Special Dive Table and Computer Procedures

In Section Four you learned the basics for diving with dive tables and dive computers, but there are some additional procedures that you need to know about. These involve procedures for enhanced safety, for accidentally exceeding your no-stop limit, and for diving at altitude or ascending to altitude after diving.

Safety Stops

Although as a recreational diver you plan only no decompression dives that allow you to ascend directly and continuously to the surface, most of the time you'll want to make a *safety stop* for added conservatism. A safety stop provides extra time for your body to eliminate nitrogen, and it gives you a moment to stabilize and control your ascent rate before continuing to the surface.

To make a safety stop, you stop your ascent in the 3 to 6 metre/10 to 20 foot range — usually at 5 metres/15 feet for three minutes or longer. It's easiest to do this holding onto a line or on an ascending slope, but you can also hover in midwater where appropriate.

MAIN Objectives

Underline/highlight the answers to these questions as you read:

1. **What are the recommended depth and time for a safety stop?**
2. **What's the purpose of a safety stop?**
3. **What are three situations in which a safety stop is considered required?**

FIVE

You plan your dive so you can make a safety stop and still reach the surface with 20-40 bar/300-500 psi or more air remaining in your cylinder.

You may make a safety stop at the end of any dive, and in fact, you should consider it a standard practice on virtually all your dives. However, consider a safety stop *required* if:

1. Your dive has been to 30 metres/100 feet or deeper.
2. Your pressure group at the end of the dive is within three pressure groups of the no decompression limit on the RDP.
3. You reach any limit on the Recreational Dive Planner or your dive computer. With a dive computer, this would be if your computer shows zero NDL time remaining at *any point* in the dive.

When using the RDP, in these circumstances the safety stop is considered *required*.

You may wonder whether you need to account for safety stop time when using the RDP. You don't need to add safety stop to your bottom time when using the Recreational Dive Planner. A computer will process safety stop time automatically.

Keep in mind that, although you should make safety stops a regular procedure for all your dives, it's optional under circumstances such as very low air (due to unforeseen circumstances during the dive), assisting another diver, or rising bad weather make it more important to get to the surface immediately.

Emergency Decompression

You plan your dive as a no decompression dive but something delays your ascent and you accidentally exceed the no stop limit. Now what? You need to make an emergency decompression stop to allow your body to eliminate nitrogen; without this stop, you face an unacceptable risk of DCS when you surface.

Using the RDP: If you exceed a no decompression limit or (on a repetitive dive) an adjusted no decompression limit by

Quick Quiz

Self Assessment 1

1. The recommended general depth and time for a safety stop is:
- ☐ a. 10 metres/35 feet for 2 minutes.
- ☐ b. 5 metres/15 feet for 3 minutes.
- ☐ c. 2 metres/6 feet for 20 minutes.

2. The purpose of a safety stop is (check all that apply):
- ☐ a. to drain your tank as much as possible.
- ☐ b. to allow your regulator to stabilize its performance.
- ☐ c. to give your body extra time to eliminate nitrogen.
- ☐ d. to allow you to stabilize and control your ascent.

3. A safety stop is considered required when (check all that apply):
- ☐ a. you dive to 30 metres/100 feet or deeper.
- ☐ b. you reach any limit on your table or computer.
- ☐ c. your dive comes within three pressure groups of an NDL on the RDP.
- ☐ d. you're almost out of air.

How'd you do?
1. b. 2. c, d. 3. a, b, c.

five minutes or less, slowly ascend at a rate not faster than 18 metres/60 feet per minute to 5 metres/15 feet and remain there for eight minutes prior to surfacing. After reaching the surface, do not dive for at least six hours because you will have extremely high levels of residual nitrogen in your body.

If you exceed a no decompression limit or an adjusted no decompression limit by more than five minutes, a 5 metre/15 foot stop for no less than 15 minutes is strongly urged, air supply permitting. Upon surfacing, you must remain out of the water at least 24 hours before diving again, due to the excess nitrogen in your body.

When making an emergency decompression stop, stay as close to 5 metres/15 feet as possible. If you don't have enough air for the emergency decompression stop, stay as long as you can, saving enough air to surface and exit safely. Discontinue diving for no less than 24 hours. Breathe pure oxygen if available and monitor yourself for decompression sickness symptoms.

Using a dive computer: If you exceed your computer's no decompression limits, it will go into decompression mode, which guides you through the emergency decompression stop. Computers differ in how they function in decompression mode, so consult the manufacturer's literature for the specifics for your computer. Many will show emergency decompression stops at 3 metres/10 feet instead of 5 metres/15 feet; stopping at 5 metres/15 feet until the computer says you can surface will still work, though, because the computer calculates the stop based on your actual depth. It may take a bit longer than the time indicated for a stop at 3 metres/10 feet.

It's not recommended that you make a repetitive dive after a dive requiring emergency decompression. Emergency decompression stops differ from safety stops in that an emergency decompression stop *must* be made or there is an excessive risk of decompression sickness, and that is an *emergency* procedure

Wait a few minutes.
You'll want to make a safety stop for added conservatism as you finish most of your dives. The stop provides extra time to eliminate nitrogen, and it gives you a moment to stabilize your ascent rate.

MAIN Objectives

Underline/highlight the answers to these questions as you read:

4. **What should you do if you exceed a no decompression limit or an adjusted no decompression limit by five minutes or less when using the RDP?**

5. **What should you do if you exceed a no decompression limit or an adjusted no decompression limit by more than five minutes when using the RDP?**

6. **How do you determine emergency decompression requirements with a dive computer?**

Going under when you're upper.
If you're interested in high-altitude diving, see your PADI Dive Center, Resort or Instructor about learning the techniques in an Advanced Open Water adventure dive, or by taking an Altitude Diver specialty course.

Altitude Diving
See the PADI *Adventures in Diving Manual*

only in recreational diving. The Recreational Dive Planner was designed for recreational, no decompression diving only. It should never be used in commercial/military/technical diving situations that require planning for decompression dives.

Altitude Diving, Flying After Diving, and Cold/Strenuous Dives

Altitude Diving. Thinking back to Section One, you recall that as you ascend in air, pressure decreases. Dive tables and most computers give you their no decompression limits based on a dive ending at sea level; if you're under less pressure at altitude, nitrogen comes out of solution more easily following a given dive, making decompression sickness more likely.

You can use the Recreational Dive Planner for diving to altitudes as high as 300 metres/1000 feet. Above 300 metres/1000 feet, you need special conversion tables and procedures to account for the

Quick Quiz

Self Assessment 2

1. If you exceed your no decompression limit or adjusted no decompression limit by less than five minutes when using the RDP, you should
   - ☐ a. slowly ascend to 5 metres/15 feet and make an eight minute stop, then not dive for at least six hours.
   - ☐ b. slowly ascend to 5 metres/15 feet and make a three minute stop, then not dive for at least six hours.
   - ☐ c. None of the above.

2. If you exceed your no decompression limit or adjusted no decompression limit by more than five minutes when using the RDP, you should
   - ☐ a. slowly ascend to 5 metres/15 feet and make a stop for at least 15 minutes, air supply permitting, then not dive for at least 24 hours.
   - ☐ b. slowly ascend to 5 metres/15 feet and make an eight minute stop, then not dive for at least six hours.
   - ☐ c. None of the above.

