

# TEK LITE, TECHNICAL & OVERHEAD ENVIRONMENT STANDARDS & PROCEDURES MANUAL (OPEN CIRCUIT)



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IAND, Inc. dba IANTD wishes to thank all of the members of the BOA both past and present for their contribution to these standards. While some leaders in the diving world have decided to receive the honor of Emeritus BOA member, their contributions are noted fully and their assistance in development of these standards and to diving are very much appreciated and respected

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SCUBA diving, including the use of compressed air and any gas mixture underwater, is an activity that has inherent risks. An individual may experience injury that can result in disability or death. Variations in individual physiology and medical fitness can lead to serious injury or death even with adherence to accepted standards of performance, specified oxygen limits, and the correct use of dive tables and computers. All persons who wish to engage in scuba diving must receive instruction from a certified instructor and complete nationally recognized requirements in order to be certified as a scuba diver. The use of alternative breathing mixtures, such as combinations of Oxygen, Nitrogen, Helium and/or Neon, requires additional instruction beyond that offered in traditional recreational SCUBA diving courses.

Trained and certified SCUBA, using compressed air or alternative breathing mixtures, are informed of the risks associated with SCUBA diving and utilizing breathing mixtures as described and ultimately bare responsibility for their own actions. Persons must not engage in scuba diving and the use of compressed air or alternative breathing mixtures, if they are unwilling to complete a course of instruction, pass certifying examinations and evaluations, maintain their skill and knowledge through active participation in diving activities, and accept responsibility for any injury or death that may occur when participating in SCUBA diving activities.

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### IAND, INC. d.b.a. IANTD 1985 - 2023

IAND, Inc. dba IANTD STANDARDS & PROCEDURES MANUAL

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## **IANTD General Statement of Objectives**

IANTD's mission is to explore the opportunities and challenges of Recreational Diving, which includes all forms of Sport Diving, Nitrox, Advanced and Technical diving, in order to foster openness and individual responsibility, and to provide a standard of care for instruction in the diving community. IANTD and its members strive to be honest, ethical and fair in all our venues. We also believe that there are universal principles that are more absolute. We try to live by them. We envision our mission activities in the following areas:

### **Public Awareness and Advocacy**

IANTD is working to promote openness in the diving community; to share procedures, techniques and operational methods with divers seeking to expand their diving experiences. In the interest of safer diving we encourage freedom with discipline allowing for development of new methods and procedures but recognizing the need for an accepted safety envelope. IANTD will stay informed on diving developments and include them in its diving activities.

### **Safer Diver Program**

IANTD believes individual diver responsibilities are developed through rigorous skill refinement and experience in the water. Vigorous instruction with a strong student / Instructor relationship, enhancing a transfer of the diving responsibility to the student, is the essence of our teaching philosophy.

### **Program Development and Refinement**

IANTD has developed Programs to increase diving knowledge and skill levels. We will continue refining these Programs, based on reports from Instructors in the field, to improve and strengthen their value to our membership. We will continue to develop a set of core values that apply to sport and technical diving. IANTD Standards and Procedures have been developed and have evolved to allow worldwide recognition of skill and knowledge at each qualification level addressed by IANTD.

### **Fostering Community**

Much of the work IANTD has done has been directed at fostering a sense of community in the diving world. The diving community, by virtue of its size, needs internal cooperation to prosper and grow; anything less is counter-productive.

## IANTD Training Philosophy

IANTD believes it is better to be cautious and demanding in training than to have even one accident.

IANTD is dedicated to producing knowledgeable and skillful divers. Both are key for developing competent, confident and relaxed divers, who can fully enjoy the exhilarating experiences of sport and technical diving.

- ▶ KNOWLEDGE and UNDERSTANDING are, beyond a doubt, the keys to power in any endeavor one undertakes. In diving, the combination of knowledge and understanding provides greater diving safety
- ▶ IANTD designs all Program materials to instill in-depth knowledge to the student and practitioner of sport and technical diving endeavors. This knowledge develops greater confidence and understanding of both the enjoyment and risk aspects of safe diving.
- ▶ To ensure a sound knowledge base, IANTD is demanding on the subject material presented in its Programs.
- ▶ SKILLS and STRESS MANAGEMENT are important in performance of safe dives and in the ability to survive during stressful events.
- ▶ IANTD Programs are designed to develop superb water skills and relaxed and comfortable divers. To achieve this, techniques are taught and drills are incorporated that enable divers to realize their full potential. The confidence developed in this type of training will reward students by allowing them to become self-confident and self-reliant divers.
- ▶ Equipment familiarity exercises, such as simulation of a gas failure with valve shutdowns to practice regulator switches, are included to allow divers to become confident and capable in reaching and manipulating the valves and in performing regulator switches. To the amazement of many students, this is often difficult on the first few attempts. Indeed, equipment adjustments are often needed to enhance the performance of this skill. This is a skill that may save a diver's life someday, and one in which all divers need to be confident with. This type of confidence is developed by demonstration and practice.
- ▶ Stress management exercises are placed into our Programs to simulate realistic diving emergencies. The purpose of these exercises is to train divers in response awareness, and to develop in their minds a memory of having experienced a similar event before. One example of such a drill is to swim to a buddy over a prescribed distance without breathing, and then commence gas sharing followed by a timed swim. To some, this appears as a fitness or harassment drill. In fact, it is a confidence builder and a mind conditioning exercise. It provides a rehearsed response to an emergency to develop mental stamina instead of an on-site challenge. The distance involved is similar to what one would likely encounter when swimming to a companion diver, while communicating the problem and the need to initiate gas sharing. The timed swim is designed to instill a reaction of maintaining a normal swim pace to enable gas consumption to remain at a normal rate.
- ▶ IANTD believes confidence and efficiency are developed by spending time in the water. All Programs specify required minimum minutes of bottom time to be accomplished within a certain number of dives. IANTD is the first to incorporate this into diver training.
- ▶ IANTD believes basic survival skills must be practiced to enable one to better cope with stressful events
- ▶ IANTD recognizes that many skills in its Programs are redundant. Provisions are allotted to credit diver training amongst Programs.
- ▶ IANTD values experience and its Standards have provisions for credit of equivalent experience towards a given level of qualification. At the same time, we all realize that experience is not always compatible with knowledge and skill performance. To provide a marriage of experience, knowledge and skill performance, divers must demonstrate the required skills and knowledge appropriate to the level they are being credited for, prior to qualification at a higher level of diving.
- ▶ IANTD believes that our Instructors do set the example. To this end, the Instructor must always be present in the water providing direct or indirect supervision of the dive; demonstrating overall good diving skills while providing an extra element of safety in the water. At the same time, the Instructor must take care that the student does not depend upon them. They must ensure confidence is being developed. Teaching Assistants may be responsible for any needed indirect supervision and control provided that the Instructor is present on the dive.
- ▶ IANTD requires the Instructor in charge to be present in the water and provide direct or indirect supervision if a teaching assistant is to provide direct supervision of students on their first dive to a new and greater depth, and to discourage students from exceeding the prescribed limits of the Training Program they are participating in.

- ▶ IANTD believes diving is a risk taking activity and that divers must be aware and accept of those risks.
- ▶ The more advanced the diving styles, the more polished the skill level of divers must be to provide safety. In addition, standard minimum skills and theory assure each Instructor that divers coming into our Programs from another IANTD Instructor are ready to advance their diving education.
- ▶ IANTD requires a standard student text and/or other equivalent text(s) (if submitted and approved in writing by the BOD) to ensure that the theoretical knowledge exists to make the given level of diving safe. In cave diving, the NSS/CDS and NACD texts are considered equivalent and, in fact, are recommended as supplements to the IANTD Cave Diving Manual and Student Workbook.
- ▶ Upon Program completion, IANTD requires students pass a written exam as a means to measure their knowledge level. If a student cannot take a written exam, tests may be administered orally or by any means that conveys knowledge of the information.
- ▶ IANTD has leadership / supervisory ratings to allow for “Instructor Assistants” in preparation of advancement towards instructorship.
- ▶ IANTD believes that being confident, competent and knowledgeable, through responsible training, enables one to survive the seemingly unsurvivable situation

### **IANTD Standards Development Procedures**

The IANTD Standards and Procedures are promulgated for the guidance of IANTD Professionals i.e. Divemasters, Supervisors, Assistant Instructors, Instructors, Teaching Assistants and Instructor Trainers. These Standards are reviewed when necessary updated based on recommendations by the Board of Advisors (BOA), Licensee Directors and the Board of Directors (BOD).

Instructors wishing to provide recommendations on Standards may do so by addressing a letter to the chairperson of the BOA, which will be forwarded to all BOA members for their consideration. The suggestions are further reviewed by the Licensees and then forwarded to the BOD for final approval and implementation. The BOD reserve the right of final authority on Standards and Procedures, with all revisions approved by the BOD.

### **IANTD Non-Student Divers on Training Dives**

The following is an explanation of the policy regarding Non-Student Divers on Training Dives:

First and foremost a prudent dive instructor does not allow his attention to be diverted from his students during any training dive, therefore so called “tag along” divers or “Non-Student Divers” accompanying student divers on training dives is generally discouraged.

However, there are times when it is acceptable and even encouraged as enhancing the diver’s overall education (e.g., when a certified future dive partner is paired with a student in training so they may learn each other’s dive abilities and characteristics, but this must be under the direct supervision of the dive leader throughout the entire dive).

The dive instructor shall be responsible for verifying the following conditions are met prior to allowing any Non-Student Divers on Training Dives:

1. Inclusion of a certified Non-Student Diver on any training dive shall count toward the student to instructor ratios and under no circumstances shall the maximum allowable student to instructor ratio be exceeded.
2. The certified Non-Student Diver joining a training dive shall be certified and competent at the level of the training dive being conducted.
3. Inclusion of a certified Non-Student Diver on any training dive shall require approval of the instructor and each student diver and the certified Non-Student diver shall be included in dive planning, including contingency plans, prior to participating in the training dive.
4. The certified Non-Student Diver shall complete, sign and date an appropriate liability and the dive instructor shall supervise the Non-Student Diver as he would any other student diver during the training dive.

In summary, Non-student divers are allowed on training as long as the aforementioned conditions have been met and the dive leader is then responsible for that non-student diver as if he/she were a student.

## IANTD Professionalism

- ▶ All Instructors and Divemasters must have IANTD insurance or Provide proof of insurance listing IANTD as an Additional Insured by another accepted insurance program. Instructors teaching a class shall treat all persons diving under the instructor's and Divemaster's/Dive Supervisor's direct supervision or escort as students. Specified student to instructor ratios will be maintained so as to include students and other divers who are under the instructors' supervision.
- ▶ All IANTD Instructors and Divemasters involved in Diver Training Programs and Dive Leadership Programs/Qualifications are not employees or agents of IANTD, however, they are considered to represent the professional values of IANTD at all times, regardless of Agency Affiliation or Program.

## IANTD Ethics Standard for Electronic and Written Public Media

In recent years it has become commonplace for IANTD instructors to utilize email, Internet websites, and particularly social media sites to communicate with students, customers, potential students as well as peers and others within the dive industry. IANTD members should make every effort to ensure that their public communications whether it be via the internet, social media, or publications always be of a positive nature. Examples of such communications would be announcing events or classes, and posts, comments or articles that enhance the public image of diving. Negative communications that are accusatory or critical of others are unprofessional and shall be avoided. Publically posting such negative communications to email, social media and/or internet websites may be considered a violation of this IANTD ethical standard.

Some examples of unacceptable conduct on email, social media, internet websites or any other public media include but are not limited to:

- ▶ Publicly criticizing other professionals, diving agencies, manufacturers or individual divers.
- ▶ Publicly criticizing a rescue or attempted rescue.
- ▶ Publicly releasing information regarding body recovery or other law enforcement operations without the permission of appropriate law enforcement and/or the families of the deceased.
- ▶ Publicizing any complaint regarding training agencies, regarding manufacturers, or between instructors outside proper channels.

IANTD considers violation of this standard to be serious unprofessional conduct. Punishment will be appropriate to the severity of the violation up to and including expulsion from the organization.

## Administrative Requirements

This requirements applies to ALL training levels (Diver & Professional)

### Professional/Facility & IANTD

- ▶ **NOTE: All training forms and documents are to remain in the instructor's possession for a minimum of seven (7) years. Upon request for QA reasons or legal needs, the instructor will provide IANTD HQ or the local IANTD Licensee a copy of these forms for a specified student(s).**

1. For every program and prior to any In-Water activity the instructor must ensure:
  - a. The program schedule is presented;
  - b. The students have and record the appropriate prerequisites as listed for each program;
  - c. To fill out the Administrative forms:
    - I. **Medical Exam - Diver Programs:**
      - i. The candidate shall complete the medical history/statement form, *without conditions or restrictions*, required by IANTD prior to engaging in any water activities.
        - ▶ *It is required that applicants with out-of-the-ordinary medical histories be approved, without conditions or restrictions, as medically fit for diving by a licensed medical practitioner prior to engaging in water activities. In no event shall medical approval be accepted, wherein the medical practitioner signing the approval is the participating candidate.*



## II. Medical Exam - Any Leader or Professional Programs:

- i. The candidate shall have, within the past year, a medical examination and approval for diving, without conditions or restrictions, by a licensed medical practitioner prior to engaging in water activities.
  - *In no event shall medical approval be accepted, wherein the medical practitioner signing the approval is the participating candidate.* IANTD Complete Liability Release and Contract Not to Sue Form.
1. In order to complete the instructor trainer registration the ITT must:
  - a. Submit to IANTD Headquarters or to the appropriate Licensee Office:
    - I. IANTD Professional Membership and Renewal Form
    - II. IANTD Professional Member Registration Form
    - III. Any other required paperwork by IANTD Headquarters.

## Professional/Facility & Customer

► **NOTE: All training forms and documents are to remain in the instructor's possession for a minimum of seven (7) years. Upon request for QA reasons or legal needs, the instructor will provide IANTD HQ or the local IANTD Licensee a copy of these forms for a specified student(s).**

1. The instructor/Diving Training Facility will provide to every student a clear and transparent written information covering the following aspects:
  - a. Limitations of eventual qualification (e.g. what types of dives the student will be qualified to do)
  - b. Scope of training course (e.g. how long the course will take, how many dives, which skills will need to be mastered to successfully complete the course)
  - c. Course procedures (e.g. dates, where they have to be when, where equipment is stored...)
  - d. Means and methods for assessment and criteria for successful completion (e.g. required written exams, minimum number of dives, practical skills like gas analysis...)
  - e. Conditions regarding the responsibilities of each party related to commencement, delivery and termination of the course; (e.g. what happens if the instructor or student get sick and cannot complete the course, what if the weather is bad...)
  - f. The consequences for the service provider and the client if either party should choose to cancel the service; (e.g. cancellation policy)
  - g. Prerequisites and any qualification requirements in order to obtain the course (e.g. medical certification, diver qualifications);
  - h. Equipment requirements (e.g. what equipment is included or not in the course price...)
  - i. Costs (e.g. specifically what is included and what is not included, equipment, certification card, materials, pool and boat fees....)
  - j. Insurance requirements (e.g. mandatory diving accident insurance, liability insurance....)
  - k. Environmental considerations including recommendations to divers for minimizing their impact on it (e.g. collecting artifacts or underwater creatures policy....)
  - l. Diving-related legislation and legal requirements relevant to the specific kind of course
  - m. A signed copy of page 2 (two) of the IANTD Watermanship Form shall be given to the student.



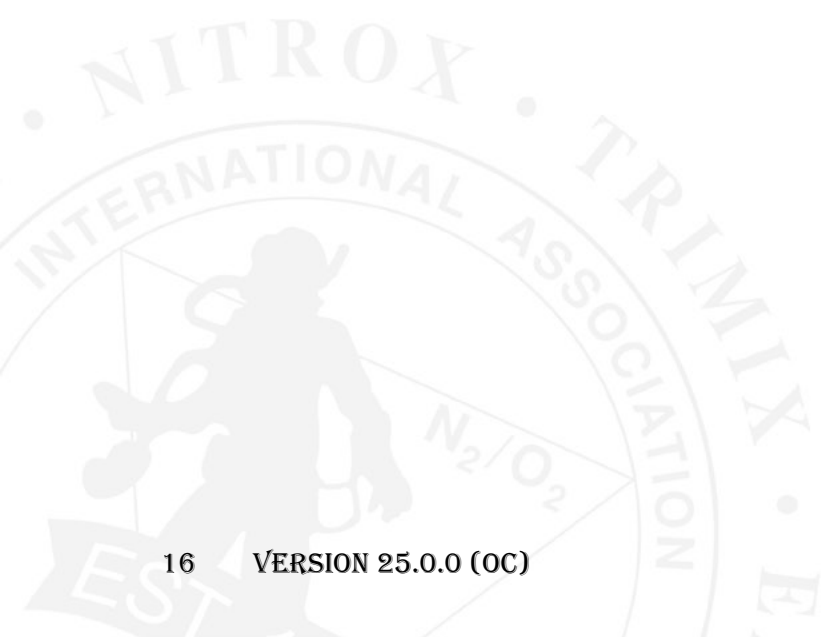
## International Qualifications (Cross-Border Policies)

### A. Professionals (Instructors & Instructor Trainers)

1. Professionals shall be a member with the Licensee assigned to the territory in which he lives.
  - a. All annual membership dues shall be paid to the Licensee territory in which the professional lives.
2. Professionals may teach in any place domestically or internationally.
3. Professionals that want to teach outside the territories that are assigned to the licensee he holds his membership with, must:
  - a. Contact IANTD HQ and HQ will contact the proper licensee requesting to extend his membership.
    - NOTE: There is no extra cost to extend memberships to other licensees.
  - b. IANTD HQ with the assistance of the licensee will provide a list of legal procedures to meet to teach under the territory.
  - c. The professional will:
    - I. Provide to HQ proof of meeting all the legal requirements to teach under the required territory.
    - II. Provide proof of a payment method within the specific licensee.
  - d. Once IANTD HQ verifies that the legal requirements are met, the extension of the membership will be granted.
4. Professionals Teaching Divers:
  - a. All certifications and fees shall be paid and issued to the specific licensee.
5. Instructor Trainers teaching Instructors:
  - a. All new instructors must be approved by IANTD HQ & the Licensee.
  - b. All ratings and fees shall be paid and issued to the specific licensee.

### B. Special Notes

1. NOTE: It is the responsibility of the professional or the facility where the professional will be teaching to be knowledgeable of all the legal documentation that allows one to teach and work in the specific country when traveling to another country (or when bringing in out of the country professional).
2. NOTE: IANTD advises you that if you do not have all the legal work documentation to work in the specific Country, you may or may not be violating the Country's Immigration Laws and that it is the sole responsibility of the professional or Facility. IANTD does not provide any guidance in terms of individual work requirements of countries and is in no way responsible for the professional's or Facility's violation of a Region's laws.



## IANTD Quality Assurance Program

The objective of the IANTD Quality Assurance Program is to establish a minimum level of quality provided by each Member/Instructor of the IANTD system. Much of the work IANTD has done has been directed at fostering a sense of community in the diving world. The diving community, by virtue of its size, needs internal cooperation to prosper and grow; anything less is counterproductive. IANTD is working to promote openness in the diving community; to share procedures, techniques and operational methods with divers seeking to expand their diving experiences. In the interest of safer diving we encourage freedom with discipline allowing for development of new methods and procedures but recognizing the need for an accepted safety envelope. IANTD will stay informed on diving developments and include them in its diving activities.

Without a Quality Assurance Program, IANTD cannot assure the uncompromised credibility of their programs. To achieve this, IANTD monitors and enforces IANTD standards and procedures with fair, honest and ethical intentions in all venues to ensure that all students who participated in any IANTD course are pleased with the service and training experience that they recently received.

**Students are automatically sent a Quality Assurance survey and are asked to complete them by IANTD World Headquarters when the student is certified. All information received is completely confidential and all comments (both positive and negative) will be acted upon.**

If you suspect a quality Assurance issue with another IANTD Instructor, the first step is to professionally approach the person and inquire as to the issue you perceive. There may be circumstances that you may not be aware of, that permit the instructor to conduct their program in the manner witnessed. If the instructor cannot be approached or after a professional discussion, there still appears to be a quality assurance issue. Make a written report to your IANTD Office of any IANTD Standards violations that you personally witnessed. Do not submit false reports or make reports of items that you have not personally witnessed. If the seriousness of the situation justifies immediate action, be assured that IANTD will take the steps necessary including temporarily changing teaching status to non-teaching pending further investigation. The Quality Assurance Form is publicly available on the [www.IANTD.com](http://www.IANTD.com) website and can be submitted to IANTD by anyone who has personal knowledge or a personal concern about the actions of any IANTD member. The Quality Assurance Process involves a protocol that strictly adheres to a system that includes;

- Due Process - consistent internationally and made available to every Member inaugurated into the system.
- Equal and Fair Opportunity - for each member and Licensee to present their issues and protect their interests.
- Standards and Procedures - are made available to each and every member of the IANTD family and are clearly explained. This process also involves a presentation of IANTD's Training Philosophy.
- Confidentiality - maintained through all matters and stages within a Quality Assurance Inquest. IANTD will hold students, Instructors, Instructor Trainers, other Members and divers names in confidence.

### Membership Statuses

#### Active Teaching Status

- Annual dues paid
- Accounts paid
- Proof of liability insurance where required

#### Non-Teaching Status

- Annual dues paid
- Professional Liability Insurance not on file
- Active QA Investigation
- Cannot teach IANTD Programs
- After 2 years must complete an Instructor update or complete IDP

#### In-Active Teaching Status

- Annual dues not paid
- Account balance older than 60 days
- Failed to meet requirements for active status
- Cannot teach IANTD Programs
- After 2 years must complete an Instructor update or complete IDP

### **Emeritus**

- Professional members who have retired from active instruction
- Unable to actively participate or conduct training or supervising responsibilities

### **Quality Assurance Designations**

#### **Probation**

- Failed to meet active teaching status
- Minor Standards violation or another minor QA item
- Account balance older than 60 days
- Can teach and will be informed in writing

#### **Suspension**

- Failed to meet active teaching status
- Serious Standards violation or another serious QA item
- Account balance older than 120 days
- Cannot teach and will be informed in writing

#### **Expulsion**

- No longer a member of IANTD, cannot teach and will be informed in writing

### **Quality Assurance Process**

A QA investigation begins when written documentation is provided to IANTD that suggests that a Member/Instructor is in either direct violation of IANTD Standards or compromising the reputation or level of minimum quality required by IANTD. Based upon the documentation received, IANTD or the Licensee may place that Member/Instructor on Non-Teaching Status, depending on the suspected seriousness of the QA concern, pending further investigation.

1. Once further Information and documentation has been gathered, the Quality Assurance Director shall assign a QA Case number and contact the Instructor/member advising them of the complaint and the reporting requirements.
2. The Instructor/member must reply in writing via overnight shipping, fax or email within 48 hours of receiving notification from the Quality Assurance Director (QAD). The instructor should respond in a simple, factual and objective manner. This response may be all that is needed to solve a misunderstanding or baseless accusation.
  - NOTE: A failure to respond to an inquest regarding Quality Assurance within 48 hours, will result in an IMMEDIATE Non-teaching Status of a Member or Instructor.
3. If, in the opinion of the Quality Assurance Director, based upon the evaluation of the evidence and the documentation gathered the QAD can:
  - a. Agree that a full Quality Assurance is not needed, then the QAD may issue disciplinary action up to and including probation.
  - b. Agree that a full Quality Assurance is needed, then the QAD will appoint a 3-member (minimum) Quality Assurance Board who will then analyze facts of the allegation.
    - I. Establishing Quality Assurance Board – The QAD will select a minimum of three IANTD members to participate on the QA Board. The members of the Quality Assurance Board will sign a non-disclosure agreement with IANTD prior to releasing information to them to ensure confidentiality. To afford potential conflicts of interest, attempts will be made to select members of the QA Board who do not know the member in question. However, due to the circumstances of issue in question that may not always be possible. Therefore, IANTD QA Board members will ensure that their professionalism will temper any personal knowledge from impacting their decision-making process. The identity of the members shall remain confidential and all communication with the member under a QA investigation will be made by and through the QAD.

4. The QAD will send a summary of the allegations along with any documentation of the complaint, witness statements and other evidence with a clear explanation of which digressions the instructor/Member is accused.
5. If after 15 days, an adequate written response has not been returned by the Instructor/member to the QAD that Member/Instructor will be placed on NON-TEACHING STATUS STATUS.
6. Once the recommended course of action has been finalized, the Quality Assurance Director (QAD) will prepare a letter to the Instructor/member detailing the results of the QA investigation and any remedial steps, if any, that need to be completed. The results of the Quality Assurance Board will recommend either Probation, Suspension or Expulsion.
7. The member/Instructor put on any status recommended by the Quality Assurance Board has fifteen (15) days to make a one-time appeal of these findings to the IANTD BOD. The findings of the BOD will be final.

### **Process When A Diving Fatality Occurs During Training**

Primary concern is to care for the victim. Activated local emergency management services and it is recommended that you treat the victim as if it was a close family member. An emergency action plan should be in place for EVERY dive site you visit. The emergency action plan should include use and location of oxygen and first aid kits, chains of command in the event of an accident, points of egress, local emergency phone numbers, phone number for Divers Alert Network, who does what and when and evacuation routes. Staff responsibilities should be designated prior to any diving activity. Should an accident occur, every person in the diving party must know his or her role so potential rescues can be conducted efficiently.

Once the victim has been cared for, the Instructor should:

- Secure the victim's equipment – in a serious accident, local authorities may take custody of the equipment
- Gather all relevant information, using the IANTD accident/incident report form
- Be sympathetic to victim's family and friends
- Do not speculate about the facts of the incident
- Make no comments regarding anyone's potential liability
- Take photographs of everything
- Within 24 hours, Fax or email the completed accident / incident report to your local IANTD regional office
- Include a copy of any applicable liability release and other training documentation
- Download of personal dive computer (PDC), dive logbook or written dive profile(s)

In the event of an accident, equipment becomes important evidence. If equipment is removed from the injured diver, it should not be disassembled. List ALL the equipment used by the injured diver in writing. Be sure to list the condition of the equipment used by the diver without being judgmental of brand, configuration and placement. Write it as you see it. When surrendering the written document to the authorities, request a receipt and retain a copy if possible.

Submerged equipment must remain submerged until someone is instructed to bring it to the surface by the authorities. It remains evidence while submerged. Where it lies and it's condition may be important information in determining the cause of the accident. Prior to surfacing, the position of the valves should be noted and the valves should be shut to prohibit gas from venting from the cylinders. It may also be wise to obtain information from other individuals that were present at the scene of the incident but who did not directly participate or who do not have any type of direct relationship with the party or parties involved. Collecting this information may provide additional details about the incident without any additional personal bias.

Use of the IANTD Incident Form is mandatory and a copy of this form is available on the IANTD website. Should an accident occur, critical information can be documented accurately. The form should be filled out clearly and in its entirety. Write a detailed report of the occurrences leading to, during and after the accident. Include your name and contact information so you can be reached for further questioning in regard to the accident from medical personnel. In a court of law, it will be recognized that the dive leader was prepared and thorough. An accurate account of the accident will only help the dive leader in a court of law, assuming standards were followed, and the dive leader was acting responsibly.

Copies of the Incident report form must immediately be sent to both the professionals insurance carrier and to IANTD Headquarters. The sooner IANTD is advised of the accident, the better IANTD can help protect the dive leader. Be sure to keep a copy yourself and file it where it will not be lost or destroyed.

## INTERNATIONAL ASSOCIATION OF NITROX & TECHNICAL DIVERS

The instructor must contact IANTD immediately and send an Incident Report within 24 hours of the incident. This must be followed up by a more comprehensive report, which includes the following:

- Obtaining all information pertinent to the accident
- Statements from individuals with direct knowledge of the incident.
- Other Students in the class
- Other divers on the dive
- Determinations by the ME (Medical Examiner), if available
- Reports from the recovery team
- Reports from the diving vessel
- Review of the training program conducted to the date of the accident
- Statements from other sources who are aware of the diving instructor and his practices
- Statements from others who are familiar with the capabilities of the accident. These include people who have dived with or observed the instructor and student during training.

Once all this information is compiled, the data is sent to a QA Board. Once all this information is compiled, the data shall be sent to IANTD World HQ and the IANTD Licensee in that region. The Instructor will immediately be placed on Non-Teaching Status pending completion of the Quality Assurance Process.

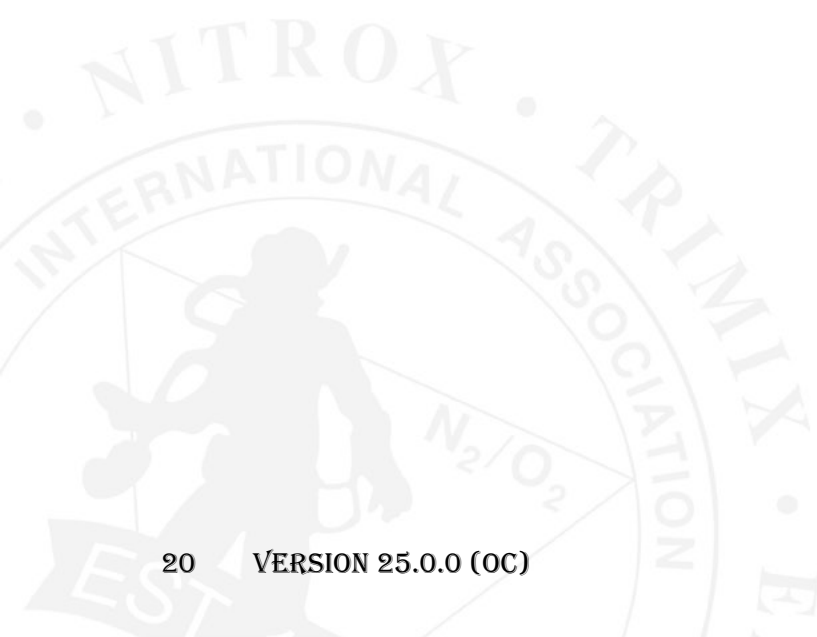
### Events Following an Investigation

If it is found that the instructor is not at fault in the accident in any way the Non-teaching status will be removed, and the instructor will be returned to normal teaching status. If the QAB determines that the events are questionable, but not directly controllable or preventable by the instructor, then the instructor will be placed on probation and IANTD will spell out specific procedures to be followed in order to be reinstated to normal teaching status. If the QAB finds that the instructor did not act responsibly, the instructor may be suspended with the ability to request an appeal to the QAB.

A suspended instructor may or may not be given a provision for reinstatement following two (2) years of suspension. IANTD will inform the Instructor in writing of the results of any Quality Assurance process/finding.

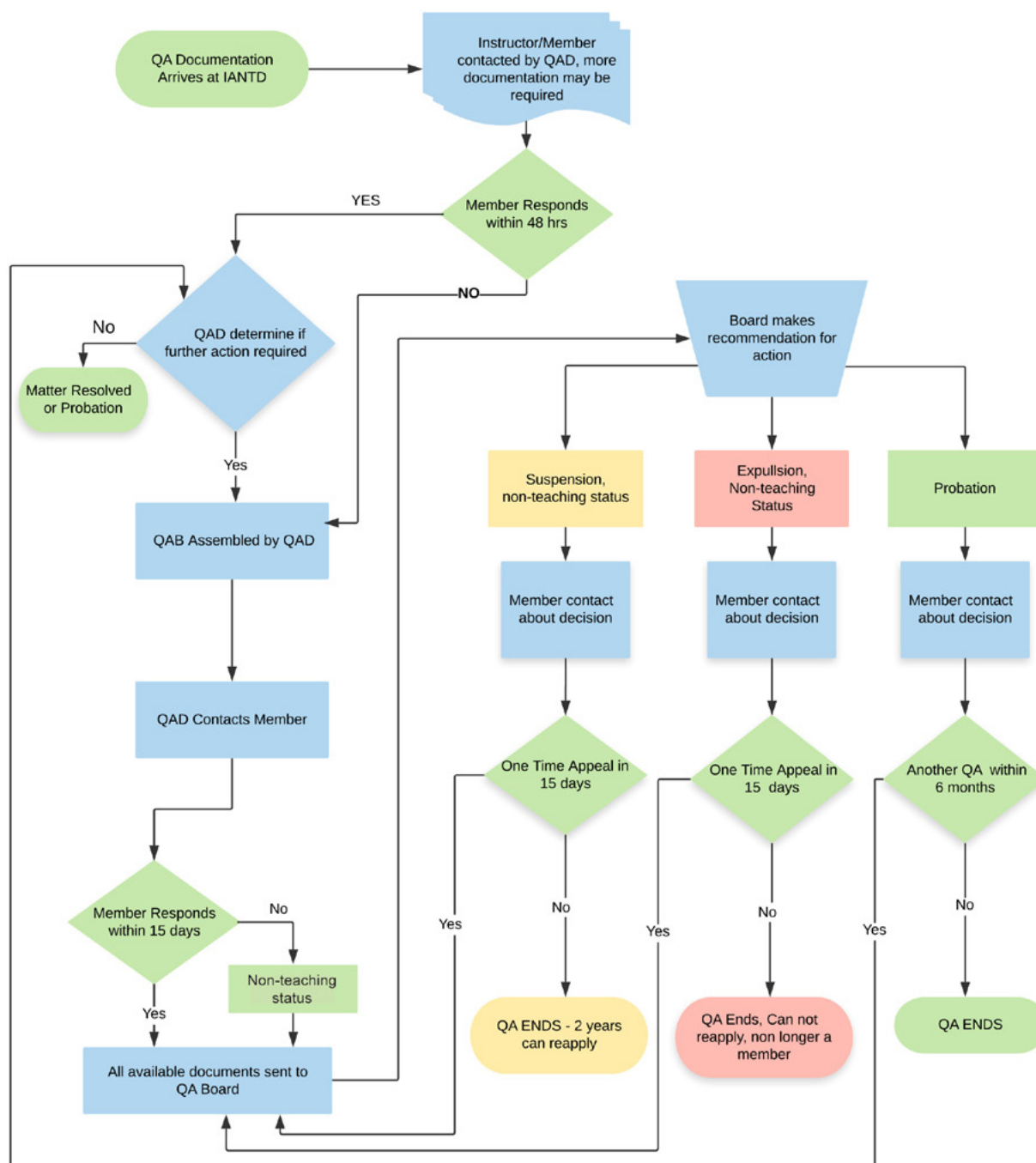
### Quality Assurance Forms

- Incident Report - Available at IANTD HQ Global Database System
- QA Complaint Form - Available at IANTD HQ Global Database System
- QA APPLICATION FOR APPEAL AGAINST IANTD DISCIPLINARY ACTIONS - AVAILABLE AT IANTD HQ Global Database System



## Quality Assurance Flow Chart

### IANTD QA Process Flow Chart





## Definitions and Terms used by IANTD

**ACD** – Assistant Course Director

**AIDP** – Assistant Instructor Development Program

**AIEC** – Assistant Instructor Evaluation Crossover

**Appropriate Diver Support** - First aid equipment including but not limited to a first aid kit suitable for the planned diving activities, an emergency oxygen unit with a capacity of delivering pure oxygen for at least 20 minutes and a communication system suitable for alerting emergency services.

**Boom Scenario** - A boom scenario on a rebreather is to simulate either an internal gas free flow (such as oxygen or diluent going into system) or an external gas free flow (such as gas leaks). In this situation the correct course of action is to immediately close both cylinder valves. Then the diver is to determine the failing source by checking both pressure gauges and the severity of the loss. At the same time as the diver checks the pressure gauges they also need to check their PO2 and take corrective action if needed.

**Bottom Mix** – The gas mixture(s) in the cylinder(s) intended to be used during performance of the bottom time phase of the dive.

**Briefing** – Short pre-dive discussion between Instructor and students including but not limited to procedures to be followed (team assignments, entry, descent, ascent, surfacing, exit, time/depth limits, problem/ emergency situations), site/environmental considerations, communication, pre-dive equipment preparation, drills to be practiced (in case of training), and post dive procedures.

**Cave Dive** – Dives into a cavern/cave beyond where a light from an exit point can be seen.

**CD** – Course Director

**CDDP** – Course Director Development Program

**Commercial Diving** – A form of diving, excluding instruction, where the diver works for hire and his/her employment depends on a willingness to dive.

**Confined Water** – Any body of water with limited current, which meets the appropriate IANTD visibility requirements, that is calm and has shallow water access such as swimming pools, lakes, springs, sinks, quarries, bays, and beaches that are protected from open seas and rough water. Training sessions must be limited in confined water experiences to no deeper than 20 fsw (6 msw) for sport diver level courses and 40 fsw (12 msw) for technical diver level courses.

**Confined Water Session** – An instructional session that takes place in confined water. The confined water sessions will include an introduction, demonstration and student performance of watermanship, skills and techniques to be developed during the course. When teaching courses that combine two (2) or more levels of training the confined water skills for the courses may be combined into one (1) session.

**Completed Dive** - A dive is not successfully complete until all divers have safely exit the water, out of their equipment and no other dives are planned for the day.

**Debriefing** - Short post dive discussion between instructor and students including but not limited to comments on the dive and further directions. Remember we have a mandatory water skills for (an intense debrief ing) the instructor is and has been REQUIRED to fill out each dive so it is already there in much more detail than this and if we discover that the instructor is not doing this then they will be brought up on Quality Assurance charges.

**Decompression Mix** – The gas mixture(s) in the cylinder(s) used during the ascent (decompression phase of the dive.

**Direct Supervision** – Supervision by the instructor of the class or group of students from a distance allowing a direct intervention on behalf of the student.

**Diver's Physical** – An approved diving physical statement. This is required prior to involvement in the first water session of a given course or combination of courses.

**Divemaster / Supervisor** – An individual who is qualified by IANTD to supervise or assist specific diver training courses such as a Divemaster and Dive Supervisor from a lesser level but who is qualified as a diver at the level of the training program. Teaching Assistants may be utilized in all courses to provide indirect supervision or even direct supervision when under the direction of an Instructor in the water who meets the definition of direct supervision. Divemaster and Supervisors may also escort certified divers.

**DSMB** – Delayed Surface Marker Buoy



**Emergency plan** – A written piece of information including but not limited to procedures for casualty recovery, resuscitation and evacuation, use of emergency oxygen supply, information about the nearest medical resources and information about the nearest hyperbaric recompression chamber.

**END** – Equivalent Narcotic Depth.

**Escorting** – Supervision of an individual student or group of students by someone other than the instructor. (Qualified teaching assistants may escort students during surface excursions and exits, ascents and descents and may attend to remaining students while the instructor conducts a skill with other students or if no skills are being performed by the student.)

**IDE** – Instructor Development Evaluation

**IDP** – Instructor Development Program

**IEC** – Instructor Evaluation Crossover

**Indirect Supervision** – Supervision by a qualified teaching assistant during segments of a dive where skills are not practiced. An Instructor must be present at the site and in control of the activities. The Instructor must approve all diving activities, approve the dive plan, perform dive preparations and equipment configuration, observe entries, exits and debriefings, and be prepared to quickly enter the water if necessary. The Instructor must be able to respond to classroom activities and be on-site. The Instructor must be able to take control of any program at any time if necessary.

**Instructor** – An individual who is qualified by IANTD to teach complete or a part of specific diver training courses, upon completion of a formal instructor development or crossover and evaluation course, such as an Assistant Instructor (limits apply to this level), or Instructor.

**Instructor Trainer** – An individual who is qualified by IANTD to teach specific instructor training courses, upon completion of a formal instructor trainer development and evaluation course.

**In-Water Training** - A combination of confined water and open water dives.

**IPSDPD** - International Public Safety Diving Program Director

**IT** – Instructor Trainer

**ITD** - International Training Director

**ITDP** – Instructor Trainer Development Program

**ITEC** – Instructor Trainer Evaluation Crossover

**Licensed Medical Practitioner** - A physician, medical practitioner, medical doctor, licensed nurse practitioner or a physicians assistant.

**LTD** - Licensee Training Director

#### **Memberships:**

- a. **Active - Non-Teaching Status** – An active non teaching status is a dive professional/Leader who for some cause is not in teaching status (elected to take a break in active teaching or has not sent proof of insurance or on administrative hold or some other reason). The Active - Non-Teaching Status Instructor has paid his/her annual membership dues. This IANTD Professional member is entitled to all professional communications and privileges. This individual may not actively teach or supervise or be involved in any training, escorting and guiding of dives. To switch to active status the Active - Non Teaching Professional needs to provide proof of insurance and other proficient needs that may be deemed necessary such as understanding of updates in standards etc. The active non-teaching status can only be held for two years without attending a knowledge and performance review.
- b. **Active - Teaching Status** – an IANTD professional is an instructor or dive leader (divemaster or Dive Supervisor) may teach IANTD program or supervise or guide dives up to their qualification level. This Professional has paid professional membership dues for the current year to the license he is affiliated with or HQ and has signed and agreed to the terms of the instructor contract. The dive professional may only provide professional services up to his/her qualification level.
- c. **Emeritus** - This status is provided in recognition of outstanding service to IANTD by professional members, who have retired from active professional status in one or more areas. These include active teaching status, licensee, BOA member, and any other professional member of IANTD. The Emeritus status will be specified as Instructor Emeritus, or listed in BOA or License Emeritus. Individuals with emeritus status may represent themselves as such but are unable to actively participate in any type o training and or supervising.

d. **In-Active Teaching Status** - An IANTD Professional Leader who has not renewed their annual membership status. This individual may not advertise or represent themselves as an IANTD professional. An IANTD professional on inactive status may renew by paying membership, presenting proof of insurance and meeting the requirement of renewal eligibility. An inactive Professional may only remain in inactive status for a maximum of two years. Post two years in inactive status to become active the Professional must complete an Instructor update or complete IDP as determined at that time by IANTD HQ or an IANTD license

**Open Water (OW)** – Any body of water, excluding swimming pools and diving pools of any kind, that is 15 fsw (4.5 msw) or deeper for sport diving courses, or at least 40 fsw (12 msw) deep for technical diving courses.

**Overhead Environment** – Any dive site that has a physical ceiling, such as wrecks and caverns, from which a quick and direct escape to the surface cannot be safely made.

**Overseeing** – The overall control, intermittent supervision, evaluation, and direction of instruction, student skill performance and diving activities by an instructor of a class or group of students. The instructor must be present at the training site and on the training dives, and be prepared to render appropriate in-water assistance in aid of a student.

**Pre-Dive Check** - A check including but not limited to gas availability and suitability for the dive and equipment operating condition. It is sometimes conducted by the dive buddy in the water or just before entering.

**Prerequisites** - Prerequisites define what has to be completed prior to entering an IANTD diver or leadership course. Prerequisites must be completed prior to the start of a course of leadership program. Under no circumstance may the prerequisites be completed while enrolled in a program.

**QAD** - Quality Assurance Director

**Recreational Diving** – All forms of diving intended for recreational purposes or instruction of recreational divers, in which the diver has the option to dive. This includes both the most popular form of recreational diving, sport diving; as well as technical diving, which is an advanced form of recreational diving.

**SCUBA** – Any diving apparatus that is a Self-Contained Underwater Breathing Apparatus.

**Software Generated Tables** – Decompression profiles produced by various dive planning software. These may be used in conjunction with the required IANTD Dive Tables or a Dive Computer. In training the student must always have IANTD Dive Tables in their possession when performing dives as primary or backup schedules.

**Sport Diving** – The most common form of recreational diving. Sport diving is performed using either air or Nitrox mixtures up to 40% oxygen on dives no deeper than 132 fsw (40 msw). Sport divers at the level of Advanced EANx or Advanced Recreational Trimix, which is defined as an entry level technical course may not engage in dives deeper than 140 fsw (42 msw) for Advanced EANx and no deeper than 150 fsw (45 msw) for Advanced Recreational Trimix.

**Supervision** – Having direct control over an individual student or group of students, with an ability to directly intervene if needed.

**Technical Diving** – An advanced form of recreational diving utilizing skills, techniques, equipment and knowledge beyond the requirements of sport diving. Technical diving includes, but is not limited to, dives deeper than 132 fsw (40 msw), dives into overhead environments beyond a visible exit point, dives using mixed gas (in addition to sport diving EANx mixtures), and dives requiring staged decompression.

**Training Dives** – An excursion by a student diver into open water or overhead environments while fully equipped for the planned activity. Each dive must include at least one (1) entry and one (1) exit and underwater activity breathing from SCUBA for a minimum of 20 minutes to a depth of at least 20 fsw (6 msw) for sport diving courses, or 40 fsw (12 msw) for technical level courses.

**Travel Mix** – The gas mixture(s) in the cylinders used to provide an advantageous or safer breathing mixture while descending or traveling to or in some cases from a deeper phase of the dive.

**Virtual Overhead Environment** – Any dive from which a direct ascent to the surface would violate required decompression obligations.

**Waiver** – An IAND, Inc. dba IANTD Liability Waiver. A waiver is needed for each specific course or, if a series of courses are taught concurrently, one (1) waiver may list each Program in the training curriculum. If there is an interruption in the training program of more than 90 days, a new waiver shall be completed.

**Wreck Penetration** – Excursions inside of a wreck beyond where light from an exit point can be seen.



# IANTD TEK LITE DIVER PROGRAMS



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*The leader in diver education*



## IANTD Tek Lite , Technical & Overhead Environment Programs General Standards

► **NOTE:** Unless indicated as specifically for each Diver Programs, the following general statements apply to all IANTD Diver Qualification Programs.

### A. Purpose

1. These Programs are designed to provide quality instruction of IANTD Tek Lite, Technical & Overhead Environment Certification levels.

### B. Prerequisites

1. See prerequisites listed for each IANTD Specific Program.
2. Divers coming into IANTD Programs from other EANx and Technical Diver training agencies (NACD, NSS/CDS, CDAA, etc. or equivalent) must demonstrate proof of equivalent skill and theory training.
3. A student must sign a medical history form anytime there is more than 3 months between training programs with the same instructor, or after a major illness or injury has occurred and, if any contradictions exist, must have a complete physical and written authorization performed by a medical doctor. A new medical form must be signed every time a student enrolls in a course with a different instructor.
4. On all courses, including combined Programs, a waiver must be signed by the student for each course taught
5. All prerequisites must be met and documented by logbook, or verification by witnesses or notarized statement or other proof of diving experience.

### C. Texts / Media

1. All IANTD courses require Student Kits to certify divers.
2. Each student MUST have a full set of these reference materials during and following the completion of the class.
3. The specific kit is titled "IANTD diver program name" followed by the words "Student Kit".
4. Students may use a student kit that contains any combination of Printed or digital materials including the course specific eLearning

### D. Program Content

1. Must include all course material as presented in the approved workbook or text for the Program and Student Kit where noted.
2. Complete a written exam with a minimum score of 80%.
  - *If, a specific course exam is not available, the instructor shall conduct a knowledge review or quiz.*
3. Skills listed in the Water Skills Development section of the Program enrolled in, must be completed prior to qualification. These skills may be performed as specified in the specific course standard or in a combination of OW and confined water, for basic skills and stress management development.
  - **NOTE:** These skills reflect the minimums that a student must perform.
  - **NOTE:** Instructors MUST complete watermanship evaluations contained in the forward portion of these standards and procedures.

### E. Equipment Requirements

1. A sufficient quantity of gas will be carried by the diver to allow completion of the dive time requirements incorporating the correct gas management rule.
  - **NOTE:** For no-stop diving,  $\frac{1}{2} + 200$  psig (14 bar);
  - **NOTE:** For dives with stops or in overhead environments, the Rule of Thirds.
2. A primary gas supply system featuring:
  - a. An alternate second stage, OR
  - b. An alternate breathing source, OR
  - c. Redundant gas system as specified in the Equipment Requirements for each Program.

3. Student can use a sidemount configuration.
4. A quick release weight ballast system (if appropriate).
5. Submersible pressure gauge.
6. Buoyancy control device (BCD), including a cylinder support system.
7. Mask and fins
8. Snorkel (Except for Overhead Environment, PSD Programs and where currents presents a hazard to the diver).
9. Means of monitoring depth & bottom time. This can be done through the use of a depth gauge & bottom timer or a dive computer.
10. To control the dive the Instructor shall choose between:
  - a. IANTD Submersible tables with timer and depth gauge/bottom timer **OR**;
  - b. Dive computer and a timer or depth gauge/bottom timer with a dive plan based on IANTD Tables/ Decompression Software written in a wetnote as backup **OR**;
  - c. Two dive computers.
11. Appropriate exposure suit for the environment in which the diver is being trained.
12. Slate and pencil, required to ALL courses with the exception of the Supervised Diver course.
13. All independent breathable gas sources must feature a submersible pressure gauge.
14. A DSMB or Lift Bag of at least 50-lb. (22.5-kg) lift capacity and a line reel for deployment except for cavern, cave and mine programs.
15. Cylinders, other than air, must be labeled with IANTD stickers or other stickers such as may be required by local laws and regulations.
  - *NOTE: At a minimum, the labels must clearly identify and be visible, to ALL team members, the MOD and oxygen content of the mixture.*
  - *NOTE: It is recommended that IANTD labels be used to meet this requirement, in addition to those required by law.*
  - *NOTE: Cylinders and regulators used with gases containing oxygen concentrations greater than 40% must be O2 service rated (Example: partial pressure blending requires oxygen service rated cylinders).*
  - *NOTE: Equipment used during this Program must be appropriate for the environment and in good working order.*
16. Cutting tool or device and a backup cutting tool is recommended.
17. Surface alert device (whistle, diver alert, etc.) but not required in the Supervised Diver or OW Diver course.
  - *NOTE: Equipment is to be configured in a neat low drag manner.*
18. When appropriate, the use of a surface support station with dive flag is also encouraged.
19. Bolt snap hooks / scissors clips used for attaching equipment to the diver are recommended.
20. **For Advanced EANx and Advanced EANx Supervisor either of the following:**
  - a. Single cylinder with dual outlet valve (Y or H) and with a safety or decompression gas cylinder.
  - b. Double Cylinders with dual valve outlet with the use of an appropriately rigged decompression cylinder,
  - c. A Sidemount configuration with the use of an appropriately rigged decompression cylinder(s)
  - d. The use of DIN Systems for the primary regulators are mandatory
    - ***NOTE: The safety or decompression gas cylinder must be rigged according to the configuration adopted.***
21. **For Cavern or Wreck, either of the following:**
  - a. A Single Cylinder with dual outlet valve is required OR
  - b. A Sidemount configuration OR
  - c. Double Cylinders.
22. **For Introductory Cave, either of the following:**
  - a. A Single Cylinder with dual outlet valve is required OR
  - b. A Sidemount configuration OR
  - c. Double Cylinders.
  - d. The use of DIN Systems for the primary regulators are mandatory.

