

## 21. DPV Cave Diver Instructor

### 21.1 Introduction

The purpose of this program is to train a DPV Cave Instructor candidate with respect to the following criteria:

1. Level of knowledge, professionalism and proficiency in presenting a comprehensive TDI DPV Cave Diver course
2. Proficiency in demonstrating the required land and water skills
3. Overall attitude toward safety, both for the instructor and their student
4. Reducing the long-term environmental impact of DPV use on cave systems by developing well-trained divers
5. Possessing a thorough knowledge of the *TDI Standard and Procedures*

### 21.2 Qualifications of Graduates

Upon successful completion of this program, graduates will be authorized by TDI to teach and certify students in the following area:

1. TDI DPV Cave Diver

### 21.3 Who May Teach

This program may be conducted by the TDI Headquarters Training Staff and/or a senior instructor who has been approved by TDI Headquarters to evaluate DPV Cave Instructor candidates.

### 21.4 Student to Instructor Ratio

#### Academic

1. Unlimited, so long as adequate facility, supplies and time are provided to ensure comprehensive and complete training of subject matter

#### Confined Water (swimming pool-like conditions)

1. NA

#### Open Water (ocean, lake, quarry, spring, river, or estuary)

1. A maximum of 2 students per instructor; it is the instructor's discretion to reduce this number as conditions dictate.

## 21.5 Student Prerequisites

1. A TDI Full Cave Dive Instructor for at least 1 year
2. Taught at least 5 complete TDI Full Cave Diver courses
3. Provide proof of at least 50 logged non-training DPV Dives
4. Co-Teach at least 1 TDI Full Cave DPV Course with an active TDI DPV Cave Diver Instructor

## 21.6 Course Structure and Duration

### Water Execution

1. TDI allows the instructor trainers to structure programs accordingly; adequate time to ensure comprehension and ability to perform skills required

### Program Structure

1. DPV Cave Instructor candidates must participate of a minimum of 3 supervised DPV cave dives

### Duration

1. The minimum number of classroom and briefing hours is 8

### Limits of Training

1. Penetration limited to 1/3 or less of twin cylinders and 1/3 or less of a stage cylinder
2. Maximum depth 130 on to level of training of student
3. No equipment removal in cave except for decompression cylinders, stage cylinders, or DPV

## 21.7 Administrative Requirements

### The following are the administrative tasks;

1. Collect the course fees from all Instructor candidates
2. Ensure that the instructor candidate have the required equipment
3. Communicate the training schedule to the instructor candidates
4. Have the instructor candidates complete the following:
  - a. *TDI Liability Release and Express Assumption of Risk* Form
  - b. *TDI Medical Statement* Form signed by a licensed physician

### Upon successful completion of the course the instructor trainer must:

1. Issue the appropriate TDI certification by submitting the appropriate *TDI Dive Leader Registration* form to TDI Headquarters

## 21.8 Required Equipment

**The following materials is required:**

1. N/A

**The following equipment is required for each student:**

1. Dual cylinders, volume appropriate for planned dive, student gas consumption
2. Two independent first and second stage regulators; one regulator equipped with a long hose
3. Submersible pressure gauge
4. Buoyancy compensator device (BCD) with power inflator
5. Exposure suit adequate for diving environment
6. Mask and fins, NO Snorkel
7. Two line cutting devices
8. Three battery powered lights; 1 primary and 2 back-ups, each with a burn time suitable for the planned dive time
9. One primary cave-diving reel with length appropriate for intended dive
10. Safety reel with a minimum of 37 metres / 125 feet of guideline
11. Appropriate number of gap and jump reels with adequate capacity for planned dive
12. Computer, watch or bottom timer and depth gauge
13. Slate or wet notes with a pencil
14. Submersible dive tables or back up dive computer
15. Three directional line arrows
16. One non-directional line marker
17. DPV adequately configured for the cave environment

## 21.9 Required Subject Areas

**The following topics must be covered during this course:**

1. Motivations for DPV cave diving
2. Advantage of DPV use
3. Equipment considerations
  - a. DPV Options
  - b. DPV components
  - c. Rated burn time
  - d. Care and Maintenance
  - e. DPV rigging
  - f. Helmets

4. Problem solving procedures
  - a. DPV malfunction or failure
  - b. Towing
  - c. Gas sharing with DPVs
  - d. Light failure
  - e. Entanglement
  - f. Collision avoidance
  - g. Team separation
5. Environmental considerations
  - a. Appropriate vs. inappropriate passages
  - b. Suitable cave conditions
  - c. Low impact DPV use
6. DPV diving techniques
  - a. Buoyancy and trim with DPV
  - b. Dropping, securing, and retrieving a DPV
  - c. Installing guidelines with a DPV
  - d. Instigating directional and depth changes
7. Dive planning and gas management
  - a. Turn time, turn distance and turn pressure
  - b. Gas mix(es) and NDLs or decompression obligations
  - c. Gas management, including stage as a safety bottle for DPV extended range

## **21.10 Required Skill Performance and Graduation Requirements**

**The DPV Instructor candidates are required to demonstrate the DPV cave diver land drills as described in the *TDI DPV Cave Diver Standards***

**The DPV Instructor candidate must perform the following s-drill and skills during all dives:**

1. Demonstrate adequate pre-dive planning
2. Equipment check and equipment matching
3. Bubble check
4. Demonstrate specialized propulsion techniques in varying types of flow
5. Demonstrate proper buoyancy control
6. Demonstrate proper body posture
7. Demonstrate proper stress analysis (detection and management)
8. Demonstrate proper use and rigging of a DPV
9. Tow harness and simulating towing technique and rescue techniques

**The DPV Instructor candidate must perform the following in-water skills during cave dives:**

1. Share gas with DPVs while maintaining visual contact with the guideline.
2. Simulate primary light failure and exit utilizing the DPV and the smallest backup light
3. Simulate exiting the cave with disabled DPV
4. Exit while towing a team member and their disabled DPV
5. Candidate is required to present a minimum of 2 lectures, 1 prepared and 1 impromptu from the TDI DPV Diver Required subject areas

**In order to complete this course, the DPV Instructor candidate must:**

1. Perform all dive requirements safely and efficiently
2. Demonstrate mature, sound judgment concerning dive planning and execution
3. Maintain an appropriate level of awareness and respect for the cavern environment
4. Log all dives