3. If you exceed the no decompression limit of your dive computer, make an emergency decompression stop as it directs in its decompression mode, and do not make a repetitive dive.
   - ☐ True ☐ False

How'd you do?
1. a. 2. a. 3. True

MAIN Objectives

Underline/highlight the answers to these questions as you read:

7. **Above what altitude do you need to use special dive procedures?**

8. **What are the recommendations for flying in a commercial airliner after diving?**

9. **What are the procedures for planning a dive in cold water or under strenuous conditions?**

Wing your way carefully.
You're responsible for your own dive safety. Flying after diving recommendations change over time; stay up to date and follow the most current recommendations.

Flying After Diving
Flying after diving recommendations change over time. These are current at the time of printing. Always check with your instructor to stay apprised of the most current ones.

decreased atmospheric pressure or you can run an unacceptable risk of DCI.

The procedures for diving at altitude with a dive computer vary with the computer. Some automatically compensate for altitude, whereas with others you'll need to tell the computer your altitude. There are a few older models that you can't use at altitude.

If you're interested in high-altitude diving, see your PADI Dive Center, Resort or Instructor about learning the techniques in an Advanced Open Water adventure dive, or by taking an Altitude Diver specialty course (usually takes less than a day).

Flying After Diving. You also need to think about lowered atmospheric pressure if you plan to fly after diving. While this concern is similar to altitude diving, it's not identical. When you dive at altitude, you dive and return to reduced atmospheric pressure. When you fly after diving, you dive and return to normal atmospheric pressure, then expose yourself to further pressure reduction.

The dive medical community offers the following general recommendations for flying after diving, whether you're using the RDP, another table or a dive computer:

For Dives within the No-Decompression Limits

- ***Single Dives –*** A minimum preflight surface interval of 12 hours is suggested.

- ***Repetitive Dives and/or Multiday Dives –*** A minimum preflight surface interval of 18 hours is suggested.

For Dives Requiring Decompression Stops

- A minimum preflight surface interval greater than 18 hours is suggested.

As with dive tables and computers, no flying after diving recommendation can guarantee that decompression sickness will never occur. These guidelines represent the best estimate presently known for a conservative, safe surface interval for the vast majority of divers. There always may be an occasional diver whose physiological makeup or special dive circumstances result in decompression sickness despite following the recommendations.

You're responsible for your own dive safety and behavior. Flying after diving recommendations change as we learn more about how pressure changes affect the body; stay current and follow the most current recommendations.

There are currently no recommendations for driving to altitude after diving, so the most prudent practice is to be conservative. The longer you wait before you go, the lower your risk. You may check with a local dive center, resort or instructor to see if divers in the area follow a particular recommendation or protocol.

Cold and Strenuous Conditions. If you get cold or exercise a lot during a dive, you may end your dive with more excess nitrogen in your body than calculated by your dive table or computer. When using the RDP for planning a dive in cold water or under conditions that may be more strenuous than usual, plan your dive as though the depth were 4 metres/10 feet deeper than it actually is.

How you handle this with a dive computer depends on the computer. A few sophisticated models track the water temperature and your breathing rate and automatically readjust to more conservative no stop times when necessary. For others, you can set the computer to be more conservative by using the altitude setting and setting it to an altitude higher than you actually are, or by connecting the dive computer to a personal computer (requires special hardware and software). However, you have to make these settings before the dive. If you can't set your computer to be more conservative (and

Quick Quiz — Self Assessment 3

1. When using the RDP, you need to use special dive procedures above what altitude? _____

2. The minimum recommended surface interval for flying after diving is _____.

3. Using the RDP, under cold and strenuous conditions you plan your dive as though:
   - ☐ a. it were at altitude.
   - ☐ b. it were 4 m/10 ft deeper than actual.
   - ☐ c. it were 4 m/10 ft shallower than actual.
   - ☐ d. None of the above.

How'd you do?
1. 300 m/1000 ft. 2. 12 hours. 3. b.

it doesn't do it automatically), or if you didn't expect cold/strenuous conditions, you'll need to be more conservative by making sure you always have plenty of no decompression time remaining throughout the dive.

It's especially prudent to make a safety stop when diving in cold water or under strenuous conditions.

Using a Dive Computer

As you learned in Section Four, you're probably going to be diving with a computer more often than not. The basic principles and guidelines that apply to the RDP apply, for the most part, to diving with your computer. Keep these points and procedures in mind:

1. Computers are sophisticated calculators with depth gauges and timers that calculate theoretical nitrogen in the body. They're no more or less valid than dive tables, and they don't track anything physical in your body. The recommendations for conservative diving with tables apply to computer diving.

2. Don't share your computer. Each diver needs an individual computer. A computer tracks theoretical body nitrogen as it rises

MAIN Objectives

Underline/highlight the answers to these questions as you read:

10. What procedures and general recommendations apply to diving with a computer?

Summary Points

In this subsection on Special Dive Table and Computer Procedures, you learned:

- You should make a safety stop at the end of virtually all dives (except when an emergency prohibits it).
- A safety stop is a pause in your ascent between 3 and 6 metres/10 and 20 feet for three minutes or longer.
- Consider a safety stop mandatory if you dive deeper than 30 metres/100 feet or reach any limit on the RDP or your computer.
- For recreational divers, decompression is only an emergency procedure.
- You need to follow special procedures when diving at an altitude greater than 300 metres/1000 feet.
- Follow the recommendations for flying after diving conservatively, and stay up to date with the most current recommendations.
- Plan cold/strenuous dives with the RDP as though the depth were 4 metres/10 feet deeper than actual. With a computer, be conservative using the most appropriate method for your computer.

and falls with each dive and surface interval, so it must stay with one diver for the entire dive day — you can't swap between dives. You can't share a computer within a buddy team either because it tracks depth quite closely. It will only be accurate for the diver wearing the computer.

3. Follow the most conservative computer. Surface or ascend when either computer — yours or your buddy's — approaches its no decompression limit. If you follow the least conservative, you're in effect sharing that computer, which you shouldn't do.

4. Don't turn your computer off between dives. Most won't let you, but if you take out the battery or shut the computer down, it loses its memory of your previous dives and your residual nitrogen. You'll have to allow all residual nitrogen to leave your body before resuming use of the computer. Your computer will shut itself off when it calculates no significant residual nitrogen remaining.

5. Make your deepest dive first and plan successive dives to progressively shallower depths. During a dive, start at the deepest point and work your way shallower. The medical community recommends avoiding going from shallow to deep because there's little test data about this kind of diving. Minor up and down variations (a few metres/feet) are not likely an issue, but there are some theoretical concerns if a successive dive is significantly deeper than a previous dive. Note that if you accidently don't follow this guideline, for safety, dive computers still provide no stop times.

6. Stay well within computer limits. Always try to have five or more minutes no decompression time remaining. If you let it near or reach zero, you've pushed the limits even though you'll have plenty of no stop time when you ascend to a shallower depth.

7. If your computer quits, you may need to stop diving for 12 to 24 hours. If it quits during a dive

Quick Quiz

Self Assessment 4

1. Procedures for diving with a computer include (check all that apply):
   - ☐ a. sharing a computer with no more than one other diver.
   - ☐ b. following the most conservative computer — yours or your buddy's.
   - ☐ c. keeping your computer turned on between all dives.
   - ☐ d. making your deepest dive first, and each subsequent dive progressively shallower.