23. **For Advanced Recreational Trimix, Tek Lite Cave, Adv. Recreational Trimix Supervisor and Cavern Divemaster, either of the following:**

- a. A Sidemount configuration with the use of an appropriately rigged decompression cylinder, OR
- b. Double Cylinders with the use of an appropriately rigged decompression cylinder.
- c. The use of DIN Systems for the primary regulators are mandatory

► **NOTE: The safety or decompression gas cylinder must be rigged according to the configuration adopted.**

24. **For Technical Courses (Technical Diver; Normoxic Trimix; Normoxic Trimix Plus; Trimix; and Expedition Trimix Diver):**

- a. All students will be taught the concept of gas matching.
- b. All bottom mix cylinders will be equipped with dual outlet valves.
- c. Two (2) primary regulators are required on bottom gas sources
  - I. The use of DIN systems are mandatory
  - II. One (1) of which must have a second stage hose of 5 feet (1.5 meters) in length or longer.
    - **NOTE: This longer hose must be attached to one (1) of the second stages to facilitate gas sharing.**
  - III. One or more separate cylinder(s) sufficient for decompression must be carried by the diver.

25. The use of DIN Systems for primary regulators is mandatory for all IANTD Tek Lite, Technical & Overhead Environment Programs.

## F. Program Limits

1. Except if specified differently in the Specific Program Limits:
  - a. All in-water training dives shall be conducted in environments that will allow at all times a direct vertical access to the surface, with an instructor directly supervising, teaching and evaluating the students.
  - b. All in-water training shall be completed during daylight hours or under conditions that simulate daylight conditions.
2. IANTD Programs require the student to complete a specified amount of bottom time prior to becoming qualified at a given level. Specific total bottom time or total in water times requirements are given in each individual Program.
3. The maximum classroom Student to Instructor ratio is 20 to 1, and maximum in-water ratios are specified in each program.
4. In all IANTD Sport diving Programs, the maximum Student to Instructor ratios permitted are based on entering the water with visibility of 25 feet (7.6 meters) or more. If the visibility upon entering the water is less than 25 feet (7.6 meters), the following modifications of Student to Instructor ratios apply.
  - a. If the visibility is between 19 feet (6 meters) and 25 feet (7.6 meters) the maximum Student to Instructor ratio is 5 to 1
  - b. If the visibility is between 12 feet (3.6 meters) and 19 feet (6 meters) the maximum Student to Instructor ratio is 4 to 1.
  - c. If the visibility is between 8 feet (2.4 meters) and 12 feet (3.6 meters) the maximum Student to Instructor ratio is 3 to 1.
  - d. If the visibility is between 5 feet (1.5meters) and 8 feet (2.4 meters) the maximum Student to Instructor ratio is 2 to 1.
  - e. If the visibility is less than 5 feet (1.5 meters) then the conduct of Sport diving is not recommended. If it must be conducted and can be done in a safe manner, then the Student to Instructor ratio is 1 to 1.
5. No more than two (2) decompression dives shall be conducted on a given day.
6. Once a course begins, and If the course is not finished or a break in the training occurs, any additional dives conducted during that period are considered non-training dives and must not exceed the limits of the divers current certification level.
7. In addition to all the prerequisites, a Normoxic Trimix Diver or Trimix Diver or Expedition Trimix Diver Class can only be taught in Cave if the Instructor is certified as a Technical Cave Instructor and the diver is certified as a Technical Cave Diver.

## G. Water Skills

1. Prior to all dives a “briefing” must be conducted. Following all dives, a “debriefing” must be conducted.
2. A land drill must be performed before any diving sessions to practice proper program techniques.
3. Confined water sessions are to be completed prior to open water dives being performed (or overhead environment dives, as applicable). The confined water sessions will include an introduction, demonstration and student performance of watermanship, skills and techniques to be developed during the course. When teaching a combination of courses, all the skills may be practiced in a single confined water session.
4. The confined water session may be in open water in depths up to 40 feet (12 msw) provided decompression stops are not required.
5. For overhead courses (Caver, Cave, Mine, Wreck), this confined water session may be conducted in an open water setting up to 60 feet (18 msw) provided decompression stops are not required.
6. For Technical Courses (Technical Diver; Normoxic Trimix; Normoxic Trimix Plus; Trimix; and Expedition Trimix Diver), In lieu of confined water the instructor may opt to do a skills development dive to a depth no greater than 90 fsw (27 msw) provided decompressions stops are not required and the skills development dive does not count toward total number of required course dives.
7. All the watermanship skills must be practiced until the student is proficient in each skill.
8. The training requirements here in are IANTD minimums.
9. Practice of SCUBA diving equipment configuration including redundancy and streamlining.
10. Dives may be accomplished in overhead environments if the diver is already qualified or if taking this Program in conjunction with a cave or wreck course.

► **CAUTION: In any emergency situation no lines shall be removed from the overhead environment (Cave, Wreck, Mine etc...) until all team members are accounted for. Emergency situations like but not limited to Gas Sharing, Bump & Go, Touch Contact, Lost Diver and many others.**

► **CAUTION: A continuous guideline that allows for a safe exit at the entrance will be in place at all times during training in any overhead environment.**

## H. Special Notes

► **Divers must demonstrate the ability to demonstrate while maintain good TRIM during all emergency skills taught in the diver course.**

► **Depth increases in training programs shall not progress at depths greater than 33 fsw (10 msw) deeper than the previous depth in the course or the students deepest previous depth experience.**

► **On any occasion a student requires assistance, the instructor and any Divemaster or dive supervisor will make every reasonable effort to assist or rescue the student. The instructor will be expected to continue an assist or rescue attempt until it is either successful or it becomes apparent that to continue will result in unreasonably endangering the rescuers life or endanger other students or members of the dive team.**

► **When diving offshore, during training the DSMB or Lift Bag is to be used as a backup decompression or ascent platform and not as the primary platform, except in circumstances defined by the environment being dived in such as strong currents, boat traffic, or other conditions that would make the use of a float ball and ascent line impractical or dangerous. On drift dives, it is recommended that an ascent line attached to a float be used to provide stability for students during ascent. Only in situations where the circumstances of the environment or the dive make a fixed or drift ascent line buoyed to the surface or attached to a boat a less safe option will DSMB or Lift Bag deployments be used as the primary ascent platform for dives deeper than 100 fsw (30 msw).**

► **To be eligible for any IANTD training qualification, a minimum watermanship skill performance average must be 80% out of 100%. With additional dives, the student may graduate from the course with at least 80% on two consecutive dives. This may require several additional dives be added to the course.**

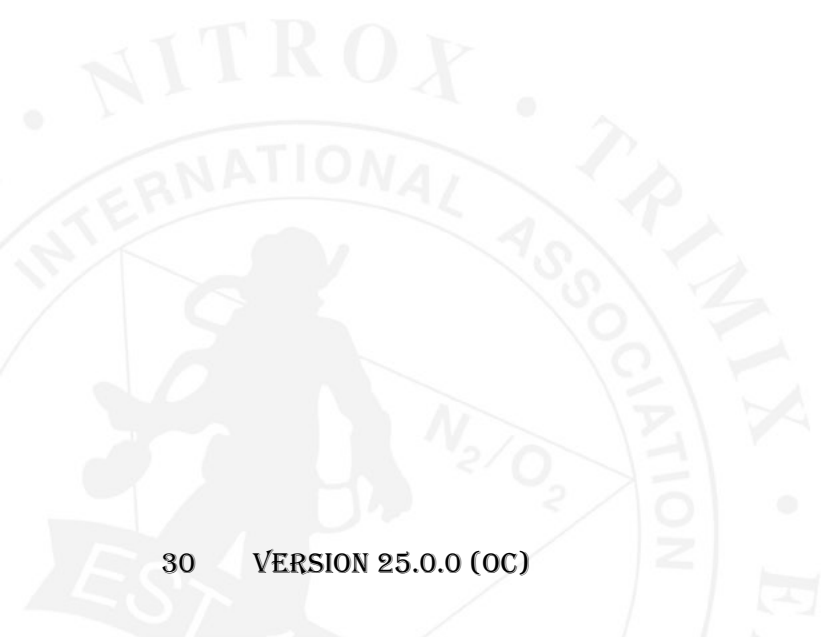


## **I. Qualification Requirements**

1. All diver performance requirements must be met prior to certification, as reflected on the student watermanship evaluation form.
2. Upon completion of all listed classroom sessions, watermanship skills and dives to the Instructor's satisfaction, an appropriate IANTD Diver qualification card will be issued.
3. Students with unsafe attitudes, or who demonstrate bad dive habits, must not be qualified. Training is purchased upon enrollment. Qualification is earned through the student's performance and knowledge demonstrated throughout the Program.
4. It is required that all training dives be logged and it is recommended that dives be in the IANTD Recreational or Technical Diving Logbook or any dive log system.
5. The Program enrolled for must be completed within six months from the starting date, unless otherwise specified in the Standard.

## **J. Qualification Renewal**

1. The IANTD Diver Qualification Card does not have an expiration date, unless otherwise indicated.
2. For all Professionals, such as Divemasters, Supervisors, Assistant Instructor, Instructors, Assistant Course Directors, Course Directors and Instructor Trainers, proof of insurance with IANTD listed as Additional Insured and IANTD Membership is required annually.



**IANTD Open Circuit Student Watermanship Evaluation Form**
**OPEN CIRCUIT STUDENT WATERMANSHIP  
EVALUATION FORM FOR INDIVIDUAL DIVES**

(Version 20.1.0)

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Course Title: \_\_\_\_\_ Met Prerequisites? \_\_\_\_\_

Started Date: \_\_\_\_\_ Ended Date: \_\_\_\_\_ Instructor Name: \_\_\_\_\_

*Notes: To be eligible for any IANTD training qualification, a minimum watermanship skill performance average must be 80% out of 100%. With additional dives, the student may graduate from the course with at least 80% on the last two consecutive dives. This may require several additional dives be added to the course.*

1. Buoyancy Control	Dive Number	1	2	3	4	5	6	7	8	9	10
At Depth											
During Ascent											
At Safety or required decompression stops											
Average Score											

2. Propulsion Skills	Dive Number	1	2	3	4	5	6	7	8	9	10
Overall propulsion technique and efficiency											
Body posture for low drag and silt avoidance											
Pulling technique, if applicable											
Average Score											

3. Equipment Familiarity	Dive Number	1	2	3	4	5	6	7	8	9	10
Comfort with equipment and configuration											
Knowledgeable in location & operation of all equipment											
Ability to efficiently switch gases, if applicable, and control PO <sub>2</sub>											
Ability to manage equipment in water											
Average Score											

4. Awareness	Dive Number	1	2	3	4	5	6	7	8	9	10
Aware of buddy or Instructor location											
Monitoring of gauges or dive instruments											
Physical presence awareness (orientation on dive)											
Responsive to signals											
Capable of self-rescue (includes performance of emergency responses)											
Capable of buddy rescue (includes being accessible to buddy)											
Awareness of & responsive to changes in equipment status during the dive and drills											
Ability to focus on dive objectives											
Responsive to Emergency Scenarios											
Overall alertness											
Average Score											

5. Acknowledge of Grades & Record of Dive	1	2	3	4	5	6	7	8	9	10
Dive Date										
Dive Time										
Diver Initials										
Instructor Initials										



## OPEN CIRCUIT STUDENT WATERMANSHIP EVALUATION FORM FOR INDIVIDUAL DIVES

(Version 20.1.0)

Upon completion of the course fill out the following:

Items 1-3 below are to be completed by the Instructor and reviewed with the student following the last dive of the course.

1. Overall evaluation:

- a. \_\_\_\_\_ Self-sufficiency
- b. \_\_\_\_\_ Safety and alertness
- c. \_\_\_\_\_ Responsive to Emergency Scenarios
- d. \_\_\_\_\_ Capable of diving or using this type of equipment safely
- e. \_\_\_\_\_ Safe to dive unsupervised (Except for the Supervised Diver Level)
- f. \_\_\_\_\_ Buddy can be comfortable and safe diving with this person
- g. \_\_\_\_\_ Physical fitness for the type of diving
- h. \_\_\_\_\_ Fitness and overall comprehension of risk management and understanding of equipment and skills needed for this type of diving
- i. \_\_\_\_\_ Completed all skills and stress management drills listed in the Standards satisfactorily

2. In my instructor(s) evaluation of the student, I find their skills, comfort, physical fitness, attitude and equipment management abilities to be \_\_\_\_\_ for qualification at this level of training.

3. Therefore I, \_\_\_\_\_, the instructor(s) recommend the following:

- a. \_\_\_\_\_ Diver qualification be issued at the applicable level.
- b. \_\_\_\_\_ Student complete the following provisions before being awarded a diver qualified card. (See the objectives as specified by the instructor(s), on the reverse side of this form).

*NOTE! To be eligible for any IANTD training qualification, a minimum watermanship skill performance average must be 80% out of 100%. With additional dives, the student may graduate from the course with at least 80% on the last two consecutive dives. This may require several additional dives be added to the course.*

*NOTE! A signed copy of this page (Page 2) shall be given to the student.*

**Comments:**

\_\_\_\_\_  
Instructor Signature

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

*If the participant is under the age of 18, then the parent or guardian must sign this agreement and agree to be legally bound by it and furthermore be legally responsible for the minor participant, including being responsible for all damage, injury or death which may occur as a result of the minor's participation in diving activities. The parent or guardian hereby agrees to be fully responsible to the released parties for any damage, injury or death caused by the minor, including actions brought by the minor, for any damages whatsoever.*

\_\_\_\_\_  
Parent or Guardian's Signature

\_\_\_\_\_  
Date

## Explore Technical Diving

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Advanced EANx Diver Instructor or higher level of certification may teach this course.
- Tek Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to introduce the diver to the basic concepts of technical diving, gear configuration, dive planning, and to provide a practical confined water and open water exposure practicing various technical skills.

### B. Prerequisites

1. Certifications requirements:
  - a. Open Water Diver or Higher.
2. Age requirement:
  - a. Must be a minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR
  - b. Must be a minimum or 18 years of age without guardian approval.
3. Dive experience:
  - a. Must provide proof of a minimum of 10 logged dives.

### C. Program Content

1. This program must include:
  - a. Academic Classes.
    - I. Use of the Course Specific Presentation must be completed prior to any in-water training.
    - II. General concepts of Physics of Diving, Physiology for longer exposure, Dive Planning and SCUBA diving equipment configuration, including redundancy, and streamlining.
  - b. Confined water session(s).
  - c. Open Water Dives.

### D. Equipment & Text Requirements

- **NOTE: Fulfill all Equipment Requirements as specified in the general Tek Lite Diver Programs overview.**

  1. A long hose 5 feet (1½ meter) no longer than 7 feet (2 meter) is recommended and with a short hose in a neckless as backup, wings and plate, soft harness, or other.
  2. DSMB or Lift Bag
  3. Reel or Spool with at least 100 ft (30 m) guideline.

### E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than 4 students per Instructor.
    - **NOTE: This ratio may be increased by two (2) students for each assisting IANTD Divemaster, up to a maximum of 6 students with one (1) IANTD Divemaster per class session.**
2. The Program must include:
  - a. A minimum of 90 minutes of Open Water bottom time.
  - b. A minimum of three (3) SCUBA dives.
    - **NOTE: Even if the time requirements are exceeded, a minimum of three (3) SCUBA dives must be made.**
    - **NOTE: The bottom time on each dive shall not be less than 20 minutes.**



3. No dives may be conducted to depths greater than diver previous certification level and no deeper than 70 fsw (21 msw).
4. No mandatory decompression stops are to be planned.
5. Appropriate safety decompression stops must be performed.
  - ▶ *NOTE: EANx can only be used if the diver is certified as Enriched Air Nitrox Diver or higher*
  - ▶ *NOTE: If EANx is used, dives must be conducted using an EANx PO<sub>2</sub> of no greater than 1.5 on the bottom mix.*

## F. Water Skills Development

- ▶ *NOTE: During the whole dive, show good communication with buddy (hand signal, body touch, light signal)*
  - ▶ *NOTE: During ALL skills practice, the diver shall maintain neutral buoyancy, proper trim, and body posture*
1. Proper dive plan, gas management, gas analyzing and correct cylinder labeling.
  2. SCUBA diving equipment configuration adjustments (streamlined for safety)

### In-Water Skills

1. Do the safety check at a constant depth:
  - a. Valve check
  - b. Bubble check
  - c. S-Drill.
3. Demonstrate proper descent and ascent procedures
4. Trim, buoyancy control and breathing techniques.
5. Configure proper weight.
6. Demonstrate proper trim and body posture throughout the dive while underwater.
7. Keep proper distance and position in the team to ensure effective communication.
8. Perform valve shutdowns:
  - a. Change regulators and shut the primary regulator valve off reopen valve
  - b. Repeat as if the secondary (backup) regulator had malfunctioned
9. Propulsion techniques:
  - a. Frog Kick, Flutter kick, Modified flutter kick
  - b. Backward kick
  - c. Helicopter kick
  - d. Shuffle kick.
10. Swim 20 minutes in full SCUBA diving equipment: two (2) different swimming techniques and calculation of air consumption.
11. While swimming, maintain neutral buoyancy and demonstrate:
  - a. Mask Clearing
  - b. Mask Removal and Replace
  - c. Regulator clearing and regulator recovery
  - d. Deploy a DSMB or Lift Bag at a constant depth
  - e. Perform valve check.

## Advanced EANx Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Advanced EANx Diver Instructor or higher level of certification may teach this course.
- Tek Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to extend the diver's knowledge in the use of EANx for Sport diving.
2. It further develops diving skills and provides a greater understanding of the EANx concept of diving.
3. The Program employs the use of EANx mixes
4. The purpose of this program is to qualify divers to do dive to 132 fsw (40 msw) and do decompression stops

### B. Prerequisites

1. Certifications requirements:
  - a. IANTD EANx Diver or equivalent.
  - b. IANTD Deep Diver or equivalent.
    - *NOTE: The Deep Diver program may be taken concurrently with the Adv. EANx Diver Program.*
2. Age requirement:
  - a. Must be a minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR
  - b. Must be a minimum or 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 30 logged dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. Students are taught the use of EANx mixtures for the non-decompression portions of the dive.
4. To teach the fundamentals of safety and decompression stops EANx mixtures that contain 1.6 PO<sub>2</sub> for decompression may be used. This too is calculated at the deepest depth to which the gas will be switched.
5. This program must include:
  - a. Academic Classes.
  - b. Confined water session(s).
  - c. Open Water Dives.
6. Students must pass the specific IANTD Specific test with a minimum score of 80%.

### D. Equipment & Text Requirements

1. IANTD Advanced EANx Diver Student Kit.
  - a. If this program is combined with other IANTD programs:
    - I. IANTD Diver Student Manual and Student Kit or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IAND, Inc. dba IANTD World Headquarters) must be also acquired.
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Tek Lite Diver Programs overview.*

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than 4 students per Instructor.
    - *NOTE: This ratio may be increased by two (2) students for each assisting IANTD Divemaster, up to a maximum of eight (8) students with two (2) IANTD Divemasters per class session.*
2. The Program must include:
  - a. A minimum of 120 minutes of Open Water bottom time.
  - b. A minimum of four (4) SCUBA dives
    - *NOTE: The two dives must be done to depth between 100 fsw (30 msw) and 132 fsw (40 msw)*
    - *NOTE: Even if the time requirements are exceeded, a minimum of four (4) SCUBA dives must be made.*
    - *NOTE: The bottom time on each dive shall not be less than 20 minutes.*
    - ***NOTE: At the Instructor discretion, Advanced EANx Diver candidate who is already certified as Tek Lite Essentials Diver and Deep Diver the dive requirements can be reduced to:***
      - ***A minimum of two (2) Open Water Dives and 90 minutes.***
      - ***The two dives must be done to depth between 100 fsw (30 msw) and 132 fsw (40 msw)***

### If combined with a Deep Diver Program:

- I. The total dive time for both Programs must include a minimum of 160 minutes
- II. A minimum of six (6) or more dives.
  - *NOTE: Three (3) dives must be made to depths between 100 fsw (30 msw) and 132 fsw (40 msw).*
  - *NOTE: Even if the time and skill requirements are met within fewer than 6 dives, the minimum 6 dives must be made.*
  - ***NOTE: At the Instructor discretion, Advanced EANx Diver candidate who is already certified as Tek Lite Essentials Diver but NOT as Deep Diver the dive requirements can be reduced to:***
    - ***A minimum of four (4) Open Water Dives and 120 minutes.***
    - ***Two dives must be done to depth between 100 fsw (30 msw) and 132 fsw (40 msw)***
3. No dives may be conducted to depths greater than 132 fsw (40 msw).
4. Oxygen partial pressure may not exceed 1.4 during the working portion of the dives,
5. Oxygen partial pressure may not exceed 1.60 ATA during the decompression portions of the dives.
6. All appropriate safety or required decompression stops must be performed.
7. Mandatory decompression stops.

## F. Water Skills Development

1. Demonstrate proficiency in a variety of dive techniques
2. Employ precision buoyancy control.
3. Swim in a simulated out of air situation:
  - a. Without a mask, without breathing and exhaling slowly swim a distance of at least 50 feet (15 meters), and commence gas sharing;
    - *NOTE: While gas sharing, swim for 3 minutes, then replace and clear mask.*
4. On an Open Water dive, demonstrate dive planning abilities, especially for avoiding CNS exposure risk.
5. Perform a gas sharing ascent using the alternate second stage
6. Perform valve shutdowns on each dive.
7. Deploy DSMB or Lift Bag two (2) times, using it as an ascent platform.
8. Demonstrate a safe attitude and awareness to the Instructor's satisfaction.
9. Perform gas switches to a decompression gas mixture no greater than 1.6 PO<sub>2</sub> on at least two (2) dives.
10. Remove and replace cylinder and BCD at a depth greater than 20 fsw (6 msw).
11. Remove and replace cylinder and BCD at surface.
12. Demonstrate acceptable navigation / orientation abilities.



13. In an area where a depth is attainable beyond the planned depth, evaluate that the student has the discipline not to exceed the dive plan.
14. Demonstrate accident management / control techniques as described in text.

## G. Watermanship Evaluation (Recommended)

- *NOTE: This watermanship, if done, must be completed during course*
- *NOTE: 80% = passing [80 / 100 Points].*
- *NOTE: This evaluation may be accomplished in one (1) session or during a sequence of training dives*

1. Skill One (25 points, to be completed in confined water)
  - a. Swim for a distance of 900 feet (270 meters) underwater in SCUBA gear. Score 25 points if completed in less than 7 minutes, and subtract one point for each additional 30 seconds required to complete the skill.
2. Skill Two (25 points, to be completed in confined water)
  - a. Swim for a distance of 50 feet (15 meters) in SCUBA gear without breathing, then commence gas sharing and swim for a distance of 250 feet (75 meters) without a mask.

Time (mm:ss)	Points	Time	Points	Time	Points	Time	Points
4 min. or less	25	5:41 to 6:00	20	6:41 to 7:00	15	7:41 to 7:50	05
4:01 to 4:20	24	6:01 to 6:10	19	7:01 to 7:10	13	7:51 to 8:00	03
4:21 to 4:40	23	6:11 to 6:20	18	7:11 to 7:20	11	Over 08 minutes	00
4:41 to 5:00	22	6:21 to 6:30	17	7:21 to 7:30	09		
5:01 to 5:40	21	6:31 to 6:40	16	7:31 to 7:40	07		

3. Skill Three (25 points)
  - a. Remove SCUBA gear underwater and perform a free ascent to the surface. Take three (3) breaths, perform a surface dive, and don SCUBA gear. Repeat removal and replacement on surface. Score each as follows, then average the two scores for the overall skill score.

Time (mm:ss)	Points	Time	Points	Time	Points	Time	Points
2 min. or less	25	03:16 to 03:30	20	04:21 to 04:30	12	05:31 to 6:00	02
02:01 to 02:20	24	03:31 to 03:45	19	04:31 to 04:40	10	Over 6 minutes	00
02:21 to 02:40	23	03:46 to 04:00	18	04:41 to 04:50	08		
02:41 to 03:00	22	04:01 to 04:10	16	04:51 to 05:00	06		
03:01 to 03:15	21	04:11 to 04:20	14	05:01 to 05:30	04		

4. Skill Four (25 points, confined water) Use of malfunctioning equipment:
  - a. Simulated emergency DSMB or Lift Bag ascent from a depth no shallower than 50 feet (15 meters), including a 3 minute safety stop. Evaluate on skill in deploying DSMB or Lift Bag and on maintaining a tight reel and neutral buoyancy during safety stop. Score 25 points if performed correctly, and subtract 3 points for each mistake made, or five (5) points if the student jams the reel or has to repeat the skill.

## Advanced Recreational Trimix Diver & Adv. Recreational Trimix Plus Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Advanced Recreational Trimix Diver Instructor or higher level of certification may teach this course.
- Tek Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to extend the diver's knowledge in the use of EANx for Sport diving. It further develops diving skills and provides a greater understanding of the EANx concept of diving. It is also intended to supplement the skills of Recreational Trimix Divers.
2. The Program employs EANx mixes from 21% oxygen to a maximum of 1.6 PO<sub>2</sub> combined with a Helium content in which case the END will not exceed 100 fsw (30 msw) may be used.
3. The purpose of this program is to qualify divers to dive up to 150 fsw (45 msw) and perform decompression stops required dives.

### B. Prerequisites

1. Certifications requirements:
  - a. IANTD EANx Diver or equivalent.
  - b. IANTD Deep Diver or equivalent.
    - *NOTE: The Deep Diver program may be taken concurrently with the Adv. Recreational Trimix Diver Program.*
2. Age requirement:
  - a. Must be a minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. Must be a minimum or 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 30 logged dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. Students are taught the use of Recreational Trimix mixtures for the non-decompression portions of the dive.
4. To teach the fundamentals of safety and decompression stops EANx mixtures that contain 1.6 PO<sub>2</sub> for decompression may be used. This too is calculated at the deepest depth to which the gas will be switched.
5. This program must include:
  - a. Academic Classes.
  - b. Confined water session(s).
  - c. Open Water Dives.
6. Students must pass the specific IANTD Specific test with a minimum score of 80%.

### D. Equipment & Text Requirements

1. IANTD Advanced Recreational Trimix Diver Student Kit.
  - a. If this program is combined with other IANTD programs:
  - b. IANTD Diver Student Manual and Student Kit or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IAND, Inc. dba IANTD World Headquarters) must be also acquired.
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Tek Lite Diver Programs overview.*

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than 4 students per Instructor.
    - ▶ *NOTE: This ratio may be increased by two (2) students for each assisting IANTD Divemaster, up to a maximum of eight (8) students with two (2) IANTD Divemasters per class session.*
2. The Program must include:
  - a. A minimum of 120 minutes of Open Water bottom time.
  - b. A minimum of four (4) SCUBA dives.
    - ▶ *NOTE: The two dives must be done to depth between 132 fsw (40 msw) and 150 fsw (45 msw)*
    - ▶ *NOTE: Even if the time requirements are exceeded, a minimum of four (4) SCUBA dives must be made.*
    - ▶ *On at least two (2) dives use Recreational Trimix with a minimum of 21% oxygen and a maximum of 40% oxygen and adequate Helium to provide an END no greater than 100 fsw (30 msw).*
    - ▶ *NOTE: The bottom time on each dive shall not be less than 20 minutes.*
      - ▶ ***NOTE: At the Instructor discretion, Advanced Recreational Trimix Diver candidate who is already certified as Tek Lite Essentials Diver and Deep Diver the dive requirements can be reduced to:***
        - ▶ ***A minimum of two (2) Open Water Dives and 90 minutes.***
        - ▶ ***The two dives must be done to depth between 132 fsw (40 msw) and 150 fsw (45 msw)***

### If combined with a Deep Diver Program:

- c. The total dive time for both Programs must include a minimum of 160 minutes
- d. A minimum of six (6) or more dives.
  - ▶ *NOTE: Two (2) dives must be made to depths between 132 fsw (40 msw) and 150 fsw (45 msw).*
  - ▶ *On at least two (2) dives use Recreational Trimix with a minimum of 21% oxygen and a maximum of 40% oxygen and adequate Helium to provide an END no greater than 100 fsw (30 msw).*
  - ▶ *NOTE: Even if the time and skill requirements are met within fewer than 6 dives, the minimum 6 dives must be made.*
  - ▶ ***NOTE: At the Instructor discretion, Advanced Recreational Trimix Diver candidate who is already certified as Tek Lite Essentials Diver but NOT as Deep Diver the dive requirements can be reduced to:***
    - ▶ ***A minimum of four (4) Open Water Dives and 120 minutes.***
    - ▶ ***Two dives must be done to depth between 132 fsw (40 msw) and 150 fsw (45 msw)***
3. No dives may be conducted to depths greater than 150 fsw (45 msw).
4. Adequate He must be used to provide an END no Greater than 100 fsw (30 msw)
5. Oxygen partial pressure may not exceed 1.4 during the working portion of the dives,
6. Oxygen partial pressure may not exceed 1.60 ATA during the decompression portions of the dives.
7. All appropriate safety or required decompression stops must be performed.
8. Mandatory decompression stops.

## F. Extra Limits For Advanced Recreational Trimix Plus

1. For Advanced Recreational Trimix Plus Diver Program, no dives may be conducted to depths greater than 170 fsw (51 msw)
2. Two (2) extra dives with a total run time of 60 minutes.
  - a. At least 1 dive must be between 132 fsw (40 msw) and 150 fsw (45 msw)
  - b. At least 1 dive must be between 140 fsw (42 msw) and 170 fsw (51 msw)
3. Advanced Recreational Trimix to Advanced Recreational Trimix Plus crossover:
  - a. Follow item F. 2. requirements.

## G. Water Skills Development

1. Demonstrate proficiency in a variety of dive techniques
2. Employ precision buoyancy control.
3. Swim in a simulated out of air situation:
  - a. Without a mask, without breathing and exhaling slowly swim a distance of at least 50 feet (15 meters), and commence gas sharing;
    - NOTE: While gas sharing, swim for 3 minutes, then replace and clear mask.
4. On an Open Water dive, demonstrate dive planning abilities, especially for avoiding CNS exposure risk.
5. Perform a gas sharing ascent using the alternate second stage
6. Perform valve shutdowns on each dive.
7. Perform gas switches to a decompression gas mixture no greater than 1.6 PO<sub>2</sub> on at least two (2) dives.
8. Deploy DSMB or Lift Bag two (2) times, using it as an ascent platform.
9. Demonstrate a safe attitude and awareness to the Instructor's satisfaction.
10. Remove and replace cylinder and BCD at a depth greater than 20 fsw (6 msw)
11. Remove and replace cylinder and BCD at surface.
12. Demonstrate acceptable navigation / orientation abilities.
13. In an area where a depth is attainable beyond the planned depth, evaluate that the student has the discipline not to exceed the dive plan.
14. Demonstrate accident management / control techniques as described in text.

## H. Watermanship Evaluation (Recommended)

- NOTE: This watermanship, if done, must be completed during course
    - NOTE: 80% = passing [80 / 100 Points].
    - NOTE: This evaluation may be accomplished in one (1) session or during a sequence of training dives
1. Skill One (25 points, to be completed in confined water)
    - a. Swim for a distance of 900 feet (270 meters) underwater in SCUBA gear. Score 25 points if completed in less than 7 minutes, and subtract one point for each additional 30 seconds required to complete the skill.
  2. Skill Two (25 points, to be completed in confined water)
    - a. Swim for a distance of 50 feet (15 meters) in SCUBA gear without breathing, then commence gas sharing and swim for a distance of 250 feet (75 meters) without a mask.

Time (mm:ss)	Points	Time	Points	Time	Points	Time	Points
4 min. or less	25	5:41 to 6:00	20	6:41 to 7:00	15	7:41 to 7:50	05
4:01 to 4:20	24	6:01 to 6:10	19	7:01 to 7:10	13	7:51 to 8:00	03
4:21 to 4:40	23	6:11 to 6:20	18	7:11 to 7:20	11	Over 08 minutes	00
4:41 to 5:00	22	6:21 to 6:30	17	7:21 to 7:30	09		
5:01 to 5:40	21	6:31 to 6:40	16	7:31 to 7:40	07		

3. Skill Three (25 points)

- a. Remove SCUBA gear underwater and perform a free ascent to the surface. Take three (3) breaths, perform a surface dive, and don SCUBA gear. Repeat removal and replacement on surface. Score each as follows, then average the two scores for the overall skill score.

Time (mm:ss)	Points	Time	Points	Time	Points	Time	Points
2 min. or less	25	03:16 to 03:30	20	04:21 to 04:30	12	05:31 to 6:00	02
02:01 to 02:20	24	03:31 to 03:45	19	04:31 to 04:40	10	Over 6 minutes	00
02:21 to 02:40	23	03:46 to 04:00	18	04:41 to 04:50	08		
02:41 to 03:00	22	04:01 to 04:10	16	04:51 to 05:00	06		
03:01 to 03:15	21	04:11 to 04:20	14	05:01 to 05:30	04		

4. Skill Four (25 points, confined water) Use of malfunctioning equipment:

- a. Simulated emergency DSMB or Lift Bag ascent from a depth no shallower than 50 feet (15 meters), including a 3 minute safety stop. Evaluate on skill in deploying DSMB or Lift Bag and on maintaining a tight reel and neutral buoyancy during safety stop. Score 25 points if performed correctly, and subtract 3 points for each mistake made, or five (5) points if the student jams the reel or has to repeat the skill.

## Decompression Specialist

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Decompression Specialist Instructor may teach this course.

### A. Purpose

1. This Program is designed to give the diver a better and deeper understanding of the models used for generating dive tables and dive computer profiles.
2. The program will also train students to use dive tables, dive computers and decompression software programs.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be a qualified Deep Diver or equivalent.

### C. Program Content

1. Complete all theory in the IANTD Decompression Software Specialist Student Kit.
2. Complete the written exam with a minimum score of 80%.
3. Demonstrate the use of decompression software.

### D. Equipment Requirements

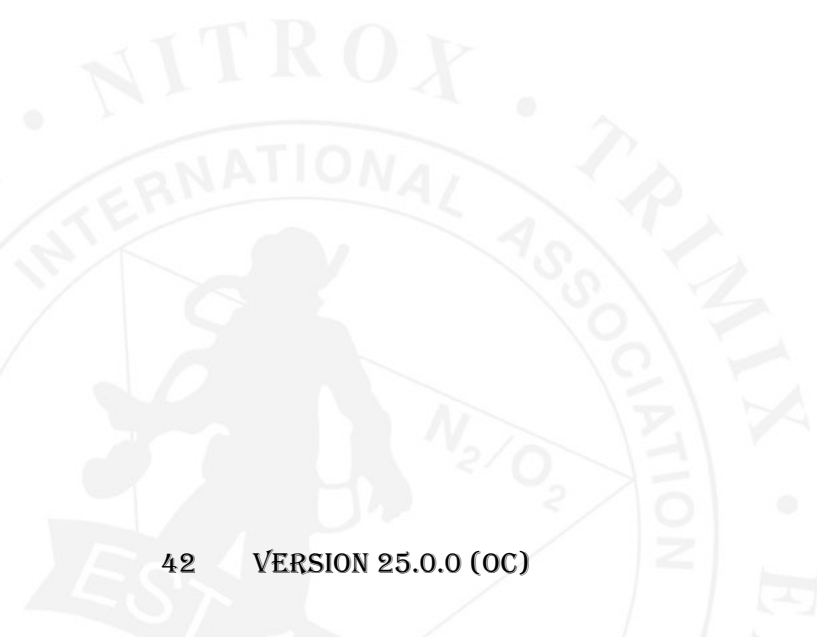
1. IANTD Decompression Specialist Diver Student Kit.

### E. Program Limits

1. There are no diving activities required for this Program.

### F. Water Skills Development

1. There are no specific water skills required for this Program.





## EANx Gas Blender

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ EANx Gas Blender Instructor or higher may teach this course.

### Who may take this course?

- ▶ Any individual. Need not be a diver.

### A. Purpose

1. This Program is designed to train competent personnel in the safe handling of oxygen and the preparation of EANx.

### B. Prerequisites

1. Age requirement:
  - a. Must be a minimum of 18 years of age without guardian approval.
2. Must have a need to become a blender (such as working for an EANx training or full service facility).
  - ▶ *NOTE: If not affiliated with a facility must be located in a remote area.*
3. Must be recommended by an IANTD Instructor or Facility.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
2. A written test must be passed with a minimum score of 80%
3. Must demonstrate mixing capability.

### D. Equipment Requirements

1. IANTD Gas Blender Student Kit.
2. IANTD approved mixing station.
3. Student must own or have unlimited access to an oxygen analyzer.
  - ▶ *NOTE: All equipment used in this Program must be compatible with the EANx mixtures being prepared and the method in which the EANx is being blended.*

### E. Program Limits

- ▶ *NOTE: Blenders may not perform duties other than cylinder cleaning, visual inspections and gas mixing unless qualified as a Technician with the manufacturer of the equipment being prepared for EANx use.*
1. This Program must include:
    - a. Preparation of at least 10 mixes between 3 different EANx mixes.
    - b. Each of the 10 mixes shall have a final oxygen content within  $\pm 1$  % of the target amount

## In-Water Recompression Provider

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- IWR Instructor may teach both the In-Water Recompression Provider and Supervisor

### Who may take this course?

- Any individual with Advanced Medical Knowledge (Not need to be a diver).

### A. Purpose

1. This Program is designed to train competent IWR Providers in the safer use and technology of basic of in-water recompression (IWR)

### B. Prerequisites

1. Certifications Requirements:
  - a. Must be qualified for IANTD Diving Medical Technologies or equivalent.
2. Age Requirement:
  - a. Must be a minimum of 21 years of age without guardian approval.
  - *No other requirement for any of the program.*
3. Texts (All students must each have a copy of all required texts and media for their own reference)

### C. Program Content

1. All lectures completed with IANTD Course - having viewed and understood all unit specific slides pertaining to the theory in the IANTD IWR Provider class.
2. Students must pass 10 verbal scenarios to the satisfaction of the instructor.
3. Students shall be exposed to at least 15 scenarios in any position

### D. Equipment & Text Requirements

1. IANTD IWR Diver Student Kit, or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IAND, Inc./IANTD World Headquarters).
2. All students must have the IANTD Waterproof Recompression tables on all scenarios.

### E. Program Limits

1. Student to Instructor Ratio:
  - i. There may be no more than twenty (20) students per Instructor in the classroom sessions

### F. Water Skills Development

1. There are no water skills for this level

### G. Qualification requirements

1. Upon completion of the lectures, passing the verbal exam the IANTD IWR Provider card will be issued.
2. Re-qualification is required for this level of training.
3. Performance of a neurological assessment
  - *NOTE: Scenario shall be performed annually to maintain this qualification.*
  - *NOTE: These scenarios must be certified by an IWR Instructor.*

## In-Water Recompression Supervisor

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- IWR Instructor may teach both the In-Water Recompression Provider and Supervisor

### A. Purpose

1. This Program is designed to train competent divers in the safer use and technology of basic of in- water recompression (IWR) at depths up to 30 fsw (9.1 msw), using pure Oxygen as a breathing gas.

### B. Prerequisites

1. Certifications requirements:
  - *NOTE: Prerequisites may be taken in conjunction with the IWR Supervisor class.*
    - a. Must be qualified in:
      - *NOTE: May be taken in conjunction with the IWR Diver class.*
        - I. IANTD Advanced Nitrox Diver or higher or equivalent.
        - II. IANTD Diver First Aid or equivalent
        - III. IANTD Rescue Diver or equivalent
        - IV. IANTD Oxygen Administrator or equivalent
2. Age requirement:
  - a. Must be a minimum of 21 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 100 logged dives

### C. Program Content

1. All lectures completed with IANTD Course - having viewed and understood all unit specific slides pertaining to the theory in the IANTD IWR class.
2. Students must pass:
  - a. The specific IWR test with a minimum score of 80%.
  - b. 10 verbal scenarios to the satisfaction of the instructor.
  - c. Students shall be exposed to at least 15 scenarios in any position.
3. This Program must include:
  - a. Academic Class Session
  - b. Confined Water Session
  - c. Open Water Diving Sessions
4. For IWR Supervisor, this program must include 2 OW dives with a minimum of 60 minutes of in-water training time on recompression rig.

### D. Equipment & Text Requirements

1. IANTD IWR Diver Student Kit, or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IAND, Inc./IANTD World Headquarters).
    - a. If this program is combined with other IANTD programs:
      - I. IANTD Diver Student Manual and Student Kit or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IAND, Inc. dba IANTD World Headquarters) must be also acquired.
- *NOTE: Fulfill all Equipment Requirements as specified in the general Tek Lite Diver Programs overview.*

2. Cylinders:
  - ▶ *NOTE: The use of DIN systems are mandatory.*
  - a. Single Cylinder, OR
    - I. All single bottom mix cylinders must be equipped with H or Y valves
  - b. Sidemount Configuration, OR
  - c. Double cylinders with dual outlet manifold
3. All students must have the IANTD Waterproof Recompression tables on all Open Water dives or scenarios.
4. Full face mask fitted to open circuit, surface supplied, regulator retaining device.
5. Recompression rig adequate to ensure no increase or decrease in depth.
6. A means of direct monitoring of the managed diver shall be in place
  - ▶ *This can be via electronic means or with the use of a tender and hand signals.*
7. Surface O<sub>2</sub> administration equipment.
8. In-water rehydration / cylinder etc.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor.
    - ▶ *NOTE: If a qualified Dive Supervisor (Technical Instructor or higher) is present, in which case the ratio may be increased to three (3) students per instructor.*
2. The Program must include:
  - a. A minimum of 60 minutes of in-water training time on recompression rig as bottom time
    - ▶ *NOTE: The bottom time on each dive shall not be less than 20 minutes.*
  - b. A minimum of two (2) IWR dives.
    - ▶ *NOTE: Even if the time requirements are exceeded, a minimum of two (2) IWR dives must be made.*
3. The diver can descend to a maximum depth of 30 fsw (9.1 msw) and must be directly supervised by a Technical instructor (at minimum).
4. At the maximum depth the PO<sub>2</sub>, under any circumstance the PO<sub>2</sub> may not exceed 1.9 atm.

## F. Water Skills Development

1. Pre-dive checks including a pre-breathe.
2. Ensure safe mix for descent and monitor the PO<sub>2</sub> to ensure it remains within the planned PO<sub>2</sub> range
3. In water leak and buddy leak check
  - ▶ *NOTE: If conditions prohibit this after entry this then immediately upon arrival at a stable depth. Where practical this may be accomplished between just below the surface to 20 fsw (6 msw) deep.*
4. Inspect recompression rig to ensure it will not allow student to descend below required depth and keep student at proper depth.
5. Diver should drink 8 oz. of water/isotonic drink underwater.
6. Student shall demonstrate gas management skills.
7. Student shall swap at least one primary gas source (Oxygen cylinder) during the class.
8. All students will function in the roll of:
  - a. In water tender
  - b. Diver
  - c. Surface supervisor
  - d. Note taker.

## G. Qualification requirements

1. The IWR Supervisor (OC, SCR or CCR) Diver c-card will be issue:
  - a. Upon completion of the lectures
  - b. Passing the verbal exam
  - c. Upon satisfactory completion of the dives
2. Re-qualification is required to maintain this qualification by, annually:
  - a. Demonstrate performance of an in water recompression diver standard dive
  - b. Demonstrate performance of neurological assessment / Scenario.
    - *NOTE: These scenarios or dives must be certified by an IWR Instructor.*



## Life Support Systems Service Technician

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- A Life Support Systems Service Technician Instructor may teach this course.

### Who may take this course?

- Any individual. Need not be a diver.

### A. Purpose

1. This Program is designed to train competent personnel in the safe preparation and maintenance of life support systems to be used in SCUBA diving, and with breathing gases other than air.
2. This includes service, maintenance and visual inspection procedures.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in IANTD EANx Blender or equivalent.
2. Age requirement:
  - a. Must be a minimum of 18 years of age without guardian approval.
3. Must be recommended by an IANTD Instructor or Facility.
4. Must have a need to become a Technician (such as working for an EANx Training or Full Service Facility).
  - *NOTE: If not affiliated with a facility must be located in a remote area.*
5. Provide proof of Technician status through manufacturers that the Technician will be servicing equipment or qualification through the Institute of American Scuba Technicians (IAST).

### C. Program Content

1. Complete all the classroom material in the specified manuals.
2. A written test must be passed with a minimum score of 80%
3. Must demonstrate Service Technician capability.

### D. Equipment Requirements

1. Work bench and suitable maintenance equipment and tools.
  - *NOTE: All equipment used in this Program must be compatible with the mixtures being prepared and the method in which the EANx is being blended.*

### E. Program Limits

1. This Program must include:
  - a. A minimum of four (3) hours of hands on experience doing VIPs
  - b. A minimum of four (4) hours of servicing equipment for use with breathing gases other than air.



## O'Dive Doppler Technician

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- An O'Dive Doppler Technician Instructor may teach this course.

### Who may take this course?

- Any individual. Need not be a diver.

### A. Purpose

1. This Program is designed to train competent personnel in the preparation and use of the O'Doppler system according to the latest manufacturer recommendations.
2. This includes download and use of the latest Azoth O'Dive softwares, and upload and download of the individual measuring results.

### B. Prerequisites

1. Age requirement:
  - a. Must be a minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. Must be a minimum of 18 years of age without guardian approval.

### C. Program Content

1. Use of the IANTD O'Dive Doppler Course Presentation.
2. A written test must be passed with a minimum score of 80%
3. Must complete a real or simulated bubble measuring workshop with the O'Dive Doppler, including the upload and download of complete individual results.

### D. Equipment Requirements

1. Azoth O'Dive Doppler user manual.
2. Student must own or have unlimited access to:
  - a. Azoth O'Dive Doppler unit of any up to date version.
3. Smartphone or Tablet compatible for use with the O'Dive Doppler Applications.
4. Recommended: Dive Computer with dive download capability, compatible for use with the O'Dive Application.

### E. Program Limits

1. This Program must include:
  - a. A minimum of four (4) hours of theory covering the theory and user materials provided by the manufacturer.
  - b. A minimum of two (2) complete measurements, including the upload and download of complete individual dive results.

## Self-Sufficient Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Advanced EANx Diver Instructor or higher level of certification may teach this course.
- A Tek Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration.

### A. Purpose

1. This Program have been designed to provide qualified divers with “self-supported - self-sufficient” training.

### B. Prerequisite

1. Certifications requirements:
  - a. Must be qualified in:
    - I. IANTD Deep Diver or equivalent.
2. Age requirement:
  - a. Must be a minimum of 17 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. Must be a minimum or 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 25 logged dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
  - *As per the Program outline approved in writing by IAND, Inc. dba IANTD World Headquarters or Licensee Region's representative.*
3. This program must include:
  - a. Academic Classes.
  - b. Confined water session(s).
  - c. Open Water Dives.
4. Students must pass the specific IANTD Specifc test with a minimum score of 80%.

### D. Equipment & Text Requirements

► **The equipment configuration must be “self-sufficient - self-supported”.**

1. IANTD “Self-Supported - Self-Sufficient” Diver Student Kit
2. All bottom mix cylinders will be equipped with:
  - I. A dual outlet valve, OR
  - II. A small set of doubles, such as double 45's (7 L) OR
  - III. A pony or stage cylinder no larger than 30 cubes (4 L) be used but not required OR
  - IV. A diver who is Open Water Sidemount qualified may use sidemounted cylinders.
    - *If the diver is quaffed as an Open Water Sidemount Diver, they may use sidemounted cylinder for additional gas supply safety.*
  - V. A long hose 5 feet (1½ meter) is recommended and with a short hose with a neckless as backup, wings and plate, soft harness, or other.
  - **NOTE: All independent breathable gas sources must feature a pressure gauge.**
3. A sufficient quantity of gas will be carried by the diver to allow completion of the no-stop dive time requirements incorporating the correct gas management rule for this course which is the 1/3 rule.

4. Two primary regulators with submersible pressure gauges.
  - ▶ *The Configuration must make it clear and logic so no miss interruption between submersible pressure gauges will not be possible.*
  - ▶ *The use of DIN System is mandatory.*
5. Three dive lights, only, for overhead environments or night dives
6. All equipment should be streamlined and always accessible by the diver him or herself.
7. A DSMB or Lift Bag of at least 50-lb. (22.5-kg) lift capacity and a line reel for deployment.
8. A backup line reel.
9. A backup cutting tool is recommended
10. Submersible IANTD dive Tables or wetnotes with backup dive plan based on IANTD Tables must be used as backup to a dive computer or control of the dive.
11. Depth gauge, plus bottom timer device or a dive computer is required.
12. A backup dive computer or bottom timer/depth gauge is mandatory.
13. A primary BCD.

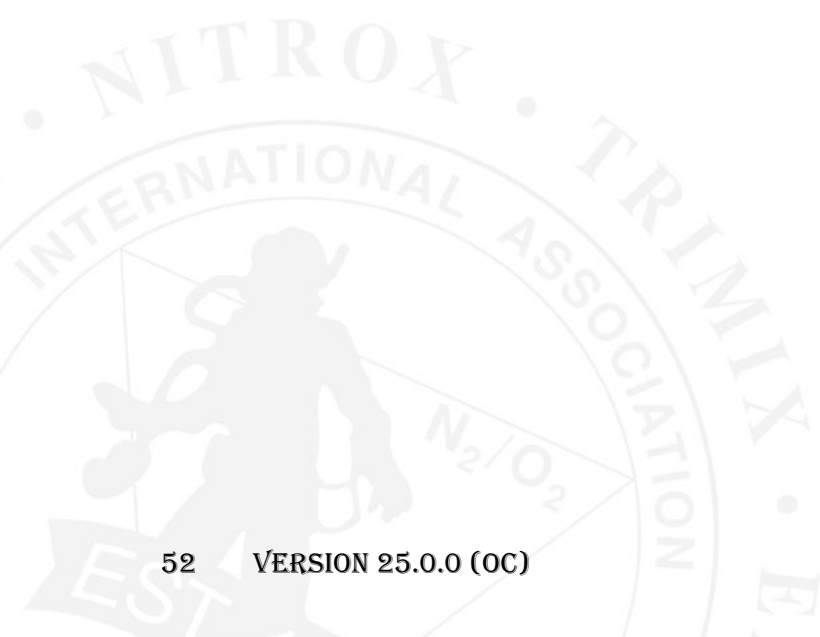
## E. Program Limits

1. Student to Instructor Ratio:
  - ▶ *NOTE: Student to Instructor ratios permitted are based on entering the water with visibility of 25 feet (8 meters) or more.*
    - a. There may be no more than four (4) students per Instructor.
2. The Program must include:
  - a. A minimum of 90 minutes of dive time developing water skills.
  - b. A minimum of four (4) dives.
    - ▶ *NOTE: All open water dives shall be conducted in environments that will allow at all times a direct vertical access to the surface*
    - ▶ *NOTE: The instructor will be present throughout the dive. The instructor will interfere and end the dive if in any case personal safety is in danger.*
    - ▶ ***NOTE: At the Instructor discretion, Self-Sufficient Diver candidate who is already certified as Tek Lite Essentials Diver the dive requirements can be reduced to:***
      - ▶ ***A minimum of two (2) Open Water Dives and 60 minutes.***
3. No training dives are made in an overhead environment, unless the student is already overhead certified
4. No dives may be conducted to depths greater than 132 fsw (40 msw).
5. In “self-supported - self-sufficient” dives the gas management rule is set on 1/3 rule.
6. Maximum ascent rate is 30 feet (9 meters) per minute and in each dive ends with a safety stop.
7. The Diver is certified to dive “self-supported - self-sufficient” non-decompression dives.

