

SAA LECTURE No L4

ADVANCED DIVING: NIGHT DIVING; ICE DIVING; WRECK DIVING



NIGHT DIVING

Excitement, adventure, fun, challenge, night diving has a way of focusing your attention – colours in artificial light appear more vibrant than when seen in daytime. You will also see different creatures and be able to approach them more easily than in daylight

- Location** Choose your dive site carefully – dive the site in daylight first
- Choosing a site** Easy entry – calm, shallow water, prominent land marks, small bay or a site that is fairly well covered by land – small rocky cove – plenty of sea life – away from boat traffic – Avoid deep water sites
- Safeguards** Reasonable visibility – night diving is all about seeing marine life
- On shore** Set up lamp – bonfire – car headlights on beach so divers and boat can see entry and exit site
- Torches** Each diver must have a torch – even better – have two in case one fails
Uses: To illuminate scene – for signalling – attract buddy's attention
Shine on hand to show signal. **DON'T SHINE IN THEIR EYES**
- Light stick** For emergency use
- Safety** Establish a rescue plan – inform coastguard at the start and finish of the dive
Surface party must track divers, use recall if necessary – groups must use SMB's. Divers must be logged in and out – dive must end at specified time – do not overstay your agreed time, no matter how much you are enjoying yourself
- Night boat dive** Do not anchor or stop engine – keep constant watch for divers
Patrol outer limits of dive site – boat must be illuminated
- Dive plan** Must be thorough – dive marshal – dive leader – dive signals – dive time – dive depth
- On a night dive** It is essential that everyone in the party acts in a responsible manner – the fact that the dive takes place in the dark is an extra hazard – once the dive is over, everyone can enjoy themselves at usual barbecue on the beach

ICE DIVING

Can be extremely dangerous – requires extra planning – if a diver is lost – possibly has only minutes to survive

- First ice dive** Must be shallow – small surface area – easy access
- Cold** Always potentially dangerous – protective clothing essential for both diver and surface support team – diver must be kept warm before the dive so that his core temperature hasn't dropped before the dive; use a warm vehicle – tent – dry suit
MUST BE KEPT OUT OF COLD WIND – think of the wind chill factor
- Attendants** Must help diver kit up quickly to prevent diver from cooling
- Surface team** Must be experienced divers who are fully kitted up – must have a stand-by diver experienced in ice diving
- Demand valve** Must be reliable – danger of it freezing up – free flowing
- Twin hose** Less likely to suffer from freezing up
- Single hose** Can have protective cap filled with alcohol – helps to prevent first stage freeze up

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- Protect** Your demand valve – ensure it doesn't become wet before the dive or exposed to cold surface conditions before submerging
- Pre-dive preparations** Check ice for weight bearing. Cut a triangular hole in the ice as near as possible to dive site but close to land – must be big enough for two fully kitted divers to surface together
- Tools** Axe – spade to keep loose ice out of hole
Some tools can be worked off compressed air, make sure they work before dive commences
- Check hole** Make sure that the hole isn't becoming iced over
- Sign** Submerge a brightly coloured object below the hole, flashing safety strobe
- Commence dive** Must dive in pairs – each diver has his own life-line – must have experienced tenders on surface
MUST NOT HAVE ONE LIFE LINE AND ONE BUDDY LINE
- Life Line** Must be buoyant – a bright striking colour – made from polypropylene – MUST be securely fastened at both ends
Diver end: around chest under all equipment – bowline
Tender end: securely fastened at free end
- One hole:** No more than two divers down hole at any time – danger of lines becoming entangled – divers must not lose site of their hole
Divers lost: established rescue plan to be followed in detail
- Divers lost** Lost diver surfaces immediately – remains stationary beneath ice – to maintain position - try to plunge knife into ice, also cut a hole in ice – push snorkel through ice
Buddy diver returns to hole to raise alarm
Stand-by diver enters hole wearing a safety line that is twice the length of the lost diver's line. Swims out to full extent of his line – commences circular search – line should cross line of lost diver – follow lost diver's line – when lost diver is found – rescue and go to exit hole
- After 1 revolution** Stand-by diver should return to hole – commence second revolution
Still not found – start bottom search – possible body search
- Care** Must be taken of the stand-by diver – do not allow him to remain too long in the water thereby risking his life
- Dive over** Keep divers warm in tent or warmed vehicle – de-kit as soon as possible – warm drinks – no alcohol – affects blood supply

Summary – Ice Diving

Training is essential – rescue procedures must be instantly available and practised in normal conditions before ice diving commences

WRECK DIVING

For most divers, wreck diving is the reason for diving – the dream of finding your own wreck and recovering the ship's bell is the dream of many divers

Diving on a wreck Can be extremely hazardous and full of unseen dangers – need for extra equipment. Never dive alone – always in pairs – dive at slack water

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First wreck dive	Should be in shallow water – a known safe wreck – in good weather
Remember	You will be excited – feel apprehension – consequently will use air up - FAST
Don't forget	Constantly check air and bottom time – Don't forget the basics in the thrill of the dive
Boat	Should be anchored on wreck – use shot line to descend – datum point on wreck, float line in current
On the wreck	Stay in pairs – extremely easy to become disorientated Know where the anchor/shot line is – use wreck line Allow for time and air to get back to the surface
Currents	In lee – no current – on deck – possible current Over the side of the wreck you could be swept away and in poor visibility lose sight of the wreck.
Drifting diver	Would have to make an ascent whilst still drifting away from the wreck/dive site. The surface party would be expecting divers to surface up the shot/anchor line Diver surfacing away from the wreck might not be noticed, always use an SMB, may be able to grab float line
Attraction aids	Whistle – flare – diver recall – flashing strobe light – torch
Wreck dangers	Jagged steel – stranded wire ropes – fishing lines – fishing nets – corroded decks – rotten timber – gas pockets – ammunition – marine life (congers)
Exploring interior	Wrecks can be extremely dangerous – guide rope must be rigged up – visibility can quickly be reduced by silt to zero – panic can occur very easily
Equipment	Knife essential – no wreck diving without one Net cutter/scissors also essential. Torch – for illuminating confined spaces within hull
Items of wreck	Many wrecks contain items of cargo or fixtures and fittings which may be of interest or value. If ANY items are removed from wreck sites, they MUST be declared to the Receiver of Wreck. Contact details are: Receiver of Wreck, Bay 1/05, Spring Place, 105 Commercial Road, Southampton SO15 1EG – you can download a report form from: www.mcga.gov.uk
Remember	It is essential in wreck diving that the diver is aware at all times of his position in relation to the shot line/anchor line and that air consumption is monitored constantly.