



## 27. SDI – Solo Diver Specialty

### 27.1 Introduction

The objective of this course is to train divers in the benefits, hazards, and proper procedures for diving solo. Upon successful completion of this course, graduates may engage in solo diving activities.

### 27.2 Who May Teach

Who may teach this course?

1. An active SDI Solo Diver Instructor that has been certified to teach this specialty.
2. Instructor pre-requisites 21 years of age or older, one (1) year teaching experience, and 50 or more certifications

### 27.3 Student – Instructor Ratio

Academic:

1. Unlimited, so long as adequate facility, supplies and time are provided to insure comprehensive and complete training.

Confined Water (Swimming pool-like conditions):

1. N/A.

Open Water (Ocean, lake, quarry, spring, river or estuary):

1. A maximum of eight (8) students per Instructor. However, it is the instructor's discretion to reduce this number as conditions dictate.

### 27.4 Student Pre-Requisites

1. Minimum age twenty one (21).
2. Minimum certification of advanced diver or equivalent.
3. Minimum of one hundred (100) logged dives.
4. Completed Medical Diving Release Form.
5. Completed Waiver and Release Form.



## **27.5 Course Structure And Duration**

Open Water execution:

1. Two (2) dives are required with complete briefs and debriefs by the Instructor.
2. Dive plan must include Surface interval, Max no-deco time, etc. to be figured out and logged.

Course Structure:

1. SDI allows instructors to structure courses according to the number of students participating and their skill level.

## **27.6 Administrative Requirements**

Administrative Tasks:

1. Collect the course fees from all the students.
2. Ensure that the students have the required equipment.
3. Communicate the schedule to the students.
4. Have the students complete the solo diving Liability Release and Medical History forms.
5. The Instructor must review the solo diving Liability Release and Medical forms before starting on the course.

Upon successful completion of this specialty the instructor must issue the SDI Solo Diver specialty experience card. The Instructor must:

1. Use either a SDI diver registration form or a Pre-paid Diver certification form to file for the specialty certification card if a SDI certification card is requested.
2. Award card.

## **27.7 Training Material**

Required material:

1. SDI Solo Diver manual
2. SDI Solo Diver I.Q Review
3. SDI Solo Diver Instructor Guide

Optional material:

1. SDI Solo Diver planning slate

## **27.8 Required Equipment**

1. Basic SDI Open Water SCUBA equipment as prescribed earlier in this manual with exception of a safe second or octopus is not allowed as a redundant air source.
2. One of the following must be used to provide an additional independent regulator attached to an air source: Pony bottle, Twin cylinders w/ isolation, H-valve, Independent doubles, SpareAir™.



## **27.9 Approved Outline**

Instructors may use any additional text or materials that they feel help present these topics. The following topics must be covered:

1. Why must we solo dive?
  - A. History of buddy diving.
  - B. Pros and cons of buddy diving.
  - C. Pros and cons of solo diving.
  - D. Legal liability assumed by buddy diving
    - I. How to use the solo diving waiver.
2. Who must solo dive?
  - A. Pre-requisites and practicalities.
3. Solo diving mentality
  - A. Self-reliance.
  - B. Self-rescue.
4. When not to solo dive
  - A. Overhead environments.
  - B. Decompression and deep diving.
5. Equipment for solo diving
  - A. Redundant air sources: Pony bottle, Twin cylinders w/ isolation, Independent doubles.
  - B. Regulators.
  - C. Buoyancy compensators.
  - D. Exposure suits.
  - E. Dive Knives and other cutting tools.
  - F. Surface marker buoys and floatation devices.
  - G. Safety reels.
  - H. Underwater navigational tools.
  - I. Current and ascent lines.
  - J. Surface audible signaling devices.
  - K. Dye markers, signal mirrors or flares.
  - L. Emergency position indicating radio beacons (EPIRBs).
  - M. Equipment configuration appropriate for solo diving (stream lining your gear).
6. Planning and conducting a solo dive
  - A. Dive site selection and pre-dive considerations.
  - B. Filing a “flight plan” – notification of your planned dive activities.
  - C. Contingency planning.
  - D. Equipment configuration appropriate for solo diving.
  - E. Gas management.
  - F. Avoiding entanglements.
7. Navigation
  - A. Why navigation skills are important to the solo diver.
  - B. Use of a mechanical compass.
  - C. Electronic compass.
  - D. Underwater diver tracking systems.
8. Management of solo diving emergencies
  - A. Free-flowing regulators.
  - B. BC inflator malfunctions.
  - C. Mask problems.



- D. Managing currents.
  - E. Entanglements.
  - F. Unintended decompression obligations.
  - G. Panic and stress management techniques.
  - H. Use of surface marker buoys and location devices.
9. Review the **Solo Diver Release Form**.

## **27.10 Required Skill Performance And Graduation Requirements**

**Skills are to be performed in the open water.** The student is required to demonstrate understanding of the techniques to properly execute a solo dive.

- 1. Swimming skills
  - A. Surface swim of two hundred (200) meter / six hundred (600) feet in full scuba gear (gear configuration appropriate to local diving conditions). Must be Non-stop and performed in an open water environment.
- 2. Scuba Skills
  - A. Demonstrate adequate pre-dive planning.
  - B. Limits based on personal gas consumption.
  - C. Exact dive and/or decompression profile.
- 3. Properly execute the planned dive within all pre-determined limits
  - A. Equipment configuration appropriate for solo diving
    - I. Streamlining equipment.
    - II. How to use and carry a redundant air supply.
  - B. Proper descent / ascent rates.
  - C. Proper safety stop procedures
    - I. Monitoring of decompression status equipment (tables, computers, equipment).
- 4. Navigation skills
  - A. Demonstrate proficiency of navigation with compass.
  - B. Demonstrate emergency change over to a backup regulator or bailout scuba at a depth not exceeding thirty (30) msw / one hundred (100) fsw.
  - C. Deploy surface marker and use of surface audible signaling device.