## F. Waterskills Development

1. The Self-Sufficient Diver shows and perform an “S” drill before each dive.
2. The diver shows individual awareness about his or her gas consumption for the planned dive.
3. Calculate RMV from gas consumed during a 10 minute swim (based on change in cylinder pressure).
4. The diver shows different propulsion techniques:
  - a. Modified flutter
  - b. Modified frog
  - c. Modified dolphin
  - d. Standard shuffle kicks
5. Perfect buoyancy control throughout the whole dive.

6. Perform valve shutdowns:
  - a. Change regulators and shut the primary regulator valve off and reopen valve
    - ▶ *NOTE: Repeat as if the secondary (backup) regulator had malfunctioned.*
    - ▶ *NOTE: Repeat until skill (both valve openings shutdowns) is completed in less than 2 minutes.*
7. While hovering, deploy “self-supported - self-sufficient” DSMB or Lift Bag with a line reel in less than 2 minutes.
8. Do an ascent, at the correct rate, with the reel line and perform “self-supported - self-sufficient” at least two (2) safety stop at different depths.
9. Perform all Navigation dives with compass and have the diver return “self-sufficient - self-supported” to the point of entry.
10. Simulate a failure of primary regulator.
11. Perform a valve shut down from the primary regulator.
12. Ascend with safety stops on the secondary regulator.
  - ▶ *NOTE: If using a stage or pony cylinder, perform the same skill but use the stage or pony regulator to ascend safely.*



## Tek Lite Essentials Diver

- ▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**
- ▶ **IN ORDER TO PROPERLY DEMONSTRATE THE ESSENTIAL SKILLS, THE INSTRUCTOR SHALL USE THE SAME EQUIPMENT SYSTEM AS THE STUDENT - OPEN CIRCUIT OR SIDEMOUNT.**

### Who may teach this course?

- ▶ Tek Lite Essentials Diver Instructor
  - ▶ *NOTE: Advanced EANx Instructor or higher who is also a Tek Lite Essentials Diver can also teach this class.*
- ▶ Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration
  - ▶ *NOTE: Technical Open Water Sidemount Instructor or higher who is also an Tek Lite Essentials Diver Instructor is required in order to certify a diver on Technical Sidemount Configuration.*

### A. Purpose

1. This mid-level Specialty Continuing Education Diver Program is designed to enable the certified diver to extend proficiency in the water and to review and put in practice the Essentials learned in any IANTD diver classes.
  2. This systematic learning and professional training is designed to enhance the student's personal and team underwater skills;
  3. Development of buoyancy, trim, balance and propulsion
  4. Refine and expand fundamental diving skills
  5. Equipment Streamlining and configuration
  6. Diving safety, situational awareness and accident prevention
  7. Enhanced Dive planning and gas management
  8. Decompression overview and minimum decompression procedures
  9. This program is designed for divers who wish to increase their skill competency by further developing their diving skills to be safer, more comfortable and more efficient in the water while expanding the divers basic diving skills to take more advanced recreational and/or technical diving programs.
- ▶ *NOTE: This course does not provide a deeper diving qualification to the diver*

### B. Prerequisites

1. Certification requirements:
  - a. Must be qualified at a minimum of:
    - I. IANTD Recreational Essentials Diver

▶ **NOTE: If not previously qualified as Recreational Essentials Diver, the course shall include all the skills from the Recreational Essentials Diver Program.**
2. Age requirement:
  - a. A minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. A minimum of 18 years of age without guardian approval.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.



3. This program must include:
  - a. Academic Classes.
  - b. Land Drills:
    - I. Line deployment.
    - II. Practice of SCUBA diving equipment configuration, including redundancy, and streamlining.
  - c. Confined water session(s).
  - d. Open Water Dives (Optional)
4. Students must pass the specific IANTD Specific test with a minimum score of 80%.
  - **NOTE:** Cylinders must be labeled with IANTD stickers or other stickers such as may be required by local laws and regulations. At a minimum, the labels must clearly identify the MOD and oxygen content of the mixture. It is recommended that IANTD labels be used to meet this requirement, in addition to those required by law.

## D. Equipment & Text Requirements

1. IANTD Essentials Diver Student Kit
2. Fulfill all Equipment Requirements as specified in the general Sport Diver Programs overview.
3. Equipment System: In order to properly demonstrate the Essentials skills, the instructor shall use the same equipment system as the student - Open Circuit - Sidemount.
  - a. In addition, it is recommended:
    - I. To use the the SCUBA unit you commonly use;
    - II. A diver who is Open Water Sidemount qualified may use sidemounted cylinders.
    - III. A long hose 5 feet (1½ meter) is recommended and with a short hose with a neckless as backup, wings and plate, soft harness, or other.
    - IV. DSMB or Lift Bag
    - V. Reel or Spool with at least 100 ft (30 m) guideline.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than four (4) students per Instructor.
    - **NOTE:** This ratio may be increased by two (2) students for each assisting IANTD Divemaster, up to a maximum of six (6) students with one (1) IANTD Divemasters per class session.
2. The Program must include:
  - a. Tek Lite Essentials Diver
    - I. A minimum of 120 minutes of dive time developing water skills.
      - **NOTE: If not previously qualified as Recreational Essentials Diver, the course shall include a minimum of 240 minutes of dive time developing water skills.**
    - II. The program must include one (1) confined water session.
      - **NOTE:** This program may be taught completely in confined water.
      - **NOTE:** It is recommended that following the confined water session, up to four (4) openwater dives be completed as part of the course.
3. No dives may be conducted to depths greater than diver deepest certification level.
4. Appropriate safety decompression stops must be performed.

## F. Water Skills Development

1. Be aware of your buddy's position in the water and in relation to the team to ensure effective communication during the entire dive;
2. Reflect safety awareness in diving preparation, underwater activity, after diving activity.
3. Teamwork.

### Surface Skills:

► *NOTE: Surface skills, as listed on Essentials Diver, must be practice on all Essentials Levels.*

4. Practice any time during the day, the following exercises described on the Essentials Manual:
  - a. O2 - Look & See
  - b. B2 - Push in the Area of the Lower Dan-Tian
  - c. C2 - Light Stream of Air

► *NOTE: Before the end of the class practices O2, B2 and C2 must be mastered*

### In-Water Skills.

► *NOTE: During ALL skills practice, the diver shall maintain neutral buoyancy, proper trim and body posture.*

5. Hovering at a constant depth for at least 1 minute with a depth change of less than 1.5 ft (0.5 m) up or down.
6. Hovering at a constant depth and complete 5 basic skills keeping a depth change less than 1.5 ft (0.5 m) up or down:
  - a. Regulator remove and recovery;
  - b. Switch between second stage and safe second stage;
  - c. Adjusted S-Drill;
  - d. Mask clearing:
    - I. Partial flood;
    - II. Fully flooded
  - e. Mask removal and replace.
7. While hovering at a constant depth, use a reel or spool to deploy SMB, and make a controlled ascent while negatively buoyant.
8. While hovering at a constant depth do and don the BCD/harness system with a depth change of less than 1.5 ft (0.5 m) up or down.
 

► *For single cylinder users only.*
9. While hovering at a constant depth perform a valve shut down drill.
10. Slowly ascent and do the safety stop (1 meter/min ascent speed).
11. Ascent without mask and do a 3 minute safety stop at 20 fsw (6msw) depth change less than 1.5 ft (0.5 m) up or down.
12. Swim and ascent under the condition of sharing air.
13. Rescue an underwater unconscious diver at depth by bring the diver to the surface in a controlled manner and establishing positive buoyancy upon reaching the surface.
14. Deploy a DSMB or Lift Bag at a constant depth with a change less than 1.5 ft (0.5 m) up or down in less than 2 minutes.
15. Two divers swimming side by side (Diver donating gas with mask and Diver receiving gas without mask):
  - a. Swim 50 feet (15 meters) without mask and simulating an out of gas condition:
  - b. Start sharing gas and ascend with guidance of buddy.

## Tek Essentials Diver

- ▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**
- ▶ **IN ORDER TO PROPERLY DEMONSTRATE THE ESSENTIAL SKILLS, THE INSTRUCTOR SHALL USE THE SAME EQUIPMENT SYSTEM AS THE STUDENT - OPEN CIRCUIT OR SIDEMOUNT.**

### Who may teach this course?

- ▶ Essentials Diver Instructor
  - ▶ *NOTE: Advanced EANx Instructor or higher who is also a Essentials Diver can also teach this class.*
- ▶ Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration
  - ▶ *NOTE: Technical Open Water Sidemount Instructor or higher who is also an Tek Essentials Diver Instructor is required in order to certify a diver on Technical Sidemount Configuration.*

### A. Purpose

1. This mid-level Specialty Continuing Education Diver Program is designed to enable the certified diver to extend proficiency in the water and to review and put in practice the Essentials learned in any IANTD diver classes.
  2. This systematic learning and professional training is designed to enhance the student's personal and team underwater skills;
  3. Development of buoyancy, trim, balance and propulsion
  4. Refine and expand fundamental diving skills
  5. Equipment Streamlining and configuration
  6. Diving safety, situational awareness and accident prevention
  7. Enhanced Dive planning and gas management
  8. Decompression overview and minimum decompression procedures
  9. This program is designed for divers who wish to increase their skill competency by further developing their diving skills to be safer, more comfortable and more efficient in the water while expanding the divers basic diving skills to take more advanced recreational and/or technical diving programs.
- ▶ *NOTE: This course does not provide a deeper diving qualification to the diver*

### B. Prerequisites

1. Certification requirements:
  - a. Must be qualified at a minimum of:
    - I. IANTD Tek Lite Essentials Diver.
    - ▶ **NOTE: If not previously qualified as Tek Lite Essentials Diver, the course shall include all the skills from the Recreational Essentials Diver and Tek Lite Essentials Program.**
    - ▶ **NOTE: If not previously qualified as Recreational Essentials Diver, the course shall also include all the skills from the Recreational Essentials Diver and Tek Lite Essentials Diver Programs.**
2. Age requirement:
  - a. A minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. A minimum or 18 years of age without guardian approval.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.

3. This program must include:
  - a. Academic Classes.
  - b. Land Drills:
    - I. Line deployment.
    - II. Practice of SCUBA diving equipment configuration, including redundancy, and streamlining.
  - c. Confined water session(s).
  - d. Open Water Dives (Optional)
4. Students must pass the specific IANTD Specific test with a minimum score of 80%.
  - NOTE: Cylinders must be labeled with IANTD stickers or other stickers such as may be required by local laws and regulations. At a minimum, the labels must clearly identify the MOD and oxygen content of the mixture. It is recommended that IANTD labels be used to meet this requirement, in addition to those required by law.

## D. Equipment & Text Requirements

1. IANTD Essentials Diver Student Kit
2. Fulfill all Equipment Requirements as specified in the general Sport Diver Programs overview.
3. Equipment System: In order to properly demonstrate the Essentials skills, the instructor shall use the same equipment system as the student - Open Circuit - Sidemount.
  - a. In addition, it is recommended:
    - I. To use the the SCUBA unit you commonly use;
    - II. A diver who is Open Water Sidemount qualified may use sidemounted cylinders.
    - III. A long hose 5 feet (1½ meter) is recommended and with a short hose with a neckless as backup, wings and plate, soft harness, or other.
    - IV. DSMB or Lift Bag
    - V. Reel or Spool with at least 100 ft (30 m) guideline.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than four (4) students per Instructor.
    - NOTE: This ratio may be increased by two (2) students for each assisting IANTD Divemaster, up to a maximum of six (6) students with one (1) IANTD Divemasters per class session.
2. The Program must include:
  - a. Technical Essentials Diver
    - I. A minimum of 120 minutes of dive time developing water skills.
      - NOTE: If not previously qualified as Tek Lite Essentials Diver, the course shall include a minimum of 240 minutes of dive time developing water skills.
      - NOTE: If not previously qualified as Recreational Essentials Diver, the course shall include a minimum of 360 minutes of dive time developing water skills.
    - II. The program must include one (1) confined water session.
      - NOTE: This program may be taught completely in confined water.
      - NOTE: It is recommended that following the confined water session, up to four (4) openwater dives be completed as part of the course.
3. No dives may be conducted to depths greater than diver deepest certification level.
4. Appropriate safety decompression stops must be performed.

## F. Water Skills Development

1. Be aware of your buddy's position in the water and in relation to the team to ensure effective communication during the entire dive;
2. Reflect safety awareness in diving preparation, underwater activity, after diving activity.
3. Teamwork.

**Surface Skills:**

► *NOTE: Surface skills, as listed on Essentials Diver and Essentials Diver Level 2, must be practice on all Essentials Levels.*

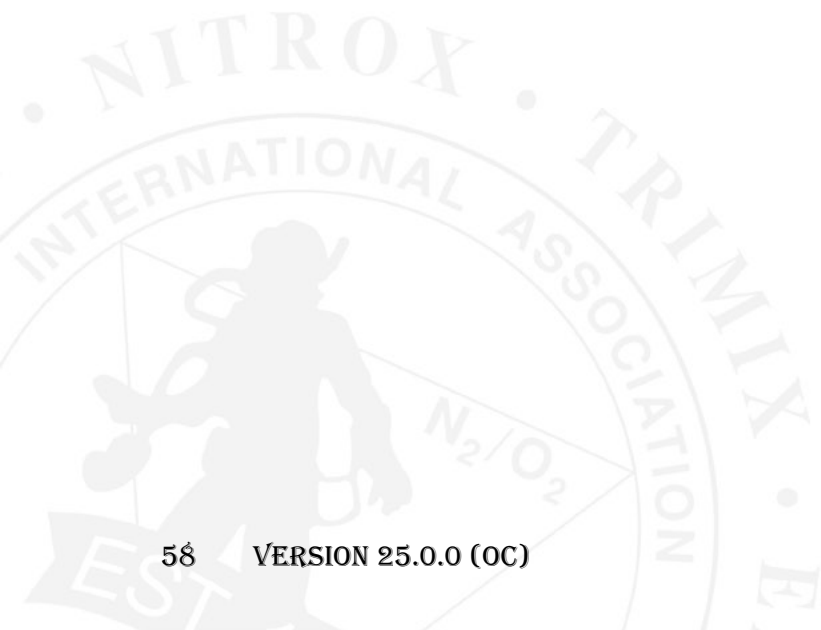
4. Practice any time during the day, the following exercises described on the Essentials Manual:
  - a. O3 - Film of the Mental;
  - b. B3 - Breathe in a Part of the Body
  - c. C3 - Sequence

► *NOTE: Before the end of the class practices O3, B3 and C3 must be mastered*

**In-Water Skills.**

► *NOTE: During ALL skills practice, the diver shall maintain neutral buoyancy, proper trim and body posture.*

5. Do the safety check at a constant depth with a depth change of less than 1.5 ft (0.5 m) up or down, before diving:
  - a. Valve check
  - b. Bubble check;
  - c. S-Drill.
6. Maintain neutral buoyancy during simulated equipment problems with a depth change of less than 1.5 ft (0.5 m) up or down.
  - a. Mask lost;
  - b. Fin lost;
  - c. BCD inflate failure;
  - d. Valve drills.
7. Hover at a constant depth with the following orientations:
  - a. Vertical and horizontal.
8. Demonstrate the following situational abilities:
  - a. General awareness
  - b. Handle stress
  - c. Problem solving
  - d. Teamwork:
9. Deploy a DSMB or Lift Bag at a constant depth with a depth change of less than 1.5 ft (0.5 m) up or down in less than 1 minute.





## Tek Open Water DPV Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Tek Open Water DIVER PROPULSION VEHICLE Instructor or Cave DIVER PROPULSION VEHICLE Instructor may teach this course.
- Tek Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration.

### A. Purpose

1. This Program is designed to provide training in the use of Diver Propulsion Vehicles (DIVER PROPULSION VEHICLE's) in Technical Open Water Diving.
  - *Advanced Cave - DIVER PROPULSION VEHICLE Diver, information may be found on IANTD Technical & Overhead Environment Standards & Procedures Manual*
2. The purpose of this course is to expose divers to conservation concerns and ethical responsibilities that present themselves during DIVER PROPULSION VEHICLE use either for touring, or exploration.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in:
    - I. IANTD Advanced EANx Diver or equivalent.
2. Age requirement:
  - a. Must be a minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. Must be a minimum or 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 25 logged dives

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. This program must include:
  - a. Academic Classes, including but not limited to:
    - I. Motives and risks for DIVER PROPULSION VEHICLE diving;
    - II. Equipment configuration and streamlining techniques for DIVER PROPULSION VEHICLE diving,
    - III. Procedures and techniques for DIVER PROPULSION VEHICLE diving
    - IV. Task loading
    - V. Dive / gas planning needs for DIVER PROPULSION VEHICLE diving
    - VI. Gas sharing and towing techniques
    - VII. Conservation considerations for DIVER PROPULSION VEHICLE handling, minimizing specific environment impact
    - VIII. Considerations for the increased range of travel / penetration and safe charging
    - IX. Transport and maintenance procedures for DIVER PROPULSION VEHICLE's.
  - b. Confined water session(s).
  - c. Open Water Dives.
4. Students must pass the specific IANTD Specific test with a minimum score of 80%.

## D. Equipment Text Requirements

1. IANTD DIVER PROPULSION VEHICLE Diver Student Kit (TBA).
2. Fulfill all Equipment Requirements as specified in the general Tek Lite Diver Programs overview.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor.
2. The Program must include:
  - a. A minimum of 160 minutes of Open Water bottom time.
  - b. A minimum of four (4) DIVER PROPULSION VEHICLE dives.
    - ▶ *NOTE: Two (2) Decompression Open Water dives must have either a real or a simulate decompression stop for a minimum of 10 minutes decompression stop.*
    - ▶ *NOTE: Even if the time requirements are exceeded, a minimum of four (4) SCUBA dives must be made.*
    - ▶ *NOTE: The bottom time on each dive shall not be less than 20 minutes.*
    - ▶ *NOTE: No crediting of dives is allowed. Instructors are encouraged to exceed these minimums.*
3. No dives may be conducted to depths greater than the previous diver certification level.
4. Gas management rules:
  - a. Rule of Thirds
5. Oxygen partial pressure may not exceed the diver's training level:
  - a. For Advanced EANx or Advanced Recreational Trimix - Oxygen partial pressure may not exceed 1.5 ata at any time;
  - b. For Technical Diver or higher - Oxygen partial pressure 1.4 ATA during the working portion of the dives and 1.6 ata during decompression portion of the dives.
6. All dives must be planned using the best gas in consideration of PO<sub>2</sub>, END and Decompression requirements.
7. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
8. All appropriate safety
  - ▶ *If the DIVER PROPULSION VEHICLE program is combine with a technical level program or conducted as a technical diving activity all the required decompression stops must be performed.*
  - ▶ ***The Open Water DIVER PROPULSION VEHICLE course does not qualify the diver to use DIVER PROPULSION VEHICLE's in overhead environments such as cave.***

## F. Water Skills Development

1. Demonstrate proficiency in the following propulsion techniques while maintaining the control of the DIVER PROPULSION VEHICLE:
  - a. Modified flutter
  - b. Modified frog
  - c. Modified dolphin
  - d. Standard shuffle kicks.
2. Perform at least two (2) gas sharing drills of Instructor's choice.
3. While using DIVER PROPULSION VEHICLE's perform at least three (3) towing methods.
  - ▶ *NOTE: At least two (2) of which are while sharing gas.*
4. Demonstrate the ability to safely drop and recover DIVER PROPULSION VEHICLE at least one (1) dive.
5. Demonstrate perfection of buoyancy and trim while using a DIVER PROPULSION VEHICLE.
6. On at least one (1) occasion an out of gas drill must be performed without the donor being aware of whether it is a drill or a real out of gas situation.
7. Simulate a failure of all DIVER PROPULSION VEHICLE's in team and swim the units to exit point.

8. Take time data for the following scenarios for the distance of 150 feet or 50 meters:
  - a. Diver swimming pace without DIVER PROPULSION VEHICLE
  - b. Diver swimming pace with DIVER PROPULSION VEHICLE in cruise speed
  - c. Diver swimming pace with DIVER PROPULSION VEHICLE above cruise speed
  - d. Diver swimming pace towing the DIVER PROPULSION VEHICLE
  - e. Diver swimming pace with DIVER PROPULSION VEHICLE towing the diver only
  - f. Diver swimming pace with DIVER PROPULSION VEHICLE towing the diver and his/her DIVER PROPULSION VEHICLE.
9. On every dive at least one (1) gas exchange to decompression gas must be done.
10. Drop and recover decompression cylinders on at least two (2) of the dives or till achieve proficiency.



## Tek Open Water Sidemount Diver

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

▶ Tek Open Water Sidemount Instructor or Advanced Cave Sidemount Diver Instructor may teach this course.

### A. Purpose

1. Familiarize the diver with advanced techniques, equipment configuration and mindset required for Technical Sidemount diving.
2. Enable divers to proficiently assemble and use Technical Sidemount equipment configuration.
3. Teach divers the proper techniques to safely conduct decompression dives that warrant the use of Sidemount equipment configuration.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in IANTD Advanced EANx Diver or equivalent.
    - ▶ *NOTE: The Advanced EANx Diver Program can be combined with the Tek Open Water Sidemount Diver Program*
2. Age requirement:
  - a. Must be a minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. Must be a minimum or 18 years of age without guardian approval.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - ▶ *IANTD recommends the use of both, Course Specific Presentation and workbook*
2. All the water skills must be practiced until the student is proficient in each skill.
3. This program must include:
  - a. Academic Classes.
  - b. Confined water session(s).
  - c. Open Water Dives.
4. Students must pass the specific IANTD Open Water Sidemount test with a minimum score of 80%.

### D. Equipment & Text Requirements

1. IANTD Open Water Sidemount Diver Student Kit.
2. Bottom gas:
  - a. Minimum 140 cubic feet (12 liters)
    - I. I.E.: 2 Single 72 or 2 Steel 13L
3. Decompression gas:
  - a. Minimum 1 AL 30
    - ▶ *NOTE: If the divers are certified as Technical Divers or higher or taking a combined program, they must include a minimum of 2 AL 40 as decompression gas.*
    - ▶ *NOTE: The use of DIN systems are mandatory.*
4. Regulators must provide ample gas flow at all depths.
  - ▶ *NOTE: Each gas source must have its' own dedicated submersible pressure gauge.*
  - ▶ *NOTE: The use of DIN systems are mandatory.*

5. Dive slate or note pad.
6. A cutting tool is required.
  - ▶ *NOTE: A backup cutting tool is recommended.*
7. A DSMB or Lift Bag and reel/spool with a minimum of 50 feet.

## E. Program Limits

- ▶ *NOTE: The course can be taught in conjunction with an Overhead environment course*
1. Student to Instructor Ratio:
    - a. There may be no more than 4 students per Instructor.
  2. The Program must include:
    - a. A minimum of 160 minutes of Open Water bottom time.
    - b. A minimum of four (4) open water sidemount dives.
      - ▶ Two (2) Open Water dive (gear tuning, skills, fining technique, buoyancy & trim).
      - ▶ Two (2) Decompression Open Water dives must have either a real or a simulate decompression stop for:
        - ▶ A minimum of 10 minutes decompression stop
  - ▶ *NOTE: If the skill and bottom time requirements are completed earlier, the Program may be completed within four (4) open water sidemount dives.*
  3. No dives may be conducted to depths greater than diver previous certification level.
  4. Gas management rules:
    - a. Rule of Thirds
  5. Oxygen partial pressure may not exceed the diver's training level:
    - a. For Advanced EANx or Advanced Recreational Trimix - Oxygen partial pressure may not exceed 1.5 ata at any time;
    - b. For Technical Diver or higher - Oxygen partial pressure 1.4 ATA during the working portion of the dives and 1.6 ata during decompression portion of the dives.
  6. Students who use dive computers must also carry a backup system such as a second dive computer or IANTD Dive Tables with Bottom Timer as a backup.
  7. Divers without a dive computer must use appropriate IANTD Dive Tables.
  8. No dives in this course may be made into a restricted area that would require Advanced Cave Sidemount Diving.
  9. All dives must be completed within both the IANTD Oxygen CNS% and OTU limits.
  10. All appropriate safety stops and required stops must be performed.

## F. Water Skills Development

1. "S" drill procedures.
2. Bubble Checks, self-sufficient mode
3. Valve Checks, self-sufficient mode
4. Regulator switching
5. Water entry with cylinders, unless health/safety issues are present.
  - a. Giant stride off a boat
  - b. Shore entry
  - c. Water entry without cylinders & attach the cylinders while on water surface
  - d. Water exit with cylinders, unless health/safety issues are present.
  - e. Water exit without cylinders.
6. Swim with full equipment to be used in program until comfortable with it.
7. Perform valve shutdowns combined with regulator switches to opposite cylinder in horizontal and vertical position.
8. Perform neutral buoyancy drills in horizontal and vertical positions while in Sidemount configuration.

9. Perform cylinder rear clip removal in horizontal and vertical positions
10. Confined water: Swim 50 feet (15 meters) underwater with one (1) cylinder rear clip removed (handheld, replace cylinder, repeat with opposite cylinder.)
11. Open water: Swim 50 feet (15 meters) with one (1) cylinder rear clip removed (handheld and replace cylinder, repeat with opposite cylinder.
12. Out of gas scenarios:
  - a. Share gas scenario:
    - I. Stationary
    - II. Dynamic (Swimming & Ascending)
13. On every dive at least one (1) gas exchange to decompression gas must be done.
14. Drop and recover decompression cylinders on at least two (2) of the dives or till achieve proficiency.
15. Shoot a DSMB or Lift Bag at least once from 20' or deeper and ascent to 15' safety stop in a controlled ascent.

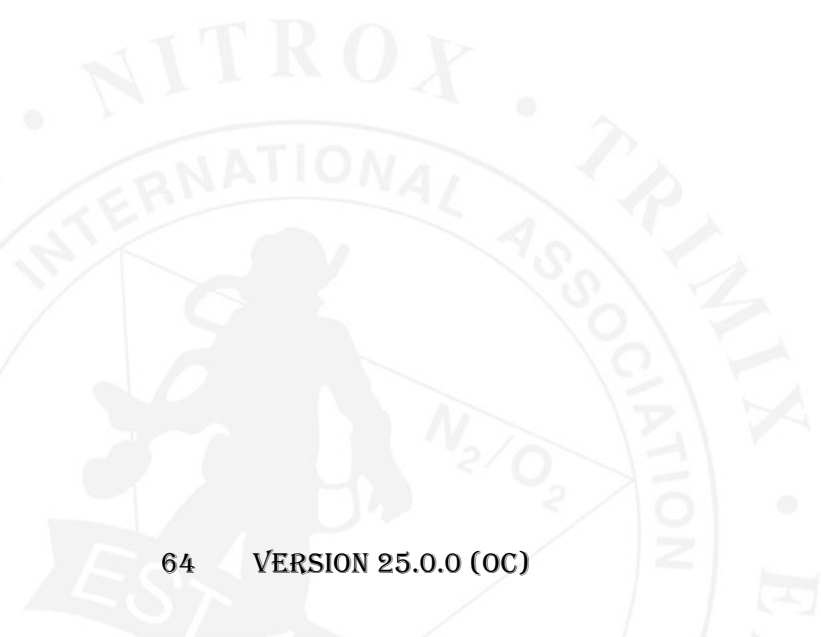
## **G. Extra Requirements for Specific Sidemount Systems:**

### **1. TEK OPEN WATER TODDY-STYLE SIDEMOUNT DIVER:**

- a. Who may teach:
  - I. A Tek Open Water Toddy-Style Sidemount Instructor while diving a TS Sidemount System WITHOUT modifications
- b. Certification Requirement:
  - I. Must be qualified as IANTD Open Water Toddy-Style Sidemount Specialty Diver
- c. Diver Equipment:
  - I. Must own a TS Sidemount System, WITHOUT modifications.
  - II. The use two right handed regulators are mandatory.

### **2. TEK OPEN WATER NOMAD SIDEMOUNT DIVER:**

- a. Who may teach:
  - I. A Nomad Open Water Sidemount Instructor while diving a Nomad System WITHOUT modifications on the bungee rigging system.
- b. Certification Requirement:
  - I. Must be qualified as IANTD Open Water Nomad Sidemount Specialty Diver
- c. Diver Equipment:
  - I. Must own a Dive Rite Nomad System, WITHOUT modifications on the bungee rigging system





## Trimix Gas Blender

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Trimix Gas Blender Instructor may teach this course.

### Who may take this course?

- Any individual. Need not be a diver.

## A. Purpose

1. This Program is designed to train competent personnel in the safe handling of oxygen and the preparation of Trimix and Heliox.

## B. Prerequisites

1. Age requirement:
  - a. Must be a minimum of 18 years of age without guardian approval.
2. Must have a need to become a blender (such as working for an EANx training or full service facility).
  - *NOTE: If not affiliated with a facility must be located in a remote area.*
3. Must be recommended by an IANTD Instructor or Facility.

## C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. A written test must be passed with a minimum score of 80%
3. Must demonstrate mixing capability.

## D. Equipment Requirements

1. IANTD Gas Blender Student Kit.
2. IANTD-approved mixing station.
3. Student must own or have unlimited access to:
  - a. An oxygen analyzer
  - b. A Helium analyzer
  - *NOTE: All equipment used in this Program must be compatible with the Trimix mixtures being prepared and the method in which the Trimix is being blended.*

## E. Program Limits

- *NOTE: Blenders may not perform duties other than cylinder cleaning, visual inspections and gas mixing unless qualified as a Technician with the manufacturer of the equipment being prepared for EANx use.*
1. This Program must include:
    - a. Preparation of at least 10 mixes between 3 different Trimix mixes.
    - b. Each of the 10 mixes shall have a final oxygen (O<sub>2</sub>) content within  $\pm 1\%$  of the target amount
    - c. Each of the 10 mixes shall have a final helium (He) content within  $\pm 3\%$  of the target amount



# IANTD TECHNICAL DIVING PROGRAMS



*The leader in diver education*

## **Tek Academics Program (Non-Diving Program)**

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### **Who may teach this course?**

- Technical Diver Instructor or higher may teach this course.

### **A. Purpose**

1. This Program is designed give basic technical academic knowledge to any diver who wants to expand their academics knowledge.
2. Give opportunity for divers to have a class about IANTD Encyclopedia and be certified as IANTD TekAcademics Specialist (NON Diver Program).

### **B. Prerequisites**

1. No Age Requirement.
  2. No Diver certification requirement.
- *NOTE: To get the most of the program, IANTD recommends be certified as Deep Diver.*

### **C. Program Content**

1. Academic Session - Based on the IANTD Exploration and Mixed Gas Diving Encyclopedia.
  - a. Basic Physiology;
  - b. Equipment configurations;
  - c. Psychological Aspects & Survival Strategies;
  - d. Decompression Models
2. Use of the Tek Academics student kit and instructor materials is required
3. Complete a written exam specific to Tek Academics written exam with a minimum score of 80%.

### **D. Text & Equipment Requirements**

1. IANTD Technical Diver Student Kit.
  - a. IANTD Exploration and Mixed Gas Diving Encyclopedia.
  - b. Complete the written knowledge review

### **E. Program Limits**

1. There is no limits established because it's a non-diver program.

### **F. Water Skills Development**

1. There are no specific water skills required for this program
- **NOTE: This program does not replace any Diver Certification card, as it is a non-diver program.**

## Technical Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Technical Diver Instructor or higher may teach this course.
- Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to train divers to conduct dives to depths between 100 fsw (30 msw) and, at the instructor's option, up to 170 fsw (51 msw) using custom blend breathing gas mixtures.
2. To provide greater understanding of custom blended EANx breathing gas mixtures, a complete knowledge of the limits of any EANx mixture, and the use of EANx and oxygen for decompression.
3. The knowledge and skills taught in this program are more than adequate to qualify divers to perform dives outside of training up to 170 fsw (51 msw).

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in IANTD Advanced EANx Diver or equivalent.
2. Age requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive experience:
  - a. Proof of a minimum of 100 logged dives, of which at least 30 were deeper than 90 fsw (27 msw).

### C. Program Content

1. Academic Session:
  - a. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
    - IANTD recommends the use of both, Course Specific Presentation and workbook
  - b. Complete a written exam specific to Technical Diving written exam with a minimum score of 80%.
2. Confined Water Session(s)
  - *NOTE: In lieu of confined water the instructor may opt to do a skills development dive to a depth no greater than 40 fsw (12 msw) provided required decompressions stops are not required.*
3. Open Water Dive Sessions

### D. Text & Equipment Requirements

1. IANTD Technical Diver Student Kit.
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Technical Diver Programs overview.*
2. Cylinders:
  - a. Double cylinders with dual outlet manifold, OR
  - b. Sidemount Configuration

### E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than four (4) students per Instructor.
    - *Note: This ratio may be increased by two (2) with an assisting IANTD Technical Diver Supervisor or Advanced EANx Instructor who is also qualified as a IANTD Technical Diver.*
2. The Instructor must be in control at all times

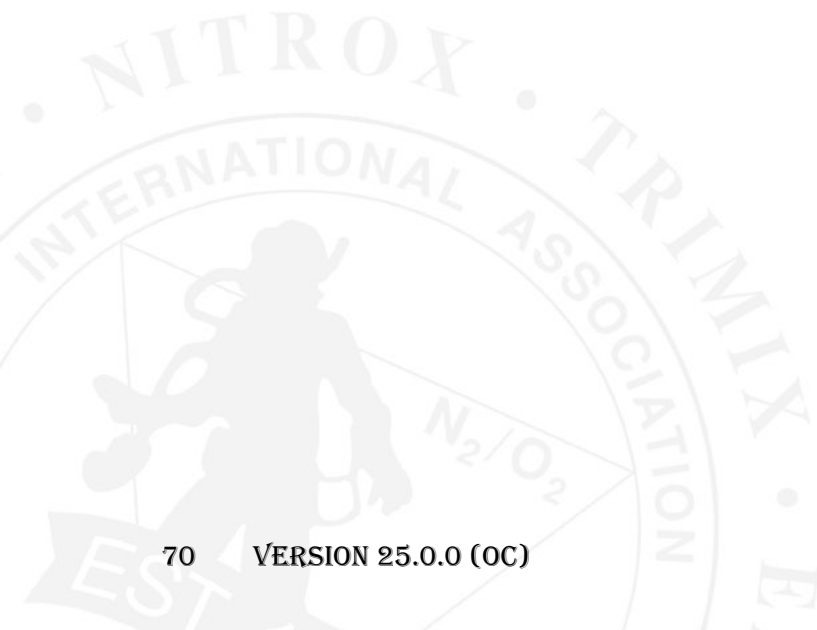
3. This Program must include:
  - a. A minimum of 220 minutes run time in open water diving
  - b. Four (4) dives.
  - c. Two of the dives must be to depths deeper than 132 fsw (40 msw) and no deeper than 170 fsw (51 msw).
    - ▶ *NOTE: For students who need additional training dives, the remaining two (2) dives may be in any depth between 40 fsw (12 msw) and 170 fsw (51 msw).*
    - ▶ **NOTE: At the Instructor discretion, Technical Diver candidate who is already certified as Technical Essentials Diver the open water dive requirements can be reduced to:**
      - ▶ **A minimum of three (3) Open Water Dives and 200 minutes.**
      - ▶ **Two of the dives must be to depths deeper than 132 fsw (40 msw) and no deeper than 170 fsw (51 msw)**
4. No dives may be conducted to depths greater than 170 fsw (51 msw).
5. Oxygen partial pressure may not exceed 1.4 during the working portion of the dives
6. Oxygen partial pressure may not exceed 1.60 ATA during the decompression portion of the dives.
7. All appropriate safety or required decompression stops must be performed.
8. Decompression stops must be made using oxygen or EANx.
9. Maximum of two (2) stage cylinders may be carried
  - ▶ *NOTE: A minimum of one (1) must be used in all dives*

## F. Water Skills Development

1. **Confined Water Skill**
  - a. **Optional:** Remove and replace equipment, and stage[s], on the surface during confined water training.
  - b. **Optional:** Remove and replace equipment, and stage[s], on the bottom no deeper than 20 fsw (6 msw) during confined water training.
  - c. Divers using a quick release on their harness or backpack:
    - I. Swim the system while the instructor disconnects the quick release to simulate a failure.
      - ▶ *NOTE: The student is to swim the system demonstrating control of buoyancy and body positioning with the quick disconnected for sufficient duration to satisfy the instructor that the student is capable of managing.*
  - d. Demonstrate an ability to respond to a single bladder BCD failure by the two (2) methods listed below:
    - ▶ **NOTE: If at any time the student starts to overexert, or if it is obvious that the skill cannot be accomplished, the instructor is to ensure that the BCD is inflated.**
    - I. Deflate BCD and swim while maintaining buoyancy and control.
      - ▶ *NOTE: This skill must be done in a maximum of 2 minutes.*
    - II. Deflate BCD, ascend to the surface, and remain afloat.
      - ▶ *NOTE: This skill must be done in a maximum of 2 minutes.*
  - e. Lose of Buoyancy:
    - I. Have a student lose buoyancy by deflation of the BCD and then attempt to utilize a DSMB or Lift Bag or other secondary buoyant device as a BCD.
      - ▶ *NOTE: This skill is to demonstrate how effective these devices are and to reinforce that even if not suitable for a redundant BCD they still provide an option for self-rescue in an emergency situation.*
2. Swim with full underwater equipment required in Program for at least 5 minutes.
3. Swim in a simulated out of gas situation:
  - a. Without breathing in, slowly swim while exhaling in full SCUBA diving equipment a distance of at least 60 feet (18 meters), and commence gas sharing;
  - b. After remaining at rest for three (3) breaths, continue swimming at an average pace for at least 10 minutes.



4. Swim in a simulated out of gas situation:
  - a. Without breathing, exhaling and with two (2) divers swimming side by side, have one (1) diver hand off the long hose second-stage regulator to the other diver and commence gas sharing.
  - b. After remaining at rest for three (3) breaths, continue swimming at an average pace for at least 10 minutes.
5. Simulated out of gas situation:
  - a. Have two (2) divers, approximately 60 feet (18 meters) apart;
  - b. While simulating an out of gas situation without breathing, exhaling slowly using a blacked-out masks or with eyes closed
  - c. Locate each other (using side of pool, rail on wreck, guide line, etc. for orientation) and begin gas sharing via long hose;
  - d. After taking three (3) breaths at rest, continue swimming while sharing gas for at least three (3) minutes;
    - *NOTE: This drill may be accomplished by having one (1) student swim 30 feet (9 meters) to donor, and repeat for other diver.*
6. Simulated out of gas situation:
  - a. While two (2) divers are swimming side by side;
  - b. The Instructor signals one (1) to remain stationary while the other continues swimming for at least three (3) more kicks;
  - c. The stationary diver then simulates an out of gas situation by swimming (without breathing, and exhaling slowly) to the other diver and commences gas sharing for at least two (2) minutes;
    - *NOTE: The instructor may substitute this skill by starting the drill at some time when the students are apart from each other by a comparable distance as would be achieved by three (3) kicks.*
7. Simulate gas failure with valve shutdowns for both primary and secondary regulators.
  - *NOTE: The entire drill must be completed in less than one (1) minute.*
8. Remove the harness and cylinders from a simulated unconscious diver in less than 1 ½ minutes.
  - *NOTE: Students who exceed the time limit on this skill must have a quick release added to their harness.*
9. Close eyes, remove and replace stage cylinder, make regulator switch to stage cylinder, then switch back to primary gas supply.
  - *NOTE: This drill must be done in a depth where all gases are breathable.*
10. Perform gas shutdown at least once per dive.
  - *NOTE: It is not necessary to remove mouthpiece.*
11. Remove and replace stage cylinder on all dives with as little buoyancy change as possible.
12. Demonstrate use of a safety reel and deploy a DSMB or Lift Bag while maintaining a stable depth.
13. Demonstrate good dive technique and swimming (SCUBA) abilities combined with correct buoyancy control.
14. Determine RMV and demonstrate ability to calculate and perform gas matching.





## Normoxic Trimix Diver & Normoxic Trimix Plus Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Normoxic Trimix Instructor or higher may teach this course.
- Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to train those who wish to dive to depths between 132 fsw (40 msw) and 200 fsw (60 msw), but who do not wish to breathe air below 132 fsw (40 msw).
  - *NOTE: The knowledge and skills taught in this program are designed to qualify divers to perform Normoxic Trimix Dives up to 200 fsw (60 msw) or Normoxic Trimix Plus dives up to 233 fsw (70 msw).*

### B. Prerequisites

1. Certifications requirements:
  - a. IANTD Advanced EANx Diver or higher or equivalent
    - *NOTE: Divers qualified as Technical Diver, see note below under Program Content section.*
2. Age requirement:
  - a. Must be a minimum 18 years of age.
3. Dive experience:
  - a. Must provide proof of a minimum of 100 logged dives, of which at least 30 were deeper than 90 fsw (27 msw).

### C. Program Content

1. Academics
  - a. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
    - IANTD recommends the use of both, Course Specific Presentation and workbook.
  - b. Complete a written exam specific to Normoxic Trimix Diving written exam with a minimum score of 80%.
2. Confined Water Session(s)
3. Open Water Dive Sessions

### D. Equipment & Text Requirements

1. IANTD Normoxic Trimix Diver Student Kit
2. Configuration:
  - a. Sidemount Configuration, OR
  - b. Double cylinders with dual outlet manifold
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Technical Diver Programs overview.*

### E. Program Limits

1. Student to Instructor Ratio (Open Water Dives):
  - a. There may be no more than four (4) students per Instructor.
    - *NOTE: If the course is conducted in conjunction with a Cave or Wreck Programs, the limits for those Programs will prevail*
    - *NOTE: A Normoxic Trimix Supervisor or higher may supervise Normoxic Trimix Divers.*

2. The Program must include:
  - a. A minimum of 300 minutes of run time in open water diving.
  - b. Four (4) Dives using Air, EANx or Trimix
    - I. A maximum of two (2) Decompression cylinders may be carried during this course.
      - ▶ *NOTE: One (1) decompression cylinder is minimally required.*
      - ▶ ***NOTE: At the Instructor discretion, Normoxic Trimix Diver candidate who is already certified as Technical Essentials Diver the open water dive requirements can be reduced to:***
        - ▶ ***A minimum of three (3) Open Water Dives and 250 minutes.***
        - ▶ ***All three of the dives must be deeper than 132 fsw (40 msw) and at least one (1) dive must be between 180 fsw (54 msw) to 200 fsw (60msw).***
    - II. Oxygen partial pressure may not exceed 1.4 during the working portion of the dives,
    - III. Oxygen partial pressure may not exceed 1.60 ATA during the decompression portions of the dives.
    - IV. Normoxic Trimix dives must be conducted using a mixture containing at least 20% oxygen ( $\pm 1\%$ )
3. All dives must follow or use as backups to a dive computer the IANTD Tables.
  - ▶ *NOTE: Dive computers with gas switching capability are recommended.*
  - ▶ *NOTE: Dives may be made on custom software generated tables provided it is commercially available software and the IANTD dive tables are used as primary or backup to the software used.*
4. Three (3) dives must be deeper must be deeper than 132 fsw (40 msw) and at least one (1) dive must be between 180 fsw (54 msw) to 200 fsw (60msw).
5. For Normoxic Trimix Diver Program, no dives may be conducted to depths greater than 200 fsw (60 msw).
6. Equivalent Narcosis Depth (END) may not exceed 130 fsw (39 msw).
7. Surface oxygen must be available for use in the event of Decompression Illness (DCI).
8. All dives must be performed as a single dive team.
9. All appropriate safety or required decompression stops must be performed.

## F. Extra Limits For Normoxic Trimix Plus

1. For Normoxic Trimix Plus Diver Program, no dives may be conducted to depths greater than 233 fsw (70 msw)
2. Oxygen partial pressure may not exceed:
  - a. On dives with a maximum depth of 200 fsw / 60 msw the PO<sub>2</sub> must be no higher than 1.4 during the working portion of the dives;
  - b. On dives below 200 fsw / 60 msw the PO<sub>2</sub> must be no higher than 1.44 during the working portion of the dives;
3. For dives with a maximum depth of:
  - a. 200 fsw / 60 msw the minimum FO<sub>2</sub> must be no less than 19%
  - b. 233 fsw / 70 msw the minimum FO<sub>2</sub> must be no less than 18%
4. Decompression gases:
  - a. The use of 2 DECO gases are mandatory for all dives
  - b. During the class student must demonstrate proficiency in using 2 DECO gases
5. At least 1 dive must be between 210 fsw (63 msw) and 233 fsw (70 msw).
6. At least 1 extra dive with minimum of 55 minutes run time dive must be performed for Normoxic Plus certification.
7. Normoxic Trimix to Normoxic Trimix Plus crossover:
  - a. One (1) Confined Water Session
  - b. Two (2) Open Water Dives and 110 minutes of run time.

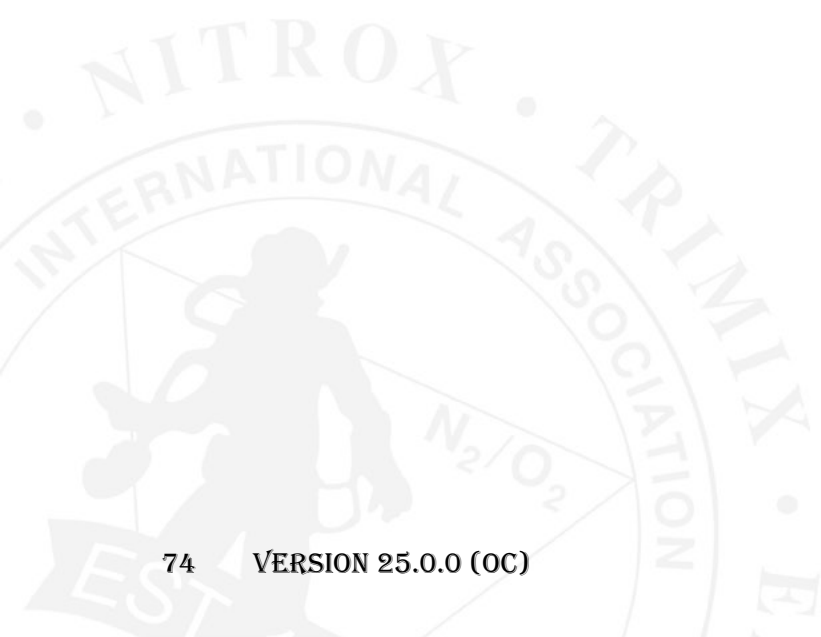
## G. Water Skills Development

1. Become proficient in the following propulsion techniques:
    - a. Modified flutter
    - b. Modified frog
    - c. Modified dolphin
    - d. Standard shuffle kicks.
  2. Deploy DSMB or Lift Bag in less than 1½ minutes, and repeat at least three (3) times during the Program for a total of 4 deployments.
  3. Swim a distance of at least 75 feet (23 meters) without wearing a mask.
  4. Have diver remove and replace a stage cylinder at rest and while swimming.
  5. Simulated out of gas situation:
    - a. Two (2) divers, in full equipment, swimming side by side for a distance of 60 feet (18 meters) without mask, without breathing and exhaling slowly;
    - b. Stop and begin breathing with one (1) diver handing off the second stage hose to the other diver.
  6. Confined Water Drill
    - a. Divers using a quick release on their harness or backpack:
      - I. Swim the system while the instructor disconnects the quick release to simulate a failure.
        - ▶ *NOTE: The student is to swim the system demonstrating control of buoyancy and body positioning with the quick disconnected for sufficient duration to satisfy the instructor that the student is capable of managing.*
    - b. Demonstrate an ability to respond to a single bladder BCD failure by the two (2) methods listed below:
      - ▶ **NOTE: If at any time the student starts to overexert, or if it is obvious that the skill cannot be accomplished, the instructor is to ensure that the BCD is inflated.**
      - I. Deflate BCD and swim while maintaining buoyancy control duration at instructor discretion.
        - ▶ *NOTE: This skill must be done in a maximum of 2 minutes*
      - II. Deflate BCD, ascend to the surface, and remain afloat duration at instructor discretion.
        - ▶ *NOTE: This skill must be done in a maximum of 2 minutes*
    - c. Lose of Buoyancy:
      - I. Have a student lose buoyancy by deflation of the BCD and then attempt to utilize a DSMB or Lift Bag or other secondary buoyant device as a BCD.
        - ▶ *NOTE: DSMB or Lift Bag should have some way to dump air to avoid an uncontrolled ascent*
        - ▶ *NOTE: This skill is to demonstrate how effective these devices are and to reinforce that even if not suitable for a redundant BCD they still provide an option for self-rescue in an emergency situation.*
7. Simulated out of gas situation:
  - a. Have two (2) divers, approximately 60 feet (18 meters) apart;
  - b. While simulating an out of gas situation without breathing, exhaling slowly using a blacked-out masks or with eyes closed
  - c. Locate each other (using side of pool, rail on wreck, guide line, etc. for orientation) and begin gas sharing via long hose;
  - d. After taking three (3) breaths at rest, continue swimming while sharing gas for at least three (3) minutes;
    - ▶ *NOTE: This drill may be accomplished by having one (1) student swim 30 feet (9 meters) to donor, and repeat for other diver.*
8. Simulated out of gas situation:
  - a. While two (2) divers are swimming side by side;
  - b. The Instructor signals one (1) to remain stationary while the other continues swimming for at least three (3) more kicks;
  - c. The stationary diver then simulates an out of gas situation by swimming (without breathing, and exhaling slowly) to the other diver and commences gas sharing for at least two (2) minutes;

► *NOTE: The instructor may substitute this skill by starting the drill at some time when the students are apart from each other by a comparable distance as would be achieved by three (3) kicks.*

9. Stage Remove and Recover:
  - a. Following a means of reference (pool wall, guide line, ship railing, etc.) with eyes closed
  - b. Remove stage cylinder and swim a distance of at least 15 feet (4.5 meters).
  - c. Reverse direction, return to stage cylinder and replace it on correct side.
10. Prior to dives, students must use IANTD Gas Management Charts to match gas turn points.
11. Open and close cylinder valves at least once on all dives.
12. At least once on each dive, Instructor is to signal to student(s) that one (1) of their regulators is malfunctioning and the student is to take the corrective action.
13. Perform gas sharing in one form or another on at least three (3) of the dives.

