

ENJOYING YOUR DIVING

Lesson Objectives

When students have completed their Ocean Diver training they will begin to extend their diving either with a BSAC Branch, BSAC Centre or on other organised dive trips. Students will begin to experience a variety of different dive sites and different diving conditions. This lesson is to remind them that what they have already learned and experienced through their training can be carried forward to new diving experiences. As qualified divers, they need to incorporate some of the advice within their dive planning and actual diving.

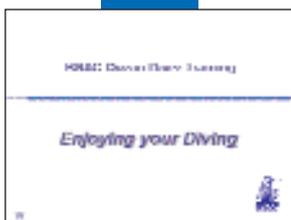
Achievement Targets

At the end of this lesson students should

- Understand the different types of diving they may experience in the future
- Understand diving conditions and different diving platforms
- Understand the characteristics of reef, wreck and night diving
- Understand that reef and wreck diving carries a responsibility in protecting these sites for future divers
- Understand the considerations when snorkel diving and snorkelling buddy techniques
- Understand particular considerations for holiday diving which may take place outside a branch or Centre
- Understand how to progress their diving and training experience once qualified as Ocean Divers

Following items will be needed

A diving knife or net cutter, a diving torch, a light stick or strobe light



ENJOYING YOUR DIVING

AIMS

This lesson explains considerations appropriate to diving in different locations and conditions that they may experience as qualified Ocean Divers.

This includes:

- Inland sites
- Sea diving
 - Conditions
 - Diving from shore and boats
- Types of diving
 - Reef
 - Wrecks
 - Night diving
- Snorkelling
- Holiday diving
- Where to go from here?

INLAND SITES

Inland sites offer a good environment for training and building experience.

Quarries, Lakes, Sea inlets

Inland sites can vary from fresh water diving sites such as quarries and lakes, to inland sea water sites such as inlets or lochs. Generally, inland sites are shore dives

- They are protected from the worst of weather
- Generally, although not always, inland sites are shore dives
- Access to the shore from which diving is to take place needs to be checked. If it is private land, permission may be needed to allow diving to take place, but most sites used by divers have public access

Site Facilities?

- Site facilities can vary. Many inland sites are designated and organised as diver training or diving centres. These normally provide excellent facilities such as car parking near to the water's edge, showers, food and drink, breathing gas filling stations, emergency rescue boats and diver first aid facilities. However, other venues may have no facilities whatsoever and divers have to be totally self-sufficient to dive these sites

Surface conditions

- Generally, because they are reasonably protected, inland sites offer good surface conditions with very little wave action

INLAND SITES

Underwater conditions

- These can vary dependent on the site. Quarries and lakes, because of the lack of water movement, tend to become silty, particularly on the bottom. Divers need good buoyancy control to prevent stirring up this silty layer. The greater the number of divers using a site, the greater the reduction in visibility. These sites can also experience lower visibility following rain, when water carrying sediment drains into the quarry or lake
- Sea inlet sites may experience currents as the tide rises and falls, filling and emptying the inlet. Currents are the horizontal movement of water and the impact of these is discussed later in this lesson

- At many inland sites, the water temperature will be colder than that experienced in the sea. Fresh water filled lakes can be cold even in the summer.

But some inland sites require careful planning and preparation:

- Because of their surroundings and lack of water movement, some can be dark, low visibility sites
- Some quarries and lakes drop away quickly from the shore to quite considerable depths so monitoring depth and buoyancy is important. A shore dive does not automatically mean a shallow dive

Divers should not be lulled into assuming that inland sites automatically offer an 'easy option'

Climate & temperature

Depending on where you are in the world, climate and temperature not only dictate thermal protection for diving, but surface protection as well.

