

IANTD Trimix Diver Open Circuit

A. Purpose

1. This Program is designed for those individuals already involved in deep diving activities, but is *not* intended to be used as an enticement to divers who are content to remain in normal Sport or EANx diving limits.
2. Trimix affords a safer means for deep-water exploration for divers who dive deep or perform with a clear head at depth. The IANTD Trimix Diver Program requires the diver to be self-sufficient/reliant.

B. Prerequisites

1. Must be qualified as an IANTD Technical Diver or Technical Cave Diver or Technical Wreck Diver or Normoxic Trimix Diver or equivalent.
2. Must provide proof of a minimum of 200 logged dives, of which at least 25 were to depths between 140 fsw (39 msw) and 200 fsw (60 msw).
3. Must be a minimum of 18 years of age.

OR, if being accepted in the Program based on equivalent experience:

4. Must provide proof of a minimum of 250 logged dives, of which at least 75 were deeper than 100 fsw (30 msw), and at least 25 between depths of 140 fsw (39 msw) and 170 fsw (51 msw). Diver must be a minimum of 18 years of age.

C. Texts

1. IANTD *Trimix Student Workbook*, or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IAND, Inc./IANTD World Headquarters).
2. IANTD *Technical Diving Encyclopedia*, or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IAND, Inc./IANTD World Headquarters).

D. Program Content

1. Perform two skills-training dives following completion of the confined water session(s) in which two stage cylinders are used, to a depth between 60 fsw (18 msw) and 170 fsw (51 msw). These dives may be on air or Trimix provided the depths are acceptable for the gas used, and two gas switches are practiced during ascent. Divers progressing from Normoxic Trimix to Trimix may not do dives on air deeper than 130 fsw (39 msw).
2. This Program must include a minimum of 200 minutes of open-water run time, completed within three Trimix dives to depths between 165 fsw (50 msw) and 260 fsw (79 msw). All depths must be worked up to

incrementally with no increase greater than 40 fsw (12 msw) from one dive to the next (the first dive in the course on mix must not be more than 33 fsw (10 msw) deeper than the student's previous experience in deep diving). One dive must be to at least 200fsw (60 msw) or deeper.

3. All dives must include two gas switches.
4. Divers entering the Program on equivalent experience must complete the above requirements plus make two additional training (for a total of five training dives) dives using two stage cylinders. These two additional dives may be on air, EANx or Trimix at the instructor's discretion.
5. If the course is a combined course (e.g., Technical Diver and Trimix Diver), the Program must include a minimum of 480 minutes of open-water run time completed within at least 8 dives.
6. To complete the course within the minimum specified dives students must have an average of 8 points (out of 10) on the watermanship evaluations. With 2 or more additional dives the student may graduate from the course with an overall average score of 6 points.

E. Equipment Requirements

1. Fulfill all Equipment Requirements as specified in the general Technical Diver Programs overview.

F. Program Limits

1. There may be no more than 4 students per Instructor on any dives, and no more than 3 students per Instructor on dives conducted to depths greater than 220 fsw (66 msw). The ratio for deeper dives may be increased to 4 students with an assisting IANTD Technical Instructor who is also a qualified IANTD Trimix Diver or a Trimix supervisor.
2. No dives may be conducted to depths greater than 260 fsw (79 msw). Trimix dives may not be made to a depth less than 160 fsw (48 msw).
3. Equivalent Narcosis Depth (END) may not exceed 130 fsw (39 msw).
4. Surface oxygen must be available for use in the event of Decompression Illness (DCI).
5. All dives must be performed as a single dive team.
6. All appropriate safety or required decompression stops must be performed.

G. Waterskills Development

1. A confined water session must be completed before conducting any OW dives.
2. Two divers approximately 60 feet (18 meters) apart, locate each other while simulating an out of air situation (without breathing, and exhaling slowly) and begin gas sharing via long hose. After taking 3

breaths at rest, continue swimming at a normal rate while sharing gas for at least 2 minutes.

3. Simulate gas failure with valve shutdowns for both primary and secondary regulators. The entire drill must be completed in less than 1 minute. This drill should be completed at least once each dive, with a buddy acting as a safety diver, then switch roles. Upon completion of skill, verify both primary tanks are turned back on.
4. While swimming, demonstrate efficient switch to stage cylinder regulators.
5. Following a means of reference (pool wall, guide line, ship railing, etc.) with eyes closed, remove stage cylinders and swim a distance of at least 15 feet (4.6 meters). Reverse direction, return to stage cylinders and replace them on correct sides, identifying each cylinder by feel.
6. Prior to dives, students must use IANTD Gas Management Charts to match gas turn points.
7. Remove and replace stage cylinders both at rest and while swimming.
8. Deploy and use a lift bag or up line at least once in OW.
9. Remove and replace equipment during confined water training (doubles and stage[s]), first on the surface, then on the bottom, in less than 2 minutes.
10. Simulate a rescue of a diver; tow the diver on the surface for a distance of at least 40 feet (12 meters) while simulating mouth-to-mouth resuscitation. Go through EMS procedures and remove equipment from victim in the water (equipment removal must be accomplished in less than 1½ minutes, students in continuous webbing who exceed this time must add a quick release to their harness). Repeat until proficient.