► *NOTE: It is recommended that the Instructor do this at times when it surprises at least one (1) of the divers, and at a point when there is a reasonable distance between the divers.*
14. Determine RMV and demonstrate ability to calculate and perform gas matching.



## Trimix Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Trimix Instructor or higher may teach this course.
- Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### 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 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.
  - *NOTE: The knowledge and skills taught in this program are more than adequate to qualify divers to perform Trimix Dives outside of training up to 333 fsw (100 msw).*

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in IANTD Technical Diver or Technical Cave Diver or Technical Wreck Diver or Normoxic Trimix Diver or Normoxic Trimix Plus Diver or equivalent
2. Age requirement:
  - a. Must be minimum 18 years of age.
3. Dive experience:
  - a. Must provide proof of a minimum of 200 logged dives, of which at least 25 were to depths between 140 fsw (42 msw) and 200 fsw (60 msw).

### C. Program Content

1. Academic Session
  - a. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
    - IANTD recommends the use of both, Course Specific Presentation and workbook
2. Confined Water Session
  - a. *Perform a confined water session(s) or in lieu of confined water the instructor may opt to do a skills development dive to a depth no greater than 90 fsw (27 msw) provided required decompressions stops are not required.*

### D. Equipment & Text Requirements

1. IANTD Trimix Diver Student Kit
2. IANTD Exploration and Mixed Gas Diving Encyclopedia - The Tao of Survival Underwater.
3. Cylinders:
  - a. Sidemount Configuration, OR
  - b. Double cylinders with dual outlet manifold.
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Technical Diver Programs overview.*

## E. Program Limits

1. Student to Instructor Ratio (Open Water Dives):
  - a. There may be no more than four (4) students per Instructor.
    - *NOTE: No more than 3 students per Instructor on dives conducted to depths greater than 240 fsw (72 msw)*
    - *NOTE: The ratio for deeper dives may be increased to 4 students with an assisting IANTD Normoxic Instructor who is also a qualified IANTD Trimix Diver or a Trimix Supervisor.*
      - *NOTE: If the course is conducted in conjunction with a Cave or Wreck Programs, the limits for those Programs will prevail.*
2. The Program must include:
  - a. A minimum of 330 minutes of bottom in open water diving
  - b. Four (4) Dives:
    - I. These dives may be on air, EANx, Trimix or Heliox provided the depths are acceptable for the gas used.
    - II. A minimum of two stages must be used on all four (4) dives
    - III. A minimum of two gas switches must be practiced during ascent during all four (4) dives.
      - *NOTE: No dives can be made with a PO<sub>2</sub> greater than 1.6 for decompression and 1.4 for bottom mix.*
3. All dives other than the skill development dive, if used rather than confined water, must be conducted to depths between 132 fsw (40 msw) and 333 fsw (100 msw).
4. All depths must be worked up to incrementally with no increase greater than 40 fsw (12 msw) from one dive to the next.
5. One dive must be to at least 240 fsw (72 msw) or deeper.
6. Divers may not do dives on air deeper than 132 fsw (40 msw)
7. All dives must follow or use as backups to a dive computer the IANTD Tables.
  - *NOTE: Dive computers with gas switching capability are recommended.*
  - *NOTE: Dives may be made on custom software generated tables provided it is an industry wide accepted and the IANTD dive tables are used as primary or backup.*
8. Equivalent Narcosis Depth (END) may not exceed 130 fsw (39 msw).
9. Surface oxygen must be available for use in the event of Decompression Illness (DCI).
10. All dives must be performed as a single dive team.
11. All appropriate safety or required decompression stops must be performed.
12. Adequate decompression gases and stages must be carried to complete decompression.
13. All dives must be completed within the IANTD Oxygen CNS% Limits.
14. No dive made be made deeper than 333 fsw (100 msw).

## F. Water Skills Development

1. **Confined Water Skill:**
  - a. **Optional:** Remove and replace equipment, and stage[s], on the surface during confined water training.
  - b. **Optional:** Remove and replace equipment, and stage[s], on the bottom no deeper than 20 fsw (6 msw) during confined water training.
2. Simulated out of gas situation:
  - a. Have two (2) divers, approximately 60 feet (18 meters) apart;
  - b. While simulating an out of gas situation without breathing and exhaling slowly
  - c. Locate each other and begin gas sharing via long hose;
  - d. 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.
  - ▶ *NOTE: The entire drill must be completed in less than 1 minute.*
  - ▶ *NOTE: This drill should be completed at least once each dive, with a buddy acting as a safety diver, then switch roles.*
  - ▶ *NOTE: Upon completion of skill, verify both primary cylinders are turned back on.*
4. While swimming, demonstrate efficient switch to stage cylinder regulators.
5. Remove and replace stage cylinders both at rest.
6. Remove and Recovery of stage cylinders while swimming:
  - a. Follow a means of reference (pool wall, guide line, ship railing, etc.) with eyes closed
  - b. Remove stage cylinders
  - c. Swim a distance of at least 15 feet (4.6 meters) reverse direction
  - d. Return to stage cylinders and replace them on correct sides, identifying each cylinder by feel.
7. Deploy and use a DSMB or Lift Bag or up line at least once in Open Water.
8. Simulate the rescue of a diver.
  - a. Tow the diver on the surface for a distance of at least 40 feet (12 meters) while simulating mouth to mouth resuscitation.
  - b. Go through EMS procedures:
    - ▶ *NOTE: Equipment removal is optional.*
  - c. Repeat until proficient.

## Expedition Trimix Diver

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ Expedition Trimix Instructor or higher may teach this course.
- ▶ Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This program is designed to train OC Divers already involved in deep diving activities to more safely conduct exploration dives requiring extended decompression profiles and helium based gas mixture.
  - ▶ *This program is not intended to be used as an enticement to divers who are content to remain in normal Trimix diving limits.*
  - ▶ *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.*
  - ▶ *NOTE: The knowledge and skills taught in this program are more than adequate to qualify divers to perform Trimix Dives outside of training up to 400 fsw (120 msw).*

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in:
    - I. IANTD Trimix Diver or equivalent
2. Age requirement:
  - a. Must be minimum 21 years of age.
3. Dive experience:
  - a. Must provide proof of at least 300 dives of which 100 were Trimix dives.

### C. Program Content

1. Academic Session
  - a. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
    - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
  - b. Complete a written exam specific to Expedition Trimix with a minimum score of 80%.
2. Confined Water Session
  - ▶ *NOTE: This program must include a confined water (CW) session or lieu of CW a skill development dive to depths no greater than 100 fsw (30 msw) prior to open water deeper course dives.*

### D. Equipment & Text Requirements

1. IANTD Expedition Trimix Diver Student Kit
2. IANTD Exploration and Mixed Gas Diving Encyclopedia - The Tao of Survival Underwater.
3. Configuration:
  - a. Sidemount Configuration, OR
  - b. Double cylinders with dual outlet manifold.
  - ▶ *NOTE: Fulfill all Equipment Requirements as specified in the general Technical Diver Programs overview.*

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than 2 students per Instructor on any dives.
2. All dives, other than skill development dives or confined water must be conducted to depths between 200 fsw (60 msw) and 400 fsw (120 msw).
3. In lieu of confined water dive, a skill development dive to depths no greater than 100 fsw (30 msw) prior to open water deeper course dives.
4. The Program must include:
  - a. A minimum of 350 minutes of run time in open water diving
  - b. Four (4) Dives:
    - I. At least one (1) dive working on new skills must be made at depths between 200 to 250 fsw (60 msw to 75 msw)
    - II. A minimum of three (3) dives must be completed between 300 fsw (90 msw) and 400 fsw (120 msw)
    - III. One dive must be to at 400 fsw (120 msw).
    - IV. Bottom mix cannot exceed a PO<sub>2</sub> of 1.4 ATA and deco of 1.6 ATA.
5. All dives must be completed within the IANTD oxygen CNS% limits.
6. All appropriate safety or required decompression stops must be performed.
7. Adequate gas or stages must be carried to compete decompression.

## F. Water Skills Development

1. A confined water session must be completed before conducting dives below 132 fsw (40 msw).
2. Practice use of 3 or more stage cylinders.
3. Swim 75 feet (25 meters) without breathing, while exhaling slowly, and then perform gas sharing procedure.
4. Practice switching diver to diver, and handling of, stage cylinders.
5. Remove and replace stage cylinders both at rest and while swimming.
6. Deploy and use a DSMB or Lift Bag while hovering in mid-water at least once in Open Water.
7. While swimming, demonstrate efficient switch between multiple stage cylinder regulators.

## Elite Technical Diver

### A. Purpose

1. This certification has been designed to provide cave divers with the highest recognition in the Technical Diver level before entering the professional diving circle in teaching.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in:
    - I. IANTD Technical Diver or higher or equivalent.
  - b. Must have 3 of the 4 following certifications:
    - I. IANTD Decompression Specialist
    - II. IANTD Tek Essentials Diver
    - III. IANTD Tek OW Sidemount Diver
    - IV. IANTD Tek OW DPV Diver
2. Age requirement:
  - a. Must be a minimum of 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 75 non-training logged Technical dives

### C. Program Content

1. N/A

### D. Equipment Requirements

1. N/A

### E. Program Limits

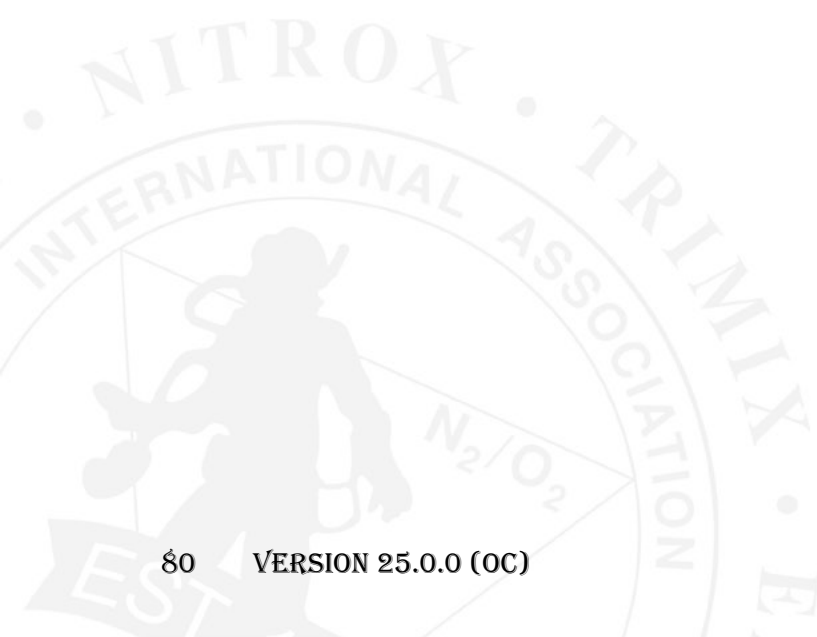
1. N/A

### F. Water Skills Development

1. There is no water skills required.

### G. Application Procedure

1. Fill & submit the Elite Technical Diver Application Form to an IANTD Instructor, HQ or local licensee.



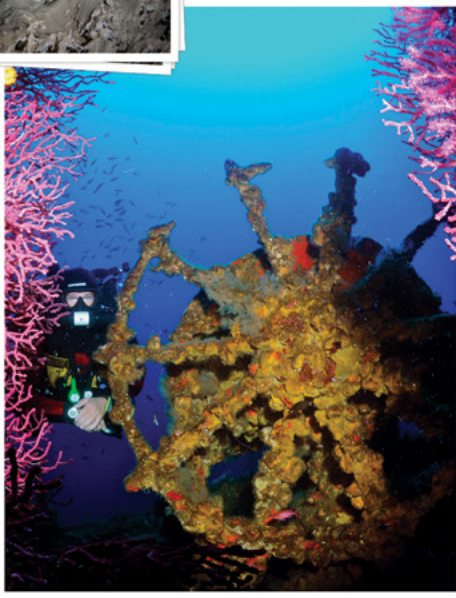


# IANTD OVERHEAD ENVIRONMENT PROGRAMS

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*The leader in diver education*



## Cavern Diver or Limited Mine

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ For Cavern: Cavern Instructor or higher level of certification may teach this course.
- ▶ For Limited Mine: Limited Mine Instructor or higher level of certification may teach this course.
- ▶ **Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration.**

### A. Purpose

1. This Program is designed to develop Cavern/Limited Mine diving skills within the limits of light penetration and to insure that divers are aware of self-responsibility and capable of risk management in overhead environments.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in IANTD Advanced Open Water Diver or equivalent.
2. Age requirement:
  - a. A minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. A minimum of 18 years of age without guardian approval.
    - ▶ *Jr. Cavern Diver - Students between 12 years of age and 14 years of age who meet the Cavern Diver performance requirements may qualify for a Jr. Cavern Diver certification that allows them to dive under the supervision of an adult who has a minimum of a Cavern Diver certification level or higher.*
    - ▶ *Jr. Limited Mine Diver - Students between 12 years of age and 14 years of age who meet the Limited Mine Diver performance requirements may qualify for a Jr. Limited Mine Diver certification that allows them to dive under the supervision of an adult who has a minimum of a Limited Mine Diver certification level or higher.*
3. Dive experience:
  - a. Proof of a minimum of 10 logged dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. This program must include:
  - a. Academic Classes.
  - b. Land Drills:
    - I. Use of guide lines
    - II. Practice running the line and making tie wraps
    - III. Following guide lines with and without vision.
    - IV. Simulation of silt-outs.
  - c. Confined water session(s).
  - d. Open Water Dives.
4. Students must pass the specific IANTD Specific test with a minimum score of 80%.



## D. Equipment & Text Requirements

1. IANTD Cavern Diver Student Kit (TBA)
  - a. If this program is combined with other IANTD programs:
    - I. IANTD Diver Student Manual and Student Kit or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IANTD World Headquarters) must be also acquired.
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Sport Diver Programs overview.*
2. A 39 inch hose or longer to a maximum of 7 feet hose is to be attached to one (1) of the second stages on the primary gas supply.
3. Primary reel and/or safety reel.
4. Two lights:
  - a. One (1) Primary
  - b. One (1) Backup

## E. Program Limits

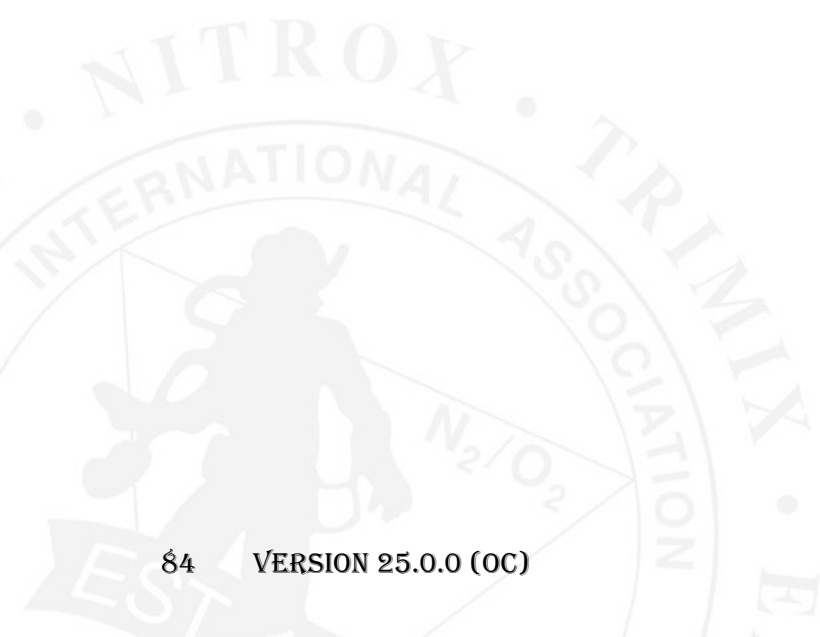
- *NOTE: If combined with the IANTD EANx Diver Program, or if the student is already qualified as an IANTD EANx Diver, the student may use a mixture of EANx in the range of 21% through 40% oxygen.*
1. Student to Instructor Ratio:
    - a. There may be no more than 4 students per Instructor.
  2. The Program must include:
    - a. A minimum of 100 minutes of OW bottom time.
      - I. ALL dives must be completed in the overhead environment
    - b. A minimum of four (4) SCUBA dives
      - *NOTE: Even if the time requirements are exceeded, a minimum of four (4) SCUBA dives must be made.*
      - *NOTE: The bottom time on each dive shall not be less than 20 minutes.*
      - ***NOTE: At the Instructor discretion, Cavern and Limited Mine, Diver candidate who is already certified as Essentials Diver the open water dive requirements can be reduced to:***
        - ***A minimum of two (2) Overhead Dives and 90 minutes.***
  3. Unobstructed exit / surface light must always be visible.
  4. No dives may be conducted to depths greater than diver's previous certification level.
  5. The Rule of Thirds must be applied from the point of entering the overhead environment until safe exit from the overhead environment portion of the dive.
  6. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. Become proficient in the following propulsion techniques:
  - a. Modified flutter
  - b. Modified frog,
  - c. Modified dolphin
  - d. Standard shuffle kick.
2. Demonstrate buoyancy control by combining with following skills.
  - a. A timed ascent at a rate of 20 ft. (6 m) per minute.
  - b. Hover at constant depth for 3 minutes.
3. *NOTE: Practice of SCUBA diving equipment configuration including redundancy and streamlining.*
4. *NOTE: Proper cylinders labeling with IANTD sticker*
5. Swim a distance of 75 feet (23 meters) without a mask.

6. Swim in a simulated out of air situation:
  - a. Without breathing and exhaling slowly swim a distance of at least 40 feet (12 meters), and commence gas sharing;
  - b. While gas sharing, continue to swim for a distance of at least 2 minutes while maintaining a swim rate of approximately 60 feet (18 meters) per minute.
7. Determine SAC rate and RMV.
8. Perform valve shutdowns:
  - a. Change regulators and shut the primary regulator valve off, then reopen valve and repeat as if the secondary (backup) regulator had malfunctioned.

► *Note: Repeat until skill (both valve openings shutdowns) is completed in less than two (2) minutes.*
9. Close and open cylinder valves on all dives.
10. Remove and replace cylinder and BCD at surface on at least one (1) dive.
11. Practice use of reel and line.
12. In the overhead environment practice:
  - a. Running the line
  - b. Making tie wraps.
13. With eyes closed, follow a guideline in the overhead environment.
14. Share breathing gas while following the guideline, both with eyes open and with eyes closed.
15. Perform an "S" drill prior to commencement of all dives.



## Introductory Cave or Mine Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Introductory to Cave Diver Instructor or higher level of certification may teach this course.
- Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration.

### A. Purpose

1. This Program is designed to provide an introduction to the cave diving environment for Sport Divers.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in IANTD Wreck Diver or IANTD Cavern Diver or IANTD Limited Mine Diver or equivalent
2. Age requirement:
  - a. Must be a minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. Must be a minimum or 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 30 logged dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. This program must include:
  - a. Academic Classes.
  - b. Land Drills:
    - I. Use of guide lines
    - II. Practice running the line and making tie wraps
    - III. Following guide lines with and without vision.
    - IV. Perform lost line procedure
    - V. Perform lost diver procedure.
  - c. Confined water session(s).
  - d. Open Water Dives.
4. Students must pass the specific IANTD Specific test with a minimum score of 80%.

### D. Equipment & Text Requirements

1. IANTD Cave Diver Student Kit
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Sport Diver Programs overview.*
2. Cylinder:
  - a. Single Cylinder, OR
    - I. All single bottom mix cylinders must be equipped with H or Y valves.
  - b. Sidemount Configuration, OR
  - c. Double cylinders with dual outlet manifold.
  - *NOTE: The use of DIN systems are mandatory.*
3. All students must be taught the concept of gas matching.

4. A 5 foot (1.5 meter) to 7 foot (2 meter) long hose must be attached to one (1) of the second stages on the primary gas supply
5. Reels:
  - a. One (1) primary reel
  - b. One (1) safety reel.
6. Lights:
  - a. One (1) primary light
  - b. Two (2) secondary lights
7. Cave Markers:
  - a. Three (3) line arrows
  - b. Three (3) Non directional markers
8. Dive slate or note pad.
9. Cutting tool is required
  - *NOTE: A backup cutting tool is recommended*

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than three (3) students per Instructor inside the cave with starting visibility of 30 feet (9 meters) OR
  - b. There may be no more than two (2) students per Instructor inside the cave with starting visibility of 20 feet (6 meters).
2. The Program must include:
  - a. A minimum of 100 minutes of cave/mine dive bottom time.
    - *NOTE: There may be no crediting of previous dive time for this Program.*
    - *NOTE: The bottom time on each dive shall not be less than 20 minutes.*
  - b. A minimum of four (4) SCUBA dives, if previously quailed as a Cavern Diver/Limited Mine Diver.
    - *NOTE: Even if the time requirements are exceeded, a minimum of four (4) SCUBA dives must be made.*
    - ***NOTE: At the Instructor discretion, Introductory Cave Diver candidate who is already certified as Essentials Diver and Cavern Diver the dive requirements can be reduced to:***
      - ***A minimum of three (3) Overhead Dives and 80 minutes.***
  - c. A minimum of six (6) SCUBA dives, if doing the Introductory Cave Diver/Introductory Mine Diver as entry level overhead diving program
    - *NOTE: Even if the time requirements are exceeded, a minimum of six (6) SCUBA dives must be made.*
    - ***NOTE: At the Instructor discretion, Introductory Cave Diver candidate who is already certified as Essentials Diver but NOT as Cavern Diver the dive requirements can be reduced to:***
      - ***A minimum of five (5) Overhead Dives and 80 minutes.***
3. No dives may be conducted to depths greater than 132 fsw (40 msw).
4. Gas management rules:
  - *Each diver must have at least 60 cubic feet (1700 free liters) of breathing gas.*
    - a. Single Cylinder - Rule of Thirds
    - b. Double Cylinder or Sidemount Cylinders - Rule of 1/6th.
5. All appropriate safety or required decompression stops must be performed.
6. No jumps from one (1) line to another may be made in this program.
7. Equipment limits:
  - a. The Introductory Cave Diver/Introductory Mine Diver who is trained in a single cylinder is ONLY qualified to use a single cylinder.
  - b. The Introductory Cave Diver/Introductory Mine Diver trained in doubles may be ONLY qualified to use doubles.
  - c. The Introductory Cave Diver/Introductory Mine Diver trained in Sidemount Configuration may be qualified ONLY to use Sidemount Configuration.

## F. Water Skills Development

1. Perform an "S" drill prior to commencement of all dives.
2. Prior to dives, students must use match gas turn points based on RMV.
3. Simulated out of air situation:
  - *NOTE: Both divers must maintain contact with the line*
  - a. Have two (2) divers, starting at a distance of 40 feet (12 meters) apart.
  - b. Swim in a simulated out of air situation, without breathing and exhaling slowly, towards each other with eyes closed, following a guide line, and begin gas sharing.
  - c. After resting for three (3) breaths, divers should swim following the guideline to its source, while continuing to share breathing gas.
4. Confined water skill - Follow the guideline with mask blacked out or eyes closed for at least 40 feet (12 meters)
5. Confined water skill - Follow the guideline with mask off for at least 40 feet (12 meters)
6. Simulate a primary light failure on exiting the cave/mine.
7. Share gas along line for a reasonable distance while on a cave dive/mine dive.
8. Simulate gas failure with valve shutdowns for both primary and secondary regulators.
  - *The entire drill must be completed in less than 1 minute.*
9. Practice regulator shutdowns while swimming without a noticeable change in swim pace.
10. Practice use of reels and lines.
11. Emergencie Exit Drill:
  - a. On a cave/mine dive, with eyes closed or lights off simulate blacked out cave conditions maintaining contact with buddy and dive line using Touch Contact for a reasonable distance.
  - *NOTE: Repeat this drill but use Bump and Go technique instead of Touch Contact.*
12. Emergencie Exit Drill:
  - a. On a cave/mine dive, share gas and maintain contact, for a reasonable distance, with line while keeping eyes closed or lights off.
13. Demonstrate proficiency in propulsion techniques taught in the Overhead Environment Program.
14. Share gas with first diver leading by three (3) body lengths.
15. The second diver, while simulating an out of air situation, gets lead diver's attention and begins to share gas for a reasonable distance.
  - *NOTE: During at least one (1) cave dive/mine dive, the student is to do an out of air drill at a random selection time and without the buddy being aware of whether it is a real or practice session.*

## Tek Lite Cave or Tek Lite Mine Diver

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ Tek Lite Cave Diver Instructor or higher may teach this course.
- ▶ Tek Lite Mine Diver Instructor or higher may teach this course.
- ▶ Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to train Advanced EANx Divers or higher to use their knowledge to safely cave or mine dive while navigating the main tunnel.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as IANTD Cavern Diver/IANTD Limited Mine Diver or equivalent.
    - ▶ *NOTE: The Cavern/Limited Mine Diver program can be done in conjunction with the Tek Lite Cave/Tek Lite Mine Diver program.*
  - b. Must be qualified as IANTD Advanced EANx or Higher
    - ▶ *NOTE: The Advanced EANx Diver program can NOT be done in conjunction with the Tek Lite Cave Diver/Tek Lite Mine Diver Program.*
2. Age Requirement:
  - a. Must be a minimum of 18 years of age without guardian approval.
    - ▶ *NOTE: A written waiver can be requested, to IANTD HQ and Licensee, for a 16 years of age for Diver qualification with a parent or guardian authorization.*
    - ▶ *NOTE: Once certified the 16 years old diver must dive with parent or legal guardian.*
3. Dive Experience:
  - a. Must proof of a minimum of 35 logged dives, after certified as IANTD Advanced EANx Diver, where 20 were decompression dives with double cylinders or Sidemount cylinders.
4. *NOTE: Decompression gases and dive gases maybe used up to the divers qualification level.*

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
2. IANTD Cave Diver Student Kit, for Cave Diver Level OR IANTD Tek Lite Cave Diver Student Kit, for Tek Lite Cave Diver Level
3. All the water skills must be practiced until the student is proficient in each skill.
  - ▶ *NOTE: OC, SCR and PSCR Divers already qualified as an IANTD ADVANCED EANX DIVER OR HIGHER need only complete the cave or mine portion of the Program to be qualified as Tek Lite Cave Diver/Tek Lite Mine Diver.*
4. Land drills:
  - a. Use of lines / line arrows.
  - b. Blacked out drills.
  - c. Lost diver drills / broken lines / line gaps.
  - d. Equipment & Text Requirements
    - ▶ *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs.*
5. All students must be taught the concept of gas matching



6. Two (2) Primary regulators.
  - ▶ *NOTE: One second-stage hose must be at least five (5) feet (1.5 meters) in length; longer hoses are recommended.*
  - ▶ *NOTE: The use of DIN systems are mandatory*
7. General Equipment list:
  - a. One (1) decompression stage cylinder appropriately labeled.
  - b. Each gas source must have its own dedicated submersible pressure gauge.
  - c. Reels:
    - I. One (1) primary reel
    - II. One (1) safety reel
  - d. Lights:
    - I. One (1) primary light
    - II. Two (2) secondary lights
  - e. Guideline Markers:
    - I. Three (3) line arrows
    - II. Three (3) Non directional markers
8. Dive slate or note pad.
9. A cutting tool is required.
  - ▶ *NOTE: A backup cutting tool is recommended.*

## D. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than three (3) students per Instructor inside the cave/mine OR
  - b. There may be no more than two (2) students per Instructor on cave or mine dives conducted to depths greater than 132 fsw (40 msw).
2. The Program must include:
  - a. Modular Route - If already already qualified as Introductory Cave Diver/Introductory Mine Diver:
    - I. A minimum of 300 minutes of cave/mine dive bottom time.
    - II. Six (6) cave or mine dives
      - ▶ *NOTE: Even if the time and skill requirements are met within fewer than six (6) dives, the minimum six (6) dives must be made.*
      - ▶ ***NOTE: At the Instructor discretion, Tek Lite Cave Diver or Tek Lite Mine Diver candidate who is already certified as Tek Lite Essentials Diver and Introductory Cave Diver or Introductory Mine Diver the dive requirements can be reduced to:***
        - ▶ ***A minimum of four (4) Overhead Dives and 250 minutes.***
  - b. OPTION 2 - If NOT already qualified as Introductory Cave Diver/Introductory Mine Diver:
    - I. A minimum of 400 minutes of cave or mine dive bottom time.
    - II. Eight (8) cave/mine dives.
      - ▶ *NOTE: Even if the time and skill requirements are met within fewer than eight (8) dives, the minimum eight (8) dives must be made.*
      - ▶ ***NOTE: At the Instructor discretion, Tek Lite Cave Diver or Tek Lite Mine Diver candidate who is already certified as Tek Lite Essentials Diver but NOT as Introductory Cave Diver or Introductory Mine Diver the dive requirements can be reduced to:***
        - ▶ ***A minimum of six (6) Overhead Dives and 350 minutes.***

3. In most cases, no dives may be conducted to depths greater than 132 fsw (40 msw).
  - ▶ *NOTE: When conditions warrant it, (such as areas without access to caves/mines suitable for training at depths of 132 fsw (40 msw) or more shallow) Tek Lite Cave Diver/Tek Lite Mine Diver Programs may be conducted to a maximum depth of 132 fsw (40 msw) provided the students are qualified as Advanced EANx Diver or 150 fsw (45 msw), provided the students are qualified as Advanced Recreational Trimix Diver or 170 fsw (51 msw) provided the students are qualified as Advanced Recreational Trimix Plus Diver.*
4. Gas management rules:
  - a. Double Cylinder or Sidemount Cylinders - Rule of Thirds
  - b. Oxygen partial pressure may not exceed 1.4 ATA during the working portion of the dives
  - c. Oxygen partial pressure may not exceed 1.5 ATA during the decompression portion of the dives.
5. Decompression Gas mixtures:
  - a. Tek Lite Cave Divers/Tek Lite Mine Divers may breathe any EAN mixture from a minimum of 50% oxygen to a maximum of 100% oxygen during decompression and can be used to accelerate decompression schedules accordingly.
    - ▶ *NOTE: The breathing PO<sub>2</sub> must not be greater than 1.5 ata.*
6. The Decompression Mix cylinder:
  - a. 1 (one) decompression cylinder must be used in at least four (4) dives.
    - ▶ *NOTE: Even if the diver has a higher qualification level, the limit of one (1) decompression cylinder must be respected*
  - b. Must be dropped on at least four (4) dives at the depths where the PO<sub>2</sub> is not greater than 1.5 ata on all dives.
  - c. Must not be used to extend the penetration
7. A minimum of four (4) dives must have either a real or a simulate decompression stop for:
  - a. A minimum of 10 minutes decompression stop.
8. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
9. All appropriate safety or required decompression stops must be performed.
10. Tek Lite Cave Diver/Tek Lite Mine Divers navigation must remain ONLY within the main line/cave main conduct
11. No complex navigations can be made, that includes:
  - a. Jumps, Gaps, Circuits or Traverses

## E. Water Skills Development

1. Swim with equipment to be used in Program until comfortable with it.
2. Perform a pre-dive "S" (safety) drill prior to starting dive.
  - a. Check all equipment for proper function.
  - b. Check equipment of each dive buddy.
  - c. Ascertain each team member is familiar with use and location of dive system components.
3. Perform an in-water "S" (safety) drill.
  - a. Leak check each team member's equipment.
  - b. Breathe underwater from both / all regulators to ensure proper functioning.
  - c. Perform light checks.
  - d. Perform valve shutdowns combined with regulator switches, including shutting both regulators.
    - ▶ *NOTE: If isolator valves are used, these are also to be closed and then re-opened.*
    - ▶ *NOTE: Buddies should check that all valves are back in proper position at end of drill.*
4. On a first dive of each day, perform a gas sharing drill.
5. Communicate the gas turn around point in psig or bar.
  - ▶ *NOTE: if the divers are wearing different cylinder sizes, match gas per the SRF tables or per dissimilar cylinder volumes.*

6. Confined or Open Water:
  - a. Swim 60 feet (18 meters) while simulating an out of gas situation,
  - b. Commence gas sharing via the long hose;
  - c. Remain at rest for three (3) breaths;
  - d. Swim for 10 minutes at a normal swim rate of approximately 75 feet (23 meters) a minute (static water swim rate).
7. Confined or Open Water:
  - a. Two divers 50 feet (15 meters) apart must swim along a line circuit with eyes closed not taking a breath, while slowly exhaling until they meet.
  - b. Upon meeting gas sharing via the long hose
  - c. Complete the line circuit performing the Touch Contact technique.
8. Out of Gas Scenario:
  - NOTE: Exercise is to commence with Instructor at some point randomly selecting the out of gas diver
  - a. During a cave dive/mine dive, at a point after turning the dive, perform a gas sharing drill exiting the cave/ mine for a reasonable distance / time.
  - b. The out of gas diver must go to the buddy and share gas.
    - NOTE: The out of gas diver is to keep the regulator in his or her mouth (leaving the airway open) but not breathe from it if at all possible.
    - NOTE: This drill is to be repeated on different dives until all students have been both a donor and a recipient of gas.
9. Out of Gas Scenario:
  - a. On a cave dive or mine dive, exit cave/mine with eyes closed or lights off maintaining contact with buddy and dive line using touch communications.
  - b. At some point the Instructor will choose one (1) of the divers to simulate being out of gas.
  - c. The out of gas diver must communicate the problem to a buddy, and gas sharing is to be performed for a reasonable distance.
  - NOTE: Repeat this skill until all students have been both a donor and recipient of gas.
10. Regulator Failure Drill:(OC)
  - NOTE: On at least three (3) dives, the student must simulate a regulator failure.
  - NOTE: A buddy should act as safety diver during this drill.
  - NOTE: Buddies should check that all valves are back in proper position at end of drill.
  - a. The instructor communicates or make the student acknowledge of a failure;
  - b. While swimming, the diver perform valve shutdowns combined with regulator switches, including shutting both regulators.
11. Develop proficiency in a variety of propulsion techniques including:
  - a. Cave frog kick
  - b. Modified flutter kick
  - c. Shuffle kick
  - d. Pull and glide technique.
12. Demonstrate proficiency in use of reels and lines
13. On a cave dive, exit cave or mine with eyes closed or lights off maintaining contact with buddy and dive line using touch communications.
  - NOTE: On a later dive repeat using bump and go technique rather than touch contact.
14. Perform lost diver drills.
15. Perform lost line drills.
16. Demonstrate on all cave/mine dives the ability to drop and recover the decompression cylinder.

## Cave Diver & Technical Cave Diver

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ Technical Cave Diver Instructor or higher may teach this course.
- ▶ Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to train divers in safe cave diving
  - ▶ *NOTE: if doing Technical Cave, the technical utilization of EANx for cave exploration, and the use of EANx and oxygen for decompression will be applied.*

### B. Prerequisites

1. Cave Diver, Modular Route:
  - I. Must be qualified as IANTD Introductory Cave Diver or equivalent.
  - II. Must proof of a minimum of 50 logged dives.
2. Cave Diver, without being qualified as Introductory Cave Diver:
  - I. Must be qualified as IANTD Open Water Diver or equivalent
  - II. Must have proof of 100 dives.
3. Technical Cave Diver
  - I. Must be qualified as IANTD Introductory Cave Diver or equivalent.
  - II. Must be qualified as an Advanced EANx Diver or higher or equivalent experience.
4. Age Requirement:
  - a. Must be minimum 18 years of age.
    - ▶ *NOTE: A written waiver can be requested, to IANTD HQ and Licensee, for a 16 years of age for Diver qualification with a parent or guardian authorization.*
    - ▶ **NOTE: Once certified the 16 years old diver must dive with parent or legal guardian.**
    - ▶ *NOTE: Decompression gases and dive gases maybe used up to the diver's qualification level.*

### C. Program Content

- ▶ *NOTE: Divers already qualified as an IANTD Technical Diver need only complete the cave portion of the Program to be qualified as Technical Cave Diver.*
  - ▶ *Divers taking an Air Cave Program do not need EANx training.*
  - ▶ *All students must be taught the concept of gas matching.*
1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
    - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
  2. Land drills:
    - a. Use of lines / line arrows.
    - b. Blacked out drills.
    - c. Lost diver drills / broken lines / line gaps.

## D. Equipment & Text Requirements

1. IANTD Cave Diver Student Kit, for Cave Diver Level OR IANTD Technical Cave Diver Student Kit, for Technical Cave Diver Level.
2. Equipments:
  - a. Cylinders:
    - I. Sidemount Configuration, OR
    - II. All bottom mix cylinders must be equipped with dual-outlet manifold valves.
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
  - b. All students must be taught the concept of gas matching
3. Two (2) Primary regulators must provide ample gas flow.
  - *NOTE: One second-stage hose must be at least five (5) feet (1.5 meters) in length; longer hoses are recommended.*
4. General Equipment list:
  - a. A stage decompression cylinder containing oxygen or an EAN mixture with at least 50% oxygen, and appropriately labeled. (Technical Cave Diver Program only.)
  - b. Each gas source must have its own dedicated submersible pressure gauge.
  - c. Reels:
    - I. One primary reel
    - II. One (1) safety reel
    - III. At least one (1) gap reel or spool.
  - d. Lights:
    - I. One (1) primary light
    - II. Two (2) secondary lights
  - e. Cave Markers:
    - I. Three (3) line arrows
    - II. Three (3) Non directional markers
  - f. Dive slate or note pad.
  - g. A cutting tool is required
    - *NOTE: A backup cutting tool is recommended.*

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than three (3) students per Instructor inside the cave OR
  - b. There may be no more than two (2) students per Instructor on cave dives conducted to depths greater than 132 fsw (40 msw).
2. The Program must include:
  - a. Cave Diver, Modular Route:
    - I. Must be qualified as Introductory to Cave Diver:
      - i. A minimum of 400 minutes of cave dive bottom time.
      - ii. Eight (8) cave dives
        - ***NOTE: At the Instructor discretion, Cave & Technical Cave Diver candidate who is already certified as Technical Essentials Diver and Introductory Cave Diver the cave dive requirements can be reduced to:***
        - ***A minimum of seven (7) Cave Dives and 380 minutes***

- b. Cave Diver, without being qualified as Introductory Cave Diver:
  - i. A minimum of 500 minutes of cave dive bottom time.
  - ii. Twelve (12) cave dives
    - **NOTE: At the Instructor discretion, Cave & Technical Cave Diver candidate who is already certified as Technical Essentials Diver but NOT as Introductory Cave Diver the cave dive requirements can be reduced to:**
    - **A minimum of ten (10) Cave Dives and 450 minutes**
3. No dives may be conducted to depths greater than 132 fsw (40 msw).
4. Gas management rules:
  - a. Double Cylinder or Sidemount Cylinders - Rule of Thirds
5. All appropriate safety or required decompression stops must be performed.
6. In most cases, no dives may be conducted to depths greater than 132 fsw (40 msw).
  - *NOTE: When conditions warrant it, (such as areas without access to caves suitable for training at depths of 132 fsw (40 msw) or shallower) Cave Diver Programs may be conducted to a maximum depth of 150 fsw (45 msw), provided the students are qualified as Advanced Recreational Trimix Diver or Technical Diver.*
  - *NOTE: When appropriate conditions are available (i.e., depths between 132 fsw (40 msw) and 200 fsw (60 msw), the Cave Diver and Normoxic Trimix Diver Program may be taught as a combined course, provided all of the Cave Diver qualifications are completed first and then followed by the Normoxic Trimix Diver qualifications.*
7. Provided there are no alternative locations, that allow the cave program to be taught in depths shallower than 132 fsw (40 msw)
  - a. Qualified Normoxic Trimix Divers may be trained in caves at depths between 100 fsw (30 msw) and 200 fsw (60 msw) provided there are no alternative locations, which allow the cave program to be taught in depths shallower than 132 fsw (40 msw).
  - b. Qualified Trimix Divers may be trained in caves on Trimix at depths between 132 fsw (40 msw) and 300 fsw / 91 msw provided there are no alternative locations, that allow the cave program to be taught in depths shallower than 132 fsw (40 msw).
8. Environmental conditions allowing, a minimum of three (3) different caves must be included in a Cave Program.
  - *In event of flooding and other special circumstances, the three-cave requirement may be waived if approved by IAND, Inc. dba IANTD World Headquarters or the local Licensee of the Region the Program is conducted in.*
9. Oxygen partial pressure may not exceed 1.4 ATA during the working portion of the dives
10. Oxygen partial pressure may not exceed 1.6 ATA during the decompression portion of the dives.
11. Decompression Gas mixtures:
  - a. Technical divers or students enrolled in the Technical Cave Diver Program may breathe any EANx mixture or oxygen during decompression and use accelerated decompression schedules accordingly.
12. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
13. All appropriate safety or required decompression stops must be performed.

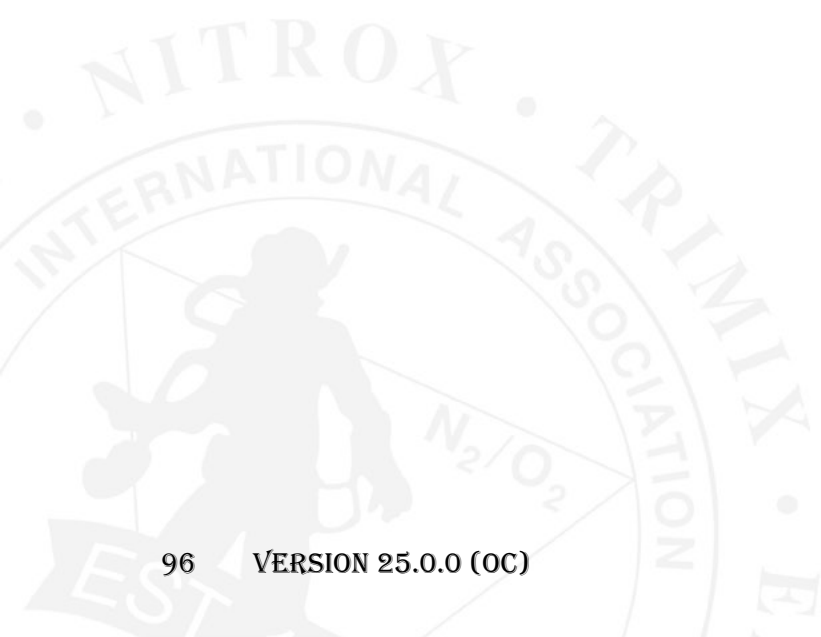
## F. Water Skills Development

1. Swim with equipment to be used in Program until comfortable with it.
2. Perform a pre-dive "S" (safety) drill prior to starting dive.
3. Check all equipment for proper function.
4. Check equipment of each dive buddy.
5. Ascertain each team member is familiar with use and location of dive system components.



6. Perform an in-water “S” (safety) drill.
  - a. Leak check each team member’s equipment.
  - b. Breathe underwater from both / all regulators to ensure proper functioning.
  - c. Perform light checks.
  - d. Perform valve shutdowns combined with regulator switches, including shutting both regulators.
    - ▶ *NOTE: If isolator valves are used, these are also to be closed and then re-opened.*
  - e. Buddies should check that all valves are back in proper position at end of drill.
  - f. On a first dive of each day, perform a gas sharing drill.
7. Communicate the gas turn around point in psig or bar;
  - ▶ *NOTE: if the divers are wearing different cylinder sizes, match gas per the SRF tables or per dissimilar cylinder volumes.*
8. Confined or OW:
  - a. Swim 60 feet (18 meters) while simulating an out of gas situation,
  - b. Commence gas sharing via the long hose;
  - c. Remain at rest for three (3) breaths;
  - d. Swim for 10 minutes at a normal swim rate of approximately 75 feet (23 meters) a minute (static water swim rate).
9. Confined or OW:
  - a. Two divers 50 feet (15 meters) apart must swim along a line circuit with eyes closed not taking a breath, while slowly exhaling until they meet.
  - b. Upon meeting gas sharing via the long hose
  - c. Complete the line circuit performing the Touch Contact technique.
10. Out of Gas Scenario:
  - ▶ *NOTE: Exercise is to commence with Instructor at some point randomly selecting the out of gas diver,*
  - a. During a cave dive, at a point after turning the dive, perform a gas sharing drill exiting the cave for a reasonable distance / time.
  - b. The out of gas diver must go to the buddy and share gas.
    - ▶ *NOTE: The out of gas diver is to keep the regulator in his or her mouth (leaving the airway open) but not breathe from it if at all possible.*
    - ▶ *NOTE: This drill is to be repeated on different dives until all students have been both a donor and a recipient of gas.*
11. Out of Gas Scenario:
  - a. On a cave dive, exit cave with eyes closed or lights off maintaining contact with buddy and dive line using touch communications.
  - b. At some point the Instructor will choose one (1) of the divers to simulate being out of gas.
  - c. The out of gas diver must communicate the problem to a buddy, and gas sharing is to be performed for a reasonable distance.
    - ▶ *NOTE: Repeat this skill until all students have been both a donor and recipient of gas.*
12. Regulator Failure Drill:(OC)
  - ▶ *NOTE: On at least three (3) dives, the student must simulate a regulator failure.*
  - ▶ **NOTE: A buddy should act as safety diver during this drill.**
  - ▶ **Buddies should check that all valves are back in proper position at end of drill.**
  - a. The instructor communicates or make the student acknowledge of a failure;
  - b. While swimming, the diver perform valve shutdowns combined with regulator switches, including shutting both regulators.

13. Develop proficiency in a variety of propulsion techniques including:
  - a. Cave frog kick
  - b. Modified flutter kick
  - c. Shuffle kick
  - d. Pull and glide technique.
14. Demonstrate proficiency in use of reels and lines
15. Emergencie Exit Drill:
  - a. On a cave dive, with lights off simulate blacked out cave conditions maintaining contact with buddy and dive line using touch communications.
    - *NOTE: Repeat this drill but use bump and go technique instead of buddy contact*
16. Perform lost diver drills.
17. Perform lost line drills.
18. Demonstrate either on a cave dive or confined water the ability to drop and recover the decompression cylinder.
19. Navigation drills:
  - a. Conduct a traverse
  - b. Conduct a gap
  - c. Conduct a circuit dive.
  - *NOTE: If conditions do not allow this possibility then it is to be simulated.*
20. It is recommended that the student attempt to exit the cave with eyes closed or lights off without the use of a line.
  - ***NOTE: Instructor must prevent the student from getting into a silt-out away from the line or any other adverse situation during this drill.***



## Mine Diver & Technical Mine Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Mine Diver Instructor or higher may teach this course.
- Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to train divers in safely mine diving

### B. Prerequisites

1. Mine Diver, Modular Route:
  - I. Must be qualified as IANTD Introductory Mine Diver or equivalent.
  - II. Must proof of a minimum of 50 logged dives.
2. Mine Diver, without being qualified as Introductory Mine Diver:
  - I. Must be qualified as IANTD Open Water Diver or equivalent
  - II. Must have proof of 100 dives.
3. Technical Mine Diver
  - I. Must be qualified as IANTD Introductory Mine Diver or equivalent.
  - II. Must be qualified as an Advanced EANx Diver or higher or equivalent experience.
4. Age Requirement:
  - a. Must be minimum 18 years of age.
    - *NOTE: A written waiver can be requested, to IANTD HQ and Licensee, for a 16 years of age for Diver qualification with a parent or guardian authorization.*
    - **NOTE: Once certified the 16 years old diver must dive with parent or legal guardian.**
  - *NOTE: Decompression gases and dive gases maybe used up to the diver's qualification level.*

### C. Program Content

- *All students must be taught the concept of gas matching.*
- 1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
- 2. Land drills:
  - a. Use of lines / line arrows.
  - b. Blacked out drills.
  - c. Lost diver drills / broken lines / line gaps.

### D. Equipment & Text Requirements

1. ANTD Cave Diver Student Kit, for Cave Diver Level
2. Equipments:
  - a. Cylinders:
    - I. Sidemount Configuration, OR
    - II. All bottom mix cylinders must be equipped with dual-outlet manifold valves.
  - *NOTE: The use of DIN systems are mandatory.*
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
  - b. All students must be taught the concept of gas matching

3. Two (2) Primary regulators must provide ample gas flow.
  - ▶ *NOTE: One second-stage hose must be at least five (5) feet (1.5 meters) in length; longer hoses are recommended.*
4. General Equipment list:
  - a. A stage decompression cylinder containing oxygen or an EAN mixture with at least 50% oxygen, and appropriately labeled. (Technical Diver Program only.)
  - b. Each gas source must have its own dedicated submersible pressure gauge.
  - c. Reels:
    - I. One primary reel
    - II. One (1) safety reel
    - III. At least one (1) gap reel or spool.
  - d. Lights:
    - I. One (1) primary light
    - II. Two (2) secondary lights
  - e. Cave Markers:
    - I. Three (3) line arrows
    - II. Three (3) Non directional markers
  - f. Dive slate or note pad.
  - g. A cutting tool is required
    - ▶ *NOTE: A backup cutting tool is recommended.*

## E. Program Limits

1. Student to Instructor Ratio:
    - a. There may be no more than three (3) students per Instructor inside the mine OR there may be no more than two (2) students per Instructor on mine dives conducted to depths greater than 132 fsw (40 msw).
  2. The Program must include:
    - a. Cave Diver, Modular Route:
      - I. Must be qualified as Introductory to Mine Diver:
        - i. A minimum of 400 minutes of cave dive bottom time.
        - ii. Eight (8) cave dives
          - ▶ ***NOTE: At the Instructor discretion, Mine & Technical Mine Diver candidate who is already certified as Technical Essentials Diver and Introductory Cave/Mine Diver the mine dive requirements can be reduced to:***
          - ▶ ***A minimum of seven (7) Mine Dives and 380 minutes.***
    - b. Cave Diver, without being qualified as Introductory Cave Diver:
      - i. A minimum of 500 minutes of cave dive bottom time.
      - ii. Twelve (12) cave dives
        - ▶ ***NOTE: At the Instructor discretion, Mine & Technical Mine Diver candidate who is already certified as Technical Essentials Diver but NOT as Introductory Cave/Mine Diver the mine dive requirements can be reduced to:***
        - ▶ ***A minimum of ten (10) Mine Dives and 450 minutes.***
3. No dives may be conducted to depths greater than 132 fsw (40 msw).
4. Gas management rules:
  - a. Double Cylinder or Sidemount Cylinders - Rule of Thirds.
5. All appropriate safety or required decompression stops must be performed.