- For temperate regions, consideration should be given to thermal surface protection before and after diving particularly if no facilities are on site
- For tropical regions, sun protection will be needed and, in warm waters, thin protective clothing to prevent burning when at the surface. Also ensure fluids are taken to avoid dehydration



SEA DIVING - SURFACE CONDITIONS

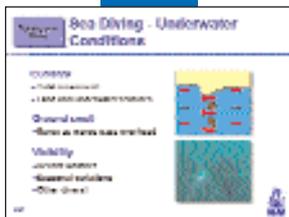
Waves formed by wind

The sea is exposed not only to local weather conditions but also the effects of weather from many miles away. Wind travels across the vast expanse of the sea and pushes on the surface forming waves

- Wave heights increase with an increase in wind strength
- Wave heights increase as they meet shallow water. This could be a reef out at sea or coastal shore.

The impact of waves on diving

- Wave size affects safe entry and exits for divers. For shore diving, breaking waves can increase the difficulty of getting in and out of the water. For boat diving it can be easy to jump off a boat but rough wave action can make exits up ladders extremely difficult or even hazardous.
- For some divers an unfortunate side effect of being "on the waves", particularly when on a boat, is seasickness. Sitting or standing, preferably in fresh air, near to the centre of a boat where its movement is less and looking up at a fixed point on the horizon, can help. The boat movement, over-riding the sensitive balance organs in the inner ear, is what causes seasickness. The balance organs can adapt to the movement after a short time - a diver gets 'sea legs'. However, if continuing to be sick, the diver should not dive. A further effect of sea-sickness is that the associated dehydration will predispose divers towards DCI



SEA DIVING - UNDERWATER CONDITIONS

Currents

- As the tides rise and fall, the seawater moves horizontally backwards and forwards
- The speed of this movement is variable but is affected by land and underwater features. These can "squeeze" and increase the water flow, or deflect it around features, causing it to change direction

Wise divers go "with the current" - trying to fin against a current increases physical effort and breathing rates and can become very tiring

Ground Swell

- Divers on the seabed may experience an underwater 'surge' when diving.

This happens due to waves passing overhead. It tends to be a backwards and forwards motion and can be a little disconcerting at times. The easiest way to cope with this is to fin with the 'forward' swell and relax on the 'backwards' swell

Visibility

Visibility can vary from day to day on the same dive site - it is what makes diving so interesting, you very rarely experience exactly the same conditions on one particular site.

- Recent weather can affect wave action which may have churned up the seabed reducing visibility or, if near the coastline, heavy rain may have drained off the land carrying sediments with it
- The sea has its 'seasons', as does the land. There are times of the year when microscopic life called plankton 'blooms'. This clouds the water and although highly attractive as a rich food source for marine life, it does reduce visibility
- For popular dive sites where the site is silty, the effects of other divers can, unfortunately, also reduce visibility



SEA DIVING - SHORE

● Shore Access

Access to the shore is generally good but in some areas diving is restricted or not allowed due to surface traffic. If the coastline is private land, permission may be needed to allow diving to take place from the shore but most sites used by divers have public access

● On site facilities

Coastal Dive Resort Centres offer most facilities that a diver needs and can provide details of the local shore dives

● No facilities

This type of shore diving means the divers must be totally self sufficient

● Sea Conditions

- Shore diving can offer a range of depths; it is not always shallow as it depends on the local topography
- The type of coastline and waves' action will determine whether entry and exits are possible
- Currents generally run parallel to the shoreline. Shore diving requiring return to the entry point should only be undertaken if currents are weak. Divers can, with experience, dive with the current going one way and as it turns around, return to entry point. Get it wrong and it's a long walk back to the car

● Entry & Exits

It is not only waves that affect entry and exits. In some areas, the rise and fall of the tide may mean an entry is easy at high water but, when the tide falls, the exit becomes difficult or impossible. For example, rocky entries and exits present a challenge at the best of times but if the tide falls during a dive, you may not be able to get back up the rocks

Climate

Depending where in the world you are diving remember

- Consideration should be given to thermal surface protection before and after diving particularly if no facilities are on site when diving in temperate regions
- Sun protection will be needed and protective clothing to prevent burning when on the surface when diving tropical regions. Also ensure fluids are taken to prevent dehydration



SEA - SMALL BOAT DIVING

Two types of small boat are most commonly used for diving

RIBs (Rigid-hulled Inflatable Boats)

Constructed with rigid hulls surmounted by air filled tubes to support the hull in the water, RIBs are manufactured in various sizes and can generally carry from six to 12 divers.