2. Any dive that your computer provides no decompression dive time for is acceptable.
   ☐ True ☐ False

How'd you do?
1. b, c, d. 2. False. Your computer may provide data for dives that aren't recommended.

Think.

Don't blindly accept everything your computer says, especially when it appears way out of line with a buddy's computer or your previous experience. Read the manufacturer's instructions completely before using your computer, and follow what they say.

and you've been staying well within the no decompression limits, ascend immediately to 5 metres/15 feet, make a safety stop for five minutes or more and surface. You can't simply grab another computer because it won't know how much residual nitrogen you have. Follow the manufacturer's instructions.

8. Take the RDP with you when you go diving. Although computer failure has become vary, very rare, it still happens once in awhile. If you've been noting your depths and times (in your logbook, perhaps) and your dives have been RDP limits, you can continue diving using the RDP. Otherwise, you'll probably have to wait until the next day for residual nitrogen to clear before you resume diving.

Although it's common for dive resorts to have scuba equipment including regulators and computers that you can rent in case of a problem, that's not always the case. Take your RDP so you don't miss out. Many active divers invest in a second computer (and other gear) so there's a spare for themselves or a partner.

9. Keep thinking. Dive computers can fail just like any other piece of equipment. Don't blindly accept everything your computer says, especially when it appears way out of line with a buddy's computer or your previous experience. Read the manufacturer's instructions completely before using your computer, and follow what they say. You can learn more about the theory and use of dive computers in the PADI Multilevel Diver course.

Basic Compass Navigation

Navigation can seem pretty overwhelming when you consider that you're trying to keep up with where the rest of the world is. And that's without mentioning how it feels to get lost and realize you just lost track of an entire planet. By learning to navigate underwater you'll minimize how often you get disoriented, and if it does happen, you'll more quickly figure out where you mislaid the whole of existence. Don't let it intimidate you – there are two kinds of divers: those who have been lost underwater, and those who won't admit it.

Underline/highlight the answers to these questions as you read:

11. What are the four basic features of an underwater compass?

12. What is the proper hand and arm position when using a compass mounted on the wrist?

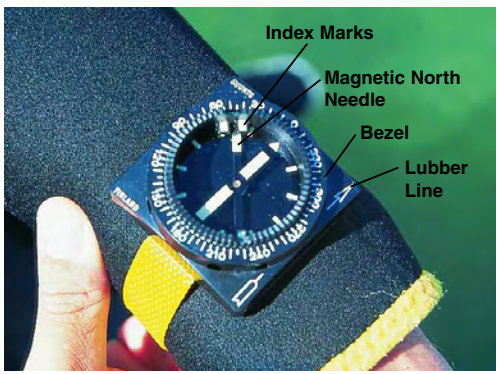
13. What is the proper method of holding a compass when it is mounted in an instrument console?

14. How do you set an underwater compass to navigate a straight line from a beginning location to a predetermined destination?

15. How do you set an underwater compass for a reciprocal heading?

Basic Compass Navigation
See the PADI *Underwater Navigator Manual*

Follow me.
With experience you'll learn to navigate by following cues you find in the environment, but an underwater compass makes navigating easier and more accurate, and the more you use it, the more true this is.



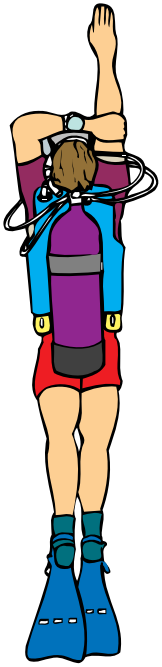
Basic underwater compass features.

Navigation makes your underwater adventure more fun in several ways. It lets you plan your dive so you don't waste time and air trying to find the best parts of the reef, and so you end your dive near your exit point with ample reserve air left. By knowing where you are at all times, you can head straight for the boat or shore if a problem crops up, and you know where you haven't explored yet. If there's anything in the area you want to avoid, navigation helps you do so. Compass navigation helps you swim a straight line — when you're lost, you tend to swim in a circle.

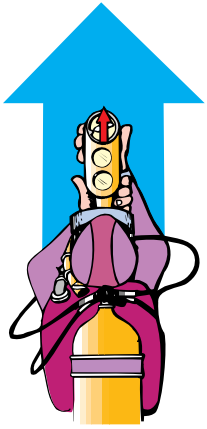
With experience you'll learn to navigate by following cues you find in the environment (a diver who has been there a gazillion times is a great cue to follow), but an underwater compass makes navigating easier and more accurate, and the more you use it, the more true this is.

Basically, compass navigation works like this: Your compass remembers where the North Pole is, and you remember where everything is in relation to the North Pole. Okay, more detail will help, but that's the essential principle of compass navigation. Let's start with the four basic features you'll find on most underwater compasses:

1. Lubber line: The lubber line indicates your travel direction and runs straight down the center of your compass. It may be imaginary – you draw the line mentally through the 0 degree and 180 degree marks. Or, the compass may have an actual line there or along one side of the compass. Any time you navigate with your compass, you have the lubber line pointed where you're headed, or you're using the compass to point the lubber line in the direction you should head. If you're navigating with your compass and you're not traveling along the lubber line, then . . .well, then you're not actually navigating with your compass.



Center and level.
Hold the compass so the lubber line aligns with the center line of your body. On your wrist, hold the arm without the compass straight out and grasp it with your opposite hand near or above the elbow, solidly placing the compass in front of you.



If your compass rides in your console, hold the console squarely in front with both hands.

2. Magnetic north needle: In the center of the compass is a needle (or an arrow printed on a disk) that is free to rotate inside the compass. This magnetic north needle, or compass needle, always points to magnetic north. By doing this, it creates an angle with the lubber line that you use to maintain a straight line as you swim.

3. Bezel: Most underwater compasses have a rotating bezel. To set the compass, align the two small, parallel index marks on the bezel over the compass needle. These help you maintain a straight direction of travel.

4. Heading References: Most underwater compasses have numbers so you can record your heading (your direction of travel as measured in degrees from magnetic north). A few compasses have only general markings for north, south, east and west; you can use these for general navigation, but for precision you'll want one with degree headings.

Electronic compasses provide the same information and functions, but use digital readouts. See the manufacturer instructions if you're using an underwater electronic compass.

To navigate with a compass, the first step is to hold it correctly. Hold the compass so the lubber line aligns with the center line of your body. If you wear your compass on your wrist, hold the arm without the compass straight out and grasp it with your opposite hand near or above the elbow, solidly placing the compass in front of you. If your compass rides in your console, hold the console squarely in front with both hands.

When using your compass, keep the lubber line aligned with your body center line. Otherwise you won't swim along the lubber line, and you'll throw off your navigation even if you use the compass correctly in all other respects.

To navigate a straight line, simply point the lubber line in the direction you want to go and align your body with the lubber line. Hold the compass reasonably level (otherwise the needle locks) and allow the needle to settle. Next, turn the bezel so the index marks align over the compass needle. (For swimming in a straight line, you don't need to use heading degrees or north, south, east and west.)