6. In most cases, no dives may be conducted to depths greater than 132 fsw (40 msw).
  - *NOTE: When conditions warrant it, (such as areas without access to caves suitable for training at depths of 132 fsw (40 msw) or shallower) Mine Diver Programs may be conducted to a maximum depth of 150 fsw (45 msw), provided the students are qualified as Advanced Recreational Trimix Diver OR 170 fsw (51 msw) if Advanced Recreational Trimix Plus Diver or Technical Diver.*
  - *NOTE: When appropriate conditions are available (i.e., depths between 132 fsw (40 msw) and 200 fsw (60 msw), the Mine Diver and Normoxic Trimix Diver Program may be taught as a combined course, provided all of the Mine Diver qualifications are completed first and then followed by the Normoxic Trimix Diver qualifications.*
7. Provided there are no alternative locations, that allow the mine program to be taught in depths shallower than 132 fsw (40 msw)
  - a. Qualified Normoxic Trimix Divers may be trained in mines at depths between 100 fsw (30 msw) and 200 fsw (60 msw) provided there are no alternative locations, which allow the mine program to be taught in depths shallower than 132 fsw (40 msw).
  - b. Qualified Trimix Divers may be trained in mines on Trimix at depths between 132 fsw (40 msw) and 300 fsw / 91 msw provided there are no alternative locations, that allow the mine program to be taught in depths shallower than 132 fsw (40 msw).
8. Oxygen partial pressure may not exceed 1.4 ATA during the working portion of the dives
9. Oxygen partial pressure may not exceed 1.6 ATA during the decompression portion of the dives.
10. Decompression Gas mixtures:
  - a. Technical divers certified may breathe any EANx mixture or oxygen during decompression and use accelerated decompression schedules accordingly.
11. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
12. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. Swim with equipment to be used in Program until comfortable with it.
2. Perform a pre-dive "S" (safety) drill prior to starting dive.
3. Check all equipment for proper function.
4. Check equipment of each dive buddy.
5. Ascertain each team member is familiar with use and location of dive system components.
6. Perform an in-water "S" (safety) drill.
  - a. Leak check each team member's equipment.
  - b. Breathe underwater from both / all regulators to ensure proper functioning.
  - c. Perform light checks.
  - d. Perform valve shutdowns combined with regulator switches, including shutting both regulators.
    - *NOTE: If isolator valves are used, these are also to be closed and then re-opened.*
  - e. Buddies should check that all valves are back in proper position at end of drill.
  - f. On a first dive of each day, perform a gas sharing drill.
7. Communicate the gas turn around point in psig or bar;
  - *NOTE: if the divers are wearing different cylinder sizes, match gas per the SRF tables or per dissimilar cylinder volumes.*
8. Confined or OW:
  - a. Swim 60 feet (18 meters) while simulating an out of gas situation,
  - b. Commence gas sharing via the long hose;
  - c. Remain at rest for three (3) breaths;
  - d. Swim for 10 minutes at a normal swim rate of approximately 75 feet (23 meters) a minute (static water swim rate).

9. Confined or OW:
  - a. Two divers 50 feet (15 meters) apart must swim along a line circuit with eyes closed not taking a breath, while slowly exhaling until they meet.
  - b. Upon meeting gas sharing via the long hose
  - c. Complete the line circuit performing the Touch Contact technique.
10. Out of Gas Scenario:
  - *NOTE: Exercise is to commence with Instructor at some point randomly selecting the out of gas diver,*
  - a. During a mine dive, at a point after turning the dive, perform a gas sharing drill exiting the mine for a reasonable distance / time.
  - b. The out of gas diver must go to the buddy and share gas.
    - *NOTE: The out of gas diver is to keep the regulator in his or her mouth (leaving the airway open) but not breathe from it if at all possible.*
  - *NOTE: This drill is to be repeated on different dives until all students have been both a donor and a recipient of gas.*
11. Out of Gas Scenario:
  - a. On a mine dive, exit mine with eyes closed or lights off maintaining contact with buddy and dive line using touch communications.
  - b. At some point the Instructor will choose one (1) of the divers to simulate being out of gas.
  - c. The out of gas diver must communicate the problem to a buddy, and gas sharing is to be performed for a reasonable distance.
    - *NOTE: Repeat this skill until all students have been both a donor and recipient of gas.*
12. Regulator Failure Drill
  - *NOTE: On at least three (3) dives, the student must simulate a regulator failure.*
  - ***NOTE: A buddy should act as safety diver during this drill.***
  - ***Buddies should check that all valves are back in proper position at end of drill.***
  - a. The instructor communicates or make the student acknowledge of a failure;
  - b. While swimming, the diver perform valve shutdowns combined with regulator switches, including shutting both regulators.
13. Develop proficiency in a variety of propulsion techniques including:
  - a. Cave frog kick
  - b. Modified flutter kick
  - c. Shuffle kick
  - d. Pull and glide technique.
14. Demonstrate proficiency in use of reels and lines
15. Emergencie Exit Drill:
  - a. On a mine dive, with lights off simulate blacked out cave conditions maintaining contact with buddy and dive line using touch communications.
    - *NOTE: Repeat this drill but use bump and go technique instead of buddy contact*
16. Perform lost diver drills.
17. Perform lost line drills.
18. Demonstrate either on a mine dive or confined water the ability to drop and recover the decompression cylinder.
19. Navigation drills:
  - a. Conduct a traverse
  - b. Conduct a gap
  - c. Conduct a circuit dive.
    - *NOTE: If conditions do not allow this possibility then it is to be simulated.*
20. It is recommended that the student attempt to exit the mine with eyes closed or lights off without the use of a line.
  - ***NOTE: Instructor must prevent the student from getting into a silt-out away from the line or any other adverse situation during this drill.***



## Adv. Cave or Mine - Diver Propulsion Vehicle Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- An Advanced Cave DPV Instructor may teach this course in Cave Environment.
- An Advanced Mine DPV Instructor may teach this course in Mine Environment.
- **IANTD Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration**

### A. Purpose

1. This Program is designed to provide advanced training in cave or mine diving skills to the experienced, certified, responsible cave diver who wishes to conduct dives that warrant Diver Propulsion Vehicle use and techniques.
2. Expose cave or mine divers to conservation concerns and ethical responsibilities that present themselves during Diver Propulsion Vehicle uses either for extended penetration, touring, or exploration.

### B. Prerequisites

1. Certifications requirements:
  - a. For Advanced Cave - DPV Diver:
    - I. IANTD Technical Cave Diver or higher or equivalent
  - b. For Advanced Mine - DPV Diver
    - I. IANTD Technical Mine Diver or higher or equivalent
2. Age requirement:
  - a. Must be minimum 18 years of age.
3. Dive experience:
  - a. For Technical Cave:
    - I. Must provide proof of a minimum of 50 logged Cave Dives.
  - b. For Technical Mine:
    - I. Must provide proof of a minimum of 50 logged Mine Dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All Lecture and theory material must be completed including but not limited to:
  - a. Motives risks for Diver Propulsion Vehicle diving.
  - b. Equipment configuration and streamlining techniques for Diver Propulsion Vehicle diving.
  - c. Procedures and techniques for Diver Propulsion Vehicle diving along with reasons for Diver Propulsion Vehicle use in the cave environment.
  - d. Task loading and dive / gas planning needs for Diver Propulsion Vehicle diving.
  - e. Gas sharing and towing techniques.
  - f. Conservation considerations for Diver Propulsion Vehicle handling, minimizing cave or mine impact, considerations for the increased range of penetration.
  - g. Safe charging, transport, and maintenance procedures for Diver Propulsion Vehicles

## D. Equipment & Text Requirements

1. IANTD Cave Diver Student Kit, for Cave Diver Level OR IANTD Technical Cave Diver Student Kit, for Technical Cave Diver Level
2. Equipment:
  - a. Cylinders:
    - I. Sidemount Configuration, OR
    - II. All bottom mix cylinders must be equipped with dual-outlet manifold valves
  - *NOTE: The use of DIN systems are mandatory.*
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
  - *All students must be taught the concept of gas matching*
3. Two (2) Primary regulators must provide ample gas flow.
  - *NOTE: One second-stage hose must be at least five (5) feet (1.5 meters) in length;*
  - *NOTE: Longer hoses are recommended.*
  - *NOTE: The use of DIN systems are mandatory.*
4. General Equipment list:
  - a. All Equipment Requirements listed in the IANTD Cave Diver Program.
  - b. Suitable DIVER PROPULSION VEHICLE for dives planned
  - c. Specialty equipment as specified in the IANTD Cave Diver Specialty Student Workbook.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor inside the cave or mine.
2. This program must include:
  - a. A minimum of 240 minutes of cave or mine Diver Propulsion Vehicle bottom time.
  - b. Four (4) advanced cave or mine Diver Propulsion Vehicle dives.
3. No dives may be conducted to depths greater than the qualification of the student.
4. Oxygen partial pressure may not exceed 1.40 ATA during the working portion of the dives
5. Decompression gases and dive gases maybe used up to the diver's qualification level.
6. Oxygen partial pressure may not exceed exceed 1.60 ATA during the decompression portion of the dives.
7. All dives must be planned using the best gas in consideration of PO<sub>2</sub> and decompression requirements.
8. Students who use dive computers must also carry dive tables as a backup. Divers without a dive computer must use appropriate dive tables.
9. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
10. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. While towing the Diver Propulsion Vehicle, demonstrate proficiency in the following propulsion techniques:
  - a. Modified flutter
  - b. Modified frog
  - c. Modified dolphin
  - d. Standard shuffle kicks
2. Demonstrate the ability to safely and without contact to the cave or mine drop and recover Diver Propulsion Vehicles on all dives
  - *NOTE: Exception when performing circuits or traverses*
3. Demonstrate perfection of buoyancy and trim while diving using a Diver Propulsion Vehicle.
4. On at least one (1) occasion an out of gas drill must be performed without the donor being aware of whether it is a drill or real out of gas situation.

5. Take time data for the following scenarios for the distance of 100 feet or 50 meters:
  - a. Diver swimming pace without Diver Propulsion Vehicle
  - b. Diver swimming pace with Diver Propulsion Vehicle in cruise speed
  - c. Diver swimming pace with Diver Propulsion Vehicle above cruise speed
  - d. Diver swimming pace towing the Diver Propulsion Vehicle
  - e. Diver swimming pace with Diver Propulsion Vehicle towing the diver only
  - f. Diver swimming pace with Diver Propulsion Vehicle towing the diver and his/her Diver Propulsion Vehicle.



## Adv. Cave or Mine - Sidemount (Sump Diver) & No Mount

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ An Advanced Cave Sidemount & No Mount Instructor may teach this course in Cave Environment
- ▶ An Advanced Mine Sidemount & No Mount Instructor may teach this course in Mine Environment

### A. Purpose

1. This Program is designed to familiarize the experienced, certified technical cave or mine diver with the techniques; equipment and mindset required for sidemount / no mount diving activities in an underwater, overhead environment.
2. Enable technical cave or mine divers to proficiently assemble and use sidemount / no mount diving equipment.
3. Teach cave or mine divers the proper techniques to safely conduct cave diving activities that warrant the use of sidemount / no mount diving equipment (i.e. small passages, logistics and restrictions).
4. Expose technical cave or mine divers to the conservation concerns and ethical responsibilities that present themselves during sidemount / no mount diving activities in underwater caves or mines.

### B. Prerequisites

1. Certifications requirements:
  - a. For Advanced Cave - Sidemount & No Mount Diver:
    - I. IANTD Technical Cave Diver or higher or equivalent
  - b. For Advanced Technical Mine - Sidemount & No Mount Diver
    - I. IANTD Mine Diver or higher or equivalent
2. Age requirement:
  - a. Must be minimum 18 years of age.
3. Dive experience:
  - a. For Technical Cave:
    - I. Must provide proof of a minimum of 50 logged Cave Dives.
  - b. For Technical Mine:
    - I. Must provide proof of a minimum of 50 logged Mine Dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook

### D. Equipment & Text Requirements

1. IANTD Advanced Cave Sidemount (Sump Diver) & No Mount.
2. Equipment:
  - a. Cylinders:
    - I. Sidemount Configuration
      - ▶ *NOTE: The use of DIN systems are mandatory.*
      - ▶ *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
      - ▶ *All students must be taught the concept of gas matching*
3. Two (2) Primary regulators must provide ample gas flow.
  - ▶ *NOTE: One second-stage hose must be at least 40 inches (1 meter) in length;*
    - ▶ *NOTE: Longer hoses can be used at instructors discretion.*
  - ▶ *NOTE: The use of DIN systems are mandatory.*

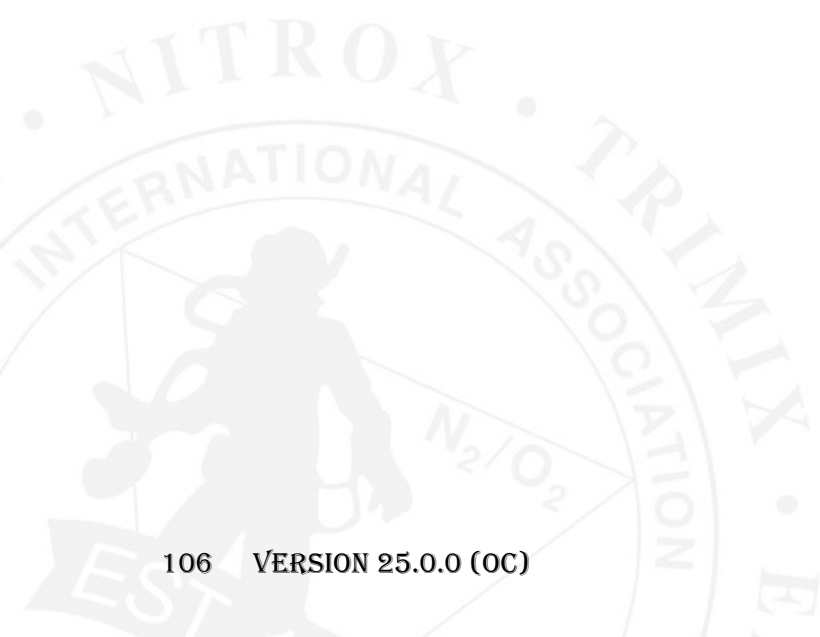
## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor inside the cave or mine.
2. This program must include:
  - a. A minimum of 180 minutes of cave or mine bottom time
    - ▶ *If diver has 50 Sidemount Dives which 25 were done in cave or mine the instructor may credit 60 minutes of bottom time*
  - b. Three (3) advanced cave sidemount & no mount dives
3. No dives may be conducted to depths greater than the qualification of the student.
4. Oxygen partial pressure may not exceed 1.40 ATA during the working portion of the dives
5. Decompression gases and dive gases maybe used up to the divers qualification level.
6. Oxygen partial pressure may not exceed exceed 1.60 ATA during the decompression portion of the dives.
7. All dives must be planned using the best gas in consideration of PO<sub>2</sub> and decompression requirements.
8. Students who use dive computers must also carry dive tables as a backup. Divers without a dive computer must use appropriate dive tables.
9. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
10. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. Perform mask clearing drills in inverted (head down / feet up) position.
2. Perform valve shutdowns combined with switches between cylinders valve in:
  - a. Horizontal position
  - b. Inverted (head down / feet up) position.
3. While in sidemount or no mount configuration perform neutral buoyancy drills in:
4. Horizontal and inverted positions (head down / feet up)
  - a. Horizontal position
  - b. Inverted (head down / feet up) position.
5. Demonstrate efficiency in performing cylinder removal in:
  - a. Horizontal position
  - b. Inverted (head down / feet up) position.
6. Confined water (sidemount):
  - a. Swim 50 feet (15 meters) underwater with one (1) cylinder removed (handheld),
  - b. Replace cylinder.
    - ▶ *NOTE: Repeat with opposite cylinder.*
    - ▶ *NOTE: Repeat skills during black out scenario.*
7. Confined Water (no mount):
  - a. Swim 50 feet (15 meters) with cylinder hand held, maintain neutral buoyancy.
  - b. The cylinder must be positively attached to the diver via some type of tether at all times.
    - ▶ *NOTE: Repeat skills during black out scenario.*
8. Cave or Mine Dive (sidemount):
  - a. Swim 50 feet (15 meters) underwater with one (1) cylinder removed (handheld),
  - b. Replace cylinder.
    - ▶ *NOTE: Repeat with opposite cylinder.*
    - ▶ *NOTE: Repeat skills during black out scenario.*
    - ▶ **NOTE: Maintain contact with the guide line at all times**

9. Cave or Mine Dive (no mount):
  - a. Swim 50 feet (15 meters), maintain neutral buoyancy, with cylinder hand held during black out drill.
  - b. The cylinder must be positively attached to the diver via some type of tether at all times.  
▶ **NOTE: Maintain contact with the guideline at all times**
10. Demonstrate the ability to pass through at least one (1) minor restriction without removing cylinders.
11. Demonstrate the ability to pass through at least one (1) major restriction while removing a cylinder.  
▶ **NOTE: Both Sidemount and no mount**
12. On at least one (1) occasion divers must simulate the loss of the guideline in zero visibility.





**Adv. Cave or Mine - Stage / Multi-Stage Diver**

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

**Who may teach this course?**

- An Advanced Cave Stage/Multi-Stage Instructor may teach this course in Cave Environment
- An Advanced Mine Stage/Multi-Stage Instructor may teach this course in Mine Environment

**A. Purpose**

1. This Program is designed to provide advanced training in cave or mine diving skills to the experienced, certified, responsible cave divers who wish to conduct dives that warrant staging and multiple staging techniques.
2. Expose cave divers to conservation concerns and ethical responsibilities that present themselves during stage/multiple stage dives, whether it be for decompression, extended penetration, safety, or team planning.

**B. Prerequisites**

1. Certifications requirements:
  - a. For Advanced Cave - Stage/Multi-Stage Diver:
    - I. IANTD Technical Cave Diver or higher or equivalent
  - b. For Advanced Mine - Stage/Multi-Stage Diver
    - I. IANTD Technical Mine Diver or higher or equivalent
2. Age requirement:
  - a. Must be minimum 18 years of age.
3. Dive experience:
  - a. For Technical Cave:
    - I. Must proof of a minimum of 25 logged Cave Dives.
  - b. For Technical Mine:
    - I. Must proof of a minimum of 25 logged Mine Dives.

**C. Program Content**

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All Lecture and theory material must be completed including but not limited to:
  - a. Motives, risks, and hazards for stage / multistage diving.
  - b. Rigging and transport of stage cylinders in a streamlined manner.
  - c. Procedures and techniques for stage / multistage diving.
  - d. Task loading and planning needs for stage / multistage diving.
  - e. Conservation considerations for stage handling, min. overhead environment impact, considerations for the increased range of impact.
  - f. Reasons for stage / multistage diving (safety gas, different gases, penetration distances).

**D. Equipment & Text Requirements**

1. IANTD Cave Diver Student Kit, for Cave Diver Level OR IANTD Technical Cave Diver Student Kit, for Technical Cave Diver Level
2. Equipment:
  - a. Cylinders:
    - I. Sidemount Configuration, OR
    - II. All bottom mix cylinders must be equipped with dual-outlet manifold valves

- ▶ *NOTE: The use of DIN systems are mandatory.*
- ▶ *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
  - b. All students must be taught the concept of gas matching
- 3. Two (2) Primary regulators must provide ample gas flow.
  - ▶ *NOTE: One second-stage hose must be at least five (5) feet (1.5 meters) in length;*
  - ▶ *NOTE: Longer hoses are recommended.*
  - ▶ *NOTE: The use of DIN systems are mandatory.*
- 4. General Equipment list:
- 5. All Equipment Requirements listed in the IANTD Cave Diver Program.
- 6. Specialty equipment as specified in the IANTD Cave Diver Specialty Student Workbook.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor inside the cave or mine.
2. This program must include:
  - a. A minimum of 240 minutes of in cave or mine stage/multi-stage bottom time
  - b. Four (4) advanced cave or mine stage/multi-stage dives
3. No dives may be conducted to depths greater than the qualification of the student.
4. Oxygen partial pressure may not exceed 1.40 ATA during the working portion of the dives
5. Decompression gases and dive gases maybe used up to the diver's qualification level.
6. Oxygen partial pressure may not exceed 1.60 ATA during the decompression portion of the dives.
7. All dives must be planned using the best gas in consideration of PO<sub>2</sub> and decompression requirements.
8. Students who use dive computers must also carry dive tables as a backup. Divers without a dive computer must use appropriate dive tables.
9. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
10. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. While carrying stage/multi-stages demonstrate proficiency in the following propulsion techniques:
  - a. Modified flutter, Modified frog, Modified dolphin and Standard shuffle kicks.
2. Perform at least two (2) gas sharing drills of Instructor's choice
3. Demonstrate the ability to safely and without contact to the cave or mine drop and recover stage cylinders on all dives (exception when performing circuits or traverses).
4. Demonstrate perfection of buoyancy and trim while diving with a stage or multiple stages in the cave or mine environment.
5. On at least one (1) occasion an out of gas drill must be performed without the donor being aware of whether it is a drill or real out of gas situation.
6. On at least one (1) occasion an out of gas drill must be performed during the exit portion of the dive, with stage or stages, during a simulated zero visibility situation while avoiding entanglement or loss of the guideline and maintain team touch contact.
7. On at least one (1) occasion drop, locate, identify and properly attached multi-stages in simulated zero visibility.
8. Perform at least one (1) series of dives involving the following:
  - a. One (1) set up dive leave stage in cave
  - b. On a following dive, stage to this point (stage) and then use the first stage to extend the penetration from there

## Adv. Cave or Mine - Survey Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- An Advanced Cave Survey Instructor may teach this course in Cave Environment.
- An Advanced Mine Survey Instructor may teach this course in Mine Environment.
- **IANTD Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration**

### A. Purpose

1. This Program is designed to provide advanced training in cave or mine diving skills to the experienced, certified, responsible cave or mine divers who wishes to conduct dives while surveying an underwater cave or mine.
2. Expose cave or mine divers to conservation concerns and ethical responsibilities presented during collection of survey data.

### B. Prerequisites

1. Certifications requirements:
  - a. For Advanced Cave - Survey Diver:
    - I. IANTD Technical Cave Diver or higher or equivalent
  - b. For Advanced Mine - Survey Diver
    - I. IANTD Technical Mine Diver or higher or equivalent
2. Age requirement:
  - a. Must be minimum 18 years of age.
3. Dive experience:
  - a. For Technical Cave:
    - I. Must proof of a minimum of 25 logged Cave Dives.
  - b. For Technical Mine:
    - I. Must proof of a minimum of 25 logged Mine Dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All Lecture and theory material must be completed including but not limited to:
  - a. Motives and risks involved in survey diving.
  - b. Equipment configuration, additional equipment necessary, and streamlining techniques for survey diving.
  - c. Procedures and techniques for collecting survey data for cartography of different grades of maps.
  - d. Task loading and dive / gas planning needs for survey diving.
  - e. Gas sharing and additional communication techniques during survey data collection.
  - f. Conservation considerations for collecting survey data and minimizing environment impact.
  - g. Reasons for collecting data in the environment.
  - h. Introduction to techniques used to convert collected survey data into accurate map of different grades.
3. Land drills:
  - a. Use of lines / line arrows.
  - b. Blacked out drills.
  - c. Lost diver drills / broken lines / line gaps
  - d. Practice proper techniques in survey.
  - e. Proper measures and drawing notes

## D. Equipment & Text Requirements

1. IANTD Cave Diver Student Kit, for Cave Diver Level OR IANTD Technical Cave Diver Student Kit, for Technical Cave Diver Level
2. Equipment:
  - a. Cylinders:
    - I. Sidemount Configuration, OR
    - II. All bottom mix cylinders must be equipped with dual-outlet manifold valves.
    - ▶ *NOTE: The use of DIN systems are mandatory.*
    - ▶ *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
  - b. All students must be taught the concept of gas matching
3. Two (2) Primary regulators must provide ample gas flow.
  - ▶ *NOTE: One second-stage hose must be at least five (5) feet (1.5 meters) in length;*
  - ▶ *NOTE: Longer hoses are recommended.*
  - ▶ *NOTE: The use of DIN systems are mandatory.*
4. General Equipment list:
5. All Equipment Requirements listed in the IANTD Cave Diver Program.
6. Suitable survey slate and equipment needed to record data.
7. Specialty equipment as specified in the IANTD Cave Diver Specialty Student Workbook.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor inside the cave or mine.
2. This program must include:
  - a. A minimum of 240 minutes of in cave or mine survey bottom time
  - b. Four (4) advanced cave or mine survey dives
3. No dives may be conducted to depths greater than the qualification of the student.
4. Oxygen partial pressure may not exceed 1.40 ATA during the working portion of the dives
5. Decompression gases and dive gases maybe used up to the diver's qualification level.
6. Oxygen partial pressure may not exceed 1.60 ATA during the decompression portion of the dives.
7. All dives must be planned using the best gas in consideration of PO<sub>2</sub> and decompression requirements.
8. Students who use dive computers must also carry dive tables as a backup. Divers without a dive computer must use appropriate dive tables.
9. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
10. All appropriate safety or required decompression stops must be performed.

## F. Environment

1. For Adv. Cave:
  - a. Training must be done in Cave Environment;
2. For Adv. Mine:
  - a. Training must be done in Mine Environment

## G. Water Skills Development

1. Demonstrate proficiency in the following propulsion techniques: modified flutter, modified frog, modified dolphin, and standard shuffle kicks when appropriate during a survey dive.
2. Demonstrate the ability to safely and without contact to the cave or mine collect survey data and stay in full communication with team.
3. Demonstrate perfection of buoyancy, trim and environmental awareness while collecting survey data.

4. On at least one (1) occasion an out of gas drill must be performed without the donor being aware of whether it is a drill or real out of gas situation.
5. On at least one (1) occasion, exit the cave during a simulated zero visibility situation while avoiding entanglement or loss of the guideline and maintain team using:
  - a. Touch Contact OR
  - b. Bump & Go.



## Elite Technical Cave Diver

### A. Purpose

1. This certification has been designed to provide cave divers with the highest recognition in the cave level before entering the professional diving circle in teaching.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be certified as:
    - i. IANTD Techncial Cave Diver or equivalent.
  - b. Must have 4 of the 5 following certifications:
    - i. IANTD Adv. Cave - Sidemount Diver or Adv. Cave - No Mount Diver
    - ii. IANTD Adv. Cave - Stage/Multi-Stage Diver
    - iii. IANTD Adv. Cave - DPV Diver
    - iv. IANTD Adv. Cave - Survey Diver
    - v. IANTD Tek Essentials Diver
2. Age requirement:
  - a. Must be a minimum or 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 75 non-training logged cave dives

### C. Program Content

1. N/A

### D. Equipment Requirements

1. N/A

### E. Program Limits

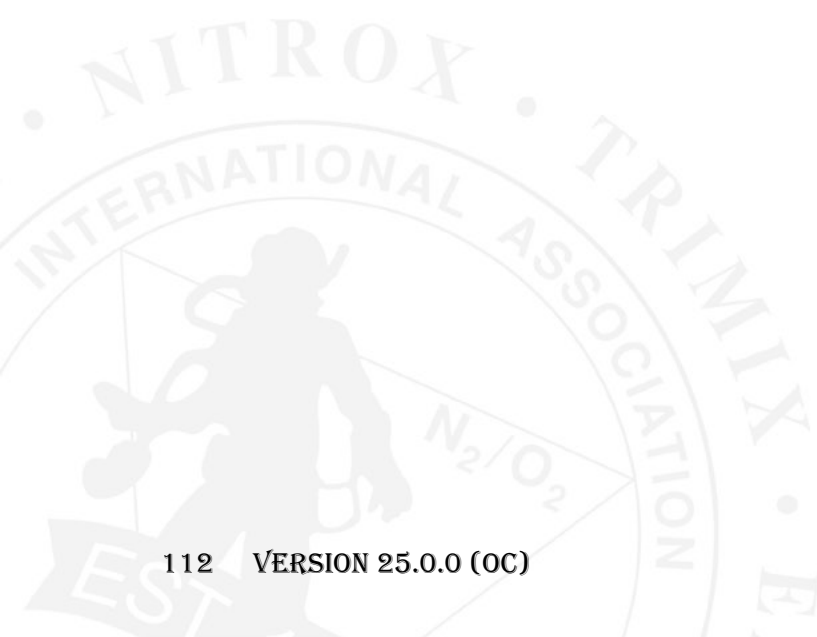
1. N/A

### F. Water Skills Development

1. There is no water skills required.

### G. Application Procedure

1. Fill & submit the Elite Technical Cave Diver Application Form to an IANTD Instructor, HQ or local licensee.





## Elite Technical Mine Diver

### A. Purpose

1. This certification has been designed to provide cave divers with the highest recognition in the cave level before entering the professional diving circle in teaching.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in:
    - I. IANTD Technical Mine Diver or equivalent.
  - b. Must have 4 of the 5 following certifications:
    - i. IANTD Adv. Mine - Sidemount Diver or Adv. Cave - No Mount Diver
    - ii. IANTD Adv. Mine - Stage/Multi-Stage Diver
    - iii. IANTD Adv. Mine - DPV Diver
    - iv. IANTD Adv. Mine - Survey Diver
    - v. Tek Essentials Diver
2. Age requirement:
  - a. Must be a minimum of 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 75 non-training logged cave dives

### C. Program Content

1. N/A

### D. Equipment Requirements

1. N/A

### E. Program Limits

1. N/A

### F. Water Skills Development

1. There is no water skills required.

### G. Application Procedure

1. Fill & submit the Elite Technical Cave Diver Application Form to an IANTD Instructor, HQ or local licensee.

## Wreck Diver

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ Wreck Instructor or higher level of certification may teach this course.
- ▶ Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration.

### A. Purpose

1. This Program is designed to develop wreck diving skills within the limits of light penetration and to insure that divers are aware of self-responsibility and capable of risk management in overhead environments.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in IANTD Advanced Open Water Diver or equivalent.
2. Age requirement:
  - a. A minimum of 15 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. A minimum of 18 years of age without guardian approval.
    - ▶ *Jr. Wreck Diver - Students between 12 years of age and 14 years of age who meet the Wreck Diver performance requirements may qualify for a Jr. Wreck Diver certification that allows them to dive under the supervision of an adult who has a minimum of a Wreck Diver certification level or higher.*
3. Dive experience:
  - a. Proof of a minimum of 10 logged dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. This program must include:
  - a. Academic Classes.
  - b. Land Drills:
    - I. Use of guide lines
    - II. Practice running the line and making tie wraps
    - III. Following guide lines with and without vision.
    - IV. Simulation of silt-outs.
  - c. Confined water session(s).
  - d. Open Water Dives.
4. Students must pass the specific IANTD Specific test with a minimum score of 80%.

### D. Equipment & Text Requirements

1. IANTD Wreck Diver Student Kit (TBA)
  - a. If this program is combined with other IANTD programs:
    - I. IANTD Diver Student Manual and Student Kit or equivalent text(s) approved in writing by the Board of Directors (written approval will be issued by IANTD World Headquarters) must be also acquired.
  - ▶ *NOTE: Fulfill all Equipment Requirements as specified in the general Sport Diver Programs overview.*
2. A 39 inch hose or longer to a maximum of 7 feet hose is to be attached to one (1) of the second stages on the primary gas supply.
3. Primary reel and/or safety reel.

4. Two lights:
  - a. One (1) Primary
  - b. One (1) Backup

## E. Program Limits

► *NOTE: If combined with the IANTD EANx Diver Program, or if the student is already qualified as an IANTD EANx Diver, the student may use a mixture of EANx in the range of 21% through 40% oxygen.*

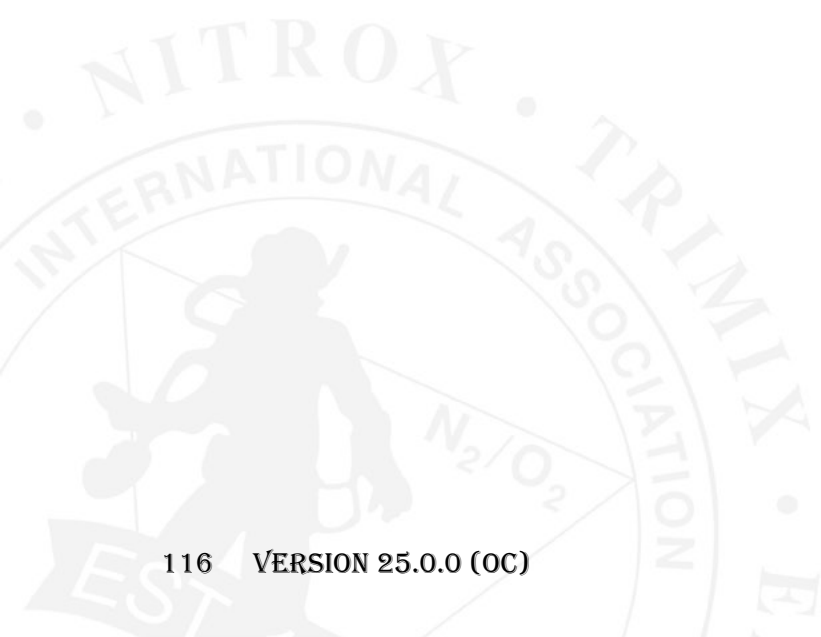
1. Student to Instructor Ratio:
  - a. There may be no more than 4 students per Instructor.
2. The Program must include:
  - a. A minimum of 100 minutes of OW bottom time.
    - I. ALL dives must be completed in the overhead environment
  - b. A minimum of four (4) SCUBA dives
    - *NOTE: Even if the time requirements are exceeded, a minimum of four (4) SCUBA dives must be made.*
    - *NOTE: The bottom time on each dive shall not be less than 20 minutes.*
    - ***NOTE: At the Instructor discretion, Wreck Diver candidate who is already certified as Essentials Diver the open water dive requirements can be reduced to:***
      - ***A minimum of two (2) Overhead Dives and 90 minutes.***
3. Unobstructed exit / surface light must always be visible.
4. No dives may be conducted to depths greater than diver's previous certification level.
5. The Rule of Thirds must be applied from the point of entering the overhead environment until safe exit from the overhead environment portion of the dive.
6. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. Become proficient in the following propulsion techniques:
  - a. Modified flutter
  - b. Modified frog,
  - c. Modified dolphin
  - d. Standard shuffle kick.
2. Demonstrate buoyancy control by combining with following skills.
  - a. A timed ascent at a rate of 20 ft. (6 m) per minute.
  - b. Hover at constant depth for 3 minutes.
3. NOTE: Practice of SCUBA diving equipment configuration including redundancy and streamlining.
4. NOTE: Proper cylinders labeling with IANTD sticker
5. Swim a distance of 75 feet (23 meters) without a mask.
6. Swim in a simulated out of air situation:
  - a. Without breathing and exhaling slowly swim a distance of at least 40 feet (12 meters), and commence gas sharing;
  - b. While gas sharing, continue to swim for a distance of at least 2 minutes while maintaining a swim rate of approximately 60 feet (18 meters) per minute.
7. Determine SAC rate and RMV.
8. Perform valve shutdowns:
  - a. Change regulators and shut the primary regulator valve off, then reopen valve and repeat as if the secondary (backup) regulator had malfunctioned.

► *Note: Repeat until skill (both valve openings shutdowns) is completed in less than two (2) minutes.*
9. Close and open cylinder valves on all dives.
10. Remove and replace cylinder and BCD at surface on at least one (1) dive.

11. Practice use of reel and line.
12. In the overhead environment practice:
  - a. Running the line
  - b. Making tie wraps.
13. With eyes closed, follow a guideline in the overhead environment.
14. Share breathing gas while following the guideline, both with eyes open and with eyes closed.
15. Deploy a DSMB or Lift Bag in less than two (2) minutes.
16. Perform an “S” drill prior to commencement of all dives.



## Tek Lite Wreck Diver

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ A Technical Wreck Instructor may teach this course
- ▶ IANTD Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to train wreck divers in wreck penetration diving and the utilization of EANx for wreck exploration and the use of EANx and oxygen for decompression.

### B. Prerequisites

1. Certification Requirements
  - a. Option 1 - Qualified as:
    - I. IANTD Wreck Diver or IANTD Cavern Diver or higher or equivalent
    - II. IANTD Deep Diver or higher or equivalent
    - III. Must proof a minimum of 40 logged dives with qualification as IANTD Wreck or Cavern Diver.
  - b. Option 2 - Qualified as:
    - I. Advanced EANx Diver or higher
    - II. Must proof of a minimum of 70 logged dives.
2. Age Requirement:
  - a. Must be a minimum of 18 years of age

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook.
  - ▶ *If not qualified as Advanced EANx or higher, the Advanced EANx and or Advanced Recreational Trimix Diver Program must be done in conjunction with the Tek Lite Wreck Diver Program.*
2. All students must be taught the concept of gas matching.
3. All wreck lectures must be completed and a score of 80% on the written exam.
4. Land Drills:
  - a. Basic use of safety lines and reels
  - b. Simulation of wire entanglement must be practiced.

### D. Equipment & Text Requirements

1. IANTD Tek Lite Wreck Diver Student Kit.
2. Equipment:
  - a. Cylinders:
    - I. Sidemount Configuration, OR
    - II. All bottom mix cylinders must be equipped with dual-outlet manifold valves
  - ▶ **NOTE:** *The use of DIN systems are mandatory.*
  - ▶ **NOTE:** *Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
  - b. All students must be taught the concept of gas matching
3. Two (2) Primary regulators:
  - ▶ **NOTE:** *One second-stage hose must be at least five (5) feet (1.5 meters) in length;*
  - ▶ **NOTE:** *Longer hoses are recommended.*

4. A stage decompression cylinder containing oxygen PO<sub>2</sub> no greater than 1.5 atm, and appropriately labeled.
5. A primary and backup dive planning/monitoring device such as bottom timer or computer
6. IANTD Dive Tables must be carried on all dives as a primary decompression reference or as a form of backup.
7. Two reels:
  - a. One (1) for penetration
  - b. One (1) for decompression / DSMB or Lift Bag deployment.
8. A DSMB or Lift Bag of at least 50-lb (22.5-kg) lift capacity for a decompression marker.
9. Two lights:
  - a. One (1) primary light
  - b. One (1) backup safety light.
10. A backup cutting tool is recommended.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than three (3) students per Instructor inside the wreck
2. This program must include:
  - a. A minimum of 240 minutes of wreck run time
  - b. Six (6) Tek Lite Wreck dives
    - **NOTE: At the Instructor discretion, Tek Lite Wreck Diver candidate who is already certified as Tek Lite Essentials Diver the wreck dive requirements can be reduced to:**
    - **A minimum of four (4) Tek Lite Wreck Dives and 220 minutes.**
3. Depth limits:
  - a. No dives may be conducted to depths greater than 132 fsw (40 msw) for Advanced EANx Divers, 150 fsw (45 msw) for Advanced Recreational Trimix Diver or 170 fsw (51 msw) for Adv. Recreational Trimix Plus Diver or higher
  - **NOTE: No dives may be conducted to depths greater than the qualification of the student.**
4. Oxygen partial pressure may not exceed 1.4 ATA during the working portion of the dives
5. Oxygen partial pressure may not exceed 1.5 ATA during the decompression portion of the dives.
6. Decompression Gas mixtures:
  - a. One (1) stage decompression cylinder containing oxygen PO<sub>2</sub> no greater than 1.5 atm and appropriately labeled.
7. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
8. The Rule of Thirds must be applied from the point of entering the overhead environment until safe exit from the overhead environment portion of the dive.
9. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. Perform a pre-dive "S" (safety) drill prior to starting dive:
  - a. Check all equipment for proper function
  - b. Check equipment of each dive buddy
  - c. Ascertain each team member is familiar with use and location of dive system components.
2. Perform an in-water "S" (safety) drill:
  - a. On surface OR underwater if sea conditions permit OR Immediately when reaching the bottom
3. Leak check each team member's equipment.
  - a. Breathe underwater from both / all regulators to ensure proper functioning.
  - b. Perform light checks.
  - c. Perform valve shutdowns combined with regulator switches including shutting both regulators.
    - **NOTE: If isolator valves are used, these are also to be closed and then re-opened.**
  - d. Buddies should check that all valves are back in proper position at end of drill.



4. On first dive of the day, perform a gas sharing drill.
5. Communicate the gas turn around point in psig or bar
  - ▶ *NOTE: if the divers are wearing different cylinder sizes, match gas per the SRF tables or per dissimilar cylinder volumes.*
6. Confined or OW:
  - a. While simulating an out of gas situation swim 60 feet (18 meters)
  - b. Then commence gas sharing via the long hose
  - c. Remain at rest for three (3) breaths
  - d. Swim for 10 minutes at a normal swim rate of 75 feet (23 meters) a minute.
7. Confined or OW:
  - a. Two divers 50 feet (15 meters) apart must swim along a line circuit with eyes closed not taking a breath, while slowly exhaling until they meet.
  - b. Upon meeting gas sharing via the long hose
  - c. Swim using touch contact technique until the line circuit is completed.
    - ▶ *Repeat using bump and go technique.*
8. Develop proficiency in a variety of propulsion techniques including:
  - a. Cave frog kick
  - b. Modified flutter kick
  - c. Shuffle kick
  - d. Pull and glide technique.
9. Demonstrate proficiency in use of reels and lines.
10. Out of Gas Scenario - During a wreck dive, at a point after turning the dive, perform a gas sharing drill exiting the wreck for a reasonable distance / time.
  - a. Exercise is to commence with Instructor at some point randomly selecting the out of gas diver, who must then go to the buddy and share gas.
  - b. The out of gas diver is to keep the regulator in his or her mouth (leaving airway open) but not breathe from it if at all possible.
    - ▶ *This drill is to be repeated on different dives until all students have been both a donor and a recipient of gas.*
11. On a wreck dive, exit wreck with eyes close maintaining contact with buddy and dive line using touch communications.
  - ▶ *Repeat using bump and go technique.*
12. Out of Gas Scenario - During a wreck dive, at a point after turning the dive, perform a gas sharing drill exiting the wreck for a reasonable distance / time.
  - a. At some point the Instructor will choose one (1) of the divers to simulate being out of gas.
  - b. The out of gas diver must communicate the problem to a buddy via touch contact, and gas sharing.
    - ▶ *NOTE: The gas sharing is to be performed for a reasonable distance.*
    - ▶ *NOTE: Repeat this skill until all students have been both a donor and recipient of gas.*
13. Perform lost diver drills.
14. Demonstrate either on a wreck dive or in confined water the ability to drop and recover a decompression stage cylinder.
15. On at least three (3) dives, the student must simulate a regulator failure:
  - a. While swimming, shut off the valve for the primary regulator
  - b. Switch to the secondary regulator.
  - c. Upon completion, the diver is to turn on the valve for the primary regulator and switch back to it.
    - ▶ *The buddy should act as safety diver during this drill.*

## Technical Wreck Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- A Technical Wreck Instructor may teach this course
- IANTD Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to train divers in extended wreck penetration diving and the technical utilization of EANx for wreck exploration and the use of EANx and oxygen for decompression.

### B. Prerequisites

1. Certification Requirements
  - a. Advanced EANx Diver or higher
  - b. Must proof of a minimum of 100 logged dives.
2. Age Requirement:
  - a. Must be a minimum of 18 years of age

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
  - *NOTE: This course may be taught in conjunction with a Normoxic Trimix Diver or Trimix Diver*
2. All wreck lectures must be completed and a score of 80% on the written exam
3. All students must be taught the concept of gas matching.
4. All wreck lectures must be completed and a score of 80% on the written exam.
5. Land Drills:
  - a. Basic use of safety lines and reels.
  - b. Simulation of wire entanglement will be practiced.

### D. Equipment & Text Requirements

1. IANTD Technical Wreck Diver Student Kit.
2. Equipments:
  - a. Cylinders:
    - I. Sidemount Configuration, OR
    - II. All bottom mix cylinders must be equipped with dual-outlet manifold valves
    - *NOTE: The use of DIN systems are mandatory.*
    - *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
  - b. All students must be taught the concept of gas matching
3. Two (2) Primary regulators:
  - *NOTE: One second-stage hose must be at least five (5) feet (1.5 meters) in length;*
  - *NOTE: Longer hoses are recommended.*
  - *NOTE: The use of DIN systems are mandatory.*
4. A stage decompression cylinder containing oxygen PO2 no greater than 1.6 atm, and appropriately labeled.
5. A primary and backup dive planning/monitoring device such as bottom timer or computer
6. IANTD Dive Tables must be carried on all dives as a primary decompression reference or as a form of backup.

7. Two reels:
  - a. One (1) for penetration
  - b. One (1) for decompression / DSMB or Lift Bag deployment.
8. A DSMB or Lift Bag of at least 50-lb (22.5-kg) lift capacity for a decompression marker.
9. Two lights:
  - a. One (1) primary light
  - b. One (1) backup safety light.
10. A backup cutting tool is recommended.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than three (3) students per Instructor inside the wreck
2. This program must include:
  - a. A minimum of 240 minutes of in wreck run time
  - b. Six (6) technical wreck dives
    - i. If already qualified as IANTD Tek Lite Wreck or equivalent, this program must include:
      - i. A minimum of 120 minutes of wreck run time.
      - ii. Three (3) Technical Wreck dives
        - ▶ **NOTE: At the Instructor discretion, Technical Wreck Diver candidate who is already certified as Technical Essentials Diver but NOT as Tek Lite Wreck Diver, the wreck dive requirements can be reduced to:**
        - ▶ **A minimum of four (4) Technical Wreck Dives and 240 minutes.**
      - iii. Three (3) technical wreck dives
        - ▶ **NOTE: At the Instructor discretion, Technical Wreck Diver candidate who is already certified as Technical Essentials Diver and Tek Lite Wreck Diver, the wreck dive requirements can be reduced to:**
        - ▶ **A minimum of two (2) Technical Wreck Dives and 120 minutes.**
3. Depth limits:
  - a. No dives may be conducted to depths greater than the qualification of the student.
4. Oxygen partial pressure may not exceed 1.4 ATA during the working portion of the dives
5. Oxygen partial pressure may not exceed 1.6 ATA during the decompression portion of the dives.
6. Decompression Gas mixtures:
  - a. Maximum of two (2) stage bottles, appropriately labeled, may be carried
    - ▶ **NOTE: A minimum of one (1) must be used in all dives**
7. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
8. The Rule of Thirds must be applied from the point of entering the overhead environment until safe exit from the overhead environment portion of the dive.
9. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. Perform a pre-dive "S" (safety) drill prior to starting dive:
  - a. Check all equipment for proper function
  - b. Check equipment of each dive buddy
  - c. Ascertain each team member is familiar with use and location of dive system components.
2. Perform an in-water "S" (safety) drill:
  - a. On surface OR underwater if sea conditions permit OR Immediately when reaching the bottom
3. Leak check each team member's equipment.
  - a. Breathe underwater from both / all regulators to ensure proper functioning.

- b. Perform light checks.
  - c. Perform valve shutdowns combined with regulator switches including shutting both regulators.
    - *NOTE: If isolator valves are used, these are also to be closed and then re-opened.*
  - d. Buddies should check that all valves are back in proper position at end of drill.
4. On first dive of the day, perform a gas sharing drill.
5. Communicate the gas turn around point in psig or bar
  - *NOTE: if the divers are wearing different cylinder sizes, match gas per the SRF tables or per dissimilar cylinder volumes.*
6. Confined or OW:
  - a. While simulating an out of gas situation swim 60 feet (18 meters)
  - b. Then commence gas sharing via the long hose
  - c. Remain at rest for three (3) breaths
  - d. Swim for 10 minutes at a normal swim rate of 75 feet (23 meters) a minute.
7. Confined or OW:
  - a. Two divers 50 feet (15 meters) apart must swim along a line circuit with eyes closed not taking a breath, while slowly exhaling until they meet.
  - b. Upon meeting gas sharing via the long hose
  - c. Swim using touch contact technique until the line circuit is completed.
    - *Repeat using bump and go technique.*
8. Develop proficiency in a variety of propulsion techniques including:
  - a. Cave frog kick
  - b. Modified flutter kick
  - c. Shuffle kick
  - d. Pull and glide technique.
9. Demonstrate proficiency in use of reels and lines.
10. Out of Gas Scenario - During a wreck dive, at a point after turning the dive, perform a gas sharing drill exiting the wreck for a reasonable distance / time.
  - a. Exercise is to commence with Instructor at some point randomly selecting the out of gas diver, who must then go to the buddy and share gas.
  - b. The out of gas diver is to keep the regulator in his or her mouth (leaving airway open) but not breathe from it if at all possible.
    - *This drill is to be repeated on different dives until all students have been both a donor and a recipient of gas.*
11. On a wreck dive, exit wreck with eyes close maintaining contact with buddy and dive line using touch communications.
  - *Repeat using bump and go technique.*
12. Out of Gas Scenario - During a wreck dive, at a point after turning the dive, perform a gas sharing drill exiting the wreck for a reasonable distance / time.
  - a. At some point the Instructor will choose one (1) of the divers to simulate being out of gas.
  - b. The out of gas diver must communicate the problem to a buddy via touch contact, and gas sharing.
    - *NOTE: The gas sharing is to be performed for a reasonable distance.*
    - *NOTE: Repeat this skill until all students have been both a donor and recipient of gas.*
13. Perform lost diver drills.
14. Demonstrate either on a wreck dive or in confined water the ability to drop and recover a decompression stage cylinder.
15. On at least three (3) dives, the student must simulate a regulator failure:
  - a. While swimming, shut off the valve for the primary regulator
  - b. Switch to the secondary regulator.
  - c. Upon completion, the diver is to turn on the valve for the primary regulator and switch back to it.
    - *The buddy should act as safety diver during this drill.*

## Wreck Survey Diver

▶ **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- ▶ A Technical Wreck Instructor may teach this course in a Wreck Environment.
- ▶ An Advanced Mine Survey Instructor may teach this course in Mine Environment.
- ▶ **IANTD Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration**

### A. Purpose

1. This Program is designed to provide advanced training in wreck diving skills to the experienced, certified, responsible wreck divers who wishes to conduct dives while surveying on a wreck.
2. Expose wreck divers to conservation concerns and ethical responsibilities presented during collection of survey data.