Common characteristics are that:

- They are highly manoeuvrable
- They are an almost unsinkable diving platform (the RNLI use RIBs as inshore lifeboats). Entry and exit is over the tubes
- They are open boats and therefore exposed to the elements
- They usually have cylinder racks, where scuba kit can be stowed but otherwise have limited kit storage space so divers may need to carry other equipment in small dive bags

Small Hard Boats - day charter

Dive charter boats can vary in size but generally will carry 10 - 12 divers.

Common characteristics are that:

- They, like RIBs, are highly manoeuvrable
- Most have a small cabin area which can offer some protection from the elements and dry clothes storage
- They are a good solid diving platform. Entries are made by rolling off the side or stride entry and exits are up ladders back into the boat
- Most day charter boats have kettles
- They often have 'heads', the nautical term for a toilet



RIB DIVING

Pros

- RIBs can be towed to different launch sites. As long as there are launch facilities they offer great flexibility in choice of dive sites
- They can reach coastal sites that can only be approached from the sea
- With their good speed, they can reach offshore and adventurous diving sites
- They act as surface cover for divers, able to patrol around the dive site

Cons

- Being completely open to the elements, they often need to return to base after each dive. (Remember they have no 'heads')
- As they are open to the elements, move at high speed and are restricted in space, divers in RIBs need to ensure they are suited up prior to travelling. Dry or semi dry suits being worn also ensure buoyancy if 'man overboard' occurs. If less buoyant forms of protective clothing are being worn, then life jackets are essential for safety. For temperate climates a windproof jacket and hat reduce wind chill created by the speed of the RIB.
- With the restricted kit stowage areas divers have to keep equipment neatly stowed. There is often no room for large dive bags or boxes
- Food and drink has to be carried by the diver if required



SMALL HARD BOAT DIVING

Small hard boats are generally booked as weekend or weekly charters

Pros

- Like RIBs, they can reach inaccessible coastal or offshore sites
- Skippers of dive boats have local knowledge which is invaluable for

planning and carrying out diving

- They can provide safety cover for divers
- They have good deck and kitting up space

Cons

- They are open to the elements even with limited cabin protection and, although divers may be able to change suits on board, protective surface clothing should be carried. These boats generally stay out at sea all day
- With the number of divers on board, although more spacious than a RIB, it may still be restrictive, so kit should be stowed neatly in bags or boxes
- For a two dive day, divers will need to ensure they have enough cylinders at the beginning of the day

LIVEBOARDS

Liveboards are generally booked for weekly or longer charters.

Pros

- They are floating, mobile 'hotels' with:
 - Cabins
 - Saloon - TV and video
 - Some have specialist diver facilities such as photo labs
 - A cook
- They have large cruising range so can travel further afield often visiting remote and often undived sites
- They are run by a skipper and crew who are highly knowledgeable
- They provide safety cover for divers either by the boat itself or using a small 'tender' boat
- They offer all weather protection, whether in temperate or tropical climates
- They have a compressor and some also provide cylinders
- Liveboard diving is a relaxing way to dive - all facilities are to hand

Cons

- Cost - but remember it includes not only diving costs but full board as well.
- Returning to shore may not be an option, divers will be "at sea"
- Generally, spare diving parts are not readily available so divers need to be kit "self sufficient" - always worth carrying a "spares" box
- Living and diving in close proximity, there is a need to get on with all divers on board

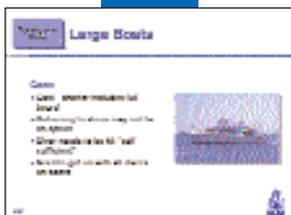
REEF DIVING

Attraction

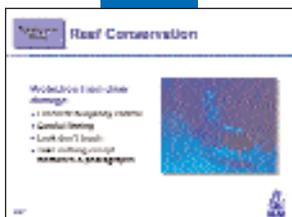
- Superb marine life
- Spectacular underwater scenery
- If interested in underwater photography, reefs offer wonderful opportunities because of the variety of marine life

