



# LIGHT SALVAGE & RECOVERY

## Program Information Guide

### OBJECTIVE

Take your dive team to a more advanced level of service. By teaching your dive members to compete safe salvage operations, you can offer an environmentally conscious service to your community. Students should be prepared to make several lifts using various techniques. The focus of the program will be conducting salvage operations as they apply to underwater crime scenes and investigations. The techniques taught in this program can be applied to the salvage or recovery of boats, automobiles and aircraft. This program is conducted in a classroom, pool and at an open-water site to allow students to practice their new skills in a controlled environment before the field scenarios.

**CERTIFICATION** - Light Salvage & Recovery

**RECOMMENDED FOR** - Certified divers and surface support personnel

**DURATION** - 3 Days/24 Hours

### TUITION

\$405.00 (US Funds) per student

**CLASS SIZE** - The optimal number of students is 20 (15 paid/5 free to hosting agency). A minimum of 12 students is recommended for quality.

### PREREQUISITES

All students must be a member of a public safety agency and at least 18 years of age. Students must also read and complete a RSTC medical statement prior to attending class. Any diver answering yes to any contraindication must have the form signed by a physician. All diving personnel must provide proof of Dive Rescue I certification.

*This program is designed for personnel who are physically fit. Participants are encouraged to participate after successfully completing the IADRS Watermanship Test or testing to a fitness level of 13 MET (Metabolic Equivalents) or greater. Participants with aerobic fitness questions or concerns should consult their physician prior to in-water training. Participants who have poor aerobic fitness may attend this program as surface support personnel with the approval of the instructor.*

### MANDATORY HOST EQUIPMENT (Please Initial Each Item)

- \_\_\_\_\_ 6 Traffic cones
- \_\_\_\_\_ 12 - 72.2 or 80 CF Scuba Cylinders
- \_\_\_\_\_ 1 Oxygen and First Aid Kit
- \_\_\_\_\_ 2 Environmentally cleaned vehicles  
(See Light Salvage & Recovery Guide)
- \_\_\_\_\_ 4 Dive Flags with floats & weights

### Topics

- Scene Evaluation
- Operational Organization
- Selecting Specialized Lifting Equipment
- Underwater Rigging
- Specialized Lifting Techniques

### Schedule

#### DAY 1

- 8:00-8:30 Registration
- 8:30-12:00 Classroom
- 12:00-1:00 Lunch
- 1:00-5:00 Pool Exercises

#### DAY 2

- 8:00-12:00 Field Exercises
- 12:00-1:00 Lunch
- 1:00-6:00 Field Exercises

#### DAY 3

- 8:00-12:00 Field Exercises
- 12:00-1:00 Lunch
- 1:00-4:00 Field Exercises
- 4:00-5:00 Classroom



## **CLASSROOM EQUIPMENT (Please Initial Each Item)**

\_\_\_\_\_ The classroom should be large enough for the class being hosted. The room should be well lit and have adequate air-conditioning/heat. The classroom should have the ability to be darkened with blinds, curtains, or other material to allow viewing of projected images.

\_\_\_\_\_ A table with chairs for each 2-3 students is the preferred option. This allows for adequate room to spread out class material. A table should be set up at the front of the classroom for instructor materials. Desks are an acceptable option for students if tables are not available.

\_\_\_\_\_ A dry erase board with markers, cleaner, and eraser located at the front of the classroom is ideal. A chalkboard with chalk and eraser is an acceptable option.

\_\_\_\_\_ A powerpoint projector should be attached to a computer that is capable of projecting from a USB drive or a CD/DVD.

\_\_\_\_\_ A large projection screen for should be placed in the front of the classroom. A white classroom wall can be an excellent substitute for a projection screen. If using a classroom wall choose an area approximately 5-6' wide and 4-5' in height.

\_\_\_\_\_ A television and DVD player with appropriate connecting cord should be available. Large classes (Over 30 students) will require a video projector or multiple televisions. If using multiple televisions, an adequate number/lengths of connecting cables and a video splitter will be required. Elevated stands for the television (s) should be available. An extension cord should be provided for the television. The television and DVD should be tested prior to the instructor's arrival and placed in the front of the classroom.