### B. Prerequisites

1. Certifications requirements:
  - a. For divers who wish to not penetrate a wreck
    - I. IANTD Wreck Diver or higher
  - b. For divers who wish to Survey the inside of a wreck:
    - I. IANTD Tek Lite Wreck Diver or higher
2. Age requirement:
  - a. Must be minimum 18 years of age.
3. Dive experience:
  - a. Must proof of a minimum of 25 logged Wreck Dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook which must be completed prior to any in-water training.
  - ▶ IANTD recommends the use of both, Course Specific Presentation and workbook
2. All Lecture and theory material must be completed including but not limited to:
  - a. Motives and risks involved in wreck survey diving.
  - b. Equipment configuration, additional equipment necessary, and streamlining techniques for survey diving.
  - c. Procedures and techniques for collecting survey data for cartography of different grades of maps.
  - d. Task loading and dive / gas planning needs for survey diving.
  - e. Gas sharing and additional communication techniques during survey data collection.
  - f. Conservation considerations for collecting survey data and minimizing environment impact.
  - g. Reasons for collecting data in the environment.
  - h. Introduction to techniques used to convert collected survey data into accurate map of different grades.
  - i. Responses to emergency situations while surveying a wreck.
3. Land drills:
  - a. Use of lines / line arrows.
  - b. Blacked out drills.
  - c. Lost diver drills / broken lines / line gaps
  - d. Practice proper techniques in survey.
  - e. Proper methods to measuring and draw features and taking notes

## D. Equipment & Text Requirements

1. IANTD Wreck Diver Student Kit OR IANTD Technical Wreck Diver Student Kit.
2. Equipment:
  - a. Cylinders:
    - I. Sidemount Configuration, OR
    - II. All bottom mix cylinders must be equipped with dual-outlet manifold valves.
  - *NOTE: The use of DIN systems are mandatory.*
  - *NOTE: Fulfill all Equipment Requirements as specified in the general Cave Diver Programs overview.*
  - b. All students must be taught the concept of gas matching
3. Two (2) Primary regulators must provide ample gas flow.
  - *NOTE: One second-stage hose must be at least five (5) feet (1.5 meters) in length;*
  - *NOTE: Longer hoses are recommended.*
  - *NOTE: The use of DIN systems are mandatory.*
4. General Equipment list:
  - a. All Equipment Requirements listed in the IANTD Wreck Diver Program.
  - b. For divers who wish to Survey the inside a wreck:
    - I. All Equipment listed in the IANTD Technical Wreck Diver Program
    - II. A primary and back line reel
    - III. A primary and 2 back up lights
5. Suitable survey slate and equipment needed to record data.
6. Any Specialty equipment as specified in the IANTD Wreck Diver Specialty Student Workbook.

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor Wreck Surveying inside a wreck
  - b. There may be no more than four (4) students per Instructor Wreck Surveying outside a wreck.
2. This program must include:
  - a. A minimum of 240 minutes of in cave or mine survey bottom time
  - b. Four (4) Wreck survey dives
3. No dives may be conducted to depths greater than the qualification of the student.
4. Oxygen partial pressure may not exceed 1.40 ATA during the working portion of the dives
5. Decompression gases and dive gases maybe used up to the diver's qualification level.
6. Oxygen partial pressure may not exceed 1.60 ATA during the decompression portion of the dives.
7. All dives must be planned using the best gas in consideration of PO<sub>2</sub> and decompression requirements.
8. All dives must be completed within both the IANTD oxygen CNS% and OTU limits.
9. All appropriate safety or required decompression stops must be performed.

## F. Environment

- a. All training must be done in a Wreck Environment

## G. Water Skills Development

1. Demonstrate proficiency in the following propulsion techniques: modified flutter, modified frog, and standard shuffle kicks when appropriate during a survey dive.
2. Demonstrate the ability to safely and without contacting the wreck collect survey data and stay in full communication with team.
3. Demonstrate neutral buoyancy, trim and environmental awareness while collecting survey data.
4. Demonstrate the ability to navigate the wreck using natural navigation and the use of a line reel



5. On at least one (1) occasion an out of gas drill must be performed without the donor being aware of whether it is a drill or real out of gas situation.
6. On at least one (1) occasion, during a simulated zero visibility situation while avoiding entanglement or loss of the guideline and maintain team using:
  - a. Touch Contact OR Bump & Go.
7. On each dive respond appropriately to a maximum of two (2) emergency scenarios
8. On two (2) dives, deploy a Lift bag or DSMB in under two (2) minutes and make a controlled ascent while conducting any appropriate safety or required decompressions stops.
9. Prepare a drawing from Survey data collected from each dive and then prepare a overall drawing that includes all the data collected from all the course dives.



## Elite Technical Wreck Diver

### A. Purpose

1. This certification has been designed to provide cave divers with the highest recognition in the Technical Diver level before entering the professional diving circle in teaching.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in:
    - I. IANTD Technical Wreck Diver or higher or equivalent.
  - b. Must have 4 of the 5 following certifications:
    - I. IANTD Decompression Specialist
    - II. IANTD Tek OW Sidemount Diver
    - III. IANTD Tek OW DPV Diver
    - IV. IANTD Wreck Survey
    - V. IANTD Tek Essentials Diver
2. Age requirement:
  - a. Must be a minimum of 18 years of age without guardian approval.
3. Dive experience:
  - a. Proof of a minimum of 75 non-training logged Technical dives

### C. Program Content

1. N/A

### D. Equipment Requirements

1. N/A

### E. Program Limits

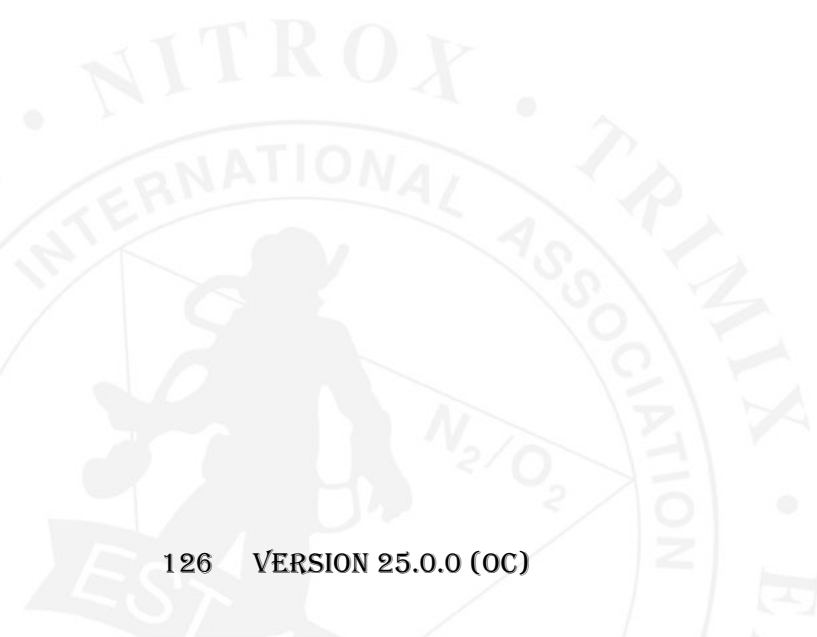
1. N/A

### F. Water Skills Development

1. There is no water skills required.

### G. Application Procedure

1. Fill & submit the Elite Technical Diver Application Form to an IANTD Instructor, HQ or local licensee.



## Supervised Ice Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Ice Diver Specialty Instructor teach this course
- OW Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration.

### A. Purpose

1. This program is intended to experience divers to have a supervised ice diving experience and in safe ice diving techniques, preparation for overall awareness of the ice environment.
2. The supervised Ice Diver shall always perform Ice Dives under the direct supervision of a Ice Diver Instructor.

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in:
    - I. IANTD Advanced Open Water Diver or equivalent.
    - II. IANTD Dry Suit Diver
      - NOTE: Diver's who has equivalent experience on the use of Dry Suit shall demonstrate, in confine water, all water skills listed on the Dry Suit Diver Program to satisfy the instructor that the student is competent and proficient in the use of a dry suit.
      - NOTE: In the case above, after successfully complete the Ice Diver Specialty dives, the diver shall also be certified as a Dry Suit Diver.
      - NOTE: Dry Suit use is recommended but not mandatory.
2. Age requirement:
  - a. A minimum of 16 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. A minimum of 18 years of age without guardian approval.
3. Dive Experience:
  - a. Proof of a minimum of 25 logged dives, where minimum of 10 dives was in the water 50F/10C or colder.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. Academic Session(s) must include:
  - a. General ice terminology, development and features
  - b. Safe ice weight loads and ice mobility
  - c. Ancillary equipment and equipment safety (e.g. saws, augers, etc.)
  - d. Ice access holes for ingress and egress (cutting, size requirements and safety)
  - e. Line and reel usage, line tendering and signals
  - f. Navigation (both above and below the ice)
  - g. Gas management (min. rule of thirds with emphasis on turn pressures)
  - h. Rescue skills, emergency plans and procedures
  - i. Effects of extreme cold on the body
  - j. Effects of extreme cold on equipment and equipment configurations.
4. Confined Water Session(s)

5. Open Water Sessions
  - a. The specialty must have stress management as part of the curriculum.

## D. Equipment & Text Requirements

1. Fulfill all Equipment Requirements as specified in the general Sport Diver Programs overview.
  - ▶ *NOTE: Diver must be certified in Full Face Mask (FFM) if FFM mask is used or the FFM specialty course may be taught concurrently but the combined total of all dives must be completed prior to certification.*
  - ▶ *NOTE: Extra care must be taken if divers participate in this course wearing a wetsuit due the risks from exposure*
  - ▶ *NOTE: Extra care must be taken when using side mount configuration for ice diving.*
2. Safety rope minimum of 132' (40 meters) or one line reel with a minimum of 132' (40 meters) of line.
3. A second line reel with a minimum of 50' (15 meters) of line.
4. Primary AND backup lights.
5. A compass.
6. Adequate exposure protection.
7. The primary gas supply system must have:
  - a. A dual-outlet valve with independent 1st stage regulators, or
  - b. Double cylinders with dual valve outlet AND independent 1st stage regulators, or
  - c. Sidemount configuration.
  - ▶ *NOTE: Additional equipment may be required, as per the Program Outline approved in writing by the Training Director or designated Licensee Region's representative.*

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor.
2. The Program must include:
  - a. A minimum of 20 minutes of Ice Diving bottom time.
  - b. One (1) Ice Dive.
3. No dives may be conducted to depths greater than 60 ffw (18 mfw).
4. Linear limit from the entrance is 100 ft /30m
5. Gas management rules:
  - a. Rule of Thirds
6. Surface support shall always be present on site.
7. Dives should be conducted during daylight hours whenever possible.
8. The supervised Ice Diver shall always perform Ice Dives under the direct supervision of a Ice Diver Instructor

## F. Water Skills Development

1. Identify and evaluate if the ice is safe to accept the weight of all divers and equipment.
2. Identify potentially unsafe ice conditions both pre and post dive.
3. Access point selection for water ingress/egress.
4. Demonstrate how to move around on and behave on the ice.
5. Keeping organized on the ice surface.
6. Care and preparation of equipment.
7. Identify and mitigate the effects of cold water diving and exposure to the diver.
8. Identification and creation of surface aids to navigation.
9. Demonstrate/describe how to navigate back to shore in limited visibility (e.g., snow, fog, etc.)

10. Demonstrate the safe and appropriate use of equipment for ice diving including the following:
  - a. Ice screws and saws or augers
  - b. Picks, pry bars, shovels, rakes or tongs
  - c. Ancillary equipment that may be used (e.g., sleds, snowmobiles, ATVs, etc)
11. The buddy system.
12. Surface support procedures:
  - a. Duties and responsibilities
  - b. Hole cutting and maintenance techniques (e.g., required size and shape, keeping the hole clear, preventing cut ice from occluding the hole)
  - c. Attachment points at the hole and on the diver (if tethered)
  - d. Lines and line tending
  - e. Communications and signals
  - f. Safety divers
  - g. Broken line and lost diver procedures
13. Ingress and egress techniques.
14. Demonstrate the ability to perform simple underwater navigation based on surface aids, natural and compass navigation using dead reckoning.
15. Mask clearing (partial flood only).
16. Simulate broken line & lost diver procedures underwater using line reels (self-rescue).
17. On the surface, positively buoyant, at the end of the last dive of the day, simulate a wide open free flow and use the regulator face down in the water for 30 seconds.
18. Perform an ascent / egress sharing gas

## Ice Diver

► **BE SURE TO CHECK IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAM GENERAL STANDARDS (Pg 26).**

### Who may teach this course?

- Ice Diver Specialty Instructor teach this course
- Open Water Sidemount Instructor or higher is required in order to certify a diver on Sidemount Configuration.

### A. Purpose

1. This program is designed to train competent divers in safe ice diving techniques, preparation for, and overall awareness of the ice environment

### B. Prerequisites

1. Certifications requirements:
  - a. Must be qualified in:
    - I. IANTD Advanced Open Water Diver or equivalent.
    - II. IANTD Dry Suit Diver
      - NOTE: Diver's who has equivalent experience on the use of Dry Suit shall demonstrate, in confine water, all water skills listed on the Dry Suit Diver Program to satisfy the instructor that the student is competent and proficient in the use of a dry suit.
      - NOTE: In the case above, after successfully complete the Ice Diver Specialty dives, the diver shall also be certified as a Dry Suit Diver.
      - NOTE: Dry Suit use is recommended but not mandatory.
2. Age requirement:
  - a. A minimum of 16 years of age for Diver qualification with a parent or guardian authorization, OR;
  - b. A minimum of 18 years of age without guardian approval.
3. Dive Experience:
  - a. Proof of a minimum of 25 logged dives, where minimum of 10 dives was in the water 50F/10C or colder.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. Academic Session(s) must include:
  - a. General ice terminology, development and features
  - b. Safe ice weight loads and ice mobility
  - c. Ancillary equipment and equipment safety (e.g. saws, augers, etc.)
  - d. Ice access holes for ingress and egress (cutting, size requirements and safety)
  - e. Line and reel usage, line tendering and signals
  - f. Navigation (both above and below the ice)
  - g. Gas management (min. rule of thirds with emphasis on turn pressures)
  - h. Rescue skills, emergency plans and procedures
  - i. Effects of extreme cold on the body
  - j. Effects of extreme cold on equipment and equipment configurations.
4. Confined Water Session(s)
5. Open Water Sessions
  - a. The specialty must have stress management as part of the curriculum.



## D. Equipment & Text Requirements

1. Fulfill all Equipment Requirements as specified in the general Sport Diver Programs overview.
  - ▶ *NOTE: Diver must be certified in Full Face Mask (FFM) if FFM mask is used or the FFM specialty course may be taught concurrently but the combined total of all dives must be completed prior to certification.*
  - ▶ *NOTE: Extra care must be taken if divers participate in this course wearing a wetsuit due the risks from exposure*
  - ▶ *NOTE: Extra care must be taken when using side mount configuration for ice diving.*
2. Safety rope minimum of 132' (40 meters) or one line reel with a minimum of 132' (40 meters) of line.
3. A second line reel with a minimum of 50' (15 meters) of line.
4. Primary AND backup lights.
5. A compass.
6. A bottom-deployable DSMB or Lift Bag.
7. Adequate exposure protection.
8. The primary gas supply system must have:
  - a. A dual-outlet valve with independent 1st stage regulators, or
  - b. Double cylinders with dual valve outlet AND independent 1st stage regulators, or
  - c. Sidemount configuration.
  - ▶ *NOTE: Additional equipment may be required, as per the Program Outline approved in writing by the Training Director or designated Licensee Region's representative.*

## E. Program Limits

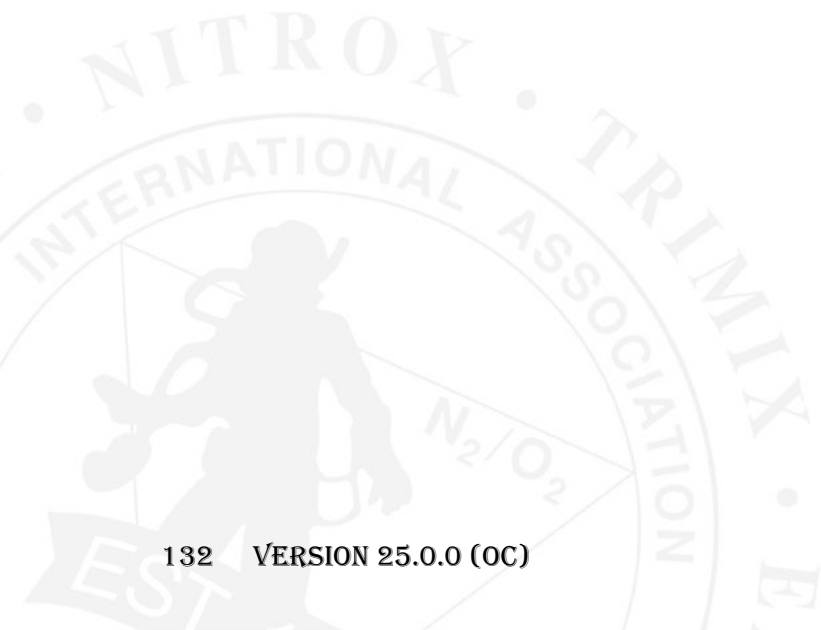
1. Student to Instructor Ratio:
  - a. There may be no more than two (2) students per Instructor.
2. The Program must include:
  - a. A minimum of 60 minutes of Ice Diving bottom time.
  - b. Three (3) Ice Dives.
    - ▶ *NOTE: If the skill and bottom time requirements are completed earlier, the Program may be completed within two (2) Ice Dives.*
3. No dives may be conducted to depths greater than diver previous certification level.
4. Linear limit from the entrance is 132 ft /40m
5. Gas management rules:
  - a. Rule of Thirds
6. Surface support shall always be present on site.
7. Dives should be conducted during daylight hours whenever possible.

## F. Water Skills Development

1. Identify and evaluate if the ice is safe to accept the weight of all divers and equipment.
2. Identify potentially unsafe ice conditions both pre and post dive.
3. Access point selection for water ingress/egress.
4. Demonstrate how to move around on and behave on the ice.
5. Keeping organized on the ice surface.
6. Care and preparation of equipment.
7. Identify and mitigate the effects of cold water diving and exposure to the diver.
8. Identification and creation of surface aids to navigation.
9. Demonstrate/describe how to navigate back to shore in limited visibility (e.g., snow, fog, etc.)

10. Demonstrate the safe and appropriate use of equipment for ice diving including the following:
  - a. Ice screws and saws or augers
  - b. Picks, pry bars, shovels, rakes or tongs
  - c. Ancillary equipment that may be used (e.g., sleds, snowmobiles, ATVs, etc)
11. The buddy system.
12. Surface support procedures:
  - a. Duties and responsibilities
  - b. Hole cutting and maintenance techniques (e.g., required size and shape, keeping the hole clear, preventing cut ice from occluding the hole)
  - c. Attachment points at the hole and on the diver (if tethered)
  - d. Lines and line tending
  - e. Communications and signals
  - f. Safety divers
  - g. Broken line and lost diver procedures
13. Ingress and egress techniques.
14. Demonstrate the ability to perform simple underwater navigation based on surface aids, natural and compass navigation using dead reckoning.
15. Mask clearing (partial flood only).
16. Disconnect and reconnect low pressure quick disconnects on buoyancy compensator and dry suit.
17. Perform valve shutdowns:
  - a. Change regulators and shut the primary-regulator valve off and reopen valve
  - b. Repeat as if the secondary (backup) regulator had malfunctioned.

► *Note: Repeat until skill (both valve openings shutdowns) is completed in less than two (2) minutes.*
18. Demonstrate proficiency in the use of reels and lines.
19. Simulate broken line & lost diver procedures underwater using line reels (self-rescue).
20. On the surface, positively buoyant, at the end of the last dive of the day, simulate a wide open free flow and use the regulator face down in the water for 30 seconds.
21. Perform an ascent / egress sharing gas



# INTERNATIONAL ASSOCIATION OF NITROX AND TECHNICAL DIVERS



Wisdom  
Attitude  
Training  
Experience  
Repetition

## TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS

## IANTD Tek Lite & Technical Leadership and Instructor Programs General Standards

► **NOTE: Unless indicated as specifically for Leadership and Instructor Programs, the following general statements apply to all IANTD Leadership and Instructor Qualification Programs.**

### A. Purpose

1. These Programs are designed to develop qualified IANTD Divemasters, Dive Supervisors & Technical Instructors.

### B. Prerequisites

1. The prerequisites are inside each IANTD Leadership Program
2. Provide proof of insurance listing IANTD as an Additional Insured or financial responsibility for supervising students in the water.
3. Be an IANTD Member and remit annual Divemaster or Supervisor Member fees.

### C. Text / Media

1. All IANTD courses require Student Kits to certify divers.
  - a. Each student MUST have a full set of these reference materials during and following the completion of the class.
  - b. The specific kit is titled "IANTD Instructor or Diver program name" followed by the words Instructor or Diver Kit.
2. IANTD Power Point Slides for any/all IANTD leadership or Instructor Programs being taught.
3. Use of appropriate IANTD Tables/Charts is recommended.

### D. Administrative Requirements - Instructor, Leadership/Facility & IANTD

► **NOTE: All training forms and documents are to remain in the instructor's possession for a minimum of seven (7) years. Upon request for QA reasons or legal needs, the instructor will provide IANTD HQ or the local IANTD Licensee a copy of these forms for a specified student(s).**

1. For every program and prior to any In-Water activity the instructor must ensure:
  - a. The program schedule is presented;
  - b. The students have and record the appropriate prerequisites as listed for each program;
  - c. The student fill out the Administrative forms:
    - I. Medical Exam
      - i. The candidate shall have, within the past year, a medical examination and approval for diving, without conditions or restrictions, by a licensed medical practitioner prior to engaging in water activities. In no event shall medical approval be accepted, wherein the medical practitioner signing the approval is the participating candidate.
    - II. IANTD Complete Liability Release and Contract Not to Sue Form.
2. In order to complete the Leader Registration or instructor the Instructor or IT must submit to IANTD Headquarters or to the appropriate Licensee Office:
  - a. IANTD LEADER Membership and Renewal Form
  - b. IANTD Specific Leadership Final Exam
  - c. Any other required paperwork by IANTD Headquarters.

### E. Teaching Prerequisites

1. Must be a minimum of 18 years of age.
2. Be an IANTD Member, in teaching status, and remit annual Instructor Member fees.
3. Provide proof of insurance listing IANTD as an Additional Insured.
4. Must be qualified as an:
  - a. IANTD Oxygen Provider or equivalent.
  - b. IANTD CPR or equivalent.
  - c. IANTD Diving First Aid or equivalent.

## F. Program Limits

1. Same as specified at the IANTD TECHNICAL DIVER PROGRAM - GENERAL STANDARDS
2. All technical qualifications (Technical Diver, Cave, Wreck and Trimix) must be issued through IANTD.
  - *NOTE: Instructors advertising IANTD Programs but qualifying students through a different OW, EANx or Technical Diving qualification Program instead of IANTD will be suspended from IANTD teaching status*
3. IANTD Submersible tables or “wet notes” with backup dive plan based on IANTD Tables must be used as backup to a dive computer or control of the dive

## G. Special Notes

1. Same as specified at the IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAMS GENERAL STANDARDS.

## H. Water Skills

1. Same as specified at the IANTD TEK LITE , TECHNICAL & OVERHEAD ENVIRONMENT PROGRAMS GENERAL STANDARDS.
2. A land drill must be performed before any diving sessions to practice proper program techniques.
3. This confined water session may be in made in open water to depths up to 60 fsw (18 msw) provided decompression stops are not required.

## I. Qualification Requirements

1. Upon completion of all listed classroom sessions, watermanship skills and dives to the IT's satisfaction, an appropriate IANTD Leadership or Instructor qualification card will be issued.
2. Students with unsafe attitudes, or who demonstrate bad dive habits, must not be qualified.
3. Training is purchased upon enrollment. Qualification is earned through the student's performance and knowledge demonstrated throughout the Program.
4. It is recommended that all training dives be logged in the IANTD Recreational or Technical Diving logbook.
5. Remit annual leadership or Instructor fees.
6. The Program enrolled for must be completed within six months from the starting date, unless otherwise specified in the Standard
7. Become an IANTD Member and remit annual professional fees.

## J. Qualification Renewal

1. Upon qualification candidates should stay abreast of new technologies and / or practices in sport and technical diving.
2. Proof of insurance is required.
3. Remain as an active IANTD Member and remit annual renewal fees.
4. The instructor shall have, within the past year, a medical examination and approval for diving, without conditions or restrictions, by a licensed medical practitioner prior to engaging in water activities. In no event shall medical approval be accepted, wherein the medical practitioner signing the approval is the participating candidate.

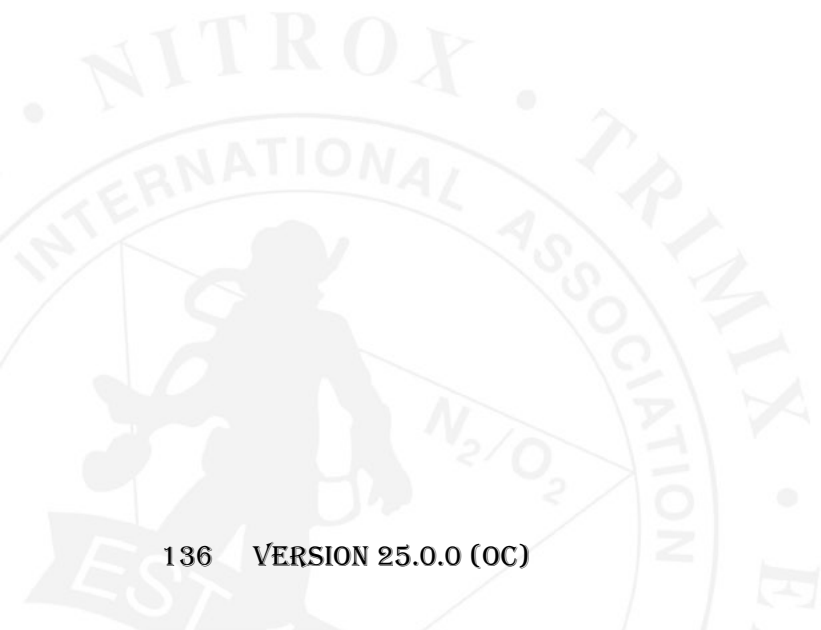
## K. Instructor Evaluation Cross-over

1. Have a instructor certification of a comparable level from a recognized training organization and obtain HQ approval
2. Meet all the pre-requisites as outline in the standards
3. Demonstrate proficiency teaching and demonstrating the skills and techniques required in the applicable diver program over the course of 2 dives or more as need to adequately demonstrate Instructor proficiency.
  - *Note dives for cross-over evaluation do not need to be to the same depths as the dive program but should be to sufficient depths to permit the IT to ensure the cross-over candidate processes the proficiency to teach this program.*



## L. Inactive Instructor

1. If an instructor is inactive for two (2) years, the instructor must complete the following re-instatement procedure:
  - a. Attend an instructor re-instatement program with an Instructor Trainer assigned by HQ or corresponding IANTD Licensee for the area.
  - b. Complete standards review.
  - c. Instructor must pass the specific IANTD Standards Test with a minimum score of 100% with remediation by the Instructor Trainer.
  - d. Complete lectures as assigned by the Instructor Trainer to verify in-depth knowledge and currency in theory and classroom for Open Circuit.
  - e. Perform instructor skills at demonstration quality at the instructor's highest level for Open Circuit.
  - f. Co-teach as assigned by the Instructor Trainer, part of:
    - I. Academic portion at instructor's highest level of certification for Open Circuit.
    - II. Confined Water portion at instructor's highest level of certification for Open Circuit.





**IANTD Sport Diving Instructor Watermanship Form****SPORT DIVING INSTRUCTOR WATERMANSHIP**

(Version 18.2.0)

Instructor Candidate Name: \_\_\_\_\_

Course Title: \_\_\_\_\_

If Rebreather, write which one was used during class: \_\_\_\_\_

Started Date: \_\_\_\_\_ Ended Date: \_\_\_\_\_ IT Name: \_\_\_\_\_ IT #: \_\_\_\_\_

**Mandatory watermanship evaluations for all Instructor Candidates (80 points passing)**

**NOTE: SPORT DIVING INSTRUCTOR PROGRAMS MUST INCLUDE THE FOLLOWING WATER SKILLS AND PHYSICAL FITNESS EVALUATIONS. THESE EVALUATIONS MUST ALL BE DONE AT ONE SESSION. REPEAT THESE EVALUATIONS AT EACH INSTRUCTOR LEVEL, IF IT HAS BEEN MORE THAN THREE (3) MONTHS SINCE THE LAST EVALUATION.**

**1) Skill One (20 points) – Subscore: \_\_\_\_\_**

- a) Swim for a distance of 1,200 feet (370 meters) swim without the use of mask, fins, or snorkel, or of other swimming aids. Subtract four minutes from actual time to score handicapped candidates, such as those with a missing limb (e.g., if performed in 12 minutes or less, the score would be 20 points)

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
8 minutes or less	20	11:01 to 11:20	17	12:46 to 13:00	14	14:16 to 14:30	10
8:01 to 8:40	19.5	11:21 to 11:40	16.5	13:01 to 13:15	13.5	14:31 to 14:45	9
8:41 to 9:20	19	11:41 to 12:00	16	13:16 to 13:30	13	14:46 to 15:00	8
10:01 to 10:20	18.5	12:01 to 12:15	15.5	13:31 to 13:45	12.5	15:01 to 15:15	6
10:21 to 10:40	18	12:16 to 12:30	15	13:46 to 14:00	12	15:16 to 15:30	4
10:41 to 11:00	17.5	12:31 to 12:45	14.5	14:01 to 14:15	11	15:31 to 16:00	2

**2) Skill Two (20 points) – Subscore: \_\_\_\_\_**

- a) Swim 1,800 feet (550 meters) using mask, snorkel and fins (swim with fins only; handicapped divers may use both hands and feet).

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
15 minutes or less	20	16:41 to 17:00	17	18:41 to 19:00	12	20:21 to 20:30	05
15:00 to 15:20	19.5	17:01 to 17:20	16.5	19:01 to 19:20	11	20:31 to 20:40	04
15:21 to 15:40	19	17:21 to 17:40	16	19:21 to 19:40	10	20:41 to 20:50	03
15:41 to 16:00	18.5	17:41 to 18:00	15	19:41 to 20:00	08	20:51 to 21:00	02
16:01 to 16:20	18	18:01 to 18:20	14	20:01 to 20:10	07	Over 21 Minutes	00
16:21 to 16:40	17.5	18:21 to 18:40	13	20:11 to 20:20	06		

**3) Skill Three (20 points) – Subscore: \_\_\_\_\_**

- a) Swim while wearing SCUBA gear on the surface, breathing through a snorkel, for a distance of 800 feet (240 meters). Subtract 3 minutes from actual time to score handicapped candidates or candidates using a rebreather (e.g., if performed in 11 minutes or less, the score would be 20 points).

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
8 minutes or less	20	9:31 to 9:45	17	10:31 to 10:40	12	11:21 to 11:30	05
8:01 to 8:20	19.5	9:46 to 10:00	16	10:41 to 10:50	11	11:31 to 11:40	04
8:21 to 8:40	19	10:01 to 10:10	15	10:51 to 11:00	10	11:41 to 11:50	02
8:41 to 9:00	18.5	10:11 to 10:20	14	11:01 to 11:10	08	11:51 to 12:00	01
9:01 to 9:15	18	10:21 to 10:30	13	11:11 to 11:20	06	over 12 minutes	00
9:16 to 9:30	17.5						



## SPORT DIVING INSTRUCTOR WATERMANSHIP

(Version 18.2.0)

## 4) Skill Four (20) – Subscore: \_\_\_\_\_

- a) Swim while wearing SCUBA gear for a distance of 1,800 feet (550 meters). Subtract 3 (three) minute from actual time for divers using double tanks/rebreather (e.g., if performed in 17 minutes or less, the score would be 20 points). NOTE: Rebreather candidates should perform this skill breathing from offboard bailout.

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
16 minutes or less	20	18:31 to 19:00	17	21:30 to 22:00	14	23:11 to 23:20	08
16:01 to 16:30	19.5	19:01 to 19:30	16.5	22:01 to 22:15	13	23:21 to 23:30	06
16:31 to 17:00	19	19:31 to 20:00	16	22:16 to 22:30	12	23:31 to 23:40	04
17:01 to 17:30	18.5	20:01 to 20:30	15.5	22:31 to 22:45	11	23:41 to 23:50	02
17:31 to 18:00	18	20:31 to 21:00	15	22:46 to 23:00	10	23:51 to 24:00	01
18:01 to 18:30	17.5	21:01 to 21:30	14.5	23:01 to 23:10	09	over 24 minutes	00

## 5) Skill Five (20) – Subscore: \_\_\_\_\_

- a) Swim for a distance of 50 feet (15 meters), without breathing, and commence gas sharing via alternate second-stage regulator with another diver. While continuing to share gas, swim a distance of 1,200 feet (360 meters). Time for scoring begins when both divers begin swimming while sharing gas. Subtract 5 points for each failed attempt by the diver to complete the 50 foot swim. Rebreather candidates will gas share using offboard bailout. Subtract 3 minutes from actual time to score handicapped candidates or divers using a rebreather.

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
10:00 or under	20	11:41 to 12:00	17	13:16 to 13:30	14	15:21 to 15:30	06
10:01 to 10:20	19.5	12:01 to 12:15	16.5	13:31 to 13:45	13	15:31 to 15:40	04
10:21 to 10:40	19	12:16 to 12:30	16	13:46 to 15:00	12	15:41 to 15:50	02
10:41 to 11:00	18.5	12:31 to 12:45	15.5	15:01 to 15:10	10	15:51 to 16:00	01
11:01 to 11:20	18	12:46 to 13:00	15	15:11 to 15:20	08	over 16 minutes	00
11:21 to 11:40	17.5	13:01 to 13:15	14.5				

6) Survival swim/float without the use of mask, fins, or snorkel, or of other swimming aid for 10 Minutes  
\_\_\_\_\_ (Pass or Fail)

## 7) Instructor Watermanship Skills Conclusion:

ACKNOWLEDGE OF GRADE	TOTAL SCORE	DATE	SIGNATURE or PIN#
Instructor Candidate			
Instructor Trainer Signature			



**IANTD Technical Instructor Watermanship Form****TECHNICAL INSTRUCTOR WATERMANSHIP**

(Version 18.2.0)

Instructor Candidate Name: \_\_\_\_\_

Course Title: \_\_\_\_\_

If Rebreather, write which one was used during class: \_\_\_\_\_

Started Date: \_\_\_\_\_ Ended Date: \_\_\_\_\_ IT Name: \_\_\_\_\_ IT #: \_\_\_\_\_

**Mandatory watermanship evaluations for all Instructor Candidates (80 points passing)**

**NOTE: ALL INSTRUCTOR PROGRAMS MUST INCLUDE THE FOLLOWING WATER SKILLS AND PHYSICAL FITNESS EVALUATIONS. THESE EVALUATIONS MUST ALL BE DONE AT ONE TIME, WITH NO MORE THAN 5 MINUTES REST PERIOD BETWEEN SKILLS. REPEAT THESE EVALUATIONS AT EACH INSTRUCTOR LEVEL, IF IT HAS BEEN MORE THAN THREE (3) MONTHS SINCE THE LAST EVALUATION.**

**1) Skill One (20 points) – Subscore: \_\_\_\_\_**

- a) Swim for a distance of 3,000 feet (900 meters) while wearing SCUBA gear configured as double cylinders with one stage cylinder. Subtract 3 minutes from actual time to score candidates using a rebreather.

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
25:30 or less	20	29:01 to 29:20	14	31:41 to 32:00	09	32:41 to 32:50	04
25:31 to 26:00	19	29:21 to 29:40	13	32:01 to 32:10	08	32:51 to 33:00	03
27:01 to 27:30	18	29:41 to 30:00	12	32:11 to 32:20	07	33:01 to 33:30	02
27:31 to 28:00	17	30:01 to 30:20	11	32:21 to 32:30	06	33:31 to 34:00	01
28:01 to 28:30	16	30:21 to 31:40	10	32:31 to 32:40	05	over 34 minutes	00
28:31 to 29:00	15						

**2) Skill Two (20 points) – Subscore: \_\_\_\_\_**

- a) Swim for a distance of 2,400 feet (720 meters) wearing mask, snorkel, and fins.)

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
17:30 or less	20	20:01 to 20:20	14	21:41 to 22:05	09	23:21 to 23:30	04
17:31 to 18:00	19	20:21 to 20:40	13	22:06 to 22:30	08	23:31 to 23:40	03
18:01 to 18:30	18	20:41 to 21:00	12	22:31 to 22:45	07	23:41 to 23:50	02
18:31 to 19:00	17	21:01 to 21:20	11	23:00 to 23:10	06	23:51 to 24:00	01
18:01 to 19:30	16	21:21 to 21:40	10	23:11 to 23:20	05	over 24 minutes	00
19:31 to 20:00	15						

**3) Skill Three (20 points) – Subscore: \_\_\_\_\_**

- a) Swim for a distance of 60 feet (18 meters), without breathing, and commence gas sharing via long-hose second-stage regulator with another diver. While continuing to share gas, swim a distance of 800 feet (240 meters). Time for scoring begins when both divers begin swimming while sharing gas. Subtract 5 points for each failed attempt by the diver to complete the 60-foot swim. Rebreather candidates will gas share using offboard bailout. Subtract 3 minutes from actual time to score handicapped candidates or divers using a rebreather.

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
8 minutes or less	20	09:31 to 9:40	14	10:21 to 10:30	06
08:01 to 8:15	19.5	09:41 to 9:50	13	10:31 to 10:40	04
08:16 to 8:30	19	09:51 to 10:00	12	10:41 to 10:50	02
08:31 to 8:45	18.5	10:01 to 10:10	10	10:51 to 11:00	01
08:46 to 9:00	18	10:11 to 10:20	08	over 11 minutes	00
09:01 to 9:10	17				



## TECHNICAL INSTRUCTOR WATERMANSHIP

(Version 18.2.0)

## 4) Skill Four (5) – Subscore: \_\_\_\_\_

- a) Switch from primary regulator to secondary regulator, then switch back to primary regulator and turn valve for secondary regulator back on. Rebreather candidates will turn the DSV/BOV off, then switch to offboard bailout, take 3 breaths, switch back to the DSV/BOV and turn the DSV/BOV on.

TIME (MM:SS)	POINTS
45 seconds or less	5
0:46 to 1:15	4
1:16 to 1:45	3
1:46 to 2:00	2
2:01 to 2:15	1
over 2:15	0

## 5) Skill Five (5) – Subscore: \_\_\_\_\_

- a) Deploy lift bag.

TIME (MM:SS)	POINTS
45 seconds or under	5
0:46 to 1:15	4
1:16 to 1:45	3
1:46 to 2:00	2
2:01 to 2:15	1
over 2:15	0

## 6) Skill Five (5) – Subscore: \_\_\_\_\_

- a) Tow a diver for a distance of 200 feet (60 meters) on the surface while simulating rescue breathing, then simulate actions for activation of the EMS procedure and remove victim's equipment. Fifteen points are for overall procedure and technique, scored per IT evaluation. Five additional points are to be directed at removal of the victim's equipment scored as follows. Subtract 1 minute from actual time to score divers using a rebreather

TIME (MM:SS)	POINTS
3 minutes or less	5
3:01 to 3:30	4
3:31 to 4:00	3
4:01 to 4:30	2
4:31 to 5:00	1
over 5 minutes	0

## 7) Instructor Watermanship Skills Conclusion:

ACKNOWLEDGE OF GRADE	TOTAL SCORE	DATE	SIGNATURE or PIN#
Instructor Candidate			
Instructor Trainer Signature			



**IANTD Trimix Instructor Watermanship Form****TRIMIX INSTRUCTOR WATERMANSHIP**

(Version 20.1.0)

Instructor Candidate Name: \_\_\_\_\_

Course Title: \_\_\_\_\_

If Rebreather, write which one was used during class: \_\_\_\_\_

Started Date: \_\_\_\_\_ Ended Date: \_\_\_\_\_ IT Name: \_\_\_\_\_ IT #: \_\_\_\_\_

Mandatory watermanship evaluations for all Instructor Candidates (68 points passing)

NOTE: ALL INSTRUCTOR PROGRAMS MUST INCLUDE THE FOLLOWING WATER SKILLS AND PHYSICAL FITNESS EVALUATIONS. THESE EVALUATIONS MUST ALL BE DONE AT ONE TIME, WITH NO MORE THAN 5 MINUTES REST PERIOD BETWEEN SKILLS. REPEAT THESE EVALUATIONS AT EACH INSTRUCTOR LEVEL, IF IT HAS BEEN MORE THAN THREE (3) MONTHS SINCE THE LAST EVALUATION.

**1) Skill One (25 points) – Subscore: \_\_\_\_\_**

- a) Swim for a distance of 60 feet (18 meters), without breathing, and commence gas sharing via long-hose second-stage regulator with another diver. While continuing to share gas, swim a distance of 800 feet (240 meters). Time for scoring begins when both divers begin swimming while sharing gas. Subtract 5 points for each failed attempt by the diver to complete the 60-foot swim. Subtract 3 minutes from actual time to score candidates using a rebreather

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
8 minutes or less	25	09:31 to 9:40	19	10:21 to 10:30	11
08:01 to 8:15	24	09:41 to 9:50	18	10:31 to 10:40	08
08:16 to 8:30	23	09:51 to 10:00	17	10:41 to 10:50	04
08:31 to 8:45	22	10:01 to 10:10	15	10:51 to 11:00	01
08:46 to 9:00	21	10:11 to 10:20	13	over 11 minutes	00
09:01 to 9:10	20				

**2) Skill Two (20 points) – Subscore: \_\_\_\_\_**

- a) Swim for a distance of 2,000 feet (600 meters) while wearing SCUBA gear configured as double cylinders with two (2) stage cylinders. Subtract 3 minutes from actual time to score candidates using a rebreather.

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
19:30 or less	20	22:01 to 22:10	14	22:51 to 23:00	09	23:21 to 23:25	04
19:31 to 20:00	19	22:11 to 22:20	13	23:01 to 23:05	08	23:26 to 23:30	03
20:01 to 20:30	18	22:21 to 22:30	12	23:06 to 23:10	07	23:31 to 23:40	02
20:31 to 21:00	17	22:31 to 22:40	11	23:11 to 23:15	06	23:41 to 24:00	01
21:01 to 21:30	16	22:41 to 22:50	10	23:16 to 23:20	05	over 24 minutes	00
21:31 to 22:00	15						

**3) Skill Three (10 points) – Subscore: \_\_\_\_\_**

- a) Swim for a distance of 50 feet (15 meters), drop one stage cylinder, swim an additional 50 feet (15 meters), and drop the second stage cylinder, all with a minimum of change in swim pace. Swim 50 feet (15 meters) and recover the cylinders in reverse order, while maintaining the swim rate. Rebreather divers will drop DECO cylinders. Rebreather divers shall always have the bailout cylinder with them.

PERFORMANCE	POINTS
Skill complete in less than 3 minutes with good technique and no slowing of swim pace.	10
Candidate slows pace during drop or retrieval of stages, or technique is sloppy, completed in less than 3 minutes.	9
Candidate stops during either the drop, or skill is completed in less than 3 ½ minutes.	6
Candidate stops during both the drop, and skill completed in less than 4 minutes.	4
Skill completed in more than 4 minutes, but less than 5 minutes.	2
Skill completion in more than 5 minutes	1
Skill complete in less than 3 minutes with good technique and no slowing of swim pace.	0



## TRIMIX INSTRUCTOR WATERMANSHIP

(Version 20.1.0)

### 4) Skill Four (10) — Subscore: \_\_\_\_\_

- a) For the first phase of this skill, tow a diver for a distance of 200 feet (60 meters) on the surface in full gear consisting of double cylinders and two (2) stage cylinders, simulating rescue breathing, then simulate actions for activation of the EMS procedure. Ten points are given for perfect technique and use of EMS procedures, and points are subtracted at the IT's discretion from the possible 10 for this portion of the rescue based on subjective evaluation of technique and understanding of the EMS procedures. For the second phase of this skill, remove the victim's equipment and prepare for exiting the water. Score according to timetable below. For the third phase of this skill, simulate CPR on the surface. Five points are given for perfect technique, and points are subtracted at the IT's discretion from the possible 10 for this portion of the rescue based on subjective evaluation of technique. Subtract 1 minute from actual time to score divers using a rebreather.

TIME (MM:SS)	POINTS	TIME (MM:SS)	POINTS
3 minutes or less	5	4:31 to 4:45	4
3:01 to 3:30	4	4:46 to 5:00	2
3:31 to 4:00	3	over 5 minutes	0
4:01 to 4:30	2		

### 5) Skill Five (10) — Subscore: \_\_\_\_\_

- a) With eyes closed, swim a distance of 50 feet (15 meters) along a line or other reference device. Remove stage cylinders and swim an additional 50 feet (15 meters). Return to stage cylinders (IT should move cylinders around, but they will remain in the same area). By feel, cylinders will be retrieved and connected in the appropriate location. Swim an additional 50 feet (15 meters) and switch to lowest EANx mixture, then swim an additional 50 feet (15 meters) and switch to highest EANx or oxygen mixture. Rebreather divers shall always be able to monitor their PO<sub>2</sub> during the whole drill. Rebreather divers will drop DECO cylinders. Rebreather divers shall always have the bailout cylinder with them.
- i) Score 10 points if performed correctly.
- (1) Deduct 1 point for any loss of buoyancy control.
  - (2) Deduct 2 points if the cylinders are not stored in the proper place.
  - (3) Deduct 10 points if the candidate switches to the wrong gas mixture.

### 6) Skill Five (10) — Subscore: \_\_\_\_\_

- a) Remove double cylinders and both stage cylinders, then replace doubles and both stages.
- i) Score 10 points if performed correctly. Rebreather divers shall remove all decompression cylinders but always have the bailout cylinder with them. Remove the rebreather is optional.
- (1) Deduct 1 point for each entanglement.
  - (2) Deduct 2 points for loss of buoyancy control.
  - (3) Deduct 2 points if skill takes more than 3 minutes to complete.

### 7) Instructor Watermanship Skills Conclusion:

ACKNOWLEDGE OF GRADE	TOTAL SCORE	DATE	SIGNATURE
Instructor Candidate			
Instructor Trainer Signature			



## Cavern Divemaster

▶ **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- ▶ IANTD Cavern Diver Instructor or higher
- ▶ IANTD Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to extend the diver's knowledge to safely guide professional cavern tours of non-cavern certified divers (maximum 4 divers) in the overhead environment.
2. Focus of this program is on safety, conservation, professionalism and preservation.

### B. Prerequisites

1. Certifications requirements:
  - ▶ *NOTE: If an equivalent certification is accepted for CPR and Oxygen Provider, it must be current within the last two (2) years.*
  - ▶ *NOTE Qualification in two (2) optional IANTD Specialty Programs is recommended.*
    - a. Must be qualified in:
      - I. IANTD Divemaster or higher or equivalent
      - II. IANTD Cave Diver
2. Age requirement:
  - a. Must be minimum 18 years of age.
3. Dive experience:
  - a. Must proof of a minimum of 60 logged dives
    - ▶ *NOTE: A minimum of 30 logged dives of the 60 were cavern dives.*
4. Complete the academic development sessions, cavern skills, emergency skills, and IANTD Cavern Divemaster written exam with a minimum score of 80%.

### C. Program Content

1. All lectures completed with IANTD Course specific Slides pertaining to the theory in the IANTD Divemaster Student Kit.
2. Assistance Requirements:
  - a. Must assist in one (1) complete Cavern Diver Program or more at instructor discretion.
    - ▶ *NOTE: If not an IANTD Divemaster, the candidate must go thru the following power point presentations:*
      - ▶ IANTD Open Water Diver
      - ▶ IANTD EANx Diver
      - ▶ IANTD Advanced Open Water Diver
      - ▶ IANTD Deep Diver
      - ▶ IANTD Rescue Diver
3. A review and demonstration of the following skills during open water and cavern dives:
  - a. General Briefing
  - b. Pre-dive procedures.
  - c. Equipment Checks.
  - d. Simulated Cavern Experience
  - e. Running reel in cavern zone (if line exists, line must be run next to it).

4. Each Cavern Divemaster candidate will be evaluated on his or her ability to perform various aspects of a simulated Cavern Experience. These are to include:
  - a. General Briefing.
  - b. Site briefing.
  - c. Pre-dive procedures.
  - d. Simulated Cavern Experience.
  - e. Participant control.
  - f. Emergency procedures.

#### **D. Equipment Requirements**

1. IANTD Divemaster Student Kit and all IANTD Student Kits up to current level of qualification.
2. All cave diving gear as required in the Cave Diver Program.

#### **E. Program Limits**

1. Student to Instructor Ratio:
  - a. There may be no more than 4 students per Instructor.
2. Same limits as stated at the Cavern Diver Program
3. No dives may be conducted to depths greater than 132 fsw (40 msw).
4. All dives must be conducted using EAN21 to EAN40 (maximum 40% oxygen).
5. All appropriate safety stops must be performed.
6. All dives are to be planned for no required decompression stop.

#### **F. Water Skills Development**

1. Proper Equipment configuration.
2. Safe entry and exit.
3. Pre-dive safety checks.
4. Buoyancy and Trim.
5. Propulsion Techniques.
6. Hovering.
7. Equipment Manipulation.
8. Gas / Valve shut downs on each dive.
9. Air sharing techniques.
10. Use of reels / guidelines.
11. Open water stress circuit including but not limited to:
  - a. No mask swimming.
  - b. Zero visibility line following.
  - c. Gas sharing.
  - d. Touch contact
  - e. Bump & Go.
12. Rescue Scenarios (open water):
  - a. Underwater swim with an unconscious diver.
  - b. Surfacing with unconscious diver.

## Advanced EANx or Adv. Recreational Trimix Supervisor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- IANTD Advanced EANx Instructor or higher may teach
- IANTD Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to provide responsible training for those persons wishing to supervise IANTD divers.
2. These include IANTD Open Water Diver, IANTD Advanced Open Water Diver, IANTD EANx Diver and Rescue Diver.

### B. Prerequisites

1. Certifications requirements:
  - *NOTE: If an equivalent certification is accepted for CPR and Oxygen Provider, it must be current within the last two (2) years.*
  - *NOTE: Qualification in two (2) optional IANTD Specialty Programs is recommended.*
  - a. Must be qualified in:
    - I. IANTD Rescue Diver or equivalent
    - II. IANTD Advanced EANx Diver or equivalent for Advanced EANx Diver Supervisor OR
    - III. IANTD Advanced Recreational Trimix or equivalent for Advanced Recreational Trimix Diver Supervisor.
    - *First Aid, CPR and Oxygen Administrator may be conduct in conjunction with the program but training hours do not count to the minimum required.*
    - *As long as the other prerequisites are fulfilled, the Rescue Diver Program may be taught during the Divemaster Program and may be counted toward the 40 total training hours.*
2. Age requirement:
  - a. Must be a minimum of 18 years of age without guardian approval.
3. Dive experience:
  - a. Must proof of a minimum of 60 logged dives.

### C. Program Content

1. Use of the Course Specific Presentation is optional with the use of the Course Specific Student Workbook or IANTD eLearning which must be completed prior to any in-water training.
  - IANTD recommends the use of both, Course Specific Presentation and workbook
2. All the water skills must be practiced until the student is proficient in each skill.
3. Must complete the academic sessions utilizing the IANTD Divemaster Manual
4. Must review the IANTD Standards and Procedures
5. Complete knowledge reviews
6. Pass the IANTD Divemaster exam with a minimum score of 80%.
7. Complete an Emergency Assistance Plan and Risk Analysis for a scenario to be assigned by the Instructor.
8. Students must be able to demonstrate all Open Water Diver, Advanced Open Water Diver and Rescue Diver practical skills in a manner showing the highest level of mastery and competence.
9. The IANTD Divemaster candidate must assist in at least:
  - a. One (1) complete Open Water Diver Program;
  - b. One (1) complete Advanced Open Water Diver Program;
  - c. One (1) complete Rescue Diver Program.
  - d. One (1) complete Deep Diver Program;
  - e. One (1) complete Advanced EANx Diver or Advanced Recreational Trimix Diver Program.