Lubber line leads.
To navigate a straight line, point the lubber line in the direction you want to go and allow the needle to settle. Next, turn the bezel so the index marks align over the compass needle. Travel along the lubber line keeping the needle within the marks.

Now, swim along the lubber line (your desired direction of travel) while keeping the compass level and the needle within the index marks. If the needle begins to leave the index marks, you're turning off course. Adjust your direction so the needle stays within the index marks. Remember that the compass needle never really turns — it *always* points to magnetic north. If the needle appears to have moved, it's *you* who moved from the course.

Back where you came from.
To set the compass for a reciprocal heading, if your compass has only one set, you rotate them 180º from your original heading. Some compasses have two sets of index marks (as shown) with the extra pair in place for a reciprocal heading. Either way, turn until the compass needle sits inside the index marks 180º from your original heading. You now face the direction you came from.

Now let's set the compass for a *reciprocal* heading. First turn the bezel so the index marks are exactly opposite their original location on the compass face. Next, turn until the compass needle sits inside the index marks again. You now face the direction you came from. Swim along the lubber line keeping the needle within the marks like you did on the way out.

For diving in many environments, you'll use the compass to swim out, then set a reciprocal heading to return to the boat or shore at the end of the dive. With a little practice, you'll find compass navigation not only useful, but a fun challenge — it's the kind of skill that's pretty easy to get down the basics you need, but takes a lot of practice and experience to attain the to-the-metre/foot precision that sets the master apart from the average.

Even if you're not into it for its own sake, you need rudimentary navigation skills. Besides what you'll practice in this course, you develop your navigation skills by making a point of using them when you dive, and you can participate in navigation Adventure Dives with your instructor. You can also spend a fun weekend diving and learning about navigation in the Underwater Navigator course, and in the Advanced Open Water program.

Continuing Your Adventure

You're not far from becoming a PADI Open Water Diver, and you're probably pretty focused on that goal. Soon you'll be a certified diver, inside the threshold of diving, looking at all the adventure diving offers.

Then what?

Quick Quiz — Self Assessment 5

1. Basic features of an underwater compass include (check all that apply):
   - ☐ a. lubber line.
   - ☐ b. compass needle.
   - ☐ c. index marks.
   - ☐ d. bezel.

2. When using a compass, you want to align your body center line with:
   - ☐ a. the compass needle.
   - ☐ b. the index marks.
   - ☐ c. the bezel.
   - ☐ d. None of the above.

3. To navigate a straight line, point the _____ in your travel direction and then put the _____ over the _____.

4. To navigate a reciprocal heading, rotate the bezel so the _____ are/is exactly opposite the initial heading.

How'd you do?
1. a, b, c, d. 2. d. You align your body with the lubber line. 3. lubber line, index marks, compass needle.
4. index marks

Nav wizard.
Besides what you'll practice in this course, you develop your navigation skills by making a point of using them when you dive, and you can participate in navigation Adventure Dives with your instructor.

Summary Points

In the subsections on Using a Dive Computer and Basic Compass Navigation, you learned:

- You should have your own computer while diving — don't try to share one.
- Keep your computer turned on all the time.
- The dive medical community recommends that you make your deepest dive first and plan successive dives to progressively shallower depths.
- Stay well within computer limits.
- Back up your computer with dive tables.
- Underwater navigation skills add to dive fun and safety.
- The compass lubber line always indicates your travel direction; the compass needle always points north.

.

Maybe it's time you think about it. It's such a loss when a diver becomes certified and then . . . and then nothing. No adventure. No challenge. It's like someone hands the diver a new world, and not knowing what to do with it, the diver says, "No thank you," and walks away.

Surely you didn't take the time and effort to earn your certification just so you can say, "been there, done that." But you may not know where to go, or what to do with this new world at your grasp. So let's look at what you need to do *now* so that when you look back in a year, or ten, you won't look back on ". . . and then nothing." You need to: 1. meet people, 2. go places and 3. do things.

Meet People.

Since you can't dive alone, the more diving friends you have, the more dive opportunities you'll have. Not having someone to dive with is one of the most common reasons why some divers don't keep diving after getting certified. Maybe you already have friends who dive, but if you don't or want more, what do you do?

You're off to a good start, if you think about it. Don't leave your final confined water dive and open water dive for this course without getting the name, telephone number and address for everyone in the class. You know these divers, and like you, they want someone to dive with.

Next, join a dive club. Your PADI Dive Center or Resort probably has one or knows of one, which is probably a local chapter of the PADI Diving Society (which you'll also want to join). Most of these organizations coordinate activi-

MAIN Objectives

Underline/highlight the answers to these questions as you read:

16. **What is the purpose of the PADI System of diver education?**
17. **What are three benefits of continuing your diver education beyond PADI Open Water Diver?**
18. **What dive adventure do you want next?**

People like you.
Your PADI Dive Center or Resort probably has a dive club or knows of one. Most of these organizations coordinate activities, dives, events and other dive-related fun — and you'll meet other people to dive with.

ties, dives, events and other dive-related fun — and you'll meet other people to dive with. Don't worry that you're new to diving — every dive group has members at all experience levels and they plan activities accordingly.

Go Places.

A great way to meet people is to go on a dive trip organized by your PADI Dive Center or Resort. Plus, it takes you diving — which is what you're trying to accomplish. Although an exotic dive destination has the most appeal, don't let time and money limit your thinking. Most dive operations offer local dive adventures close to home — and you may be surprised just how much fun you can have.

Do Things.

Diving isn't just about swimming around underwater sightseeing. Diving should be personal. It's about gaining the skills *you* need to visit new dive sites *you* want to see. It's about having the gear *you* want so that diving takes *you* on the adventures that *you* think worthwhile, so that it presents *you* with the challenges that *you* think deserving, and so that diving grows with *you* and always rewards *you*.

Only *you* can say whether this means taking on artistic challenges like underwater photography and videography, skill challenges like navigating or finding and recovering lost objects, or technical challenges like deep diving or enriched air diving. But recognize that scuba diving isn't an activity, but a door through which you reach hundreds of underwater pursuits. Find those that ignite your heart, and you'll experience that which eludes many people — a burning passion for what you do.

The PADI System of Diver Education

Looking at a flow chart for the PADI System of diver education, one might conclude that its purpose is to take you to Master Scuba Diver, or to PADI Open Water Scuba Instructor. *But that's not it at all*.

Becoming a PADI Master Scuba Diver, or Divemaster, or Instructor, or whatever isn't the purpose of the system, but a *result* of achiev-

ing its purpose. The *purpose* of the PADI System is to provide the means by which you 1. meet dive people, 2. go places diving, and 3. do things underwater. Sound familiar?

Continuing your education beyond Open Water Diver has some tangible benefits — doing so introduces you to specialized dive activities. It gets you acquainted with diving in different conditions, and it may get you diving in a wide variety of aquatic environments. But again, these all lead back to the primary purpose of helping you get out of diving what you got into diving for.

You'll find that other PADI courses differ from this course. Many — especially those that focus on adventure activities — take only a day or two, and they're mostly diving, with little or no classroom work. Others, like the leadership level PADI Divemaster and Open Water Scuba Instructor courses are much longer and more involved — but as with many things, the rewards reflect the effort and commitment required. Yet other programs are but a single dive.

