

Live Boating Guidelines

By John Douglas and Diana Steller

Purpose:

This summary is intended to provide basic instruction for boat operators when working in support of dive operations. Standard dive tending practices are included as well as specific instructions for safe operations when maneuvering vessels in close proximity to divers in the water.

Definition:

Live Boating – maintaining a mobile vessel in support of dive operations. This method of dive tending is preferred in instances where anchoring is difficult, under conditions with high currents, when the dive plan makes it likely that divers will move away from the initial dive location, and in locations where divers may need to be shielded from other vessel traffic.

Operator Qualifications:

Live Boating requires exceptional boat handling skills and situational awareness. Qualified operators must demonstrate good close quarters maneuvering skills and be able to communicate and navigate effectively. Previous dive experience is highly recommended. Novice operators should work in the company of more experienced personnel until the necessary skills have been developed.

General Guidelines

Dockside:

- Verify that all required and recommended equipment is on board before getting underway (see Pre-Dive Checklist), including Emergency O2 kit and phone numbers for DAN and local recompression chambers.
- Review dive plan with all participants. Make sure everyone understands the plan before leaving the dock. This includes dive emergency procedure, lost buddy procedure, diver recall signal (series of 3 short engine revs, repeated 3 times – repeat sequence if there is no diver response), and expected maximum time, depth and distance/direction of travel. Have dive slate available for boat driver/dive tender to keep track of dive data.
- Stow gear securely and monitor equipment while in transit. Keep deck as clear as possible.

On station:

- Scan area for potential hazards such as boat traffic, or dangerous animals. Note the rate of drift or other signs of strong current.
- Evaluate sea state/weather conditions. Are local conditions likely to change during the period of dives?

-Put up the dive flag.

- Call shore contact via radio or cell phone to confirm operational status and ability to communicate.
- Assist divers donning gear as needed. Be prepared to hand equipment over the side once divers are in the water.

Before deploying divers:

- Make sure engine is idling in neutral – confirm by stating “neutral”, or “all stops”.
- Deploy divers as far away from the engine as possible. Be certain the boat is not in a position to drift over divers.
 - In areas of strong wind and/or current, the vessel should be positioned up current from the drop location. All divers need to enter the water as a unit when given the OK to avoid getting separated at the surface. Deploy divers up current from the target so they do not have to swim against the current before descending. Have divers enter the water on the up current side of the boat to keep the boat from drifting over them.
- Once divers are clear of the boat, floating at the surface, and have given the surface OK signal (one hand on top of head) it is safe to engage the engine and move a short distance (25') away. Note your current position by GPS or by taking line-ups to points on shore.

During dive:

- Mark time on dive slate when divers begin descent.
 - *Dive tending requires singular focus. Do not attempt any other sampling or instrument deployments that could distract the operator or make recovering divers difficult*
- Keep the boat down weather (wind and/or current) from the drop location if possible. The sun should be behind you for best visibility, and the wind should be in your face.
- Keep bubbles in sight at all times.** Wind chop, glare and kelp canopies can make this difficult, so it is important to minimize distractions and stay focused on the divers. It may be preferable to position the boat parallel to the diver's bubbles if they are moving with a current. When the dive team is transecting under dense kelp, a rendezvous strategy may be employed allowing the boat to parallel the divers while transiting just offshore from the kelp line. Closed circuit diving (no bubbles) requires a different strategy. Consult with your DSO for specific diver/surface communication procedures.
- Monitor VHF radio and continue to scan for hazards.
- Keep any approaching vessels at least 100' away from divers. It may be appropriate to issue a 'Securite' (say-curitay) warning on VHF Ch. 16 to inform other boaters of your activity. You may also use the VHF radio to hail specific vessels on approach. Sound the danger/doubt signal (five short horn blasts) if necessary and/or use hand gestures to divert an approaching vessel.
- Diver Recall – if a situation arises that requires a recall, employ the previously discussed plan.

-If you lose track of the divers bubbles during the course of a dive it is important to maintain your current position (or course and speed if transecting) and continue scanning. Enlist assistance from other crew members and stay calm. Send someone aloft if possible. Take note of the time relative to expected dive duration and consider recalling divers. If planned dive duration has been exceeded and multiple recall attempts are unsuccessful it may be necessary to summon aid by radio or cell phone. Continue scanning until divers are located.

-Divers should carry safety sausage, or other float and a sound making device in case they can't see the boat when they come up. A safety sausage or float on a line that reaches the surface can help the boat operator keep track of the divers if they are drifting with a current during their safety stop or throughout a drift dive if no obstructions are present.

Recovering divers:

-Record time of surfacing. Look for OK signal from divers and verify that all team members are present. Signal the divers to let them know you see them.

-Divers should swim together as a group to get away from obstacles (kelp, lines, buoys, rocks or the shore line).

-Approach divers by heading into the wind or current. Approach slowly, using only enough speed to maintain steerage (control of the boat's heading) and keep divers up current relative to the vessel. **Do not allow the boat to be blown/drift over divers at the surface!**

-Shift to neutral at least one boat length from divers and allow the boat to drift to within easy swimming distance. Call out "neutral".

-In some cases it may be helpful to use a floating line trailing 20' to 50' off the boat for divers to grab onto. Short tag lines (with end clips) secured to the rail are also helpful for tethering inflated BSs.

-Assist with equipment recovery as needed.

-Take diver's weight belts and BCs as needed, to make it easier for them to climb on board.

-Verify physical condition of all participants and monitor thereafter for symptoms of decompression illness (DCI).

-Take down dive flag.

-Call shore contact.

-Stow gear for transit.

Upon returning dockside:

-Rinse all equipment with fresh water before returning to storage.

-Report any lost or damaged equipment to the appropriate staff member.

-Close out the Float Plan and complete the Post Cruise report.

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