing appropriate to diving in local open water conditions. In the UK this means a wetsuit or drysuit. In warmer climates, it may mean only a 'shortie' wetsuit or even a 'T' shirt.

For candidates wearing wetsuits or other wet forms of protective clothing, the term 'lifejacket' will normally mean a diver's Buoyancy Compensator or ABLJ, while for drysuited candidates it may also mean a surface lifejacket. A drysuit alone is not acceptable. All 'lifejackets' worn for this test must have an independent emergency means of inflation (ie. independent inflation cylinder or direct feed).

The following sections must be carried out in the order specified.

2. (a) Throwing Rescue

This part of the test presupposes that a diver without his basic kit has fallen from a boat which is unable to approach him. The time limit on the rope throwing instils some urgency, and the limit on the number of rescue aids that may be thrown encourages accuracy (and care as a 'hit' discounts that throw).

A rope enables the subject to be pulled to a boat: a buoyant rescue aid does not, so the subject must be fetched. Note that the rescuer is without basic kit and has not time to fit any.

Dress: Minimum of normal protective clothing. Additional items (eg. lifejackets) as would be expected to be worn in a boat during normal diving activities. The standard of dress is intended to ensure that the candidates throwing arm is restricted as it would be in reality. Subjects must be neutrally buoyant.

(i) Starting with a tidy but uncoiled rope at the rescuer's feet, the rescuer must throw the rope 10m so that it falls between the outstretched arms of a subject treading water. The rescuer must retain hold of one end of the rope! The subject must be told what to do with the rope, and he is then pulled to safety at the pool-side. There is a time limit of one minute from the word 'go' until the moment the subject grasps the rope. There is no limit to the number of throws within the one minute period. 'Tidy but uncoiled' means in a heap as it might be stacked without coiling when pulled from the water, no knots or tangles.

(ii) The rescuer must throw a suitable buoyant aid at least 10m to within 2.5m of a swimmer treading water. The rescuer instructs the subject in its use as a rescue aid, while the rescuer swims out and tows the subject back to the pool-side. The tow ends in deep water and the rescuer, still in the water, helps the subject to get out of the water by offering a hand or knee as a 'step'.

It is recommended that the subject be instructed to hold the buoyant aid close to his or her chest while laying on the back. During the tow the rescuer should avoid direct contact with the subject and, for instance, take hold of the buoyant aid, suit, BC/ABLJ strap etc., as most suitable.

Soft plastic objects are preferred, e.g. anchor buoys, SMBs, polythene bottles etc. as may reasonably be found in a small boat. There is no objection to the chosen object containing a little water to give it some weight. No line is to be attached to the rescue aid. Hitting the subject, throwing less than 10m or being outside the 2.5m range will disqualify the throw. The object may not be recovered. A maximum of three objects may be thrown.

2. (b) Snorkelling Rescue

This section requires a diver in snorkel diving equipment to rescue another similarly equipped diver. The subject is breathing but unconscious.

Dress: As in 2(a) above plus mask, fins, snorkel and, if required, quick release weightbelt. Both subject and rescuer should be neutrally buoyant.

(i) Choosing his own entry method (bearing in mind the need to keep the subject as much in sight as possible) the rescuer enters deep water safely and fins 50m overarm to an unconscious but breathing subject on the surface. The rescuer first inflates the subject's lifejacket. Both mask and snorkel are then removed from the subject before he/she is towed 50m to deep water and then removed from the water. Assistance to remove the subject from the water is permitted but the rescuer must clearly instruct the assistant as to what is required and must remain in control of the rescue. The rescuer then places the subject in the recovery position.

2. (c) Aqualung Rescue

This section tests the rescue of one fully kitted aqualung diver by another. The subject is deemed to be unconscious and not breathing.

Dress: Minimum of normal protective clothing, lifejacket, mask, fins, snorkel, aqualung and, if necessary, quick release weightbelt.

(i) Both subject and rescuer must first demonstrate neutral buoyancy to the satisfaction of the Examiner.

(ii) The rescue commences with the subject face down on the pool bottom (depth 2 to 4m) approximately 4m from the rescuer. The rescuer closes with the subject, establishes a positive hold on the subject and recovers the subject to the surface by a controlled lift. (The precise method of lift is not specified, as this will be dependent upon the equipment being used. The over-riding consideration is that whatever method is used, the rescuer must maintain control of the ascent).

Once at the surface, the rescuer inflates the subject's lifejacket (drysuit inflation will **not** be accepted), removes the subject's mask and mouthpiece and commences AV. The subject is then towed a minimum of 40m to shallow water, giving two breaths of AV approximately every 15 seconds during the tow. The rescuer walks 10m in shallow water, still giving AV (but now without the 15 second breaks), to the pool-side. During the tow, the rescuer must look where he is going from time to time. The rescuer then explains to the Examiner how he would remove the subject from the water using whatever assistance would reasonably be available.

The Examiner has the right to ask the rescuer to demonstrate how he would remove the subject from the water if he thinks the explanation insufficient.

2. (d) Swimming Rescue

This final section tests the rescuer's ability in a non-diving situation such as may occur at any time where activities on or around water are concerned.

Dress: Swimsuit only unless the water temperature is less than 16° Celsius, when suitable protective clothing, weighted for neutral buoyancy, may be worn.

(i) The rescuer enters the water as if for unknown conditions and swims 25m to an unconscious, non-breathing subject floating face down on the surface. The subject is then towed at least 10m to a deep water support position where the rescuer demonstrates AV until told by the Examiner that the subject has recommenced breathing. The rescuer then removes the subject from the water. Assistance to remove the subject from the water is permitted but the rescuer must clearly instruct the assistant as to what is required and must remain in control of the rescue. The rescuer then places the subject in the recovery position.

(ii) The rescuer supports the head and face of a breathing but unconscious subject above water for a period of two minutes.

NOTES

Candidates will not gain the Lifesaver Award if, in the Examiner's opinion:

- They fail to make a time or distance limit, or fail to gain sufficient theory marks
- They are incapable of diagnosing cardiac arrest and administering CPR with AV
- They do not achieve a sufficiently high standard in any of the practical assessments

The candidate may be permitted one 'small letter' section (e.g. 2 (d)) retake immediately after the examination at the discretion of the Examiner. No further instruction will be permitted.