Potential Risks

- With good visibility and so much to see, there is always the risk of over extending depth and time. Careful monitoring is needed
- Some marine life is hazardous, especially if divers touch or antagonise it. As part of dive planning, a wise diver utilises local knowledge
- As reefs can rise up from the seabed to shallow water, the effects of wave action and currents are common. With currents, remember it is easier to go with the flow. Floating along a reef in a gentle current is like being on



a moving walkway. Listen carefully to the dive brief to be sure that drifting with a current will be safe



MARINE CONSERVATION

With the increase in diving as a sport, marine conservation has become very important so that other divers can experience the marine life in the future.

Protection from Diver Damage

- Excellent buoyancy control is necessary. Divers should not land on areas where marine life is prevalent, nor grab hold of marine animals
- Careful finning action is necessary, not only to prevent physical damage to the marine life, but also kicking up the sea bed can cause sediment to drift onto the marine life and damage it
- Look but don't touch - a diver holding onto marine life can damage it irreparably
- Take nothing from the sea. The only things a diver should take are memories or photographs



WRECK DIVING

Attraction

- Wrecks on the seabed develop to become a man-made reef and, depending on location and depth, attract a wide variety of marine life.
- They represent a period in history and are part of our maritime heritage resting on the seabed. They should be treated with respect as, in many instances, lives were lost when they sank.
- The size, structure and shapes of a wreck together with the marine life that has colonised them, can offer unique photographic opportunities for those interested in marine photography.

Potential Risks

- The major risk in diving wrecks is the result of the natural decay they undergo and which divers should be aware of
 - Collapsing or loose sections of plate
 - Sharp, knife like edges
 - Depending on their location and age, disturbing rust and silt can suddenly reduce visibility
 - Entering holes in a wreck without planning or experience in wreck penetration diving is foolhardy: divers can get easily trapped or lost inside a wreck. Some wrecks, because of the fish life around them, attract fishermen's nets and lines. Divers should always be vigilant

Precautions

- Knife or net cutter
- Good buoyancy control and careful finning



WRECK PROTECTION

BSAC Wreck Policy

- Together with other diving agencies and the Receiver of Wreck from the Maritime Coastal Agency, the BSAC supports their wreck policy with the:
- 'Protect our Wrecks' initiative

This is to protect wrecks and leave them undisturbed for others to enjoy by adopting a policy of

- A 'look but don't touch' approach and leaving the wreck as you found it
- However, if any item of wreckage (generically called 'wreck') is found and brought back to the surface, it is law that it must be declared to

the Receiver of Wreck. Wreck belongs to someone and the Receiver will try to trace the owner. In many cases, divers are allowed to retain their 'find'. In some cases it might be a historical find - in the past it has been sports divers have been instrumental in discovering historical wreck sites from small items they have found on a dive

(Although 'look don't touch' policy has universal application, where this lesson is given outside the UK, the instructor should substitute the appropriate local and international legal requirements)



NIGHT DIVING

It may seem strange to consider diving at night when it is dark both above and below the surface

Attractions

- On land, there is a change over between day and night animals when the sun sets, so it happens in the sea with marine life
- Using a torch on a night dive focuses the diver's attention to what they can see within the torch beam
- Underwater colours are enhanced

Potential Risks

- Separation - reduced area of illumination
- Disorientation - vision and therefore reference points reduced



NIGHT DIVING PRECAUTIONS

Torch and backup light

While a torch is required for illumination, a backup light should be carried by anyone diving at night in case of main torch failure. If backup has to be utilised, abort the dive.