Choose from many.
Recognize that scuba diving isn't an activity, but a door through which you reach hundreds of underwater pursuits. Find those that ignite your heart, and you'll experience that which eludes many people — a burning passion for what you do.

Regardless, by continuing to learn, you meet and get to know other divers. You visit new dive sites (perhaps including dive travel), and you get to try new activities and to develop new skills, helping you find the aspects of diving that mean the most to *you*. Related to this, you see what types of equipment best suit your preferences and interests.

In other words, it assures that you meet people, go places and do things.

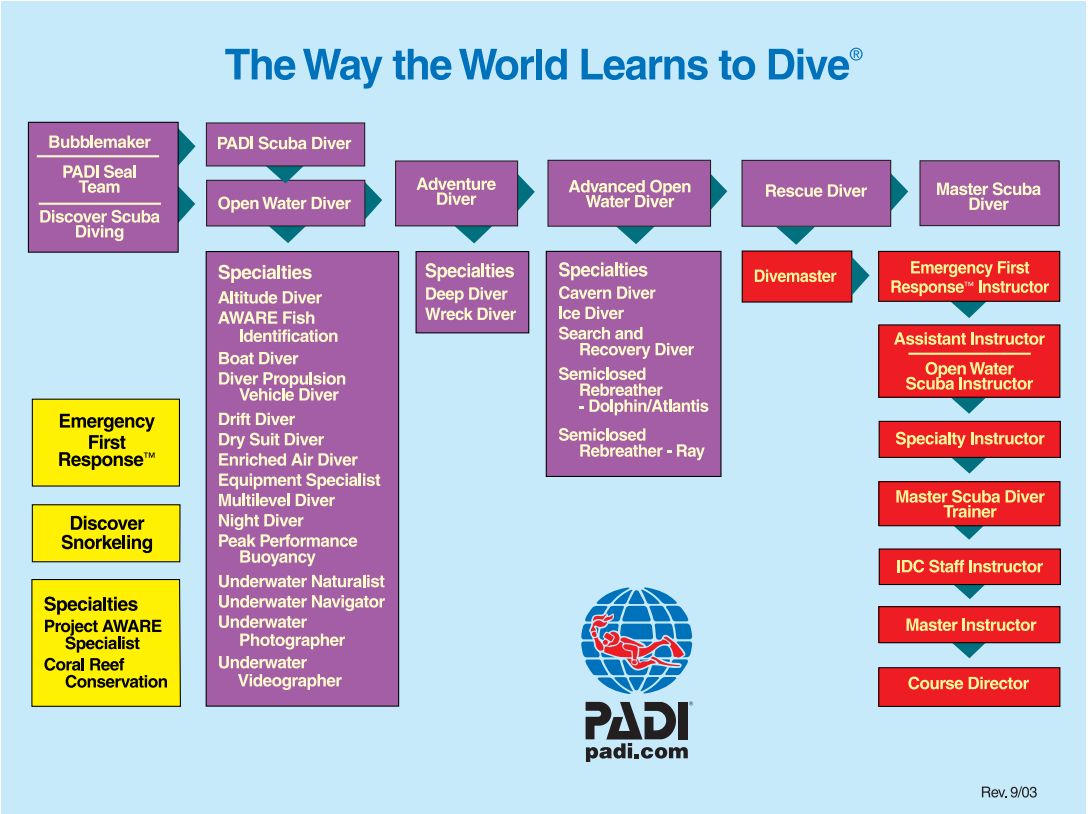
PADI Adventure Dives. What's it like to dive to 30 metres/100 feet? How hard is it to shoot a camera underwater? Is night diving as scary as it sounds?

You get the answers to questions like these by going on PADI Adventure Dives, which introduce you to the basics of special underwater activities. It's a great way to see what interests you, whether it's deep diving, night diving, wreck diving, and so on. Your instructor shows you what you need to know during a predive briefing and review, and then you're off doing it. The best part is, it's fun.

Adventures in Diving Program. Know what they call someone who's made five Adventure Dives? A PADI Advanced Open Water Diver. You make an underwater navigation dive and a deep dive, plus three other Adventure Dives that appeal to you. The background info you need you cover by reading short chapters in *Adventures in Diving* and during some predive briefings, but as with Adventure Dives, what you really do is meet divers, go places diving and do new things underwater. You can earn the Advanced Open Water Diver certification over time by going on Adventure Dives, or you usually can sign up for it as a program. It usually takes a weekend, but the schedule is incredibly flexible. Some people have done it in afternoons after work.

If you can't complete all five Adventure Dives you need for the PADI Advanced Open Water Diver certification, you can still earn the PADI Adventure Diver rating after completing any three Adventure Dives. PADI Adventure Diver certification dives can be completed in just one day.

Specialty Diver Courses. Once you start figuring out what types of diving you love, PADI Specialty Diver courses get you off on the



right foot. In most of these programs you cover background materials by doing a bit of reading, watching some exciting and informative videos and discussing concepts in predive briefings. Then you make two to four dives in the activity. PADI Specialty Diver courses cover underwater photography, night diving, deep diving, wreck diving, equipment, underwater navigation, search and recovery, ice diving, cavern diving, altitude diving, boat diving, enriched air (nitrox), drift diving, dry suit diving, multilevel diving, underwater nature and more. Surely more than one gets your pulse up.

And even better: The Advanced Open Water program Adventure Dive happens to be the first dive of many PADI specialty courses. So if you try, say, a dry suit Adventure Dive (by itself or as part of an Advanced Open Water Diver course) and decide that you just have to have a dry suit and finish the whole course, you've already got the first course dive under your weight belt (at the instructor's discretion).

Keeps you diving.
The purpose of the PADI System is to provide the means by which you 1. meet dive people, 2. go places diving, and 3. do things underwater.

It works the other way, too. If you know now that you love, say, underwater photography and go straight into the Underwater Photographer course (which is a really great program, by the way . . . but we digress), the first dive from the course counts toward your Advanced Open Water certification (at the instructor's discretion).

Good things to know.

The Rescue Diver course refines and further develops your accident prevention and handling skills, plus teaches you to manage an emergency.

Discover Local Diving. Not a course, and you already know about this from the discussion on getting a local orientation when diving in a new area. The Discover Local Diving experience provides a single, supervised open-water experience to some place new, with a briefing covering local conditions, hazards and points of interest, as well as an orientation to special procedures and techniques used in the area. During the dive, you'll see some of the interesting points, as well as the potential hazards to avoid. It's a good way to plug into the local dive community when you go some place new, and find out what activities suit the local environment. Meet people, go places and do things.

Scuba Review. Ditto, you already learned about this, but it's worth a reminder: If you go several months or longer without diving (it happens, best laid plans notwithstanding), you'll want to brush up your dive skills and knowledge. In Scuba Review, you complete some short self-study (with a workbook or CD-ROM) and review it with a PADI Divemaster, Assistant Instructor or Instructor. Then you make a confined water dive to put the polish back on your skills. Usually takes only a couple hours — easy way to limber up mentally and physically for diving.

Rescue Diver Course. Serious fun. You learn a pile of skills, most of which you hope you'll never use. It's a demanding and challenging course. *You'll love it*. Virtually all who take this course cite it as one of the most rewarding courses they've taken. Though challenging, you don't have to be an athlete – you learn rescue techniques suited to your physical characteristics and fitness level – what works for you.

