



# Atlanta Underwater Explorers

## AUE Bubbles

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Volume 2 Issue 5

The Atlanta Underwater Explorers, P. O. Box 55048, Atlanta, GA 30308 [www.diveaue.org](http://www.diveaue.org)

## 5 Tips for Saving Air

By Eric Douglas

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### Diving Tips: Saving Air

Do you breathe your tank down faster than your buddy? Here are 5 diving tips to help conserve your oxygen and extend your bottom time.

#### 1. Fix the small leaks

Even a tiny stream of bubbles from an O-ring or an inflator swivel adds up over 40 minutes, and may be a sign of more serious trouble ahead anyway. A mask that doesn't seal is another kind of leak in that you have to constantly blow air into to clear out the water. It's also a source of stress, which needlessly elevates your breathing rate and thereby reduces your breathing efficiency. Does your octo free-flow easily? That can dump a lot of air quickly. Detune it or mount it carefully so that mouthpiece points downward.

#### 2. Dive More

Inexperienced divers are famous for burning through their air supply at a furious rate, so one of the best diving tips for saving air is to simply dive more often. You may not be a new diver, but unless you dive almost every week it's still an unnatural activity. By diving more, your body will get use to the idea, and you'll breathe less.

#### 3. Swim Slowly

The energy cost of speed is even more than you might think: Swim half as fast as you do now, and you'll use less air.

#### 4. Stay Shallow

Because your regulator has to deliver air at the same pressure as the water, a lungful at 33 feet (two atmospheres) takes twice as much out of your tank as does the same breath at the surface. At 99 feet (four atmospheres) it takes twice as much as at 33 feet. There's absolutely nothing you can do about that except to avoid being deeper than you have to be. If you're making a transit over an uninteresting sand flat or get to the edge of the drop-off, do it at 15 feet instead of at 40 feet, and you'll save air.

#### 5. Minimize the Lead

If you're over-weighted, you have to put more air into your BC to float it and be neutral. The inflated BC is larger and requires more energy and oxygen to push it through the water. An extra eight pounds of lead means your BC is one gallon bigger when inflated enough to make you neutral. For more diving tips on saving your air supply, visit save your breath:

<http://www.scubadiving.com/training/basic-skills/save-your-breath>



*"In experienced divers are famous for burning through their air supply at a furious rate."*

## The Nitrox Myth?

By Michael Ange

One of the most prevalent beliefs in recreational diving is that nitrox is used to dive deeper and stay longer. The reality is nitrox is a relatively shallow-water gas that can be used to extend bottom time at moderate depths, but can become toxic at deeper depths. As Divers Alert states:

“Today, nitrox mixes are readily available and prepared across a range of concentrations. It has a lot to offer divers, but it isn’t magic; rather, it’s a useful tool that provides benefits if used correctly. When diving according to air tables or using the air setting on a dive computer, nitrox can reduce decompression stress on a diver. When used with an equivalent air depth, this safety margin is lost, but bottom time can be extended.

Nitrox is becoming more popular and accessible to recreational divers all the time, but it is not something to be taken lightly. It requires special training to be used properly and safely, so before you dive it, be sure to get the necessary training and gain the appropriate certification.”

### What’s in a Name?

Nitrox is the general name for any breathing gas with an oxygen content higher than the 21 percent found in air. By upping the oxygen in a diver’s tank (recreational nitrox blends contain between 28 percent and 40 percent oxygen - the most popular blends are 32 percent and 36 percent), you reduce the amount of nitrogen and there extend bottom times with the same nitrogen exposure as breathing air.

It’s a simple idea and it works - at moderate diving depths. The myth that nitrox lets you dive deeper, however, is a dangerous misconception. The problem comes from the fact that oxygen, while vital to keeping divers alive, can become toxic at high pressures. It’s a classic case of too much of a good thing.

Too much oxygen at pressure attacks the central nervous system, causing convulsions or seizures, visual distortions, ringing ears, nausea, twitching, irritability and dizziness.

These systems occur when the bloodstream is overloaded with oxygen. The oxygen not required for metabolism remains bonded in hemoglobin or circulates as dissolved gas in the bloodstream. Supersaturated with oxygen, hemoglobin can’t transport carbon dioxide to the lungs. As the carbon dioxide and oxygen build up, blood vessel constrict, reducing blood flow to the brain and eventually interfering with the neuromuscular conductors.

