

INTRODUCTION-TO-CAVE DIVING COURSE

PURPOSE:

To develop basic cave diving skills with limited penetrations in the cave environment. This is the second level of the progression to the full cave diver certification. It is a recreational cave diving course. The course develops and establishes minimum skills, knowledge, dive planning abilities, problem solving procedures and the basic abilities necessary to safely cave dive to limited penetrations, using single tanks.

COURSE DURATION: Minimum time: two days

PRE-REQUISITES:

- NACD cavern diver or equivalent.
- Minimum of 25 logged non training dives.
- Minimum age 16, with signed parental consent. Provisional status certification for younger divers with written approval by the NACD training director.

NOTE: Nitrox certification is recommended.

LECTURES: Minimum number of hours is eight. The four hours lecture from the cavern course may be credited toward the Introduction-to-cave diver requirement of eight hours.

Lectures are to include but not be limited to:

- Review of medical aspects of diving with a discussion of DCS.
- Review of dive tables.
- Use and misuse of dive computers.
- The cave environment.
- Cave diving techniques (includes buoyancy control and body positioning).
- Communications.
- Accident Analysis and emergency procedures/situation management (Includes group discussion with problem solving).
- Recognition of potential stressful/emergency situations.
- Psychological aspects of cave diving, to include: stress, attitude awareness, reaction to and building tolerance to stress in self/ others, management, and philosophy.
- Cave conservation.
- Guide lines and guide line techniques.
- Dive planning and air/gas management.
- Equipment and equipment configurations
- Inert gas narcosis.
- Physiology, with emphasis on breathing techniques.
- Cave orientation, referencing and navigation.
- History and philosophy of NACD.
- Visualization techniques (recommended).

LAND DRILLS: These drills are to include but not be limited to:

- Proper use of guide lines and reels.
- Techniques in following guide lines.
- Touch contact procedures.
- Lost line/ diver drill.
- Use of line markers.

OPEN WATER/ POOL SKILLS: The session is to include, but not be limited to the following:

- Use of guidelines.
- Following line with blacked out mask or loss of visibility.
 - Sharing air, first with vision and then with eyes closed.
 - Touch contact, may be incorporated with air sharing.
 - Following line without mask.
- Use of reel.
- Satisfactorily demonstrate proficiency to the instructor of various techniques such as the modified flutter kick, modified frog kick, modified dolphin kick while maintaining correct cave position and buoyancy control.

Credit may be given for these skills (A-D) if they were performed previously in the student's NACD or equivalent cavern course. This may be done at Instructor's discretion.

CAVE DIVES:

Intro to Cave diver certification is based on satisfactory performance of ALL skills listed in these standards by ALL students regardless of prior training. Students will complete a minimum of four cave dives for certification and at instructor discretion one open water evaluation dive. Students using double tanks will use 1/6 air rule. If certified at this level students must be informed they can only dive with a single tank.

- Minimum number of dives is **four**.
- Minimum bottom time for a dive is 20 minutes.
- Students who have not completed all the performance requirements for this course within the minimum number of dives, may not be certified until the remaining skills are performed successfully during an additional dive or dives.
- Cave dives are to be conducted in at least two different cave entrances; with three recommended. Every effort should be made to have the students gain experience in different types of flow, visibility, tunnels, etc. Exceptions are allowable during times of poor diving conditions and weather, with training director or his/her designee approval.
- Equipment matching and "S" drills are required on every training dive.
- Pre-dive briefing, bubble checks, good dive team skills, post dive critique and logging of data is to be accomplished on all dives.
- A recommended three (3) minute safety stop on all dives.
- Number of dives required are a minimum, more dives may be performed at instructor discretion.

SKILLS/ EXERCISES - to be performed in the overhead (cave) environment:

- Proper finning and propulsion skills.
- Proper body positioning and buoyancy control.
- Use of reel and guide line.
- Touch contact.
- Air sharing.
- Communications with light/ hand signals.
- Familiarization with the cave
- Use of line arrows.
- Lost diver procedures.
- Dive planning.
- Stress detection and management.
- Conservation behavior and techniques.

- Simulated emergencies:
 - Share air while exiting cave
 - Lost visibility, touch contact, team line following
 - Lost visibility, out-of-air, touch contact line following (as the out-of-air diver and the air provider, for a minimum distance of 100 ft. in each position, and to include a minimum of three stations for hand changes on line between students)
 - Diver lost from team/diver lost from guideline
 - Broken/ lost line
 - Primary light failure, exit on smallest backup light
 - Air/ gas valve management. Diver practices turning own valves on/ off, simulate various regulator/ valve failures. (May be done in open water at start or end of dive)
 - Simulated line entanglement recommended

LIMITS:

- Penetration/ depth.
 - Dive one:** 600 feet recommended
 - All succeeding dives:** no penetration limit
 - Depth:** 100 ft
- Air rules - 1/3 air rules may be used for single tank dives. Students using doubles will use the 1/6 air rule
- Minimum starting visibility thirty (30) feet.
- Minor restrictions acceptable. (A minor restriction is when divers are prevented from traveling side by side, forces them into single file travel). No major restrictions.
- It is highly recommended that additional dives be added at this level. The four dives are the minimum.

MINIMUM EQUIPMENT:

- Minimum 72 cubic foot single cylinder with dual outlet valve.
- Mask, low volume type recommended.
- Power fins, with straps taped together, if applicable.
- Suitable tank harness.
- Two single hose regulators, one with five (seven foot strongly recommended) foot hose, one with submersible pressure gauge attached. Some recognized method of securing the seven foot hose must be provided. Octopus inflation system is not allowed.
- Exposure suit, suitable for diving conditions.
- Buoyancy compensator with auto inflator. (CO₂ emergency inflation devices must be rendered inoperative) Back mount BC is highly recommended, but not required.
- Submersible dive tables or computer must be used.
- Slate and pencil.
- Knife, preferable small and sharp, or line cutter acceptable to instructor.
- Watch or bottom timer and depth gauge. A dive computer may be used in place of these.
- Three lights per diver.
 - A primary light with an illumination and burn time sufficient for the dive being undertaken.

- Two backup lights. The backup lights should have a suitable burn time for the dive being planned
- One primary guide reel per team and two safety reels per diver.
- Line arrows or line clips, minimum of three per diver.

CERTIFICATION REQUIREMENTS:

- Perform all skills listed.
- Perform the minimum number of dives specified.
Maintain an appropriate awareness of safety and safety procedures, as well as demonstrate appropriate respect for the cave environment. A reckless or cavalier attitude may constitute grounds for denying certification, regardless of technical ability.
- Demonstrate knowledge of pertinent information by passing a written Introductory to Cave examination with a minimum grade of 80% on exam.
Submit all appropriate records as required.
- Payment of all appropriate fees.
- Recommendation for certification by the cave instructor.

NOTE: Certification may be denied if it is determined that the course was not conducted according to the standards established by the NACD.