During the Rescue Diver course you learn to refine and further develop your accident prevention and handling skills, plus learn to manage an emergency if you're ever faced with one. Good things to know.

Emergency First Response. Like the Rescue Diver course, in the Emergency First Response program you learn skills you hope you never need, but will be glad you did if you ever do. Emergency First Response combines CPR and first aid into a single course, teaching you (at a lay level) the same emergency protocols used by paramedics and doctors. Your nondiving friends can take this course with you, and it can make a big difference — even when you're not diving.

Rewards = efforts.
It takes effort and commitment to become a PADI Open Water Scuba Instructor, but it is as rewarding as it is demanding.

Master Scuba Diver. The PADI Master Scuba Diver rating is the highest nonprofessional rating in recreational diving. This prestigious rating means you've developed skills and experience in a broad number of dive activities and environments. What makes a Master Scuba Diver? Earn the PADI Advanced Open Water Diver, the PADI Rescue Diver and five PADI Specialty Diver certifications.

Turn Pro. At some point, you may decide to make diving a full or part time profession. For a lot of people, it beats working at a desk, and if you love working at a desk, you can still turn pro. Does all this seem too far off? No worries — you don't need to look this far ahead yet. But this will give you some idea how your instructor and the instructor's staff got where they are.

After Rescue Diver, your next step is PADI Divemaster. During the Divemaster course, you sharpen your dive skills to demonstration quality, develop a professional-level understanding of dive theory, learn to organize and conduct diving activities, and learn how to assist with divers in training.

After Divemaster comes the PADI Assistant Instructor course. The Assistant Instructor course begins developing the basic knowledge and skills needed to *teach* diving. Next, you attend a PADI Open Water Scuba Instructor Course (OWSI). In this instructor-training course, you learn how to teach scuba diving. After completing the OWSI course, you must pass a two-day

Instructor Examination (IE) conducted by one of PADI's world wide offices. After completing the IE successfully, you're certified as a PADI Open Water Scuba Instructor — the most in-demand dive professional in the dive community.

It takes effort and commitment to become a PADI Open Water Scuba Instructor, but each step rewards you — and you're diving. Meeting people. Going places. Doing things.

Some Hard Truths About Diving

Before everything begins to sound too perfect, walk with open eyes about diving and being a diver:

1. You'll have dive experiences you don't like. Count on it. The conditions will not be good, you won't like the boat, you'll choose a buddy you don't like, you won't like the area you're visiting, or you'll find you don't like the particular activity you're trying. But guess what: If you play golf, you'll slice the ball off the course. If you ride horses, one will step on your foot. If you ski, you'll fling yourself face first into a snow bank. If you play chess, some whiz kid will checkmate you in 12 moves.

Everything worth doing has its less-than-love-it moments. *Don't* let a bad day of diving ruin diving for you. Learn from it and do it differently next time. Pursue what *you* want out of diving and progress in diving at *your* rate, and you'll have many, many great dive memories for each one you'd rather forget.

2. It's better to have your own gear. It really is. Divers who own their own equipment dive more often and dive more comfortably. They avoid the hassles of fitting into rental gear every time they go.

This isn't to say you need to drop everything and go get set up head-to-toe in gear at this moment (but if you *want* to, go for it). However, keep it in mind and begin investing as your budget and dive activity can accommodate.

3. You get out of diving what you put into it. You've just read about a lot of different things you can do underwater, and there are others not mentioned. If you ever find yourself bored with diving, you need to look closely at what you want out of diving, and what you're doing. If you're not satisfied, you need

to turn your diving in a new direction. There are people who have made more than 1000 dives over more than 30 years – and they're still meeting new people. Going new places. Doing new things. Only *you* can make yourself reach for what's new and exciting in diving.

Your Next Dive Adventure

Okay, so you won't look back in a year and wonder why you haven't been diving, before you finish this course, go to your PADI Dive Center or Resort and do one or more of the following:

1. Sign up for a dive trip.
2. Sign up for a local dive with the store or the store's dive club/Diving Society Chapter.
3. Sign up for a PADI specialty course, Advanced Open Water course, or Adventure Dive.
4. Invest in a regulator/BCD package, or exposure suit package.

Do not leave until you do one of these. No joke — because research shows that people who do one of these when they finish their Open Water Diver course are more likely to get out of diving what they got into diving for. Plan your next step *now*.

Meet people.
Go places.
Do things.
Underwater.

Using the Recreational Dive Planner (Continued)

Finish the rest of the *Instructions for Use* booklet that comes with your RDP.

Then come back to this manual and pick up with the Confined Water Dive Preview.

Quick Quiz — Self Assessment 6

1. What dive adventure do you want next?

Answer: Your choice — ***but choose,*** or . . . or nothing.

Main Objectives

By the time you complete the assigned reading in Instructions for Use booklet assignment for the RDP (Table or Wheel), you should be able to answer the following questions:

19. How do you find the minimum surface interval required to complete a series of no decompression dives using the Recreational Dive Planner?

20. How do you plan a multilevel dive with The Wheel? [The Wheel only.]

Dive Tables Definitions

You've learned the following terms in the discussions on dive computers and in learning to use the RDP (if you learned to use The Wheel, you may not have run into some of these because you don't need them with The Wheel). This list provides a convenient and quick reference and review.

Actual Bottom Time (ABT) — In repetitive diving, the total time actually spent under water (in minutes) from the beginning of descent until leaving the bottom for a direct continuous ascent to the surface or safety stop.

Adjusted No Decompression Limit — The time limit for a repetitive dive that accounts for residual nitrogen. Found on Table 3 of the RDP Table; The Wheel automatically adjusts for residual nitrogen. Actual Bottom Time should never exceed the adjusted no decompression limit.

Ascent Rate — The proper speed for ascending, which is no faster than 18 metres/60 feet per minute. A rate slower is acceptable, and appropriate.

Bottom Time — The time from the beginning of descent until the beginning of a direct, continuous ascent to the surface or safety stop.

Decompression Diving — Diving that requires planning stops during ascent to avoid decompression sickness. In recreational diving (no decompression diving), a decompression stop is considered an emergency procedure only, and is never an intentional part of the dive plan.

Dive Profile — A drawing of your dive plan, used to avoid confusion and omissions when using the dive tables.

Multilevel Diving — Planning profiles that credit you for slower nitrogen absorption when you ascend to a shallower depth. This provides more no-stop dive time. The Wheel version of the Recreational Dive Planner can be used for multilevel diving.

No decompression Limit (NDL) — The maximum time that can be spent at a depth before decompression stops are required. Also called "no-stop time."

No-Stop Dive — A dive made within no decompression limits because you don't have any required emergency decompression stops.

Pressure Group — A letter used on the Recreational Dive Planner to designate the amount of theoretical residual nitrogen in your body.

Repetitive Dive — A dive that follows another while there's still a significant amount of residual nitrogen in your body. Using the Recreational Dive Planner, this is a dive made within six hours of a previous dive.

Residual Nitrogen — The higher-than-normal amount of nitrogen remaining in your body after a dive.

Residual Nitrogen Time (RNT) — An amount of nitrogen, expressed in minutes (found on Table 3 by using a pressure group letter) for a specific depth, that you add to the actual bottom time of a dive to account for residual nitrogen from a previous dive. Not needed with The Wheel.