10. Students must be able to demonstrate competence in all scuba skills, and ability to cope with the most demanding operational factors of the region. Influencing factors may include the following:

- a. Depth range exceeding 70 fsw (21 msw).
- b. Underwater visibility.
- c. Size and experience of the diving group supervised.
- d. Equipment used.
- e. Current.
- f. Surface conditions.
- g. Water temperature.

► *NOTE: Students must be able to demonstrate mastery of the techniques involved in planning and executing dives at the depth ranges typical for recreational scuba diving in the local environment no greater than 100 fsw (30 msw)*

## D. Equipment & Text Requirements

1. IANTD Divemaster Student Kit.
2. Fulfill all Equipment Requirements as specified in the program being supervised.
3. Equipments:
  - a. Cylinders:
    - I. Single cylinder OR
    - II. Sidemount Configuration
4. One (1) of the second-stage regulators on the primary gas supply must be attached with a hose that is at least five (5) feet (1.5 meter) long.

► *NOTE: Longer hoses are recommended.*

## E. Program Limits

1. Student to Instructor Ratio:
  - a. There may be no more than 4 students per Instructor.

► *NOTE: This ratio may be increased by two (2) students for each assisting IANTD Divemaster, up to a maximum of eight (8) students with two (2) IANTD Divemasters per class session.*
2. IANTD Divemasters may supervise, escort and assist in all IANTD Open Water Diver Programs but cannot conduct SCUBA training exercises unless under the direction of a qualified IANTD Open Water Instructor or higher
3. IANTD Divemasters are qualified to plan and execute emergency procedures appropriate for the diving activity and environment.
4. Upon completion of the program, Divemasters may conduct any specialized scuba diving activities for which they have received appropriate training.

► *NOTE: If diving in conditions significantly different from those previously experienced the Divemaster shall require an appropriate orientation.*
5. Divemasters may teach Snorkel Skin Diver.
6. Divemasters who complete Item 2 under Water Skills Development may teach the IANTD OW Free Diver course.
7. No dives may be conducted to depths greater than diver previously certification level.
8. A minimum of 40 hours of training shall be conduct under direct supervision of an IANTD Instructor.
9. All appropriate safety or required decompression stops must be performed.

## F. Water Skills Development

1. To be allowed to teach the Free Diver Program must demonstrate ability to free dive to 50 fsw (15 msw) by actually doing a free dive.
2. Out of Air Scenario:
  - a. Swim in a simulated out of air situation (without breathing, and exhaling slowly) for a distance of at least 60 feet (18 meters)
  - b. Start gas sharing
  - c. While gas sharing, continue to swim for at least 10 minutes while maintaining a swim rate of approximately 50 feet (15 meters) per minute.
3. Demonstrate recognition of emergency situations.
4. Demonstrate basic underwater search skills.
5. Demonstrate a rescue of a diver from a depth no greater than 20 fsw (6 msw) to the surface, including:
  - a. Removal of equipment
  - b. Tow for a distance of approximately 100 feet (30 meters) while simulating rescue breaths and remove casualty from the water.
  - c. Manage emergency situation including coordination with emergency services.
6. Demonstrate proficiency in underwater navigation, using both instruments and natural navigation safely leading other divers.
7. Demonstrate proficiency of water skills taught in Open Water, Advanced Open Water Diver and Rescue Diver Programs.
8. Assist in water skills teaching as described in Program Content section.
9. Complete Watermanship Drills number 3 & 4 as found in the Advanced Nitrox Instructor Watermanship Evaluation. (32 points is minimal passing)
10. Dive planning, preparation and conduct. General group control and schedule application
  - a. Site selection taking into account team members capabilities and environmental factors.
  - b. Emergency plan and equipment preparation.
  - c. Decompression calculation and relevant factors.
  - d. Descend and ascend aids.
  - e. Dive limits (general).
  - f. Use of buoys and flags.
  - g. Dive briefing.
  - h. Kitting up and pre-dive checks.
  - i. Entry and descend control.
  - j. Monitoring of dive plan and environmental conditions.
  - k. Awareness of diver's stress levels.
  - l. Identification of underwater hazards.
  - m. Appropriate reaction to problems and emergencies.
  - n. Ascend and exit control.
  - o. Debriefing and other post dive procedures.
  - p. Consideration of off gassing phase (avoid potential danger – altitude, physical activities, etc.)
  - q. Post dive care of equipment.
  - r. Proper documentation of the dive

## G. Qualification Renewal

1. Assist in a minimum of two (2) IANTD Programs annually.
2. Log a minimum of 12 non-Divemastering dives annually.
3. Maintain current liability insurance and IANTD membership.

## Technical Diver Supervisor Levels

- ▶ **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**
- ▶ IANTD Tek Open Water Sidemount Instructor is required in order to certify a diver on Sidemount Configuration

### A. Purpose

1. This Program is designed to provide recognition of leadership qualifications of competent divers.
2. Prepare Technical Diver Supervisors to supervise divers training at the the level they are Supervisors for.

### B. Who Can Teach & Prerequisites

1. For All Levels:
  - a. Certification Requirements:
    - I. Must be qualified as an IANTD Divemaster or equivalent.
      - ▶ *NOTE: If an equivalent certification is accepted, First Aid Diver, CPR and Oxygen Provider must be current within the last two (2) years.*
  - b. Age requirement:
    - I. Must be minimum 18 years of age.
2. Technical Supervisor Levels Prerequisites:
  - a. For Technical Supervisor Diver
    - I. **Who may teach this course?**
      - i. IANTD Technical Instructor or higher
    - II. Must be qualified as an IANTD Technical Diver
    - III. Must provide proof of a minimum of 150 logged dives, of which at least 50 were deeper than 132 fsw (40 msw) and at least 10 were to a depth of at least 160 fsw (48 msw).
  - b. For Normoxic Trimix Supervisor:
    - I. **Who may teach this course?**
      - i. IANTD Normoxic Trimix Instructor or higher
    - II. Must be qualified as an IANTD Normoxic Trimix Diver
    - III. Must provide proof of a minimum of 150 logged dives, of which at least 50 were deeper than 132 fsw (40 msw) and at least 10 were to a depth of at least 190 fsw (57 msw).
  - c. For Trimix Supervisor:
    - I. **Who may teach this course?**
      - i. IANTD Trimix Instructor or higher
    - II. Must be qualified as an IANTD Trimix Diver
    - III. Must provide proof of a minimum of 200 logged dives, of which at least 20 were Trimix dives deeper than 150 fsw (45 msw) and at least 10 were to a depth of at least 200 fsw (60 msw).
  - d. For Expedition Trimix Supervisor:
    - I. **Who may teach this course?**
      - i. IANTD Expedition Trimix Instructor
    - II. Must be qualified as an IANTD Expedition Trimix Diver
    - III. Must provide proof of a minimum of 300 logged dives, of which at least 100 were Trimix dives deeper than 240 fsw (80 msw) and at least 20 were to a depth of at least 300 fsw (90 msw).
  - e. For Wreck Supervisor:
    - I. **Who may teach this course?**
      - i. IANTD Technical Wreck Instructor
    - II. Must be qualified as an IANTD Technical Wreck Diver.
    - III. Must provide proof of a minimum of 100 logged dives, of which at least 35 were wreck dives.



- f. For Cave Supervisor:
  - I. **Who may teach this course?**
    - i. IANTD Technical Cave Instructor
  - II. Must be qualified as an IANTD Technical Cave Diver.
  - III. Must provide proof of a minimum of 100 logged dives, of which at least 60 were cave dives.
- g. For Mine Supervisor:
  - I. **Who may teach this course?**
    - i. IANTD Technical Mine Instructor
  - II. Must be qualified as an IANTD Mine Diver.
  - III. Must provide proof of a minimum of 100 logged dives, of which at least 60 were mine dives.

### C. Program

1. Must assist in at least two (2) complete courses in direct supervision of divers (under guidance of an Instructor) at the level applied for and give at least two (2) lectures
2. This Program must include a minimum of two (2) evaluation dives at each level of qualification being qualified, in addition to the in-water time specified above.

### D. Equipment Requirements

1. All IANTD Student Kits up to current level of qualification.
2. Fulfill all Equipment Requirements as specified in the General Standards Diver Programs overview from each Technica Supervisor Level.

### E. Program Limits

1. Dive Supervisors must be diver qualified at level they supervise the candidate must obtain Technical training appropriate for the environment and depth range to be supervised.
2. Same as for the applicable IANTD Technical Diver Program, Cave Diver Program and Wreck Diver Program.

### F. Water Skills Development

1. Assist on all dives of a course in each level being qualified for (IANTD Technical Diver, Trimix Diver, Wreck Diver or Cave Diver Programs).
2. Demonstrate all skills taught in the applicable IANTD Program(s) at Demonstration quality.
3. Demonstrate overall water skills and supervision abilities to the satisfaction of the Instructor

## Advanced EANx Instructor Development Program

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Advanced EANx Instructor Trainer or higher may teach this course.
- Tek Open Water Sidemount Instructor Trainer or higher is required in order to certify a instructor on Sidemount Configuration

### A. Purpose

1. This Program is designed to train qualified IANTD Advanced EANx Supervisors, who are not already Scuba Instructors, to teach IANTD Sport Diving Programs

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an IANTD Advanced EANx Supervisor or equivalent.
  - b. Must be qualified as an Oxygen Provider, CPR and Diving First Aid
    - *Complete these qualifications in conjunction with the IEC.*
    - *NOTE: If taking the program using Sidemount configuration, the candidate must also be qualified as IANTD Tek Open Water Sidemount Diver*
2. Age Requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive Experience:
  - a. Must provide proof of a minimum of 100 logged dives, of which:
    - I. At least 50 were a combination of Deep Diver dives between 90 fsw (27 msw) and 132 fsw (40 msw) Advanced EANx dives with at least 25 decompression dives within the Advanced EANx limits.
    - II. Must have assisted in at least three (3) courses from one (1) or more of the following IANTD Qualification Programs:
      - i. Open Water Diver, Advanced Open Water Diver, EANx Diver, Deep Diver, and Advanced EANx Diver prior to being qualified at the Instructor level.

### C. Program Content

1. A 7 day Program directing the Instructor candidate in the methods and techniques of training IANTD Divers.
  - *Upgrade program 3 days*

### D. Equipment & Text Requirements

1. IANTD Advanced EANx Diver Student Kit plus Kits related to all other IANTD programs that the Candidate is qualified to teach.
2. IANTD Sport Diving Instructor Kit.
3. All Equipment Requirements listed in the IANTD Advanced EANx Diver Program are mandatory.

### E. Program Limits

1. The IDP is staffed by at least one (1) Open Water IT plus one (1) other Advanced EANx Instructors.
2. Same as for the IANTD Advanced EANx Diver Program.

### F. Qualification Renewal

1. Teach a minimum of three (3) IANTD Diver Programs annually which (2) two must be your highest level.
  - *NOTE: If the instructor has any overhead environment qualification, one (1) class must be the highest overhead environment and one (1) must be the highest level for Open Water (Ex.: 1 Advanced ENAx Program and 1 Introductory to Cave Diver Program) , or co-teach three (4) IANTD Diver Programs which two (2) must be as defined above*

## G. Water Skills Development

1. Complete Watermanship skills from the Advanced EANx crossover program.
2. To be allowed to teach the OW Free Diver Program must demonstrate ability to free dive to 50 fsw (15 msw) by actually doing a free dive.
3. Stress Management Skill:
  - a. Remove SCUBA gear, underwater.
  - b. Make an ESA
  - c. Swim 30 feet (9 meters) from the point of ditching SCUBA.
  - d. After taking 3 breaths free dive to the SCUBA unit and don SCUBA gear.
4. Surface Skill:
  - a. Swim on back with full SCUBA gear on for a distance of at least 300 feet (90 meters),
  - b. Remove SCUBA gear and use it as a front mounted platform
  - c. Swim an additional 300 feet (90 meters).
5. Perform valve shutdowns and regulator switches simulating equipment failure in less than 1 minute.
6. Deploy a DSMB or Lift Bag in less than 1½ minute.
7. Demonstrate all skills taught in Deep Diver and Advanced EANx Diver Programs, as well as other OW skills as assigned by the IT.
8. Demonstrate teaching Rescue Diver skills as per IT assignment.
9. Demonstrate proficiency in illustrating and teaching water skills in IANTD Programs as per assignments given by IT.
10. Complete all skills as required for Instructor status.
11. Complete OW teaching skills for Deep Diver and Advanced EANx Diver Program on at least one (1) dive, and demonstrate other OW teaching skills on a second dive per assignment given by IT.
12. Demonstrate the ability to use malfunctioning equipment as follows: with SCUBA units placed 40 feet (12 meters) apart swim to the first unit which is to have the non-return exhaust valve removed from the second stage. Take at least three (3) breaths from it, swim to the second unit that will have a dislocated diaphragm and take at least three (3) breaths from it. Swim to a third unit which will be adjusted to give a rapid free flow when turned on and breathe from this unit for at least three (3) breaths. If the candidate surfaces before completing all three (3) steps, he or she will be allowed up to three (3) additional attempts.
13. Perform a SCUBA bailout.

## H. After Certified

1. After certified, the Advanced EANx Instructor will be able to teach the following IANTD programs:
  - a. IANTD Open Water program;
  - b. IANTD Advanced Open Water Diver program;
  - c. IANTD Deep Diver program;
  - d. IANTD Rescue Diver program.
    - ▶ *NOTE: If the IANTD Instructor is not an IANTD Instructor for IANTD CPR, IANTD Diving First Aid and IANTD Oxygen Administrator, the diver must be already certified for this levels by another IANTD Instructor or have equivalent qualifications with this levels.*
  - e. IANTD Divemaster program
  - f. EANx Diver program
  - g. Advanced EANx Diver program
    - ▶ *NOTE: If diving in conditions significantly different from those previously experienced the Assistant Instructor shall require an appropriate orientation.*

## I. Physical Evaluation

1. Complete the Sport Diving Instructor Watermanship - Page 137

## Advanced Recreational Trimix Instructor Development Program

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Advanced Recreational Trimix Instructor Trainer or higher may teach this course.
- Tek Open Water Sidemount Instructor Trainer or higher is required in order to certify a instructor on Sidemount Configuration

### A. Purpose

1. This Program is designed to allow Instructors to teach Recreational Trimix and Advanced Recreational Trimix, including all other programs an Advanced EANx Instructor may teach.
2. Advanced EANx Instructors who are also Normoxic Trimix Divers or Trimix Divers may teach this program without attending an IDP.

### B. Prerequisites

- *Must meet all qualifications for Advanced Recreational Trimix Instructor or equivalent and complete either the Advanced Recreational Trimix IDP or Advanced Recreational Trimix IEC*
  - *NOTE: Advanced EANX Instructors who are also Normoxic Trimix Divers may teach the Recreational Trimix and Advanced Recreational Trimix Diver program*
1. Certification Requirements:
    - a. Must be qualified as an IANTD Advanced Recreational Trimix Diver Supervisor or Normoxic Trimix Supervisor
    - b. Must be qualified as an Oxygen Provider, CPR and Diving First Aid
      - *Complete these qualifications in conjunction with the IDP or IEC.*
  2. Age Requirement:
    - a. Must be a minimum of 18 years of age.
  3. Dive Experience:
    - a. Must provide proof of a minimum of 100 logged dives, of which:
      - I. At least 50 were a combination of Deep Diver dives between 90 fsw (27 msw) and 150 fsw (45 msw) Advanced EANx dives with at least 25 decompression dives within the Advanced EANx or Advanced Recreational Trimix limits.
      - II. Prior to being qualified at the Recreational Trimix Instructor level it must have assisted in at least three (3) courses from one (1) or more of the following IANTD Qualification Programs:
        - i. Open Water Diver, Advanced Open Water Diver, EANx Diver, Deep Diver, and Advanced EANx Diver and Advanced Recreational Trimix Diver.

### C. Program Content

1. A 7 day Program directing the Instructor candidate in the methods and techniques of training IANTD Divers.
  - *Upgrade program 3 days*

### D. Equipment Requirements

1. All Equipment Requirements listed in the IANTD Advanced Recreational Trimix Diver Program are mandatory.
2. IANTD Advanced Recreational Trimix Diver Student Kit.

### E. Program Limits

1. Same as for the IANTD Advanced Recreational Trimix Diver Program.

## F. Qualification Renewal

1. Teach a minimum of three (3) IANTD Diver Programs annually which (2) two must be your highest level.
  - ▶ *NOTE: If the instructor has any overhead environment qualification, one (1) class must be the highest overhead environment and one (1) must be the highest level for Open Water (Ex.: 1 Advanced Recreational Trimix Program and 1 Introductory to Cave Diver Program) , or co-teach three (4) IANTD Diver Programs which two (2) must be as defined above.*

## G. After Certified

1. After certified, the Advanced Recreational Trimix Instructor will be able to teach the following IANTD programs:
  - a. IANTD Open Water program;
  - b. IANTD Advanced Open Water Diver program;
  - c. IANTD Deep Diver program;
  - d. IANTD Rescue Diver program.
    - ▶ *NOTE: If the IANTD Instructor is not an IANTD Instructor for IANTD CPR, IANTD Diving First Aid and IANTD Oxygen Administrator, the diver must be already certified for this levels by another IANTD Instructor or have equivalent qualifications with this levels.*
  - e. IANTD Divemaster program
  - f. EANx Diver program
  - g. Recreational Trimix Diver program
  - h. Advanced EANx Diver program
  - i. Advanced Recreational Trimix Diver Program
    - ▶ *NOTE: If diving in conditions significantly different from those previously experienced the Assistant Instructor shall require an appropriate orientation.*

## H. Physical Evaluation

1. Complete the Sport Diving Instructor Watermanship - Page 137



## Technical Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

1. Technical Diving Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed to provide a more in-depth knowledge of EANx, Oxygen, and of technical diving applications.
2. Technical Instructors are charged with teaching divers to use custom blends of EANx for bottom mix, travel mixes and decompression mixes.
3. Technical Instructors may teach Open Water Diver through Technical Diver.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an IANTD Advanced EANx Instructor in Active Teaching Status
  - b. Must be qualified as an IANTD Technical Diver or equivalent.
2. Age Requirements
  - a. Must be a minimum of 21 years of age
3. Dive Experience:
  - a. Must have taught a minimum of eight (8) IANTD courses.
  - b. Must have a minimum of two (2) years of teaching experience.
  - c. Must provide proof of a minimum of 350 logged dives, of which at least 100 were deeper than 132 fsw (40 msw) and at least 40 dives breathing EANx or other mixtures and requiring decompression stops.

### C. Program Content

1. Program duration is a minimum of three (3) days provided the required teaching assist in Technical course has already been completed.
2. *The candidate must demonstrate good leadership potential during the IDP and give at least two (2) complete lectures in the Program.*
  - *NOTE: Non Technical Supervisors must assist two (2) courses which one (1) is in conjunction with the IDP.*
  - *NOTE: Technical Supervisors must assist in one (1) course, which can be in conjunction with the IDP*

### D. Equipment Requirements

1. IANTD Technical Diver Student Kit.
2. All Equipment Requirements listed in the IANTD Technical Diver Program, except double cylinders are mandatory.
3. Must own or have unlimited access to an Oxygen Analyzer.

### E. Program Limits

1. Student and Instructor Trainer Ratio:
  - a. There may be no more than four (4) candidates per Instructor Trainer.
2. No dives may be conducted to depths greater than 170 fsw (51 msw).
3. Same as for the IANTD Technical Diver Program.

### F. Qualification Renewal

1. Teach a minimum of three (3) IANTD Programs including one (1) IANTD Technical Diver Program annually in Active Teaching Status.
2. Remain as an active IANTD member, pay annual Instructor renewal fees, publish a technical paper or assist in



an IANTD IDP.

3. Log at least 20 non-teaching Technical, Normoxic Trimix, Cave or Wreck dives using EANx or oxygen decompression annually.
4. Provide proof of insurance listing IANTD as an Additional Insured.

## **G. Water Skills Development**

1. Complete the Technical Instructor Physical Fitness Evaluation while using the equipment required for this level of training.
2. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Advanced EANx Diver and Technical Diver Program.
3. Assist on all dives in the Technical Diver Program.

## **H. Physical Evaluation**

1. Complete the Technical Instructor Watermanship - Page 139



## Normoxic Trimix Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

1. Normoxic Trimix Diving Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed to develop qualified IANTD Normoxic Trimix Instructors

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an IANTD Advanced EANx Instructor or higher in Active Teaching Status
  - b. Must be qualified as an IANTD Trimix Diver
2. Age Requirements:
  - a. Must be a minimum of 21 years of age
3. Dive Experience:
  - a. Must have a minimum of two (2) years of teaching experience
  - b. Must have taught a minimum of eight (8) IANTD Diver Programs which two (2) must be Advanced EANx Instructor or Higher
  - c. Must provide proof of a minimum of 350 logged dives, of which at least 100 were deeper than 132 fsw (40 msw) and at least 25 were on Normoxic Trimix or Trimix
4. Upgrade Requirements:
  - a. If upgrading from Technical Instructor to Normoxic Trimix Instructor on OC:
    - I. Must provide proof of a minimum of 350 logged dives, of which at least 150 were deeper than 132 fsw (40 msw) and at least 25 were on Trimix. (This is purely administrative and no course needs to transpire.)
    - II. Must be qualified as an IANTD Trimix Diver

### C. Program Content

1. A 3 day Program directing the Instructor candidate to the methods and techniques of training IANTD Normoxic Trimix Diver, plus assists as described at Preresite - Dive Experience.
2. The candidate must demonstrate good leadership potential during this course and give at least two (2) complete lectures in the Program.
3. *The candidate must demonstrate good leadership potential during the IDP and give at least two (2) complete lectures in the Program.*
  - *NOTE: Non Normoxic Trimix Supervisors must assist two (2) courses which one (1) is in conjunction with the IDP.*
  - *NOTE: Normoxic Trimix Supervisors must assist in one (1) course, which can be in conjunction with the IDP*
4. As an Instructor Upgrade Program from Technical Instructor the candidate must:
  - *NOTE: This is not an IDP program.*
  - a. Assist in a complete Normoxic Trimix Diver course as a part of the Instructor upgrade from Technical Instructor to Normoxic Trimix Instructor.
  - b. The candidate must demonstrate good leadership potential during this course and give at least two (2) complete lectures in the Program.

### D. Equipment Requirements

1. IANTD Normoxic Trimix Diver Student Kit.
2. All Equipment Requirements listed in the IANTD Normoxic Trimix Diver Program are mandatory.
3. Must own or have unlimited access to an Oxygen Analyzer.
  - *NOTE: Own or have unlimited access to a Helium Analyzer is strongly recommended.*
4. Same as for the IANTD Normoxic Trimix Diver Program

## **E. Program Limits**

1. Student and Instructor Trainer Ratio
  - a. There may be no more than four (4) candidates per Instructor Trainer.
2. No dives may be conducted to depths greater than 200 fsw (60 msw)

## **F. Qualification Renewal**

1. Teach a minimum of four (4) IANTD Programs including one (1) IANTD Normoxic Trimix Diver Program annually
2. Remain as an active IANTD member, pay annual Instructor renewal fees, publish or assist in an IANTD Instructor IDP.
3. Log at least 20 non-teaching Normoxic Trimix, cave or wreck dives using EANx or oxygen decompression annually.
4. Provide proof of insurance listing IANTD as an Additional Insured.

## **G. Water Skills Development**

1. Supervise three (3) dives in a Normoxic Trimix Diver Program under the direction of a Trimix Instructor.
2. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Normoxic Trimix Diver Program.

## **H. Physical Evaluation**

1. Complete the Trimix Instructor Watermanship - Page 141



## Trimix Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

1. Trimix Diving Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed as the model for mixed gas instruction.
  - *NOTE: The Program was developed by leading diving educators, diving physiologists and the most experienced mixed gas divers in the technical diving community.*
  - *NOTE: The IANTD Trimix Instructor represents the standard of excellence in Mixed Gas Applications for advanced recreational diving.*

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an IANTD Normoxic Trimix Instructor in Active Teaching Status for a minimum of one (1) year
2. Age Requirements:
  - a. Must be a minimum of 21 years of age
3. Dive Experience:
  - a. Must have a minimum of two (2) years of teaching experience
  - b. Must have taught a minimum of 12 IANTD course which may include recreational and technical courses.
    - *NOTE: Equivalent programs with any qualification agency, may be counted*
4. Must provide proof of a minimum of 500 logged dives, of which at least 200 were deeper than 100 fsw (30 msw), and at least 50 were Trimix dives.

### C. Program Content

1. A 4 day Program consisting of instructor procedures and watermanship evaluations.
2. Must assist Trimix Diver Programs as described in the prerequisite - Dive experience bullet.
3. This IDP is dedicated to directing the Instructor candidate to the methods and techniques of training IANTD Trimix Divers.
4. The candidate must demonstrate good leadership potential during the IDP and give at least two (2) complete lectures in the Program.
  - *NOTE: Non Trimix Supervisors must assist two (2) courses which one (1) is in conjunction with the IDP.*
  - *NOTE: Trimix Supervisors must assist in one (1) course, which can be in conjunction with the IDP*

### D. Equipment Requirements

1. IANTD Trimix Diver Student Kit.
2. All Equipment Requirements listed in the Trimix Diver Program are mandatory.
3. Must own or have unlimited access to an Oxygen Analyzer.
  - *NOTE: Own or have unlimited access to a Helium Analyzer is strongly recommended.*

### E. Program Limits

1. Student and Instructor Trainer Ratio
  - a. There may be no more than three (3) candidates per Instructor Trainer.
2. No dives may be conducted to depths greater than 300 fsw (90 msw).

## F. Qualification Renewal

1. Teach a minimum of two (2) IANTD Technical Diver Programs annually, including one (1) IANTD Trimix Diver Program.
2. Remain as an active IANTD member and pay annual Instructor renewal fees.
3. Log at least 10 non-teaching Trimix or Heliox dives annually.
4. Provide proof of insurance listing IANTD as an Additional Insured.

## G. Water Skills Development

1. Supervise at least one (1) Trimix dive.
2. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Trimix Diver Program, as assigned by the Instructor Trainer.
3. Perform valve shutdowns in less than 45 seconds.
4. Complete watermanship evaluation from the Technical Instructor program unless already documented in a previous program within the technical level.
  - *NOTE: This is up to the ITs discretion.*

## H. Physical Evaluation

1. Complete the Trimix Instructor Watermanship - Page 141



## Expedition Trimix Instructor

▶ **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

1. Expedition Trimix Diving Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed to provide Instructor expertise for teaching Expedition Trimix Divers

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as a Expedition Trimix Diver **OR**
  - b. Must be qualified as an IANTD Trimix Instructor in Active Teaching Status for a minimum of two (2) years.
2. Age Requirements:
  - a. Must be a minimum of 21 years of age
3. Dive Experience:
  - a. Must have a minimum of three (3) years of teaching experience
  - b. Must have taught a minimum of 6 IANTD Trimix Diver Programs.
    - ▶ *NOTE: Equivalent programs with any qualification agency, may be counted*
  - c. Must provide proof of a minimum of 800 logged dives, of which at least 200 were Trimix dives deeper than 200 fsw (60 msw), and at least 50 were CCR Trimix dives deeper than 240 fsw (72 msw).

### C. Program Content

1. A 5 day Program consisting of instructor procedures, watermanship evaluations, and must assist with a complete Expedition Trimix Diver Program either prior to or as a part of the IDP.
2. This IDP is dedicated to directing the Instructor candidate to the methods and techniques of training IANTD Expedition Trimix Divers.
3. The candidate must demonstrate good leadership potential during the IDP and give at least two (2) complete lectures in the Program.
  - ▶ *NOTE: Non Expedition Trimix Supervisors must assist two (2) courses which one (1) is in conjunction with the IDP.*
  - ▶ *NOTE: Expedition Trimix Supervisors must assist in one (1) course, which can be in conjunction with the IDP*

### D. Equipment Requirements

1. All Equipment Requirements listed in the Expedition Trimix Diver Program.
2. Must own or have unlimited access to an Oxygen Analyzer.
  - ▶ *NOTE: Own or have unlimited access to a Helium Analyzer is strongly recommended.*

### E. Program Limits

1. Student and Instructor Trainer Ratio
  - a. There may be no more than two (2) candidates per Instructor Trainer on dives deeper than 333 fsw (100 msw).
2. During the IDP on dives shallower than 333 fsw (100 msw) the Expedition Trimix Instructor Candidates must perform skills with an Expedition Trimix instructor Trainer or Expedition Trimix Instructor who is on the IDP staff.
3. No dives may be conducted to depths greater than 400 fsw (120 msw).
4. Same as for the IANTD Expedition Trimix Diver Program.



## **F. Qualification Renewal**

1. Teach or co-teach a minimum of three (3) IANTD Trimix Diver Programs annually, including one (1) IANTD Expedition Diver Program.
2. Remain as an active IANTD member and pay annual Instructor renewal fees.
3. Log at least three (3) non-teaching Expedition Trimix or Heliox dives annually.
4. Provide proof of insurance listing IANTD as an Additional Insured.

## **G. Water Skills Development**

1. Supervise at least three (3) Expedition Trimix dives.
2. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Expedition Trimix Diver Program, as assigned by the Instructor Trainer

## **H. Physical Evaluation**

1. Complete the Trimix Instructor Watermanship - Page 141



## Elite Technical Diver Instructor

### How to apply?

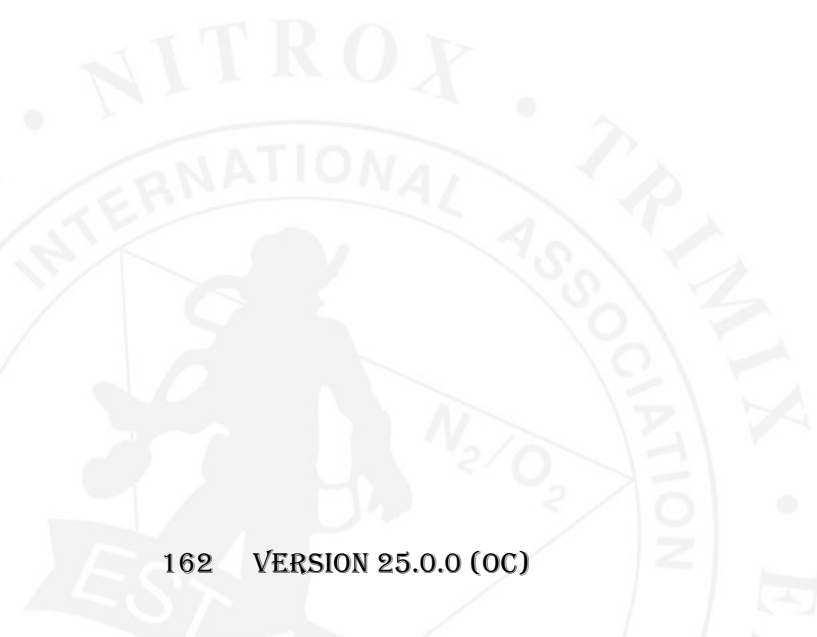
1. Send an IANTD Elite Technical Diver Instructor application to IANTD HQ or IANTD Linceseen.

### A. Purpose

1. Recognize an IANTD supporter and outstanding professional who dedicated himself to keep learning and evolving in his professional career.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an:
    - I. IANTD Technical Diver Instructor or equivalent.
    - II. IANTD Elite Technical Diver
    - III. Tek Essential Instructor
  - b. Must have 2 of the 3 following instructor certifications:
    - I. Decompression Specialist Instructor
    - II. Tek OW DPV Instructor
    - III. Tek OW Sidemount Instructor
2. Age requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive Experience:
  - a. Must have completed 200 logged dives.
  - b. Must have issued a minimum 25 IANTD Technical diver certifications.
    - *NOTE: Certifications issued must include at least 2 each of the following IANTD Programs - Technical Diver or Higher, Diver, Tek OW Sidemount Diver or Tek OW DPV Diver and Decompression Specialist.*



## Decompression Specialist Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Decompression Software Specialist Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed to develop qualified IANTD Decompression Software Specialist Instructors.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an:
    - I. IANTD Advanced EANx Instructor in active teaching status or equivalent or higher
    - II. IANTD Decompression Specialist Diver
2. Age requirement:
  - a. Must be a minimum of 21 years of age.
3. Dive Experience:
  - a. No dives are required

### C. Program Content

1. Prior to teaching this Program, the Instructor must have successfully completed the Decompression Software Specialist Program.

### D. Equipment Requirements

1. All Equipment Requirements listed in the IANTD Decompression Specialist Diver Program are mandatory.
2. IANTD Decompression Specialist Diver Student Kit and Instructor Kit.

### E. Program Limits

1. There are no diving activities required for this Program.

### F. Qualification Renewal

1. Teach a minimum of three (3) IANTD Diver Programs annually which (2) two must be Decompression Specialty Program and 1 must be the highest level.
2. Remain as an active IANTD Instructor and Member.

### G. Water Skills Development

1. There are no water skills required for this Program

## Tek Open Water DPV Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Tek Open Water DIVER PROPULSION VEHICLE Instructor Trainer or Advanced Cave DIVER PROPULSION VEHICLE Instructor Trainer may teach this course.
- Tek OW Sidemount Instructor Trainer or higher is required is required to certify an instructor in sidemount configuration

### A. Purpose

1. This Program is designed to develop qualified instructors in the necessary procedures, knowledge and skills to safely provide training in the use of Diver Propulsion Vehicles (DIVER PROPULSION VEHICLE's) in Technical Open Water Diving.
2. The purpose of this course is to expose divers to conservation concerns and ethical responsibilities that present themselves during DIVER PROPULSION VEHICLE use either for touring, or exploration.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as:
    - I. IANTD Advanced EANx Instructor or higher or equivalent
    - II. Must be qualified as an Tek Open Water DPV Diver or higher
      - NOTE: Must be Tek OW Sidemount Instructor is required to take this program on sidemount configuration.
2. Age Requirement:
  - a. Must be a minimum of 18 years of age
3. Dive Experience:
  - a. Proof of a minimum of 150 logged dives and at least 25 dives on Tek OW Sidemount System to be used in the class.
    - NOTE: If taking the program using Sidemount configuration, the candidate must also be qualified as IANTD Open Water Sidemount Diver
4. Age Requirement:
  - a. Must be a minimum of 18 years of age.
5. Dive Experience
  - a. Proof of a minimum of 150 logged dives which at least 50 were DPV Dives

### C. Program Content

1. The Candidate must demonstrate proficiency in the use of IANTD Academic tools such as: standards, slides and/or student workbook (if available), demonstrate, evaluate, remediate and grade open water skills.
2. Course must include the evaluation of the candidate presentation of no less than 2 confined water skills and four (4) openwater skills.
3. The Candidate must pass a written theory exam with a minimum score of 80%.
4. Course to be completed in no less than 2 dives over the course of 2 days
5. The specialty must have stress management as part of the curriculum.

### D. Equipment Requirements

1. All Equipment Requirements listed in the IANTD Tek OW DPV Diver Program are mandatory.
2. IANTD Diver Student Kit
3. Must own or have unlimited access to a DPV suitable for the environment and the dives being conducted.

## **E. Program Limits**

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than two (2) Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidates' current level of training.
5. Same as for the IANTD Same as for the IANTD Tek OW DPV Diver Program.

## **F. Qualification Renewal**

1. Teach a minimum of two (2) IANTD DPV Diver programs which one (1) must be Tek OW DPV Diver.

## **G. Water Skills Development**

1. Demonstrate all the skills in IANTD Diver Program at Instructor level demonstration quality
2. Demonstrate how to manage DPV emergencies which should include a Scooter that has a loss of battery power and a Scooter that will not shut off.

## **H. Physical Evaluation**

1. Complete the Sport Diving Instructor Watermanship - Page 137



## **Tek Open Water Nomad Sidemount Instructor**

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### **Who may teach this course?**

- An Tek OW Nomad Sidemount Instructor Trainer may teach this course.

### **A. Purpose**

1. This Program is designed to develop qualified instructors in the necessary procedures, knowledge and skills to safely dive Tek OW Nomad Sidemount.

### **B. Prerequisites**

1. Certification Requirements:
  - a. IANTD Advanced EANx Instructor or higher or equivalent
  - b. Must be qualified as an Tek Open Water Nomad Sidemount Specialty Diver or higher
2. Age Requirement:
  - a. Must be a minimum of 18 years of age
3. Dive Experience:
  - a. Proof of a minimum of 150 logged dives and at least 25 dives on Tek OW Nomad Sidemount System to be used in the class.

### **C. Program Content**

1. The Candidate must demonstrate proficiency in the use of IANTD Academic tools such as: standards, slides and/or student workbook (if available), demonstrate, evaluate, remediate and grade open water skills.
2. Course must include the evaluation of the candidate presentation of no less than 2 confined water skills and four (4) openwater skills.
3. The Candidate must pass a written theory exam with a minimum score of 80%.
4. Course to be completed in no less than 2 dives over the course of 2 days.
5. The specialty must have stress management as part of the curriculum.

### **D. Equipment Requirements**

1. All Equipment Requirements listed in the IANTD Tek OW Sidemount Diver Program
2. All Diver Equipment from Section G. 2. c. I. are mandatory.
3. IANTD Diver Student Kit.

### **E. Program Limits**

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than four (4) Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidates' current level of training.
5. Same as for the IANTD Same as for the IANTD Tek OW Sidemount Diver Program.

### **F. Qualification Renewal**

1. Teach a minimum of two (2) IANTD OW Nomad Sidemount Diver programs which one (1) must be Tek OW Nomad Sidemount Mount Diver.



## **G. Water Skills Development**

1. Demonstrate all the skills in IANTD Diver Program at Instructor level demonstration quality
2. Demonstrate a Rescue of a diver from a depth of no deeper than 20 ft to the surface; establish positive buoyancy; and tow the diver a distance of a min of 100 ft to assistance while maintaining an open airway.

## **H. Physical Evaluation**

1. Complete the Sport Diving Instructor Watermanship - Page 137



## Tek Open Water Sidemount Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- An Tek OW Sidemount Instructor Trainer or higher Advanced Cave Sidemount Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed to develop qualified instructors in the necessary procedures, knowledge and skills to safely dive Tek OW Sidemount.

### B. Prerequisites

1. Certification Requirements:
  - a. IANTD Advanced EANx Instructor or higher or equivalent
  - b. Must be qualified as an Tek Open Water Sidemount Diver or higher
2. Age Requirement:
  - a. Must be a minimum of 18 years of age
3. Dive Experience:
  - a. Proof of a minimum of 150 logged dives and at least 25 dives on Tek OW Sidemount System to be used in the class.

### C. Program Content

1. The Candidate must demonstrate proficiency in the use of IANTD Academic tools such as: standards, slides and/or student workbook (if available), demonstrate, evaluate, remediate and grade open water skills.
2. Course must include the evaluation of the candidate presentation of no less than 2 confined water skills and four (4) openwater skills.
3. The Candidate must pass a written theory exam with a minimum score of 80%.
4. Course to be completed in no less than 2 dives over the course of 2 days.
5. The specialty must have stress management as part of the curriculum.

### D. Equipment Requirements

1. All Equipment Requirements listed in the IANTD Tek OW Sidemount Diver Program are mandatory.
2. IANTD Diver Student Kit
3. Must own or have unlimited access to a Side Mount System suitable for the environment and the dives being conducted.

### E. Program Limits

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than four (4) Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidates' current level of training.
5. Same as for the IANTD Same as for the IANTD Tek OW Sidemount Diver Program.

### F. Qualification Renewal

1. Teach a minimum of two (2) IANTD Side Mount Diver programs which one (1) must be Tek OW Sidemount Mount Diver.

## **G. Water Skills Development**

1. Demonstrate all the skills in IANTD Diver Program at Instructor level demonstration quality
2. Demonstrate a Rescue of a diver from a depth of no deeper than 20 ft to the surface; establish positive buoyancy; and tow the diver a distance of a min of 100 ft to assistance while maintaining an open airway.

## **H. Physical Evaluation**

1. Complete the Sport Diving Instructor Watermanship - Page 137



## **Tek Open Water Toddy-Style Sidemount Instructor**

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### **Who may teach this course?**

- An Tek OW Toddy-Style Sidemount Instructor Trainer may teach this course.

### **A. Purpose**

1. This Program is designed to develop qualified instructors in the necessary procedures, knowledge and skills to safely dive Tek OW Toddy-Style Sidemount.

### **B. Prerequisites**

1. Certification Requirements:
  - a. IANTD Advanced EANx Instructor or higher or equivalent
  - b. Must be qualified as an Tek Open Water Toddy-Style Sidemount Specialty Diver or higher
2. Age Requirement:
  - a. Must be a minimum of 18 years of age
3. Dive Experience:
  - a. Proof of a minimum of 150 logged dives and at least 25 dives on Tek OW Toddy-Style Sidemount System to be used in the class.

### **C. Program Content**

1. The Candidate must demonstrate proficiency in the use of IANTD Academic tools such as: standards, slides and/or student workbook (if available), demonstrate, evaluate, remediate and grade open water skills.
2. Course must include the evaluation of the candidate presentation of no less than 2 confined water skills and four (4) openwater skills.
3. The Candidate must pass a written theory exam with a minimum score of 80%.
4. Course to be completed in no less than 2 dives over the course of 2 days.
5. The specialty must have stress management as part of the curriculum.

### **D. Equipment Requirements**

1. All Equipment Requirements listed in the IANTD Tek OW Sidemount Diver Program
2. All Diver Equipment from Section G. 1. c. I. and Section G. 1. c. II. are mandatory.
3. IANTD Diver Student Kit.

### **E. Program Limits**

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than four (4) Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidates' current level of training.
5. Same as for the IANTD Same as for the IANTD Tek OW Sidemount Diver Program.

### **F. Qualification Renewal**

1. Teach a minimum of two (2) IANTD OW Toddy-Style Sidemount Specialty Diver programs which one (1) must be Tek OW Toddy-Style Sidemount Mount Diver.

## **G. Water Skills Development**

1. Demonstrate all the skills in IANTD Diver Program at Instructor level demonstration quality
2. Demonstrate a Rescue of a diver from a depth of no deeper than 20 ft to the surface; establish positive buoyancy; and tow the diver a distance of a min of 100 ft to assistance while maintaining an open airway.

## **H. Physical Evaluation**

1. Complete the Sport Diving Instructor Watermanship - Page 137



## Cavern Diver Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- IANTD Cavern IT may teach Cavern Instructor Program
- Open Water Sidemount Instructor Trainer or higher is required in order to certify an instructor on Sidemount Configuration

### A. Purpose

1. This Program is designed to develop qualified IANTD Cavern Diver Instructors.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an:
    - I. IANTD EANx Instructor in active teaching status or equivalent
    - II. IANTD Cave Diver or equivalent
    - III. IANTD CPR or equivalent
    - IV. IANTD First Aid or equivalent
    - V. IANTD Oxygen Administrator or equivalent
  - *NOTE: If taking the program using Sidemount configuration, the candidate must also be qualified as IANTD Open Water Sidemount Diver*
2. Age requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive Experience:
  - a. Must proof a minimum of 150 logged dives which 50 were cavern dives.
  - b. Must proof a minimum of 25 Recreational Diver Certifications Levels

### C. Program Content

1. A 2 day Program directing the Instructor candidate to the methods and techniques of training IANTD Cavern Divers.
  - *NACD, NSS/CDS and CDAA Cavern Instructors who are also IANTD Open Water EANx Instructors may cross over by completing a 1 day Program acquainting them with IANTD Standards and Procedures.*
2. The IDP is to be staffed by one (1) Cavern IT
3. The candidate must assist in one (1) additional Cavern Diver Program, either prior to or during the IDP.

### D. Equipment Requirements

1. All Equipment Requirements listed in the IANTD Cave Diver Program are mandatory.
2. Candidates will use appropriate equipment for diving into an overhead environment.

### E. Program Limits

1. This Program may be taught in cavern environments
  - *NOTE: However, both the Instructor and students must remain in sight of ambient light.*
2. Same as for the IANTD Cavern Diver Program.

### F. Qualification Renewal

1. Teach a minimum of two (2) IANTD Programs annually including at least one (1) IANTD Cavern Diver Program
2. Log a minimum of 12 non-teaching cavern dives annually.



## G. Water Skills Development

1. Out of Air Scenario:
  - a. Without breathing, and exhaling slowly, swim in a simulated out of air situation for a distance of at least 60 feet (18 meters)
  - b. Commence gas sharing
  - c. While gas sharing, continue to swim for a distance of at least 350 feet (105 meters) while maintaining a swim rate of approximately 50 feet (17 meters) per minute.
2. Underwater, tow another diver for a distance of at least 200 feet (60 meters).
3. Simulate a complete rescue:
  - a. Activate EMS
  - b. Remove diver from water with assistance
  - c. Simulate CPR.
4. Perform fitness test swim in SCUBA gear for a distance of at least 1,000 feet (305 meters) in less than 15 minutes.
5. Complete the Instructor Fitness Evaluation in the equipment required for this level of training.
6. Demonstrate proper reel techniques.
7. Supervise at least two (2) Cavern dives with IT or staff person simulating a student.
8. It is recommended that the candidate attempt to find way out of a cavern with eyes closed and no line.  
**► NOTE: Up to instructor discretion, depending of the environment safety (Siltng conditions, cables, other harzords)**

## H. Physical Evaluation

1. Complete the Sport Diving Instructor Watermanship - Page 137



## Introductory Cave or Introductory Mine Instructor

- ▶ **CHECK ITEM I. TO UNDERSTAND HOW TO UPGRADE TO TEK LITE CAVE OR TEK LITE MINE INSTRUCTOR.**
- ▶ **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- ▶ A Introductory to Cave Diving Instructor Trainer may teach this course.
- ▶ Open Water Sidemount Instructor Trainer or higher is required in order to certify an instructor on Sidemount Configuration

### A. Purpose

1. This Program is designed to provide quality training to divers advancing into introductory cave diving.
2. In addition, it serves as a mechanism to further develop overhead teaching experience for Instructors, enabling them to evolve to more competent Cave Instructors.

### B. Prerequisites

- ▶ *NOTE: If taking the program using Sidemount configuration, the candidate must also be qualified as IANTD Open Water Sidemount Diver*
- 1. Certification Requirements:
  - a. Must be qualified as an:
    - I. IANTD Cavern Instructor in active teaching status or equivalent
    - II. IANTD Cave Diver or higher or equivalent
    - III. IANTD Cave Supervisor or must be recommended by an IANTD Technical Cave Instructor, after having assisted in a minimum of at least one (1) or more Introductory Cave Diver Programs until the Instructor is confident the student is capable of attending an IDP.
      - ▶ *NOTE: If recommended, the candidate must be an IANTD Instructor and a certified Technical Cave Diver*
  - b. Additional Certifications Requirements:
    - i. IANTD CPR or equivalent
    - ii. IANTD First Aid or equivalent
    - iii. IANTD Oxygen Administrator or equivalent
- 2. Age requirement:
  - a. Must be a minimum of 21 years of age.
- 3. Dive Experience:
  - a. Must proof a minimum of 200 logged dives which 75 were cave dives.
  - b. Must has taught a minimum of 3 Cavern Diver Programs.

### C. Program Content

1. Program duration is a minimum of two (2) days provided the required teaching assist in cave course has already been completed.
  - ▶ *NOTE: Cave Supervisors must assist in one (1) Introductory to Cave program with a different Technical Cave Instructor.*
  - ▶ *NOTE: Non Cave Supervisors must assist two (2) Introductory to Cave program with two (2) different Technical Cave Instructors which one (1) can be in conjunction with the IDP.*
2. This Program may be conducted by any IANTD Introductory to Cave Instructor Trainer or higher provided at least one for Introductory Cave Instructor or higher is on staff who can evaluate a minimum of one (1) water session and one (1) lecture session each.
  - ▶ *NOTE: If 2 different IANTD Technical Cave Instructors have previously evaluated the candidate, the IDP may be conducted by only one (1) Introductory to Cave IT.*
  - ▶ *NOTE: If the candidate is already a Cave Supervisor the IDP may be conducted by only one (1) Introductory to Cave IT*

3. Standards and Procedures and business practices must be included in the lecture portion of the IDP.
4. The Candidate must present during the participation in the entire course:
  - a. A minimum of three (3) lecture topics
  - b. One (1) in-water teaching session
  - c. One (1) present complete land line drill session
  - d. Each candidate must supervise at least one (1) of the land line drills in cave.
  - e. The candidate must complete a minimum of two (2) evaluation dives plus the skills as defined in the Water Skills Development section of this Program.

## D. Equipment Requirements

1. All Equipment Requirements listed in the IANTD Cave Diver Program are mandatory.
2. Full Cave Diving Equipment will be used throughout the IDP and at all times when teaching Introductory Cave Programs.

## E. Program Limits

1. Same as for the IANTD Introductory Cave Program
  - *NOTE: Except the two (2) evaluation dives may be performed as full cave dives.*

## F. Qualification Renewal

1. Teach annually:
  - a. A minimum of one (1) IANTD Introductory Cave Diver Program.
  - b. One (1) IANTD Cavern Diver Program
  - c. Meet the teaching requirements for IANTD Advanced EANx Instructor in Active Teaching Status.

## G. Water Skills Development

1. Out of Gas Scenario in confined water:
  - a. Without a mask and with one (1) buddy 50 feet (15 meters) away;
  - b. Follow a line until buddies meet;
  - c. Make touch contact and follow the line as a pair;
  - d. At the ITs signal, one (1) diver will simulate gas failure and communicate to the buddy a need to share gas.
  - e. Gas sharing will continue until circuit is complete.
  - f. At some time during this circuit while gas sharing, a line entanglement exercise will be performed.
2. Out of Gas Scenario on a cave dive:
  - a. At the ITs signal, simulate an out of gas situation and share gas for a distance of at least 200 feet (60 meters);
  - b. Then continue for another 100 feet (30 meters) blacked out along the line.
3. Valve Drill:
  - a. Respond to gas shutdowns by the IT switching to alternate regulator and then turning the primary gas supply back on.
    - *NOTE: Upon completion return to the primary regulator.*
4. Swim, underwater, a distance of at least 800 feet (240 meters) in full equipment in less than 12 minutes.
5. Simulate accident management procedures as assigned by the IT.
6. Demonstrate teaching proficiency of skills taught in the Introductory Cave Program.
7. Assist in Introductory to Cave Program(s) as described in the program content above
8. Complete the Instructor Fitness Evaluation in the equipment required for this level of training

## H. Physical Evaluation

1. Complete the Sport Diving Instructor Watermanship - Page 137

## **I. Tek Lite Cave or Tek Lite Mine Instructor (OC, SCR, CCR) UPGRADE**

1. An Introductory Cave Instructor who taught and certified at least 6 Introductory Cave Divers can apply to upgrade to Tek Lite Cave Instructor.
2. An Introductory Mine Instructor who taught and certified at least 6 Introductory Mine Divers can apply to upgrade to Tek Lite Mine Instructor.



