



September 26<sup>th</sup>, 2009.

**Maine Divers Scuba Center is offering a combined Advanced Nitrox and Decompression Procedures Class to divers interested in expanding their knowledge and diving skills beyond that of traditional recreational diving.**

**Advanced Nitrox Class - Certified to use 21 - 100 percent oxygen.**

Graduates are able to manage high-test nitrox (40% plus) including pure oxygen responsibly paying attention to special equipment and component requirements, handling considerations, and cylinder markings. They are able to grasp the concept and importance of Central Nervous System oxygen toxicity tracking -- (CNS clock) have the ability to calculate MOD's without reference to tables for different ppO<sub>2</sub> and FO<sub>2</sub>s; and have been introduced to the criteria for "advanced nitrox" equipment selection and configuration.

**Decompression Procedures Class - Certified to plan staged decompression dives to 150 feet.**

Graduates are able to make informed decisions to undertake dives outside the NDLs (as per US Navy and DCIEM tables) and manage the increased risks associated with these dives based on best practice information, limitations of training, limitations of knowledge and "objective" assessment of personal limitations. They leave this class with a basic understanding of staged decompression practice (ascent behavior) and decompression theory. They should understand the concept and constraints of staged decompression obligation; the use of multiple gases to optimize a decompression schedule; advanced equipment selection and clean gear configuration (since deco diving is overhead environment diving). In addition, they should be versed in basic contingency planning with particular focus on overhead gas management techniques.

**During these classes you will learn and be expected to:**

- Properly analyze all gas mixes to be used;
- Calculate and mark the MOD (Maximum Operating Depth) of each mix appropriately;
- Demonstrate adequate pre-dive planning (Limits based on team experience, gas consumption of individuals and of team as a whole, oxygen depth and time, inert gas depth and time, environment, contingency and so on)
- Properly execute a planned dive(s) within all predetermined limits;

- Satisfactorily complete TDI written exams
- Demonstrate mature and responsible judgment concerning dive planning and execution
- Maintain a high level of awareness and respect for the environment in which all diving and dive preparation is conducted
- Log all dives
- Demonstrate familiarity with basic hand signals
- Select and prepare of equipment suitable for soft overhead environment (decompression ceiling)
- Conduct team oriented drills for lift bag deployment/SMB and gas switching procedure
- Use START before every dive - START is Sdrill (OOA drill and Bubble Check), Team (buddy equipment checks), Air (gas matching), Route (entry/exit and planned path underwater), Tables (depth, duration, waypoints and schedule)
- Stress analysis and mitigation
- Demonstrate buoyancy control (ability to hover at fixed position in water column without moving hands or feet)
- Show good awareness of buddy and other team members through communications, proximity and team oriented dive practices
- Demonstrate comfort swimming on surface and at depth carrying single decompression stage bottle
- Demonstrate ability to drop and retrieve single decompression cylinder while maintaining position in the water column
- Demonstrate ability to deploy a lift bag/SMB solo and as member of team
- Demonstrate controlled / staged ascent on lift bag/SMB / emergency ascent line (lost ascent line)
- Remove and replace mask (deploy backup mask)
- Demonstrate appropriate reaction to catastrophic gas loss from manifold or first stage, SPG and primary regulator
- React to BC inflator malfunction (disconnect LP hose, dump gas and orally inflate BC/Wing to neutral buoyancy)
- Demonstrate ability to confirm gas switch at depth with buddy/team members
- Buddy breathing deco gas for at least one minute
- Demonstrate appropriate reaction to free-flowing deco regulator
- Demonstrate appropriate modifications to deco schedule in decompression emergency (over time, over depth)
- Demonstrate tired diver tow at depth and on surface (30 meters lateral)
- Complete a horizontal breath hold swim at depth for 15 meters
- *And more...!!!*

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## Student Prerequisites

- 18 years old
- Advanced Open Water or equivalent
- Basic Nitrox (up to 40%) Enriched Air Diver
- 25 logged dives *minimum*

## Class Structure and Duration

- 2 evenings of lecture and demonstration at the dive shop
- Some independent study time (home work) is required of the student
- 2 shore dives - conducted over 1 day
- 4 boat dives - conducted over 2 days

## Required Equipment for the Classes

Exposure suit suitable for diving in Maine ocean waters.  
 Underwater slate.  
 Ascent reel or spool with at least 100' of line.  
 Lift bag or SMB with at least 25 lb lift capacity.  
 BC suitable for double tanks. Harness, plate and wing preferred.  
 Redundant bottom mix cylinders. Isolation manifold preferred.  
 Bottom mix cylinders with suitable volume.  
 Nitrox deco cylinder. AL 80 preferred.  
 Suitable regulators for each cylinder. 3 are required.  
 2 submersible pressure gauges.  
 Redundant depth and timing devices.  
 Deco cylinder rigging.  
 Dive knife.

Equipment is available for purchase or for rent for students who do not have their own equipment. Student's providing their own equipment must bring it to the first lecture for instructor inspection and approval.

## Class Fees

Advanced Nitrox \$325  
 Decompression Procedures \$425  
 Discount for combining classes = 20% less from \$750

Total combined class fees with applied discount is \$600. This amount is due and payable prior to the first lecture date. Please pick up books as soon as possible.

Books, dive tables and two certification cards are included in the above price.

## Equipment Rental, Boat Fees and Deco Gas (Nitrox) are additional fees.

Equipment rental if needed - \$100/day - Note: 3 days of diving are required.  
 Boat fees - \$75/day - Note: 2 days of boat diving are required.  
 Nitrox - \$20/cylinder - Note: 4 dives will require Nitrox.