Safety Stop — A stop made between 3 and 6 metres/10-20 feet — usually 5 metres/15 feet for three or more minutes at the end of a dive for additional safety. The safety stop is recommended after all dives (air supply and other considerations allowing), and required on those to 30 metres/100 feet or greater, and those coming within three pressure groups of the no decompression limit.

Surface Interval (SI)— The amount of time spent on the surface between two dives. It is usually recorded in hours:minutes (e.g. 3:25 — 3 hours, 25 minutes).

Total Bottom Time (TBT) — The sum of Residual Nitrogen Time and Actual Bottom Time after a repetitive dive, used on Table 1 to determine the pressure group. Not needed with The Wheel.

Confined Water Dive Preview

This is the last confined water dive in the Open Water Diver course. As in the previous sessions, you'll practice skills you've already learned, and learn some new ones.

Weight System Handling

There may be times when you'll need to remove or replace your weight system on the surface or underwater. Your weight belt may have become tangled with other equipment, you may need to adjust your gear, or you may need to take it off before entering small boats or climbing onto a platform without a ladder.

To remove a weight belt, release the buckle with one hand and grasp the free end, like you did during Confined Water Dive Three, pulling it clear of your body. Since you're not ditching the belt, keep it close to your body because holding it away tends to pull you over in the water. If you were ditching it, you would hold it well away before letting go. Keep in mind that once you release your weight belt, your center of buoyancy changes and you'll probably feel yourself trying to orient differently in the water. When working with your weight belt, remember to hold the free end (the end without the buckle) so the weights can't slide off.

Whether you're at the surface or on the bottom, you can use two methods to replace a weight belt. Breathe through your regulator even if you're at the surface so you can maneuver in the water without having to worry about flooding your snorkel.

To use the first method, stretch out horizontally face up. Hold the free end

Confined Water Dive Five

Skill Requirements

Here's what you'll be able to do when you successfully complete Confined Water Dive Five:

1. Remove, replace, adjust and secure the scuba unit and weights at the surface, with minimal assistance, in water too deep to stand up in.

2. Remove, replace, adjust and secure the scuba unit on the bottom, with minimal assistance, in water too deep to stand up in.

3. Remove, replace, adjust and secure weight belt on the bottom in water too deep to stand in, or for students using weight integrated BCDs or weight harness systems, in shallow water, remove weights while underwater.

Roll on.
To don a weight belt using the roll method, hold the free end in your right hand and place it against your right hip. Roll to the left so you're face down and the belt should roll around your hips and fall into place across your waist.

of the belt in your right hand and place it against your right hip. Now roll to the left so you're face down. Your weight belt should roll around your hips and fall into place across your waist, though you may have to guide it under your tank. Lean forward slightly, and the belt will slide into the small of your back. Allow the weight to drape across your back, check for twists, push any misadjusted weights into place and secure the buckle.

For the second method, hold both the free end and the buckle end in one hand so the belt forms a loop. Reach with the belt behind yourself, below your tank, and with your free hand, take one end so both hands have an end. Be sure that your right hand ends up with the free end and your left hand ends up with the buckle so you have a right-hand release when you're done. Once you have an end in each hand, lie horizontal face-down and drape the belt across the small of your back while you adjust and buckle it.

With either method, you'll probably find that your mask and BCD interfere with seeing the buckle while you're trying to release or fasten it. Practice operating the buckle by touch, rather than by sight.

If you're using a weight integrated BCD, for the purposes of disentangling, adjusting, etc., removing and replacing your scuba unit accomplishes removing and replacing your weights. To provide practice in using your emergency release system, your instructor will have you release your weights using your quick release in shallow water.

Again, left gets it right.
To using the loop method, hold both the free end and the buckle end in one hand so the belt forms a loop. Reach with the belt behind yourself, below your tank, and with your free hand, take one end so the buckle ends up in your left hand.

Scuba Unit Handling

As with your weights, there may be times when you remove and replace your scuba unit. Underwater, your scuba unit may need adjustment or

Left, right. Right, left.
You may find it easiest to remove and replace your scuba unit like a sleeveless coat. Vent all the air from your BCD, release the waist strap and take your left arm out of the BCD so you don't pull the second stage out of your mouth. To replace it, hold the unit upright and be sure the straps are clear, then put it on like a coat, starting with your right arm. Once it's in place, fasten and adjust the waist strap and any other straps.

may be slightly entangled and need to be freed. On the surface, you may put your scuba unit on after entering the water and (as you may have already practiced) take it off before exiting.

Underwater, you may find it easiest to remove and replace your scuba unit like a sleeveless coat. First, be sure to vent all the air from your BCD so it won't float away when you take it off. Release the waist strap. Then take your *left* arm out of the BCD, swing it behind you and take it off your right arm. Be sure to start with the left arm, or you'll stretch the regulator hose and possibly pull it out of your mouth. There's no reason to take the second stage out of your mouth during this skill.

After it's off (you'll find it easy to handle because scuba tanks weigh very little in water), you would adjust/untangle whatever and then replace it.
Hold the unit upright and be sure the straps are clear, then put it on like a coat, starting with your *right* arm first (same reason — so you don't pull the second stage out of your mouth). Once it's in place, fasten and adjust the waist strap and any other straps.

You can also put it back on over your head. Lay the unit in front of you, with the valve toward you and the jacket facing up. Put your arms in the jacket up past your elbows. Keep the hose to your mouthpiece between your arms (if it is outside your arms, you'll pull the second stage out of your mouth as you swing it overhead). Next, raise the tank over your head and gently lower the tank into place. Finally, make sure all your hoses are clear before you fasten the waist strap.

You can follow the same procedure for removing your scuba unit at the surface as you did underwater. A popular donning technique is to sit on

On over your head.
To don overhead, put the unit in front of you with the valve toward you and the jacket facing up. Put your arms in the jacket up past your elbows. Keep the hose to your mouthpiece between your arms. Raise the tank over your head and gently lower the tank into place. Finally, make sure all your hoses are clear before you fasten the waist strap.

the slightly buoyant unit with the tank between your legs. Put the bottom of the tank in front of you, the valve behind you, and the jacket open beneath you. Put your arms into the jacket sleeves on each side, and then let yourself slip forward. The unit slides up, you slide down and presto! You're in the jacket.

Open Water Dives 3, 4 and Optional Skin Dive

Here's a preview of the skills and procedures you'll practice during your second two Open Water Dives. The sequence within each dive will vary, depending on the logistics, and your

instructor may sequence some skills in different dives. Before each dive, your instructor will brief you about what you're going to do and when, along with other information you need for the dive, like communication signals, an environmental orientation, emergency procedures, safety rules, and so on.

There's also an Optional Skin Dive, which your instructor or an assistant will lead you on if logistics permit. Your instructor will schedule this for the most appropriate time amid your scuba dives depending on logistics, local conditions and your needs.