Oxygen toxicity hits are very rare to diving, but if they happen under water, they happen fast and are likely to be fatal. Convulsive muscles contractions can lead to embolisms and loss of the regular can lead to drowning. That’s why certified nitrox divers can learn to manage their oxygen exposure.



Photo by Chris Jaffe

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*“The myth that nitrox lets you dive deeper is a dangerous misconception.”*

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### Do the Math - Nitrox

Article continues online. Want to learn more about Nitrox, access web link below:

<http://www.scubadiving.com/training/basic-skills/nitrox-myth?con=outbrain&src=related&con=outbrain&obref=obnetwor>

## Five Tips for Compass Navigation

By Travis Marshall

**1) Line it up.** Point the long line on your compass - the lubber line - in the same direction you want to swim, and make sure your body is pointed in the same direction.

**2) Take a heading.** Rotate the bezel - the spinning wheel on top of the compass - until two hatch marks sit over the tip of the north arrow. As you swim, watch to make sure the north arrow stays between those marks.

**3) Proper Positioning.** Hold the compass flat and in line with your body at all times. If you get off-course, turn your whole body, not just the compass, until your heading is back on track.

**4) Avoid tunnel vision.** Look up and around periodically to keep an eye on your surroundings. If there is a current or heavy surge, you can be pushed off-course, even if your heading stays true.

**5) Happy returns.** To return to your starting point, turn your body until the north arrow points at the single hatch mark on the opposite side of the bezel and follow steps one through four on the reciprocal heading home.

<http://www.scubadiving.com/gear/accessories/five-tips-compass-navigation>



Photo by Chris A. Crumley/Alamy

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*“If there is a current or heavy surge, you can be pushed off course, even if your heading stays true.”*

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## Upcoming AUE Activities

- *AUE General Meeting - Saturday 3:00 p.m. - 5:00 p.m. November 15, 2014, 400 Flat Shoals Ave. SE, Atlanta, GA 30313*
- *Diverse Orlando Scuba/snorkel Canoe Trip Saturday, November 15, 2014 For reservations Contact: Erik Denson @ [edenson@cfi.IT.com](mailto:edenson@cfi.IT.com) or call (407) 497-4447 by Monday November 10, 2014*
- *NABS 24TH Annual Summit Cozumel, Mexico November 8, thru 15, 2014*
- *AUE Annual Holiday Party December 13, 2014 Falling Waters Subdivision Clubhouse 151 Falling Waters Drive Jonesboro, GA 30436 Cost: \$20.00 per person (Due by 12/1/2014) Send payment to: Atlanta Underwater Explorers P.O. Box 55048 Atlanta GA 30308 (No money collection @ door) Questions: Call 404-768-6978 or 404-696-6193; email [elyancey@comcast.net](mailto:elyancey@comcast.net) or [woolfolk\\_r@yahoo.com](mailto:woolfolk_r@yahoo.com)*

## Recent AUE Activities

- *AUE Panama City, FL Dive- Sept. 27 & 28, 2014*
- *AUE General Meeting - October 8, 2014 See meeting minutes for highlights and details.*
- *AUE Tailgate Party and Atlanta Falcons vs. Chicago Bears football game - October 12, 2014*



*Panama City Dive Trip Participants*



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## Member Announcements

### Latest AUE Member:

Welcome our newest club member. Weighing 7 lbs. and at 19" long, **London Ciel Howell** was born October 15, 2014, son of Khristian A. Howell and George K. Howell. His "Grand-D", Alex Adams has already purchased his first set of mask, fins and snorkel. Alex's daughter, Khristian is not surprised. 😊



## Editor's Corner

### Fellow AUE Members:

Welcome to the November 15, 2014 edition of *AUE Bubbles* newsletter. We hope you continue to find future editions informative. Your suggestions, comments and story ideas are welcomed.

Completed story submissions must be received one week prior to the publishing date (Bi-monthly on the 15<sup>th</sup> of the month). The next edition will be published January 15, 2015

Please submit your story ideas and comments to my attention via email.

Dive safely,

Alex Adams,

*Publisher & Editor*

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