

13. Night Ops

13.1 Introduction

The ERDI Night Ops Component is designed to develop the knowledge and skills necessary for night operations in emergency response diving.

13.2 Student Prerequisites

1. Minimum age 18
2. Certified as ERD I or equivalent
3. CPR 1st or equivalent
4. CPROX or equivalent

13.3 Qualifications of Graduates

Upon successful completion of the ERD Night Ops component, students will have developed the knowledge and skills necessary to plan and execute night diving operations within the scope of a team's operational guidelines.

13.4 Who May Teach

1. An active ERDI Instructor that has been certified to teach this ops component

13.5 Administrative Requirements

Required forms

1. Have the students complete the:
 - a. *ERDI Liability Release and Express Assumption of Risk* Form
 - b. *ERDI Medical History* Form
2. Communicate the schedule of the course to the students
3. Ensure that the students have the required equipment

13.6 Optional Materials

1. *SDI Night and Limited Visibility* Student Manual or eLearning
2. *SDI Night and Limited Visibility* Knowledge Quest or eLearning
3. *SDI Night and Limited Visibility* Instructor Guide

13.7 Certification

1. Upon successful completion of an ERDI course the instructor must issue the appropriate ERDI certification by submitting the ERDI Diver Registration form to ERDI Headquarters or registering the students online through member's area of the ERDI website.

13.8 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

1. A maximum of 6 students per ERDI Instructor

Open Water

1. A maximum of 6 students per ERDI Instructor; it is the instructor's discretion to reduce this number as conditions dictate

13.9 Course Structure and Duration

Course Structure

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

Duration

1. Classroom and briefing: Approximately 3 hours
2. Confined water dives: Suggested simulation of reduced/zero visibility environment
3. Open water dives (required): Two dives are required with complete briefs and debriefs by the instructor. Dive plan must include surface interval, max no-decompression time, etc. to be figured out and logged. Night or limited visibility dive is defined as any dive requiring a light to enhance visibility
4. Support dive: One dive is required in which the student will act as a surface support/tender asset.

13.10 Required Equipment

1. Same equipment required for ERD I Diver
 - a. Lights; primary and backup
 - b. Whistle/Audible signaling device

13.11 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 Dive at Night?
 - a. Definition of “Night” operational environment
 - b. Experience in limited visibility
 - c. Why choose limited visibility operations
 - d. Risk assessment, Go/No-Go
2. Special Equipment
 - a. Lighting types and needs
 - i. Scene Lighting
 - ii. Dive Lights
 - iii. Tender Lights
 - iv. Marker Lights (Location/Recognition)
 - v. Marker Lights
 - vi. Color identification/recognition
 - vii. Visual assistance systems (thermal/night/Darkwater Vision/etc)
 - b. Importance of diver/tender lights and backups
 - c. Comparison of different styles
3. Buddy/Tender
 - a. Buddy contact
 - i. Plausibility
 - ii. Limited visibility, buddy line
 - iii. Tender vs Buddy
 - b. Communications
 - i. Types
 1. Electronic
 2. Line signals
 3. Touch
 4. Audible
 5. Visual
 - ii. Light signals at distance (diver/tender)
 1. Attention / OK
 2. Something’s wrong
 3. Location reference
 - iii. Line pulls (Tender to Diver)

1. Ok – One pull
 2. Stop/Turn – Two pulls
 3. Surface – Three pulls
 4. Stop/Standby – Four pulls
 - iv. Line pulls (Diver to Tender)
 1. Ok – One pull
 2. More Line – Two pulls
 3. Found Object – Three pulls
 4. Help/Trouble – Four pulls
 - v. Tactile Signals
 1. Squeeze – Stop
 2. Pull – Backup
 3. Push – Go
 4. Crossed Fingers – Entanglement
 5. Rapid Squeezing – Out of Air Issue
 - vi. Whistle on surface
 1. Repetitive Blasts: Distress
4. Navigation
 - a. Compass (surface/subsurface)
 - b. Line assisted
 - c. Marker light / strobe
5. Disorientation
 - a. Mental Aspects
 - b. Surface reference points
 - c. Constant communication
6. Buoyancy considerations
7. Emergency Procedures
 - a. Disabled diver
 - b. Lost diver
 - c. Lost communications
 - d. Light failure (all types)
8. Surface support operations
 - a. Diver medical and rehab
 - b. Diver decontamination
 - c. Scene coordination/security
 - d. Outside/Mutual Aid resources
9. Contingency Planning
 - a. Incident action plan
 - b. Medical/Chamber support
 - c. Communications
 - d. Emergency gases
 - e. Emergency procedures

13.12 Confined Water Outline

Students are suggested to successfully complete the following skills:

Scuba Skills

1. Instructor evaluation of basic scuba skills including redundant air source use

Blacked out Simulation/Reduced Visibility

1. Entanglement
2. Out of air
3. Search patterns
4. Communications methods
5. Lost/Diver in trouble
6. Evidence recovery
7. Victim recovery (bagging)

13.13 Required Skill Performance and Graduation Requirements

Students are required to successfully complete the following:

Open Water Dive 1

1. Plan dive
2. Safety procedures
3. Enter and descent
4. Remain submerged at least 20 minutes
5. Change direction several times while maintaining proper navigation
6. Use properly; underwater light, submersible pressure gauge, compass, depth gauge, and computer
7. Maintain buddy/tender contact throughout dive
8. Recover and package one item
9. Log dive

Open Water Dive 2

1. Plan dive
2. Safety procedures
3. Descend
4. Two-minute swim without compass
5. Surface and reorient
6. Descend and navigate
7. Perform response to one emergency scenario (out of air, entanglement, equipment malfunction, etc)
8. Log dive

Open Water Surface Support

1. Plan dive
2. Safety Procedures
3. Provide tender/surface support role
4. Respond to one emergency scenario as a surface support individual
5. Log dive