Open Water Dive 3 Overview

Briefing
Equipment preparation
Don and adjust equipment
Predive safety check
Entry
Buoyancy/weight check
(50 metre/yard straight line surface swim with compass)*
Free descent with reference to 6-9 metres/20-30 feet (max dive depth 18 m/60 ft)
Buoyancy control — neutral buoyancy on bottom, fin pivot oral
Complete mask flood and clear
(CESA)*
Buddy breathing — stationary and ascent from 6-9 metres/20-30 feet (optional)
Underwater exploration
Ascent
(Remove and replace weight system at the surface)*
(Remove and replace scuba unit at the surface)*
Exit
Debrief and log dive

Open Water Dive 4 Overview

Briefing
Equipment preparation
Don and adjust equipment
Predive safety check
Entry
Buoyancy/weight check
Free descent without reference no deeper than 18 metres/60 feet
Buoyancy control — hovering
Mask removal, replacement and clearing
(Underwater navigation with compass)*
Underwater exploration
Ascent
Exit
Debrief and log dive

Optional Skin Dive Overview

Briefing
Equipment preparation
Suiting up
Equipment inspection
Entry
Buoyancy/weight check
Surface swim
Surface dives and underwater swimming
Displacement snorkel clear
Underwater exploration
Exit
Debrief and log dive

* These skills may be sequenced in other dives, depending on logistics.

Enriched Air Nitrox

In many areas, diving with enriched air nitrox has become popular. Enriched air nitrox (a.k.a. enriched air or EANx) is simply air with extra oxygen added to it to decrease the proportion of nitrogen you breathe. As you learned in Sections Four and Five, nitrogen limits the amount of time you can spend at a given depth, so enriched air lets you stay longer, all else being equal, though it has some special considerations you need to be aware of. Your instructor may give you the opportunity to try diving with EANx in Open Water Dive Four, and you may credit this (at your instructor's discretion) toward the PADI Enriched Air Diver certification.

Dive Safety Practices Summary

The following summarizes the safe diving practices you've learned during this course. Review it periodically and keep them in mind when diving.

Preparation

1. Stay healthy and fit for diving. Eat right, exercise regularly and get adequate rest.
2. Have approval for diving from a physician who has given you a thorough medical examination and have one every two years.
3. Be recently trained in first aid and cardiopulmonary resuscitation (CPR). To acquire training in these areas, take the Emergency First Response program offered by PADI Instructors, Dive Centers and Resorts.
4. Maintain your dive skills by diving as often as you can, by continuing your diver education. Refresh your knowledge and skills with Scuba Review after long periods of inactivity.

5. Get an orientation to new diving conditions, activities or areas. When planning a dive in a new, unfamiliar area, participate in a Discover Local Diving experience. Remember that you should have special training for some activities.
6. Always have and use all the equipment needed for the conditions and environment.
7. Have your scuba equipment serviced annually, or as recommended by the manufacturer. Have scuba tanks visually inspected regularly and pressure tested at required intervals. Maintain your equipment in good condition and inspect it before diving.
8. Only fill scuba tanks with pure, dry compressed air from reputable air stations.

Predive

1. Dive only when feeling well, both physically and mentally. You should feel confident about the dive. Be sure the dive and its activities are within your capabilities. Remember — diving is supposed to be fun. If you don't think it will be safe or fun, don't make the dive.
2. Know the dive site. Evaluate conditions and check for possible hazards.
3. Check the weather forecast before diving. Evaluate the dive conditions, those present and expected, and dive only when the conditions are as good as or better than those in which you have experience and/or training. Don't dive in poor conditions.
4. Refrain from alcohol, smoking or dangerous drugs before or immediately after diving.
5. Plan your dives with your buddy. Agree on objectives, direction, and depth and time limits. Review underwater communications, emergency procedures and what to do if you become separated.
6. Always plan for no decompression diving. Consult the Recreational Dive Planner and allow for a margin of safety. Avoid diving to the maximum time limits of the RDP or your computer. Make your deepest dive of the day first. Know how to perform an emergency decompression stop, but avoid having to do so. Plan to make safety stops whenever possible. Be aware of the effects of flying after diving and diving at altitudes greater than 300 metres/1000 feet.
7. Inspect both your and your buddy's equipment. Know how to operate each other's equipment. Always conduct a predive safety check: Begin With Review And Friend (BWRAF — BCD, Weights, Releases, Air, Final okay).
8. Be prepared for emergencies. Have local emergency contact information on hand, just in case.

Diving

1. Properly weight yourself for neutral buoyancy. Check your buoyancy at the surface and avoid being overweighted. If you check buoyancy with a full cylinder, add enough weight to offset the air you use (typically about 2.5 kg/5 lbs with a single cylinder).
2. Always wear a proper buoyancy control device (BCD). Use your buoyancy control device to regulate your buoyancy. Avoid contact with the bottom by staying neutrally buoyant — for your benefit and the benefit of the aquatic environment. Inflate your BCD at the surface to provide ample positive buoyancy.
3. Display the appropriate local dive flag and stay near it.
4. Begin dives against the current, and/or take into consideration the effect the current will have during the dive. Plan your dive so you don't have to fight the current to reach your exit point.
5. Equalize pressure early and often during descents. If you feel discomfort in a body air space, ascend until the discomfort goes away, equalize, then continue the dive. If you can't equalize, abort the dive.
6. Stay with your buddy throughout the dive. Know how to reunite if you accidentally separate.
7. Limit your depth to 18 metres/60 feet or less as a new diver. Remember that 18 metres/60 feet is the recommended limit for new divers. Shallower diving conserves your air, increases your bottom time and helps reduce the risk of decompression sickness.
8. Spear guns are dangerous weapons. Do not load them out of water and always unload them before leaving the water. Treat them as though they're always loaded – never point them at another person.
9. Avoid contact with unfamiliar aquatic plants and animals.
10. Be alert for possible problems and avoid them. Check your equipment frequently while underwater, especially your gauges: depth gauge, timing device and submersible pressure gauge, compass and dive computer.
11. Exit the water with a minimum of 20-40 bar/300-500 psi in your tank, or more if the dive plan or conditions warrant an extra margin of conservatism.
12. Pace yourself. Avoid overexertion and breathlessness. If you become breathless, stop, rest and recover before proceeding.
13. Breathe properly — slowly, deeply and continuously. Never hold your breath while scuba diving. Exhale slowly and continuously any time the regulator is not in your mouth. Avoid excessive hyperventilation when skin (breath-hold) diving.

14. In an emergency, stop, think, get control and then take action. Act based on your training, don't react based on instinct.
15. Ascend carefully and correctly. Reach up and look up during the ascent. Come up no faster than 18 metres/60 feet per minute. Plan a 3-minute safety stop at 5 metres/15 feet whenever possible. Listen for boats as you come up, and establish buoyancy as soon as you reach the surface. Be a S.A.F.E. Diver — Slowly Ascend From Every dive.
16. Stop diving when you're cold or tired. Don't overextend yourself.
17. Stick to your dive plan underwater. Don't revise a dive plan underwater.
18. Stay out of overhead environments unless you're properly trained and equipped for that overhead environment.

General Dive Safety Practices

1. Be an active diver. Dive frequently to maintain your proficiency.
2. Build your experience and capabilities gradually under safe conditions.
3. Keep a dive log. This records your training and experience and is a valuable reference for future dives.
4. Don't lend your equipment to untrained persons. Never attempt to teach another person how to dive. Teaching diving requires specialized training and skills. Leave instruction to trained professionals.
5. Continue your diver education. Remember that a good diver never stops learning.