## Technical Cave or Mine Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

1. Technical Cave Diver Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed to develop competent Instructors for teaching the safe usage of EANx mixtures while cave diving.

### B. Prerequisites

1. Option A:
  - a. Certification Requirements:
    - I. Must be qualified as an IANTD Advanced EANx Instructor in Active Teaching Status
    - II. Must be qualified as an IANTD Technical Cave Diver
      - *NOTE: If not an IANTD Technical Cave Diver or equivalent it must be certified as an IANTD Cave Diver and IANTD Technical Diver or equivalent.*
  - b. Age Requirements:
    - I. Must be a minimum of 21 years of age
  - c. Dive Experience:
    - I. Must have taught a minimum of 10 IANTD programs or equivalent
    - II. Must provide proof of a minimum of 150 logged cave dives.
    - III. Must have worked with and been evaluated by 2 different Technical Cave Instructor in at least two (2) cave courses
      - *NOTE: Cave Supervisors must assist in two (2) course*
      - *NOTE: One of the assistances must be someone other than who originally certified the candidate as a Cave Supervisor.*
      - *NOTE: Non Cave Supervisors must assist three (3) courses which one (1) is in conjunction with the IDP.*

**OR**

2. Option B:
  - a. Certification Requirements:
    - I. Must be qualified as an Introductory Cave Instructor in Active Teaching Status
    - II. Must be qualified as an IANTD Technical Cave Diver
      - *NOTE: If not an IANTD Technical Cave Diver or equivalent it must be certified as an IANTD Cave Diver and IANTD Technical Diver or equivalent.*
  - b. Age Requirements:
    - I. Must be a minimum of 21 years of age
  - c. Dive Experience:
    - I. Must have taught a minimum of three (3) IANTD Introductory Cave Diver Programs.
    - II. Must provide proof of a minimum of 350 logged dives, where at least 150 were technical dives (Cave, Wreck Penetration, Technical Diver, Normoxic Trimix, Trimix, etc.) and at least 100 **NON CAVE TRAINING DIVES** between Introductory to Cave Dives and Cave Dives.

### C. Program Content

1. A four (4) days directing the Instructor candidate to the methods and techniques of training IANTD Technical Cave Divers provided the required teaching assist in technical cave course has already been completed.
2. Once approved by IANTD HQ, other agencies Cave Instructors who are IANTD Technical Instructors already may crossover by attending a four (4) day Program with an IANTD Cave IT acquainting them with IANTD Standards and Procedures, teaching materials and methods observing them in an in-water teaching situation on an actual cave dive(s).
3. This Program may be conducted by any IANTD Technical Cave Instructor Trainer or higher provided at least one Technical Cave Instructor or higher who can evaluate a minimum of one (1) water session and one (1) lecture session each is on staff.
  - ▶ *NOTE: If two (2) different IANTD Technical Cave Instructors have previously evaluated the candidate, the IDP may be conducted by only one (1) Technical Cave IT.*
  - ▶ *NOTE: If the candidate is a Cave Supervisor and has assisted in two (2) or more Cave Diver Programs post his/her Cave Supervisor qualification the IDP may be conducted by only one (1) Technical Cave IT.*
    - ▶ *NOTE: One of the assistances must be someone other than who originally certified the candidate as a Cave Supervisor.*

### D. Equipment Requirements

1. IANTD Technical Cave Diver Student Kit.
2. All Equipment Requirements listed in the IANTD Cave Diver Program are mandatory.
3. Must own or have unlimited access to an Oxygen analyzer

### E. Program Limits

1. Same as for the IANTD Technical Cave Diver Program

### F. Qualification Requirements

1. Completion of the IANTD Technical Cave IDP and demonstration of a safe and responsible attitude allows the candidate to become qualified as an IANTD Technical Cave Instructor.
2. IANTD Technical Cave Instructors may find it beneficial to teach a modular system in cave diving (Cavern, Introductory Cave, and Full Cave).

### G. Qualification Renewal

1. Teach a minimum of two (2) IANTD Technical Diver Programs annually, or co-teach a minimum of three (3) IANTD Technical Diver Programs, including at least one (1) IANTD Technical Cave Diver Program.
2. Remain as an active IANTD Member and remit annual Instructor renewal fees.
3. Log at least 25 Overhead Environment dives annually, with a minimum of 20 non-teaching cave dives.
4. Provide proof of insurance listing IANTD as an Additional Insured.

### H. Water Skills Development

1. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Technical Cave Diver Programs, as assigned by the Instructor Trainer.

### I. Physical Evaluation

1. Complete the Technical Instructor Watermanship - Page 139



## Technical Mine Diver Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

1. Technical Mine Diver Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed to develop competent Instructors for teaching safe mine diving.

### B. Prerequisites

1. Option A:
  - a. Certification Requirements:
    - I. Must be qualified as an IANTD Advanced EANx Instructor in Active Teaching Status
    - II. Must be qualified as an:
      - i. IANTD Technical Diver, OR
      - ii. IANTD Technical Mine Diver, OR
      - iii. IANTD Cave Diver OR
      - iv. IANTD Technical Cave Diver.
  - b. Age Requirements:
    - I. Must be a minimum of 21 years of age
  - c. Dive Experience:
    - I. Must have taught a minimum of 10 IANTD programs or equivalent
    - II. Must provide proof of a minimum of 100 logged mine dives.
    - III. Must have worked with and been evaluated by 2 different Technical Mine Diver Instructor in at least two (2) cave courses
      - *NOTE: Mine Supervisors must assist in two (2) courses*
      - *NOTE: One of the assistances must be someone other than who originally certified the candidate as a Mine Supervisor.*
      - *NOTE: Non Mine Supervisors must assist three (3) courses which one (1) is in conjunction with the IDP.*

**OR**

2. Option B:
  - a. Certification Requirements:
    - I. Must be qualified as an Introductory Mine Instructor.in Active Teaching Status
    - II. Must be qualified as an:
      - i. IANTD Advanced EANx Instructor OR
      - ii. Advanced Recreational Trimix Instructor
  - b. Age Requirements:
    - I. Must be a minimum of 21 years of age
  - c. Dive Experience:
    - I. Must have taught a minimum of three (3) IANTD Introductory Mine Diver Programs or equivalent
    - II. Must have taught a minimum of three (3):
      - i. IANTD Advanced EANx Diver Programs or equivalent OR
      - ii. IANTD Advanced Recreational Trimix Diver Programs or equivalent.
    - III. Must provide proof of a minimum of 300 logged dives, where at least 100 were technical dives (Cave, Wreck Penetration, Technical Diver, Normoxic Trimix, Trimix, etc.) and at least 100 **NON MINE TRAINING DIVES** between Introductory to Mine Dives and Mine Dives.

### C. Program Content

1. A four (4) days directing the Instructor candidate to the methods and techniques of training IANTD Technical Mine Divers provided the required teaching assist in Technical Mine Diver programs has already been completed.
2. Once approved by IANTD HQ, other agencies Mine Diver Instructors already may crossover by attending a four (4) day Program with an IANTD Technical Mine IT acquainting them with IANTD Standards and Procedures, teaching materials and methods observing them in an in-water teaching situation on an actual mine dive(s).
3. This Program may be conducted by any IANTD Technical Mine Instructor Trainer or higher provided at least one Technical Mine Instructor or higher who can evaluate a minimum of one (1) water session and one (1) lecture session each is on staff.
  - ▶ *NOTE: If two (2) different IANTD Technical Mine Instructors have previously evaluated the candidate, the IDP may be conducted by only one (1) Technical Mine IT.*
  - ▶ *NOTE: If the candidate is a Mine Supervisor and has assisted in two (2) or more Technical Mine Diver Programs post his/her Mine Supervisor qualification the IDP may be conducted by only one (1) Technical Mine IT.*
  - ▶ *NOTE: One of the assistances must be someone other than who originally certified the candidate as a Mine Supervisor.*

### D. Equipment Requirements

1. IANTD Technical Cave Diver Student Kit.
2. All Equipment Requirements listed in the IANTD Technical Mine Diver Program are mandatory.
3. Must own or have unlimited access to an Oxygen analyzer

### E. Program Limits

1. Same as for the IANTD Technical Mine Diver Program (OC Only)

### F. Qualification Requirements

1. Completion of the IANTD Technical Mine Instructor IDP and demonstration of a safe and responsible attitude allows the candidate to become qualified as an IANTD Technical Mine Instructor.

### G. Qualification Renewal

1. Teach a minimum of two (2) IANTD Technical Diver Programs annually, or co-teach a minimum of three (3) IANTD Technical Diver Programs, including at least one (1) IANTD Technical Mine Diver Program.
2. Remain as an active IANTD Member and remit annual Instructor renewal fees.
3. Log at least 25 Overhead Environment dives annually, with a minimum of 20 non-teaching mine dives.
4. Provide proof of insurance listing IANTD as an Additional Insured.

### H. Water Skills Development

1. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Technical Mine Diver Programs, as assigned by the Instructor Trainer.

### I. Physical Evaluation

1. Complete the Technical Instructor Watermanship - Page 139

## Adv. Cave or Mine - Dive Propulsion Vehicle Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Advanced Cave Diver Propulsion Vehicle Instructor Trainer, for Cave
- Advanced Mine Diver Propulsion Vehicle Instructor Trainer, for Mine

### A. Purpose

1. This Program is designed to develop qualified IANTD Adv. Cave or Mine Diver Propulsion Vehicle Instructors.

### B. Prerequisites

1. For Cave:
  - a. Must be an IANTD Technical Cave Instructor.
  - b. Must be an IANTD Advanced Cave Diver Propulsion Vehicle Diver.
2. For Mine:
  - a. Must be an IANTD Technical Mine Instructor.
  - b. Must be an IANTD Advanced Mine Diver Propulsion Vehicle Diver.
3. Age Requirements:
  - a. Must be a minimum of 21 years of age.
4. Dive Experience:
  - a. For Technical Cave:
    - I. Have a Minimum of 200 logged cave dives of which 100 were Advanced Cave Diver Propulsion Vehicle non-training dives.
    - II. Must have taught have taught a minimum of five (5) Technical Cave Diver courses.
  - b. For Technical Mine:
    - I. Have a Minimum of 200 logged mine dives of which 100 were Advanced Mine Diver Propulsion Vehicle non-training dives.
    - II. Must have taught have taught a minimum of five (5) Technical Mine Diver courses.

### C. Program Content

1. A comprehensive program directing the Instructor candidate to the methods and techniques of training IANTD Advanced Cave or Mine Diver Propulsion Vehicle Divers.
  - *NOTE: This is an average of three (3) days of evaluation.*
2. The IDP will be directed by an Advanced Cave or Mine Diver Propulsion Vehicle instructor trainer.

### D. Equipment Requirements

1. Must own or have unlimited access to a Diver Propulsion Vehicle suitable for the environment and the dives being conducted.
2. All Equipment requirements as listed in Advanced Cave Diver Propulsion Vehicle Diver Standards.

### E. Program Limits

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than two (2) Diver Propulsion Vehicle Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level.
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidates' current level of training.
5. Same as for the IANTD Advanced Cave Diver Propulsion Vehicle Diver Program, if IANTD Advanced Cave Diver Diver Propulsion Vehicle Instructor.

## **F. Qualification Renewal**

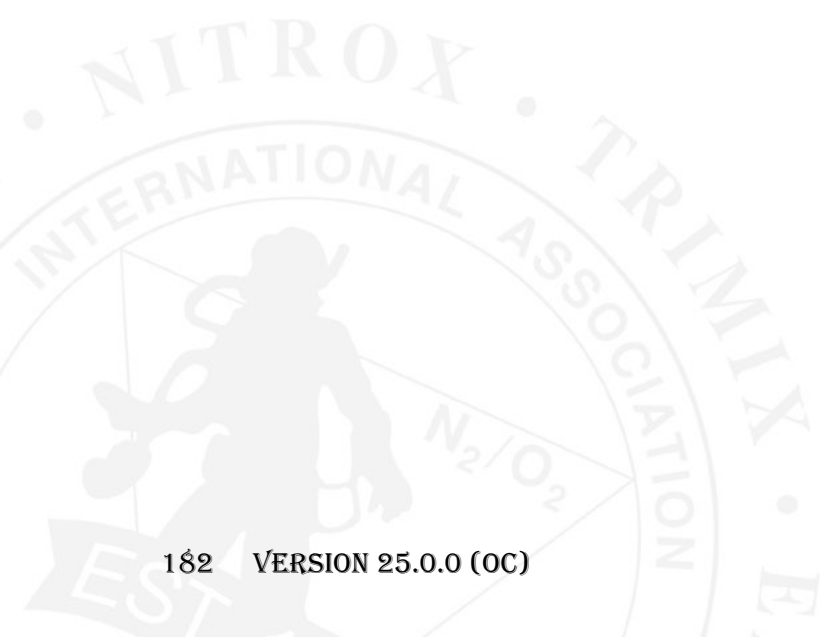
1. Teach a minimum of two (2) IANTD Diver Propulsion Vehicle Diver programs which one (1) must be Advanced Cave or Mine Diver Propulsion Vehicle Diver.

## **G. Water Skills Development**

1. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Advanced Cave or Mine Diver Propulsion Vehicle Diver Program.

## **H. Physical Evaluation**

1. Complete the Technical Instructor Watermanship - Page 139



## Adv. Cave or Mine - Sidemount & No Mount Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Advanced Cave Diver Sidemount & No Mount Instructor Trainer, for Cave
- Advanced Mine Diver Sidemount & No Mount Instructor Trainer, for Mine

### A. Purpose

1. This Program is designed to develop qualified IANTD Adv. Cave or Mine Sidemount & No Mount Instructors.

### B. Prerequisites

1. For Technical Cave:
  - a. Must be an IANTD Technical Cave Instructor.
  - b. Must be an IANTD Advanced Cave Sidemount & No Mount Diver.
2. For Mine:
  - a. Must be an IANTD Technical Mine Instructor.
  - b. Must be an IANTD Advanced Mine Sidemount & No Mount Diver.
3. Age Requirements:
  - a. Must be a minimum of 21 years of age.
4. Dive Experience:
  - a. For Technical Cave:
    - I. Have a Minimum of 200 logged cave dives of which 100 were Advanced Cave Sidemount & No Mount non-training dives.
    - II. Must have taught have taught a minimum of five (5) Technical Cave Diver courses.
  - b. For Technical Mine:
    - I. Have a Minimum of 200 logged mine dives of which 100 were Advanced Mine Sidemount & No Mount non-training dives.
    - II. Must have taught have taught a minimum of five (5) Technical Mine Diver courses.

### C. Program Content

1. A comprehensive program directing the Instructor candidate to the methods and techniques of training IANTD Advanced Cave or Mine Sidemount & No Mount Divers.
  - *NOTE: This is an average of three (3) days of evaluation.*
2. The IDP will be directed by an Advanced Cave or Mine Sidemount & No Mount Instructor trainer.

### D. Equipment Requirements

1. Must own or have unlimited access to a Sidemount System suitable for the environment and the dives being conducted.
2. All Equipment requirements as listed in Advanced Cave Sidemount & No Mount Diver Standards.

### E. Program Limits

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than two (2) Advanced Cave or Mine Sidemount & No Mount Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidate's current level of training.
5. Same as for the IANTD Advanced Cave or Mine Sidemount & No Mount Diver Program

## **F. Qualification Renewal**

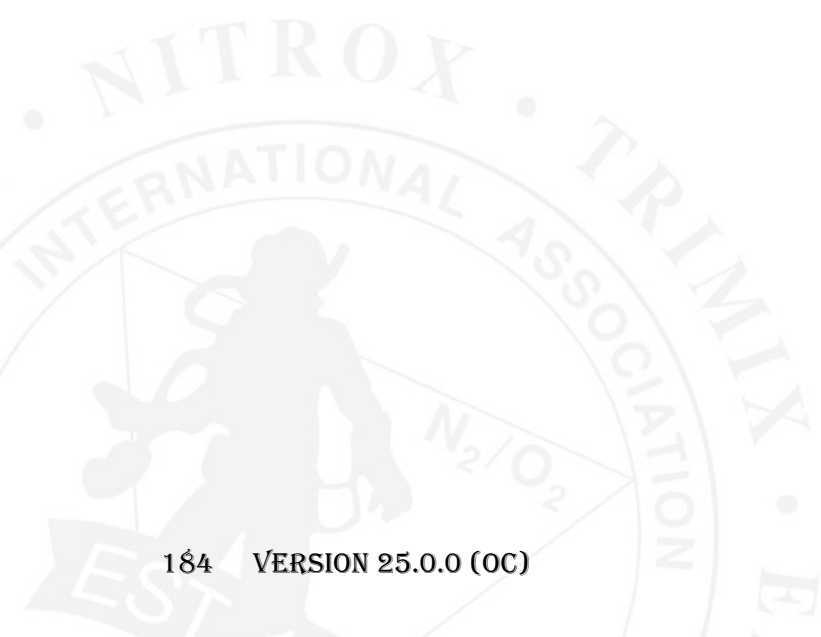
1. Teach a minimum of two (2) IANTD Sidemount Diver programs which one (1) must be Advanced Cave or Mine Sidemount & No Mount Diver.

## **G. Water Skills Development**

1. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Advanced Cave or Mine Sidemount & No Mount Diver Program.
2. Assist in at least two (2) complete Advanced Cave or Mine Sidemount & No Mount Diver Program, which one (1) can be realized during or following the IDP.

## **H. Physical Evaluation**

1. Complete the Technical Instructor Watermanship - Page 139





## Adv. Cave or Mine - Stage/Multi-Stage Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Advanced Cave Diver Stage/Multi-Stage Instructor Trainer, for Cave
- Advanced Mine Diver Stage/Multi-Stage Instructor Trainer, for Mine

### A. Purpose

1. This Program is designed to develop qualified IANTD Adv. Cave or Mine Stage/Multi-Stage.

### B. Prerequisites

1. For Technical Cave:
  - a. Must be an IANTD Technical Cave Instructor.
  - b. Must be an IANTD Advanced Cave Stage/Multi-Stage Diver.
2. For Mine:
  - a. Must be an IANTD Technical Mine Instructor.
  - b. Must be an IANTD Advanced Mine Stage/Multi-Stage Diver.
3. Age Requirements:
  - a. Must be a minimum of 21 years of age.
4. Dive Experience:
  - a. For Technical Cave:
    - I. Have a Minimum of 200 logged cave dives of which 100 were Advanced Cave Stage/Multi-Stage non-training dives.
    - II. Must have taught have taught a minimum of five (5) Technical Cave Diver courses.
  - b. For Technical Mine:
    - I. Have a Minimum of 200 logged mine dives of which 100 were Advanced Mine Stage/Multi-Stage non-training dives.
    - II. Must have taught have taught a minimum of five (5) Technical Mine Diver courses.

### C. Program Content

1. A comprehensive program directing the Instructor candidate to the methods and techniques of training IANTD Advanced Cave or Mine Stage/Multi-Stage Divers.
  - *NOTE: This is an average of three (3) days of evaluation.*
2. The IDP will be directed by an Advanced Cave or Mine Stage/Multi-Stage instructor trainer.

### D. Equipment Requirements

1. All Equipment requirements as listed in Advanced Cave Stage/Multi-Stage Diver Standards.

### E. Program Limits

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than two (2) Stage/Multi-Stage Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level.
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidates' current level of training.
5. Same as for the IANTD Advanced Cave or Mine Stage/Multi-Stage Diver Program

## **F. Qualification Renewal**

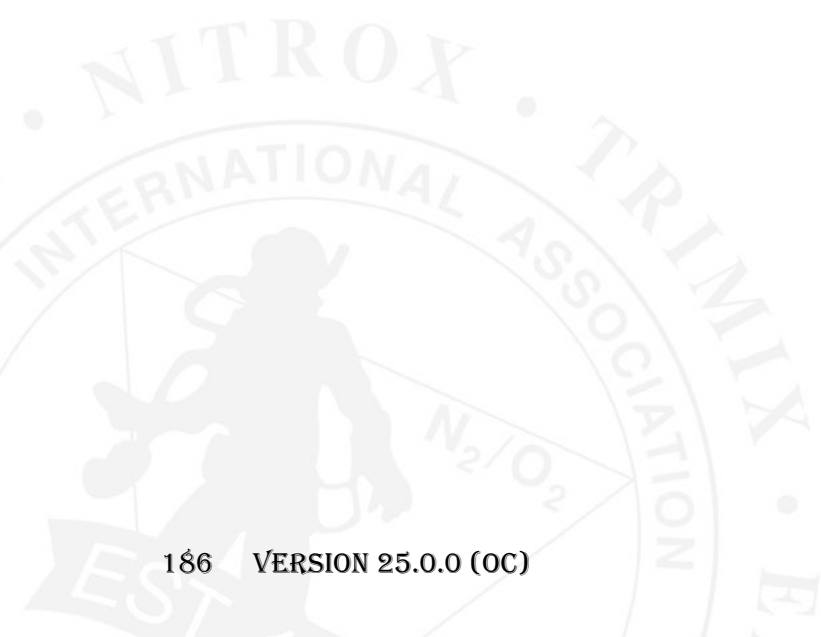
1. Teach a minimum of two (2) IANTD Technical Cave or Mine Diver programs which one (1) must be Advanced Cave or Mine Stage/Multi-Stage.

## **G. Water Skills Development**

1. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Advanced Cave or Mine Stage/Multi-Stage Diver Program.
2. Assist in at least two (2) complete Advanced Cave or Mine Stage/Multi-Stage Diver Program, which one (1) can be realized during or following the IDP.

## **H. Physical Evaluation**

1. Complete the Technical Instructor Watermanship - Page 139



## Adv. Cave or Mine - Survey Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Advanced Cave Survey Instructor Trainer, for Cave
- Advanced Mine Survey Instructor Trainer, for Mine

### A. Purpose

1. This Program is designed to develop qualified IANTD Adv. Cave or Mine Survey Instructors.

### B. Prerequisites

1. For Technical Cave:
  - a. Must be an IANTD Technical Cave Instructor.
  - b. Must be an IANTD Advanced Cave Survey Diver.
2. For Technical Mine:
  - a. Must be an IANTD Technical Mine Instructor.
  - b. Must be an IANTD Advanced Mine Survey Diver.
3. Age Requirements:
  - a. Must be a minimum of 21 years of age.
4. Dive Experience:
  - a. For Technical Cave:
    - I. Have a Minimum of 200 logged cave dives of which 100 were Advanced Cave Survey non-training dives.
    - II. Must have taught have taught a minimum of five (5) Technical Cave Diver courses.
  - b. For Technical Mine:
    - I. Have a Minimum of 200 logged mine dives of which 100 were Advanced Mine Survey non-training dives.
    - II. Must have taught have taught a minimum of five (5) Technical Mine Diver courses.

### C. Program Content

1. A comprehensive program directing the Instructor candidate to the methods and techniques of training IANTD Advanced Cave or Mine Survey Divers.
  - *NOTE: This is an average of three (3) days of evaluation.*
2. The IDP will be directed by an Advanced Cave or Mine Survey instructor trainer.

### D. Equipment Requirements

1. All Equipment requirements as listed in Advanced Cave or Mine Survey Diver Standards.

### E. Program Limits

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than two (2) Advanced Cave or Mine Survey Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level.
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidates' current level of training.
5. Same as for the IANTD Advanced Cave or Mine Survey Program.

## **F. Qualification Renewal**

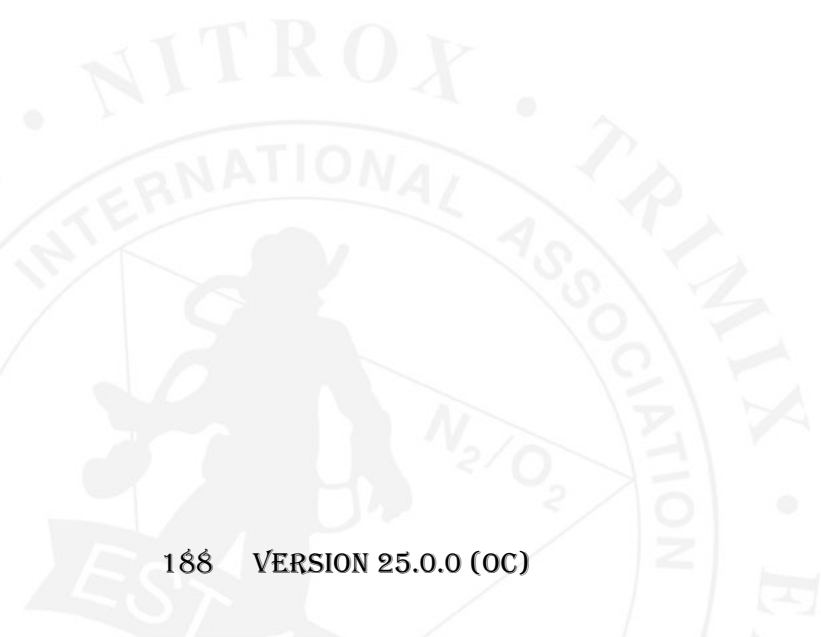
1. Teach a minimum of two (2) IANTD Mine or Technical Cave Diver programs which one (1) must be Advanced Cave or Mine Survey Diver.

## **G. Water Skills Development**

1. Demonstrate proficiency teaching and demonstrating the skills and techniques required in Advanced Cave or Mine Survey Program.
2. Assist in at least two (2) complete Advanced Cave or Mine Survey Program, which one (1) can be realized during or following the IDP.

## **H. Physical Evaluation**

1. Complete the Technical Instructor Watermanship - Page 139



## Elite Technical Cave Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### How to apply?

1. Send an IANTD Elite Technical Cave Instructor application to IANTD HQ or IANTD Lincensee.

### A. Purpose

1. Recognize an IANTD supporter and outstanding professional who dedicated himself to keep learning and evolving in his professional career.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an:
    - I. IANTD Technical Cave Instructor or equivalent.
    - II. IANTD Elite Technical Cave Diver
    - III. Tek Essential Instructor
  - b. Must have 3 of the 4 following instructor certifications:
    - I. Adv. Cave - Stage/Multi-Stage Instructor
    - II. Adv. Cave - Sidemount or No Mount Instructor
    - III. Adv. Cave - DPV Instructor
    - IV. Adv. Cave - Survey Instructor
2. Age requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive Experience:
  - a. Must have completed 200 logged dives.
  - b. Must have issued a minimum 25 IANTD Cave diver certifications.
    - *NOTE: Certifications issued must include at least 2 of each IANTD Adv. Cave - Programs.*

## Elite Technical Mine Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### How to apply?

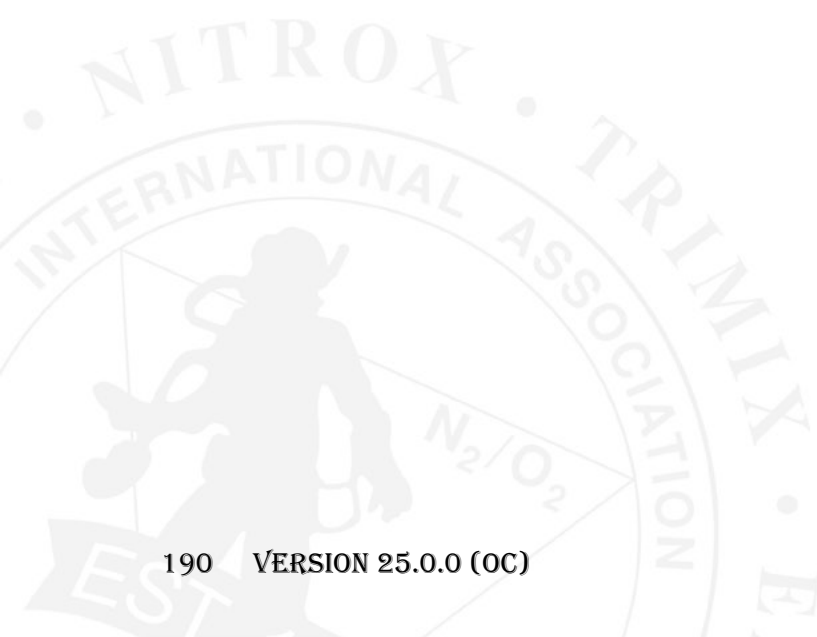
1. Send an IANTD Elite Technical Mine Instructor application to IANTD HQ or IANTD Lincese.

### A. Purpose

1. Recognize an IANTD supporter and outstanding professional who dedicated himself to keep learning and evolving in his professional career.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an:
    - I. IANTD Technical Mine Instructor or equivalent.
    - II. IANTD Elite Technical Mine Diver
    - III. Tek Essential Instructor
  - b. Must have 3 of the 4 following instructor certifications:
    - I. Adv. Mine - Stage/Multi-Stage Instructor
    - II. Adv. Mine - Sidemount or No Mount Instructor
    - III. Adv. Mine - DPV Instructor
    - IV. Adv. Mine - Survey Instructor
2. Age requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive Experience:
  - a. Must have completed 200 logged dives.
  - b. Must proof a minimum of 25 IANTD Mine certifications issued.
    - *NOTE: Must include at least 2 of each IANTD Adv. Mine - Programs.*





## Wreck Diver Instructor

▶ **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- ▶ IANTD Wreck IT may teach the Wreck Instructor Program
- ▶ Open Water Sidemount Instructor Trainer or higher is required in order to certify an instructor on Sidemount Configuration

### A. Purpose

1. This Program is designed to develop qualified IANTD Wreck Diver Instructors.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an:
    - I. IANTD Open Water EANx Instructor in active teaching status or equivalent
    - II. IANTD Wreck Diver
    - III. IANTD CPR or equivalent
    - IV. IANTD First Aid or equivalent
    - V. IANTD Oxygen Administrator or equivalent
  - ▶ *NOTE: If taking the program using Sidemount configuration, the candidate must also be qualified as IANTD Open Water Sidemount Diver*
2. Age requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive Experience:
  - a. Must proof a minimum of 150 logged dives which 50 were wreck penetration dives.
  - b. Must proof a minimum of 25 Recreational Diver Certifications Levels

### C. Program Content

1. A 2 day Program directing the Instructor candidate to the methods and techniques of training IANTD Wreck Divers.
2. The IDP is to be staffed by one (1) Wreck IT.
3. The candidate must assist in one (1) additional Wreck Diver Program, either prior to or during the IDP.

### D. Equipment Requirements

1. All Equipment Requirements listed in the IANTD Wreck Diver Program are mandatory.
2. Candidates will use appropriate equipment for diving into an overhead environment.

### E. Program Limits

1. This Program may be taught in wrecks
  - ▶ *NOTE: However, both the Instructor and students must remain in sight of ambient light.*
2. Same as for the IANTD Wreck Diver Program.

### F. Qualification Renewal

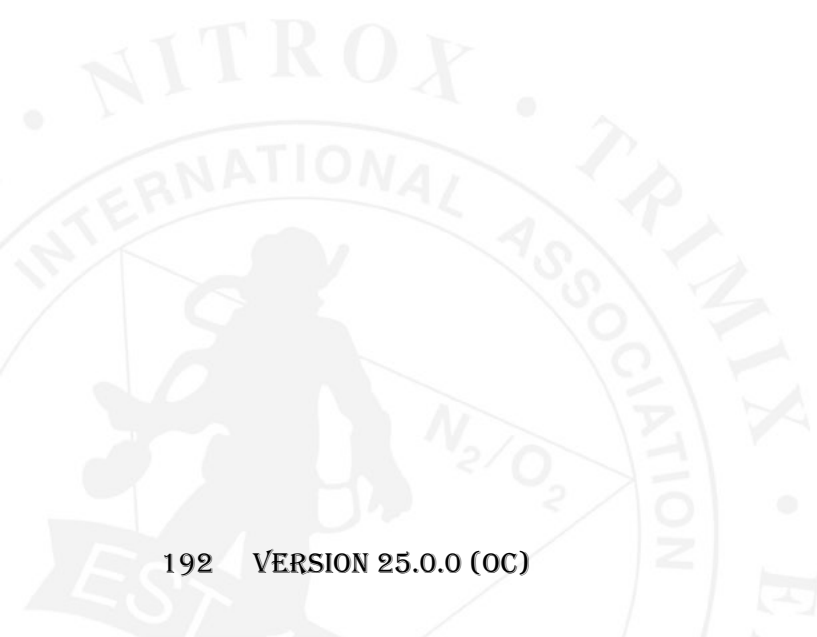
1. Teach a minimum of two (2) IANTD Programs annually including at least one (1) IANTD Wreck Diver Program
2. Log a minimum of 12 non-teaching cavern or wreck dives annually.

## G. Water Skills Development

1. Out of Air Scenario:
  - a. Without breathing, and exhaling slowly, swim in a simulated out of air situation for a distance of at least 60 feet (18 meters)
  - b. Commence gas sharing
  - c. While gas sharing, continue to swim for a distance of at least 350 feet (105 meters) while maintaining a swim rate of approximately 50 feet (17 meters) per minute.
2. Underwater, tow another diver for a distance of at least 200 feet (60 meters).
3. Simulate a complete rescue:
  - a. Activate EMS
  - b. Remove diver from water with assistance
  - c. Simulate CPR.
4. Perform fitness test swim in SCUBA gear for a distance of at least 1,000 feet (305 meters) in less than 15 minutes.
5. Complete the Instructor Fitness Evaluation in the equipment required for this level of training.
6. Deploy a DSMB or Lift Bag in less than 1 minute.
7. Demonstrate proper reel techniques.
8. Supervise at least two (2) Wreck dives with IT or staff person simulating a student.
9. It is recommended that the candidate attempt to find way out of a wreck with eyes closed and no line.  
▶ **NOTE: Up to instructor discretion, depending of the environment safety (Siltng conditions, cables, other harzords)**

## H. Physical Evaluation

1. Complete the Sport Diving Instructor Watermanship - Page 137



## Technical Wreck Diver Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

1. Technical Wreck Diving Instructor Trainer may teach this course.

### A. Purpose

1. This Program is designed to develop qualified IANTD Technical Wreck Instructors

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an IANTD Wreck Instructor in Active Teaching Status
2. Age Requirements:
  - a. Must be a minimum of 21 years of age
3. Dive Experience:
  - a. Must have taught a minimum of 3 IANTD Wreck Diver programs or equivalent
  - b. Must provide proof of a minimum of 350 logged dives, of which at least 150 were technical dives. A minimum of 100 of these dives must have been a combination of cave and wreck penetration, at least 50 of which were wreck penetration dives.

### C. Program Content

1. A comprehensive Program directing the Instructor candidate to the methods and techniques of training IANTD Technical Wreck Divers.
2. *The candidate must demonstrate good leadership potential during the IDP and give at least two (2) complete lectures in the Program.*
  - *NOTE: Non Technical Wreck Supervisors must assist two (2) courses which one (1) is in conjunction with the IDP.*
  - *NOTE: Technical Wreck Supervisors must assist in one (1) course, which can be in conjunction with the IDP*
3. Complete lecture and in water teaching assignments as assigned by the IT.

### D. Equipment Requirements

1. All Equipment Requirements listed in the IANTD Technical Wreck Diver Program are mandatory.
2. Must own or have unlimited access to an Oxygen Analyzer.

### E. Program Limits

1. Student and Instructor Trainer Ratio
  - a. There may be no more than 3 candidates per Instructor Trainer.
2. No dives may be conducted to depths greater than 170 fsw (51 msw).
3. Same as for the IANTD Technical Wreck Diver Program

### F. Qualification Renewal

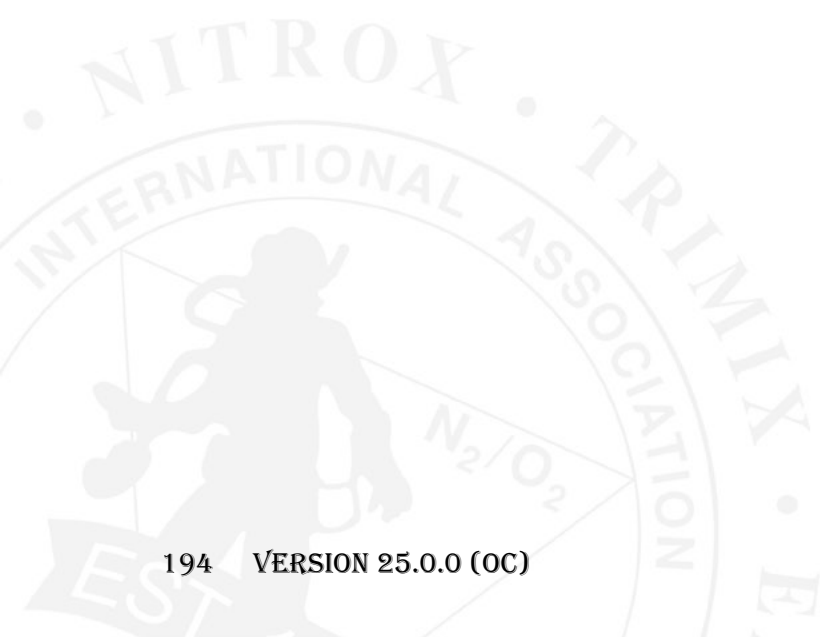
1. Teach a minimum of two (2) IANTD Technical Diver Programs annually, or co-teach a minimum of 3 IANTD Technical Diver Programs, including at least one (1) IANTD Wreck Diver Program.
2. Remain as an active IANTD member and pay annual Instructor renewal fees.
3. Log at least 25 Overhead Environment dives annually, with a minimum of 12 non-teaching Wreck Penetration dives.
4. Provide proof of insurance listing IANTD as an Additional Insured.

### **G. Water Skills Development**

1. Demonstrate proficiency teaching and demonstrating the skills and techniques required in the Technical Wreck Diver Program, as assigned by the Instructor Trainer.

### **H. Physical Evaluation**

1. Complete the Technical Instructor Watermanship - Page 139



## Wreck Survey Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- Wreck Survey Instructor Trainer

### A. Purpose

1. This Program is designed to develop qualified IANTD Wreck Survey Instructors.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be an IANTD Technical Wreck Instructor.
  - b. Must be an IANTD Wreck Survey Diver
2. Age Requirements:
  - a. Must be a minimum of 21 years of age.
3. Dive Experience:
  - a. Have a Minimum of 200 logged cave dives of which 100 were wreck Survey non-training dives.
  - b. Must have taught a minimum of ten (10) Wreck Diver courses of which at least three (3) were Technical Wreck Divers.

### C. Program Content

1. A comprehensive program directing the Instructor candidate to the methods and techniques of training IANTD Wreck Survey Divers.
2. Program will take a minimum of 24 instructional hours.

### D. Equipment Requirements

1. All Equipment requirements as listed in Wreck Survey Diver Standards.

### E. Program Limits

1. Student and Instructor Trainer IT Ratio:
  - a. There may be no more than two (2) Wreck Survey Instructor Candidates per Instructor Trainer.
2. No dives may be conducted deeper than candidate qualification level.
3. All dives must be skills practice dives.
4. Bottom times and any mandatory decompression requirements must be within the candidate's current level of training.
5. Same as for the IANTD Wreck Survey Program.

### F. Qualification Renewal

1. Teach a minimum of two (2) IANTD Technical Wreck Diver programs of which one (1) must be Wreck Survey Diver per year.

### G. Water Skills Development

1. Demonstrate proficiency teaching and demonstrating the skills and techniques required in the Wreck Survey Program.
2. Assist in at least two (2) complete Wreck Survey Programs, one (1) of which can be during the IDP.

### H. Physical Evaluation

1. Complete the Technical Instructor Watermanship - Page 139

## Elite Technical Wreck Diver Instructor

### How to apply?

1. Send an IANTD Elite Technical Wreck Diver Instructor application to IANTD HQ or IANTD Lincsee.

### A. Purpose

1. Recognize an IANTD supporter and outstanding professional who dedicated himself to keep learning and evolving in his professional career.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as an:
    - I. IANTD Technical Wreck Diver Instructor or equivalent.
    - II. IANTD Elite Technical Diver
    - III. Tek Essential Instructor
  - b. Must have 3 of the 4 following instructor certifications:
    - I. Decompression Specialist Instructor
    - II. Tek OW DPV Instructor
    - III. Tek OW Sidemount Instructor
    - IV. Wreck Survey Instructor
2. Age requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive Experience:
  - a. Must have completed 200 logged dives.
  - b. Must have issued a minimum 25 IANTD Technical diver certifications.
    - *NOTE: Certifications issued must include at least 2 each of the following IANTD Programs - Technical Wreck Diver, Tek OW Sidemount Diver or Tek OW DPV Diver and Wreck Survey.*



## Ice Diver Instructor

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

### Who may teach this course?

- IANTD Ice Diver Instructor Trainer may teach this course.
- Open Water Sidemount Instructor Trainer or higher is required in order to certify a diver on Sidemount Configuration.

### A. Purpose

1. This Program is designed to develop qualified IANTD Ice Diver Instructors.

### B. Prerequisites

1. Certification Requirements:
  - a. Must be qualified as:
    - I. IANTD EANx Instructor or higher or equivalent
    - II. IANTD Ice Diver or equivalent
    - III. IANTD CPR or equivalent
    - IV. IANTD First Aid or equivalent
    - V. IANTD Oxygen Administrator or equivalent
    - NOTE: OW Sidemount Instructor is required to take this program on sidemount configuration.
2. Age Requirement:
  - a. Must be a minimum of 18 years of age.
3. Dive Experience:
  - a. Proof of a minimum of 150 logged dives and at least 25 dives Ice Dives.
    - NOTE: If taking the program using Sidemount configuration, the candidate must also be qualified as IANTD Open Water Sidemount Diver

### C. Program Content

1. A 2 day Program directing the Instructor candidate to the methods and techniques of training IANTD Ice Divers.
2. Ice Instructors from recognized agencies who are also IANTD Open Water EANx Instructors may cross over by completing a 1 day Program acquainting them with IANTD Standards and Procedures.
3. The IDP is to be staffed by one (1) Ice IT
4. The candidate must assist in one (1) additional Ice Diver Program, either prior to or during the IDP.
5. The specialty must have stress management as part of the curriculum.

### D. Equipment & Text Requirements

1. All Equipment Requirements listed in the IANTD Ice Diver Program are mandatory.
2. Manufacture user manual and other teaching materials as available
3. Fulfill all Equipment Requirements as specified in the general Sport Diver Programs overview.
4. IANTD Diver Student Kit

### E. Program Limits

1. This Program may be taught in Ice environments
2. Same as for the IANTD Ice Diver Program.

### F. Qualification Renewal

1. Teach a minimum of two (2) IANTD Programs annually including at least one (1) IANTD Ice Diver Program
2. Log a minimum of 10 non-teaching Ice dives annually

## G. Water Skills Development

1. Demonstrate all the skills in IANTD Ice Diver Program at Instructor level demonstration quality.
  2. Additionally, candidate should perform:
    - a. Underwater, tow another diver for a distance of at least 140 feet (40 meters).
    - b. Demonstrate proper reel techniques.
    - c. Simulate a complete rescue:
      - I. Activate EMS
      - II. Remove diver from water with assistance
      - III. Simulate CPR
    - d. Supervise at least two (2) Ice dives with IT or staff person simulating a student.
    - e. It is recommended that the candidate attempt to find way out of the water when simulate broken line.
- **NOTE: Up to instructor discretion, depending of the environment safety (frozen regulator, entanglement, current other hazards).**

## H. Physical Evaluation

1. Complete the Sport Diving Instructor Watermanship - Page 137



**EANx & Trimix Blender and Life Support Service Technician Instructor**

► **BE SURE TO CHECK IANTD TEK LITE & TECHNICAL LEADERSHIP AND INSTRUCTOR PROGRAMS GENERAL STANDARDS (Pg 134).**

**Who may teach this course?**

1. Blender Instructor Trainer may teach this course.

**A. Purpose**

1. This Program is designed to train qualified Instructors to teach gas blending.
2. There are two (2) levels of Blending Instructors:
  - a. EANx Blending Instructor
  - b. Trimix Blending Instructor.
3. This Program is designed to train competent Life Support Systems Service Technician Instructors.

**B. Prerequisites**

1. Must be a qualified Service Technician from both IANTD and the manufacturer(s) whose equipment is being used or a graduate of IAST
2. For EANx Blending Instructor:
  - a. Must be either an employee of an IANTD Facility who is already an EANx Blender, or an IANTD EANx Instructor in Active Teaching Status who is also an IANTD EANx Blender.
  - b. Must be recommended by an IANTD Facility or demonstrate a need for such qualification in writing to the IT.
  - c. Must demonstrate experience as a blender in EANx
3. For Trimix Blending Instructor:
  - a. Must be qualified as an EANx Blending Instructor unless IAND, Inc. dba IANTD World Headquarters or its Licensed Region(s) grants a waiver.
  - b. Must be a Trimix Blender or an EANx Blending Instructor recommended by an IANTD Facility that has a need for Trimix Blending Instructors.
  - c. Must demonstrate experience as a blender in Trimix.

**C. Program Content**

1. Complete a 1 day IDP updating the Instructor on Standards and recommendations applicable to gas blending.
2. Demonstrate in-depth knowledge and communication skills in teaching the principles of gas blending.
3. Demonstrate ability to explain and teach partial pressure blending, continuous blending, and either membrane technology or oxygen separation technology.

**D. Equipment Requirements**

1. IANTD Gas Blender Student Kit and Power Point Slides.
2. All equipment used in this Program must be compatible with the Trimix mixtures being prepared and the method in which the Trimix is being blended.
3. Approved mixing station.
4. Must own or have unlimited access to an Oxygen Analyzer.

► *NOTE: Own or have unlimited access to a Helium Analyzer is strongly recommended.*

**E. Program Limits**

► *NOTE: Blenders may not perform duties other than cylinder cleaning, visual inspections and gas mixing unless qualified as a Technician with the manufacturer of the equipment being prepared for EANx use.*

1. The candidate may not exceed the limits prescribed for the designated gas mixture.
2. This Program must include:
  - a. Preparation of at least 10 mixes between 3 different EANx mixes.
    - I. Each of the 10 mixes shall have a final oxygen content within  $\pm 1\%$  of the target amount

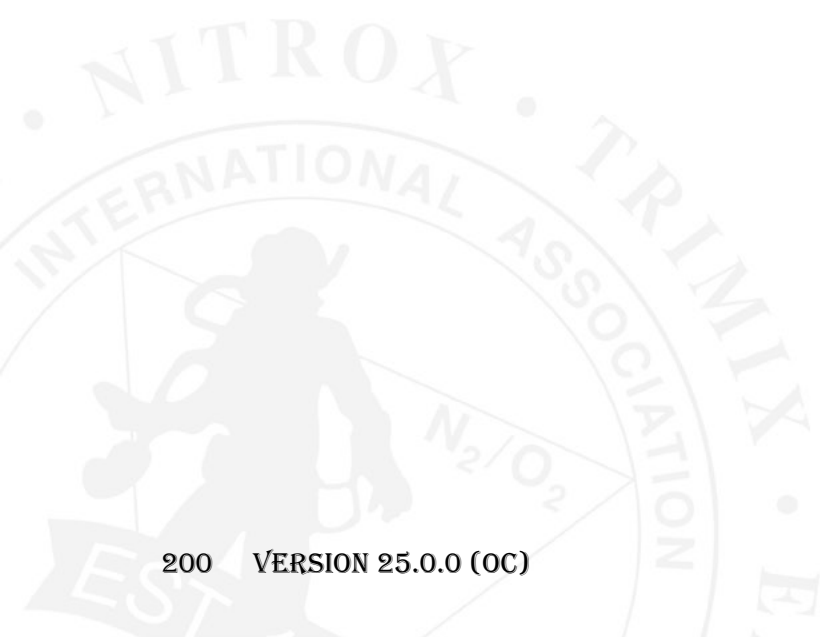
- b. Preparation of at least 6 mixes between 3 different Trimix mixes.
  - I. Each of the 6 mixes shall have a final oxygen (O<sub>2</sub>) content within  $\pm 1$  % of the target amount
  - II. Each of the 6 mixes shall have a final helium (He) content within  $\pm 3$  % of the target amount

## **F. Qualification Requirements**

- 1. Complete the IDP to the satisfaction of IANTD Standards and Procedures.
- 2. Complete the written exam with a minimum score of 80%.
- 3. Successfully teach blending assignments under the supervision of the IT.

## **G. Qualification Renewal**

- 1. Teach a minimum 3 Blending Instructor courses annually.
- 2. Remain as an active IANTD member and pay annual Instructor renewal fees



## Instructor Trainer Upgrade Policy

► **If not an IANTD IT, in order to upgrade to any other IT Rating, the Open Water EANx ITDP must be successfully completed.**

► **Reffer to the IANTD Sport Diving Standards (OC) - Open Water EANx Instructor Trainer Development Program**

1. An IT who succesfully completes the ITDP is eligible to upgrade to other IT levels without attending another ITDP by:
  - a. IANTD HQ or local IANTD Licensee approval;
  - b. Providing documentation of actively teaching IANTD programs;
  - c. No active Quality Assurance Complaint.
  - d. Acheiving the minimum number of IANTD student certifications, dives and hours per level as described below:

IT RATING:	Number of diver certifications issued at that level	Number of dives or hours at that level
Open Water EANx IT	200	200
Advanced EANx or Advanced Recreational Trimix IT	10	25
Technical Diver IT	10	25
Normoxic Trimix IT	10	75
Trimix IT	15	100
<b>REBREATHER IT RATINGS</b>		
Recreational Rebreather IT (SCR - pSCR - CCR)	10	100 hrs
Rebreather IT (SCR - pSCR - CCR)	15	200 hrs
Rebreather Normoxic Trimix Diving IT (pSCR - CCR)	10	250 hrs
Rebreather Trimix Diving IT (pSCR - CCR)	10	300 hrs
<b>OVERHEAD IT RATINGS</b>		
Technical Mine IT	15	100
Technical Cave Diver IT	15	100
Technical Wreck Diving IT	15	100
Rebreather Cave Diver IT (pSCR - CCR)	10	300 hrs
Rebreather Wreck Diving IT (pSCR - CCR)	10	300 hrs
<b>NOTE</b>		
<i>Once the IT achieves the upgrade requirements listed above for the specific IT Rating, an IT can continue their education with an ITT or apply to IANTD for approval of the specific IT rating .</i>		
<i>IT Ratings not specified in this matrix require 10 diver certifications to have been issued at that level before applying to IANTD for approval of the specific IT rating.</i>		

► **In order to upgrade to any IT Rating, the required number of certifications MUST be IANTD only.**





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