## **RECOMMENDED EQUIPMENT**

- AED (Automated External Defibrillator)

## **OPEN-WATER SELECTION**

Visibility is desirable for a safe learning experience. Water should be 10-30 feet deep and free of debris. If the host's response area includes deep water, an area 30 to 60 feet deep should be available for stage lift exercises. Current is not acceptable. Boat ramps are ideal for work sites and allow good access for wreckers and boat trailers to put in and take out objects to be lifted. Students will not be allowed to dive below 40 feet.

## **REFLOAT SELECTIONS**

There must be a minimum of one object per 10 students to refloat as part of the class exercises. Cars, pickups, boats, or small aircraft fuselages are recommended. Please check and comply with any local ordinance prior to class. All items need to be delivered to the open-water site prior to class and will be removed by students at the conclusion of class. Host should make arrangements with local towing company for delivery and removal of all items. (See the Light Salvage & Recovery Operations Guide for detailed information.)

## **POOL SELECTION**

The pool must be scheduled for at least four hours, from 1pm to 5pm. The pool must have an area at least 10 feet in depth, and must be at least 40 feet wide. Both the deep and shallow ends will be utilized. Any changes to pool schedule, selection, or minimum size requirements must be approved by Dive Rescue International at least three weeks before class. Typically, hotel pools are too small. A high school, college, or community pool is a better option.

## **ADDITIONAL CONSIDERATIONS**

### **Essential Considerations**

- Instructor transportation to and from the airport and during his/her stay
- Facilities to clean, dry and store equipment
- Location for students to obtain air fills for their scuba tanks

### **Recommended Considerations**

- Refreshments - i.e. coffee, juice, donuts or muffins during class and practical sessions
- Lunch at open-water site

# **Light Salvage & Recovery Vehicle Preparation Guide**

## **WATER TYPE & DEPTH**

For the Light Salvage & Recovery program, it is desirable to have a boat- launching ramp isolated from boat traffic, boat docking or marina facilities. This location must be closed to boat launching during class hours. A parking facility for class vehicles, recovery vehicles, as well as restroom facility should be available in this area. The dive site should be free of current or tidal changes. Water depth of 15-30 feet is ideal. Water with good visibility (5-10 feet) is desirable for the class. Bottom conditions should be flat and free of entanglement obstructions or deep silt or mud.

## **AUTOMOBILES AND/OR OTHER APPROPRIATE OBJECTS**

One vehicle is needed on day one through day three of class. The vehicle is needed for Dry Rigging on day one at the classroom location, and at the open water site the next two days of class. (Appropriate objects could be an automobile, plane, helicopter, bus, boat, etc).

Most automobile wrecker and towing services that work with public safety agencies are happy to provide an automobile for this training. Full size, four (4) door vehicles with bench seats are preferred. The automobiles should be prepared in the following manner. The tires should be inflated and not leaking air. The vehicle's steering mechanism must be intact and operable; the car must be able to roll and steer. Steering column locks should be inoperable, or the ignition keys should be supplied. The windshield, doors, and seats should be in place.

The vehicles engine, transmission, and fuel tank should be removed. The engine compartment and vehicle's underside should be steam cleaned if possible. This makes the automobile environmentally clean prior to submerging. The automobile should be delivered to the training site/boat ramp the evening prior to class, and be picked up late in the afternoon the last day of class.

## **NOTIFYING THE PUBLIC**

We recommend posting signs/posters one (1) week prior to the class at boat ramps, marina offices, harbor master's office, bait shops, etc. informing boaters of the dates and times the ramp will be closed. Give directions to alternate boat launching facilities. Give a brief overview of the planned training activities for your team (See attached example).

## **TOW VEHICLE**

A vehicle, such as a full-size four-wheel drive pick-up truck or light rescue vehicle, or tow truck capable of lowering the vehicle down and pulling the vehicle up the boat ramp during the class is required. The host should confirm that a towing line or cable approximately 100 feet long, and of sufficient strength to raise and lower the vehicle up and down the ramp is available on site. The towrope or cable will remain attached to the submerged vehicle during the training exercise. Traffic cones and dive flags with floats should be provided for the dive site.

# Notice to Boaters

## Temporary Boat Ramp Closure

Your local Dive Rescue Team will be holding an Light Salvage and Recovery training program at the “North” ramp on

*List dates and times*

Please use the “South” or “East” boat launching facilities during the above times. Give directions on how to get to other facilities.

Thank You for Supporting Your  
**Dive Rescue Team**

For further information please contact (Name),  
(title) at (phone number)