Signals using torches (this can be demonstrated to students)

- Shine beam on hand to illuminate signals
- Avoid shining torch directly at buddy - they will lose their 'night vision'
- Emergency signal - rapid movement of the torch beam from side to side

Surface lights

- To mark divers on the surface. So that surface cover can see them divers can attach light sticks or strobes to themselves or their equipment



SNORKELLING

If visibility is good and the water a suitable depth, then divers may also take the opportunity to go snorkelling.

The same considerations apply as for diving when snorkelling from

- Shore diving
- Small boat diving
- Liveaboard diving
- Reef diving

Snorkel Buddy Diving

- As a general rule, snorkellers should follow the practice of 'One up, one down' when making breath hold dives. This means only one person at a time actually dives. The buddy remains on the surface and keeps an eye on the snorkeller who is down. The reason for this practice is safety. Should one diver become entangled underwater, or stay too long and need

support and assistance on reaching the surface, the buddy is in a fit state to provide help

Tropical Snorkelling

- In tropical conditions, snorkellers should be aware that sunburn protection is very important. If a lot of time is spent on the surface, the snorkeller is getting a great deal of sunshine on the body even though they may not feel it because of being in the water. It is very easy to get extremely sunburnt so wear waterproof suntan cream on exposed areas. Better still wear a T-shirt or thin suit for extra protection



HOLIDAY DIVING - CONSIDERATIONS

Diving with other dive organisations

If students go on a diving holiday outside the branch or centre they have trained with, they will meet divers from other diving organisations. It should be realised that:

- Some diving signals may be slightly different. This is not a problem as long as the pre dive briefing is clear
- A check-out dive may be required no matter what qualification or dive experience a diver presents. Don't feel insulted as this is quite normal practice - the dive centre is responsible for safety and must understand divers' current capabilities before taking them on a dive

Relaxing?

- Drinking and diving has an impact on the thought process with effects similar to nitrogen narcosis - and with narcosis a possibility when diving, drinking and diving in effect doubles the dose. Alcohol dehydrates the body as well and predisposes towards DCI
- Heat also causes dehydration - remember to drink lots of water or non-caffeinated soft drinks

Equipment

- Cylinders and weight belts are generally hired
- Although other equipment can be hired, it is better to be self-sufficient with your own. If you do hire a regulator, ensure you also hire an octopus

Diving

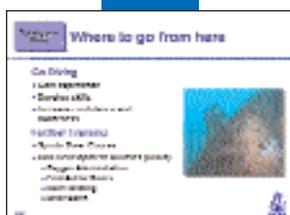
- Be aware of local regulations - generally divers are clearly briefed when they 'sign up' for diving
- In conditions of good visibility and warm water, take care not to exceed your training and own personal limitations



EXPEDITION DIVING

The BSAC is unique in that the organisation trains divers to gain a full range of diving and dive management skills.

The fully trained diver can independently plan and manage a group of divers to enjoy diving in remote and unexplored areas. You have the option to learn how to understand charts and carry out navigation at sea. You have the option to learn how to drive boats specially designed for divers. You have the option to learn about shipwrecks and the history you have the option to learn about marine life and the biology. You have the option to learn about rebreathers and technical diving skills which are tools to exploring new untapped environments.



WHERE TO GO FROM HERE

Go diving

- Gain more experience
- Develop your diving skills

- This will increase your confidence and awareness

Further Training

- The next step is the Sports Diver course, which builds and expands your diving skills and knowledge for more adventurous diving
- As an Ocean Diver you can attend BSAC Skill Development Courses (SDCs), including:
 - Oxygen Administration, the diver's first aid tool mentioned during the previous lesson
 - First Aid for Divers
 - Boat Handling
 - Diver Cox'n

SUMMARY

This lesson has looked at the diving opportunities that Ocean divers will experience having completed their Ocean Diver Training. It has looked at the variety of different types of dive site and different diving conditions:

- Inland sites
- Sea diving
 - Conditions
 - Diving from shore and boats
- Types of diving
 - Reef
 - Wrecks
 - Night diving
- Snorkelling
- Holiday diving
- Expedition diving
- Where to go from here?

