**MLML Dive Computer Guidelines and Quiz**

Name:       Date:

Dive computer year, make, and model:

**Guidelines for Computer Usage**

1. Any person desiring approval to use a dive computer must complete the proper training and

testing program.

1. Any person using a dive computer must have access to a current copy of the manual

appropriate for their dive computer.

3) Each diver relying on a computer for decompression must carry one (i.e. no sharing).

4) The dive must be followed using the most conservative computer of the buddy team.

5) If the computer fails at any time during a dive, the dive must be terminated, and appropriate

surfacing methods must be used.

6) A dive computer may not be initiated for use if any previous diving has been conducted within

an 18 hour period.

7) Once a dive computer is utilized, it should not be switched off until it indicates complete off-gassing, or for a period of 18 hours, whichever occurs first.

8) When using a diving computer, all non-emergency ascents should be made in accordance with the manufacturer’s recommendations for that unit

9) Whenever practical, the diver should make a safety stop between 15-20 fsw for 3-5 minutes, especially for dives greater than 60 fsw.

10) The use of computers for repetitive or multi-level dives must be planned and executed so that the dives proceed from a maximum depth to progressively shallower depths.

11) Required equipment for managing nitrogen loading for each scientific diver includes a SPG, computer, and watch OR a SPG, depth gauge, and watch.

12) Most divers at MLML are not trained to conduct planned staged decompression diving with mandatory stops before an ascent. Unless specifically trained in conducting planned decompression diving, divers should start their ascent when their or their buddy’s computer reaches a no-decompression time of 10 minutes.

**Practical Knowledge**

To use a dive computer to manage your nitrogen loading, instead of standard tables, you must demonstrate functional knowledge of the device before diving. You will be expected to demonstrate the following:

[ ]  How it turns on and how to use it to plan dives

[ ]  How to check and set the time, depth units, battery life, and O2 concentration

[ ]  Use of the light at depth

[ ]  Can and should you change the battery yourself and do you have a spare? (Most

 computers have a specific battery or charging cable.)

[ ]  How to extract the dive information in order to log your dives at your institution

[ ]  Care and maintenance

**Test Questions**

1. Are you trained to conduct planned staged decompression diving using the no-decompression limit (N.D.L) function of your computer while research diving at MLML? ()
2. Is your specific dive computer intended for use with standard air and enriched air nitrox (EANx) gas mixtures ()?
3. This computer has a maximum ascent rate of:        per minute.
4. Describe how to check the PO2, set the O2 concentration, and determine MOD, on your computer.

1. Describe how to access the dive planning mode and calculate MDT for the next dive at multiple depths on your computer.

1. Describe the steps for accessing your computer’s dive log.

**Multiple choice questions. Choose the best answer.**

1. What additional instrumentation is it recommended when diving with a dive computer?

[ ]  A depth gauge

[ ]  A submersible pressure gauge (SPG)

[ ]  A dive timer or watch

[ ]  All of the above

[ ]  A submersible pressure gauge (SPG) and a dive timer or watch

1. You and your buddy are on your third dive of the day using your dive computers to monitor your dive times and depths. During the dive you realize that your dive computer is no longer functioning. What should you do? Make sure to include communication, ascent rate, and steps in your course of action.

[ ]  Notify your buddy of the situation and together, calmly but immediately collect your gear, ascend at a rate less than 60 ft/min to a depth of 15 to 20 fsw and together conduct a 3-minute safety stop, using your timing device as a timer, then slowly ascend to surface.

[ ]  Notify your buddy of the situation and continue to dive using your buddy’s computer to determine your safe time and depth profile.

[ ]  Notify your buddy of the situation and then separate, using your backup instruments to determine how long you can stay down because you’ve been using your dive computer as a bottom timer/depth gauge only and have been planning and executing your dives according to the NAUI dive tables.

**True or false questions. Choose the best answer.**

1. () You can share a computer with your buddy.
2. () On any given dive, both divers in the buddy pair must follow the most conservative dive computer.
3. () If the dive computer fails at any time during the dive, the dive must be terminated, and appropriate surfacing procedures should be initiated immediately.
4. () A diver should not dive for 18 hours before activating a dive computer to manage their nitrogen for diving.
5. () For nonemergency ascents, you should follow the rate specified by your computer.
6. () Whenever possible, divers using a dive computer or tables, should make a stop between 10 and 20 feet for 3 minutes, especially for dives below 60 fsw.
7. () It is possible to exchange dive computers with another dive team member, if and only if, the exchanged computer and individual have had a minimum of an 18-hour surface interval. It is most desirable, however, for each diver to have their own dedicated computer.
8. () Multiple deep dives require special planning, considerations, and testing prior to execution.

I have read and understand the user’s manual for my dive computer and the MLML guidelines listed above (generated from the [AAUS Dive Computer Workshop (1989)](https://repository.si.edu/handle/10088/2720)), and I agree to abide by these rules. I understand that there is a potential risk of decompression sickness in all diving activities, and I will strive to minimize this risk by using the accepted decompression practices specified above.

Signature:       Date: