



**OFFICE OF THE STATE FIRE MARSHAL  
STATEWIDE TRAINING AND EDUCATION ADVISORY COMMITTEE  
DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

PO Box 944246  
Sacramento, CA 94244-2460  
Phone: (916) 445-8200  
Website: [www.fire.ca.gov](http://www.fire.ca.gov)



**Date:** October 18, 2013

Attachment 7

**To:** Ronny J. Coleman, Chairman  
Statewide Training and Education Advisory Committee  
c/o State Fire Training

**From:** Rodney Slaughter, Deputy State Fire Marshal, Specialist III

**Subject/Agenda Action Item:** Open Water Rescuer (Formerly: Rescue Swimmer)

**Recommended Actions:** Review curriculum for adoption as an FSTEP training program.

**Background Information:**

Sacramento Metropolitan Fire Department presented this training program as a concept at the April 2013 STEAC meeting. The developer has worked with Southern California Fire Chiefs, the California Fire Chiefs, Training Officers Association, along with many individual fire departments throughout California to present a training program that addresses the immediate operational needs of local fire departments working in an aquatic environment.

**Analysis/Summary of Issue:**

Sacramento Metropolitan Fire Department recommends that firefighters and rescue teams working in an open water environment have some basic skills for their own safety and for the safety of the victim. The proposal does not intend to train firefighters to be lifeguards, but does however adopt relevant information from the United States Lifesaving Association Manual (USLA). As such, Fire Departments will not be required to certify their firefighters as lifeguards every three years at a cost of \$500.00 per certification. The 24 hour Course Plan, attached identifies those sections of the USLA Manual appropriate for firefighter training.

Fire departments with ports, harbors and marinas in their operational area are developing and proposing new training programs that put firefighters in a wide range of aquatic environments. The Open Water Rescuer training proposal insures that firefighters operating in and around the aquatic environment are properly trained to do so.

The USLA has responded to this training proposal with a letter to the State Fire Marshal (also attached). Chief Hoover would like the members of STEAC to carefully deliberate the issues raised by the USLA.



# COURSE INFORMATION AND REQUIRED MATERIALS

**Course:** Open Water Rescuer - Basic FSTEP

**Hours:** 24

**Designed For:** Recue\Firefighting

**Description:** This course provides detailed information, and the skills training required, to improve an individual’s level of comfort and confidence for safely and proficiently performing contact rescues in static, dynamic and surf water conditions. Safety is strongly emphasized throughout the class. Risk management is reinforced during every skill to establish your level of comfort in the water and to identify and overcome your limitations. The emphasis on risk management helps you determine if your actions meet your agencies SOPS/SOGS in the determination of a rescue being a “go” or “no go” situation. Swimming, stroke technique and body positioning in the water are covered. “In water” skills for students include how to read and understand dynamic water flow, reading and understanding surf, contact rescues using rescue buoy devices and boards, dealing with combatant victims, performing self-rescues, and rescues of multiple victims both conscious and unconscious. The entire course meets the requirements of swimming contact rescue of NFPA 1670 and NFPA 1006 Chapter 11, sections 11.2, Chapter 12, sections 12.2, Chapter 15, sections 15.2. In addition, the United States Lifesaving Association (USLA) requirements, an industry standard for lifeguards, are also explained and reviewed..

**Prerequisites:** United States Lifesaving Association Standard; 500 Meter swim within ten minutes

**Certification:** None

**Standard:** 80%

**Class Size:** 8:1 student/Instructor ratio

**Restrictions:** Must demonstrate an ability to swim.

REQUIRED STUDENT MATERIALS		
	EDITION	PUBLISHER
USLA Open Water Rescue Manual	2011	WWW
REQUIRED INSTRUCTOR MATERIALS		
USLA Open Water Rescue Manual	2011	WWW
One Rescue Tube for every 4 students		WWW
One Rescue Can for every 4 students		WWW
One Rescue Board for every 4 students		WWW

PUBLISHERS CONTACT INFORMATION	
WWW	All required material can be purchased, from a variety of vendors, on the World Wide Web (WWW).



# COURSE INFORMATION AND REQUIRED MATERIALS

## OPEN WATER RESCUER COURSE PLAN

### Day One:

Topic 1-1 Course Introduction, Instructor and Student introduction.....00:15  
Classroom Instruction

Terminal Learning Objective (TLO): The student will be familiar with course administration and operational requirements for successful completion.

Enabling Learning Objectives (ELO):

1. Describe starting times and attendance requirements for successful completion of the course.
2. Describe the necessary paperwork to complete all administrative processes required for successful completion.
3. Describe the criteria for successful completion of the course.
4. Obtain and learn the student manual and its contents.

Topic 2-1 Philosophy and Duties of the Open water rescuer / NFPA 1006.....00:30  
Classroom Instruction

Terminal Learning Objective (TLO): The student will listen and understand the need, perception and duties of the search and open water rescuer and how all duties relate to NFPA 1006.

Enabling Learning Objectives (ELO):

1. Understand the need for contact rescues.
2. Understand the physical conditioning need of an open water rescuer.
3. Understand and describe why water rescue starts with prevention education.
4. Understand the perception the general public has of search and open water rescuers and our responsibility to that idea.
5. Understand how the skills and knowledge learned relate to the JPR's of NFPA 1006 Chapter 11.
6. Understand the difference between an Open Water Rescuer and a Lifeguard.
7. Recognize the disadvantages of an Open water rescuer i.e. dependent on someone else's recognition, advanced stages of rescue event, no back-up resources.

Topic 3-1 Environmental Risk Assessment/ PPE.....01:00  
Classroom Instruction

Terminal Learning Objective (TLO): The student will be able to determine by reading the water, environmental conditions, agency SOPS/SOGS to perform a go or no go rescue using the proper PPE for the conditions.

Enabling Learning Objectives (ELO):

1. Understand the forces of wind, water, temperature and current.
2. Describe these forces and their outcome when one or more are combined.
3. Develop an understanding of the way water acts around obstacles in the water.
4. Understand and relate the escalation of risks i.e. talk, reach, throw, row, wade then go
5. Know their limitations in all facets of contact rescue swimming.
6. Determine the factors that can change a GO rescue to a NO GO rescue.
7. Understand the ability of additional equipment to perform a contact swimming rescue.
8. Describe the proper protective equipment required for the environmental conditions.



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- Topic 4-1 Victim Recognition and assessment.....00:30  
Classroom Instruction  
Terminal Learning Objective (TLO): The student will be able to identify signs that may help to indicate various drowning presentations.  
Enabling Learning Objectives (ELO): The student will:
1. Understand observations made of swimmers while still on dry land.
  2. Understand through sight, the abilities of potential swimmers before they enter into the water.
  3. Understand through behavior, the abilities of potential swimmers before they enter into the water.
  4. Understand, by the conditions of the water, the threat to potential and actual swimmers.
  5. Understand, by weather conditions, the threat to potential and actual swimmers.
  6. Understand, by watching a person enter into the water, their comfort level with the water.
  7. Understand, by watching a person's swimming abilities, their chance of success while in the water.
- Topic 5-1 Recognizing the distressed signs of a swimmer.....00:30  
Classroom Instruction  
Terminal Learning Objective (TLO): The student will understand and describe the high risk groups that enter the water. What the drowning process looks like and what is going on in the drowning persons mind. What is physiologically going on inside the drowning person's body.  
Enabling Learning Objectives (ELO): The student will:
1. Describe the high risks groups of drowning and the stimulus of the swimmer and non-swimmer
  2. Describe the observation of a swimmer with their head low in the water.
  3. Describe the observation of a swimmer with an up and down stroke.
  4. Describe the observation of a swimmer with no leg kick.
  5. Describe the observation of a swimmer allowing waves to break over them.
  6. Describe the observation of a swimmer with hair in their face.
  7. Describe the observation of a swimmer with glassy eyes, or a far-away stare.
  8. Describe the process of secondary drowning, or second day drowning, parking lot drowning.
  9. Describe the affects and differences between warm water and cold water drowning.
- Topic 6-1 Components of a swimming rescue.....00:30  
Classroom Instruction  
Terminal Learning Objective (TLO): The student will learn the components of a swimming rescue and the importance of each component being followed and successfully completed.  
Enabling Learning Objectives (ELO):
1. Identify and correctly recite the components of a contact swimming rescue.
  2. Describe the reason and meaning behind the Recognize component
  3. Describe the reason and meaning behind the Respond component.
  4. Describe the reason and meaning behind the Contact and Control component



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5. Describe the reason and meaning behind the Signal and Save component
6. Describe why the order of these components are important and why one component must be completed before moving onto the next one.

Topic 7-1 Communication and Hand Signals.....00:15

Classroom Instruction

Terminal Learning Objective (TLO): The student will comprehend and understand the value of proper communication during by both relaying and receiving proper terminology during water rescue operations. Student will learn and memorize the industry standard hand signals used during contact rescue swimming.

Enabling Learning Objectives (ELO):

1. Comprehend and recite the proper terminology of all the equipment used by a open water rescuer.
2. Comprehend and recite the duties of the open water rescuer and how they fall into line during a water rescue operation.
3. Describe the different options of communication a open water rescuer can use.
4. Memorize and display the industry standard (USLA) hand signals used for communication between team members on shore and in the water.
5. Explain when to use hand signals and their importance.

Topic 8-1 Conducting a witness interview.....00:30

Classroom Instruction

Terminal Learning Objective (TLO): The student will describe and understand the proper procedure and questions when conducting a witness interview, the reason for the interview, the reason for empathy during the interview and the importance of honesty during the interview.

Enabling Learning Objectives (ELO):

1. Understand the information needed from the witness to better perform a successful rescue. Who, what, where, when, how many.
2. Learn the questions required to ask of the witness to obtain the needed information.
3. Describe the demeanor/empathy to have when speaking with the witness
4. Know the forms to use and how to fill out when speaking with the witness.
5. Describe the reason to express honesty to the witness during the witness interview.
6. Explain the reason to keep the witness nearby during the search part of the rescue.
7. Explain drowning support groups available to them to participate with on line.

Topic 9-1 Swimming ability, USLA Standards, Stroke coaching.....01:00

In Water Skills Training

Terminal Learning Objective (TLO): The student will complete a 500 meter swim within a ten minute time period without wearing fins, mask or snorkel and not touching the bottom below the water. Swim will be conducted on measured open water course and/or pool.

Enabling Learning Objectives (ELO):

1. The student will understand the start and successful completion parameters of the swim.
2. Enter the water wearing the PPE desired for warmth during the swim, no swimming aids



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allowed.

3. Wade or dolphin out to water deep enough to swim without touching bottom.
4. Perform the 500 meter swim within 10 minutes using any desired stroke or a combination of strokes.
5. Upon completion of the 500 meter swim, remove yourself from the swim area and rest.
6. Remain in the general area, on shore, until all students have completed the swim.
7. Immediately inform an instructor if medical or physical problems are encountered.
8. Examine stroke technique; employ improvement points provided by instructors.

Topic 10-1 Methods of reading and entering the water.....01:30

In Water Skills Training

Terminal Learning Objective (TLO): Student will describe the characteristics of the water and the way it moves and what is causing it to move as it pertains to the needs of the open water rescuer, the importance of reading water properly and what is gained when proper reading of the water is accomplished.

Enabling Learning Objectives (ELO):

1. Read the water correctly describing what is causing the movement of the water.
2. Describe what happens when moving water comes in contact with an obstacle in the water.
3. Describe what produces waves, how they formed, how they lift and how they break and why.
4. Describe the energy that travels through water and how it affects the water.
5. Describe why wave energy moves through the water in a beach break
6. Describe why wave energy is stationary in moving water.
7. Describe what happens when moving water comes in contact with slower moving or still water.
8. Describe how water wants to maintain an equal balance and what is formed because of this physical trait.
9. Describe how water erodes away at stationary objects and deposits the erosion in a different location.
10. Describe the procedure of reading the characteristics of the water by reading the geology of the surrounding land.
11. Describe the safety hazards when entering into unfamiliar water.
12. Dolphining technique.
13. Perform the proper entry from an elevated platform.
14. Perform the proper entry from a boat

Topic 11-1 Capabilities and limitations of a Rescue Paddle Board.....01:30

In Water Skills Training

Terminal Learning Objective (TLO): Describe how to properly store the rescue paddle board for immediate rescue needs. Describe and demonstrate the proper way to lift and carry the rescue paddle board to the water and when to mount the board. Describe and demonstrate the proper stroke to use to paddle and maneuver the rescue paddle board.

Enabling Learning Objectives (ELO):



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1. Describe and demonstrate the proper way to ready the rescue paddle board for rescue use.
2. Describe and demonstrate the proper way to lift and carry the rescue paddle board as you head toward the water line.
3. Describe and demonstrate the proper position of the board when entering the water and the proper depth to mount the board in the prone position to start paddling.
4. Describe and demonstrate the proper position of the board and water conditions to move from the prone position to your knees and continue paddling.
5. Describe and demonstrate the proper stroke to use to move the board in the desired direction and how to make small maneuvers of the board while traveling forward.
6. Describe and demonstrate the proper method to turn Rescue Paddle Board greater than 45 degrees.
7. Describe and demonstrate the proper way to approach the distressed swimmer in the water and the position of the board.
8. Describe and demonstrate the proper actions if the distressed swimmer attempts to attack you while performing the rescue.
9. Describe and demonstrate the proper actions if the distressed swimmer has made physical contact with you to use you as a floatation device.
10. Describe and demonstrate the proper actions for placing a conscious swimmer onto the board.
11. Describe and demonstrate the proper actions for placing an un-conscious swimmer onto the board.
12. Describe and demonstrate the proper open water rescuers position on the board to paddle the swimmer to safety.
13. Describe and demonstrate properly paddling the board in while maintaining communication and observation of the distressed swimmer.
14. Describe and demonstrate the proper way to push through a breaking wave with a distressed swimmer on the board.
15. Describe and demonstrate the proper way to remove and protect the distressed swimmer from the board while in a breaking wave.
16. Describe and demonstrate assisting the distressed swimmer into shore while watching the water conditions.
17. Describe and demonstrate the proper transfer of the distressed swimmer to EMS with a report of your actions and findings.

### Day Two:

Topic 12-1 Approaching a victim / Escaping a panicked victim.....01:00

In Water Skills Training

Terminal Learning Objective (TLO): Properly approach a victim observing victims condition.

Safely evade a panicked victim until the victim can be safely secured and re-approached for a contact rescue.

Enabling Learning Objectives (ELO):

1. Demonstrate the proper swim to maintain visual contact with the victim.
2. Demonstrate the proper distance to stop from the victim to make communication and



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avoid attack of a panicked victim.

3. Demonstrate proper communication with the victim and explain how the rescue will proceed.
4. Demonstrate the proper release of a panicked victim using the submerge and push off technique.
5. Demonstrate calming the victim and actions to take to remain safe.
6. Demonstrate re-approaching the victim and perform a successful contact rescue.
7. Understand why some victims don't want to be rescued, 5150, fugitive, embarrassment.

Topic 13-1 Performing rescues with a Rescue Tube.....02:30

In Water Skills Training

Terminal Learning Objective (TLO): Properly ready a rescue tube for stand by and rescue use. Perform a contact rescue by properly using the rescue tube as the flotation and tether device for the victim.

Enabling Learning Objectives (ELO):

1. Describe and demonstrate properly securing the tether of the rescue tube around the rescue tube into the stand by position.
2. Describe and demonstrate properly removing the rescue tube from the stand by position placing the tether around your head and over your strong shoulder when in knee deep water.
3. Describe and demonstrate the desired head up stroke out to the distressed swimmer and properly evaluate the swimmer.
4. Describe and demonstrate your actions and perform them to the distressed swimmer as you introduce the rescue tube.
5. Inform the distressed swimmer to turn 180 degrees and properly secure the rescue tube around the distressed swimmer.
6. Describe and demonstrate the proper actions if the distressed swimmer attempts to attack you or climbs your tether while performing the rescue.
7. Describe and demonstrate the proper actions of escapes if the distressed swimmer has made physical contact with you to use you as a floatation device.
8. Describe and demonstrate swimming the distressed swimmer to safety maintaining communication and observation of the distressed swimmer.
9. Describe and demonstrate properly assisting the distressed swimmer into shore while watching the water conditions and communicating with victim.
10. Describe and demonstrate properly transferring the distressed swimmer over to EMS with a report of your actions and findings.

Topic 14-1 Performing rescues with a Rescue Can.....02:30

In Water Skills Training

Terminal Learning Objective (TLO): Properly ready a rescue can for stand by and rescue use. Perform a contact rescue by properly using the rescue can as the flotation and tether device.

Enabling Learning Objectives (ELO):

1. Describe and demonstrate properly securing the tether of the rescue can around the



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- rescue can into the stand by position.
- 2. Describe and demonstrate properly removing the rescue can from the stand by position placing the tether around your head and over your strong shoulder when in knee deep water.
- 3. Describe and demonstrate the desired stoke out to the distressed swimmer and properly evaluate the swimmer.
- 4. Describe and demonstrate your actions and perform them to the distressed swimmer as you introduce the rescue can.
- 5. Inform the distressed swimmer to grip the rescue can handles or to pull the rescue can into their stomach and lay across it.
- 6. Describe and demonstrate the proper actions if the distressed swimmer attempts to attack you while performing the rescue.
- 7. Describe and demonstrate the proper actions if the distressed swimmer has made physical contact with you to use you as a floatation device.
- 8. Describe and demonstrate properly swimming the distressed swimmer to safety maintaining communication and observation of the distressed swimmer.
- 9. Describe and demonstrate properly assisting the distressed swimmer into shore while watching the water conditions.
- 10. Describe and demonstrate properly transferring the swimmer over to EMS with a report of your actions and findings

Topic 15-1 Performing a subsurface rescue .....02:00  
 In Water Skills Training

Terminal Learning Objective (TLO): The student will show a high degree of comfort while below the surface of the water. The student will swim to a submerged victim, make contact with the victim and bring the victim to the surface of the water using given means available. The student will swim the victim to shore or if a rescue craft is available and is closer, to a rescue craft and assist in loading the victim into/onto the craft/sled.

Enabling Learning Objectives (ELO):

- 1. The student will swim to the area the victim was last seen.
- 2. The student will make visual contact of a victim a minimum of 10 feet and a maximum of 12 feet below the surface of the water. If the water is opaque a buoy can be used to make the area of the victim.
- 3. The student will perform a size up and determine a rescue plan.
- 4. The student will communicate the rescue plan with the crew of the rescue craft.
- 5. The student will, dive below the surface make contact with the victim.
- 6. Using either their hands or a given device, the student will securely swim the victim to the surface.
- 7. The student will assure that the victims airway is out of the water.
- 8. The student will swim the victim over to the rescue craft and assist in loading the victim into/onto the craft/sled.



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### Day Three:

Topic 16-1 Incident Command System (ICS) for water rescue .....00:30

Classroom Instruction

Terminal Learning Objective (TLO): The student will obtain an understanding of the Incident Command System and the need for the system during water rescue incidents, become familiar with Incident Command terminology. Know the positions of the incident command system and the duties of the positions. Whom they are to report to and who reports to them.

Enabling Learning Objectives (ELO):

1. Describe the difference between a division and a group.
2. Describe Unity of Command and how it benefits the water rescue operations.
3. Describe Span of Control
4. Describe Delegation of Authority
5. Describe the staff positions of the Incident Command System
6. Describe Incident Site Management
7. Recite the positions of an incident site for water rescue operations
8. Describe the resources available for a water rescue incident and why they would be called.
9. Describe the zones that can be set up for the water rescue incident and the area of each zone.
11. Describe the 214 form, when it's used and the information needed to fill one out completely.

Topic 17-1 Familiarization of Operations around helicopters.....00:30

Classroom Instruction

Terminal Learning Objective (TLO): Become familiarized with the dangers and situations of using a helicopter

Enabling Learning Objectives (ELO):

1. Become familiar with industry terminology of helicopter crew members when using the helicopter for water rescue operations.
- 2 Describe and discuss the difference between a static and a hoist line.
3. Describe the proper way to approach and leave the area of the helicopter.
4. Describe the proper way to enter and exit the helicopter and under who's permission.
5. Describe the requirements of the landing zone and how to prepare a landing zone.

Topic 18-1 Reduced visibility responses, Night Operations, Go/No Go decisions.....01:30

In Water Skills Training

Terminal Learning Objective (TLO): Understand the dangers and situations of night operations, reduced visibility by fog, storms or rain, agency SOPS/SOGS, when to go or say "This is beyond your limitations/abilities."

Enabling Learning Objectives (ELO):

1. Describe the hazards when attempting night or low visibility responses.
- 2 Describe the limitations of the open water rescuer during night or low visibility responses.
3. Describe the hazards during storms.



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4. Understand the different expenditure of energy when operating at night or low visibility.
5. Describe the different PPE required during night or low visibility responses.
6. Describe the different resources required during night or low visibility responses.
7. Describe the different communication required during night or low visibility responses.

Topic 19-1 Performing a rescue from a boat, pier, rock, cave, kelp beds.....01:30

### In Water Skills Training

Terminal Learning Objective (TLO): The student will show an understanding of reading the water around obstacles in the water and why the water behaves the way it does when in contact or around the object. The student will take into account depth, current, distance, sub-surface obstacles, wave action, while setting up a safe plan to perform a contact rescue. The student will enter the water from an obstacle and successfully perform a contact rescue.

### Enabling Learning Objectives (ELO):

1. The student will position themselves near to the area of the victim.
2. The student will attempt to make visual contact of a victim
3. The student will perform a size up and determine a rescue plan.
4. The student will communicate the rescue plan with the crew if on a rescue craft.
5. The student will understand the energy of the movement of the water they will be entering into and pre-determine their movement once they enter into the water.
6. The student shall ready their flotation rescue.
7. The student shall determine to jump, slide or step and safely enter into the water.
8. The student will swim the most direct path to the victim considering the movement and current of water along with other obstacles to reach the victim.
9. The student shall perform a successful contact rescue.
10. The student will assure that the victims airway is out of the water.
11. The student will swim the victim to a point of safety and assist in removing the victim from the water.

Topic 20-1 Deployment and retrieval of Open Water Rescuer to a watercraft, boat .....02:00

### In Water Skills Training

Terminal Learning Objective (TLO): Students will gain a keen awareness of the hazards during deployment and retrieval from water and aircraft. Students will gain an understanding of extended rescue capabilities and the associated limitations with the introduction of watercraft and aircraft.

### Enabling Learning Objectives (ELO):

1. Students will discuss the complexities of introducing a motorized method of delivery of Open water rescuer services to a rescue scenario.
2. The capabilities and limitations of each motorized method of delivery will be evaluated.
3. In the case of aircraft, students will be introduced to static v. hoist operations.
4. Each student will be exposed to the outcome of mechanical failure of the delivery craft after deployment has been completed.
5. Students will develop an understanding of who is responsible for their deployment, it's location and timing.



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6. Upon making entry the Open water rescuer will provide hand signals to the craft operator of their status i.e. Ok, assistance needed or abort mission.
7. While in the water, Open water rescuer will act as his/her own Incident Unit controller reporting to Incident Command (IC).
8. Once assessment is complete, and contact rescue is secure; Open water rescuer will communicate with craft operator for pick-up.
9. Open water rescuer will package and deliver victim(s) to the motorized craft remaining vigilant of his/her safety and the outcome of the crafts mechanical failure.
10. Open water rescuer will be the last to board the craft, ensuring the safety of victim(s) and craft crew.
11. Once back under the care and control of the craft operator, the Open water rescuer will return to that operator's position in the Incident Command structure.

Topic 21-1 Distressed swimmer rescue scenario.....01:00

### In Water Skills Training

Terminal Learning Objective (TLO): The students will work together as a team, building on their personal and independent capabilities and limitations. Students will develop the IC system and delegate positions with tactical objectives to systematically develop a plan for a successful rescue.

### Enabling Learning Objectives (ELO):

1. The students will receive a scenario of a single distressed swimmer needing rescue and their immediate resources
2. The students shall agree on one student becoming the Incident Commander (IC).
3. The student as IC shall set up command assign other students to positions and delegate authority as needed.
4. The student will, through the use of radios, hand signals and speaking, communicate all actions to the IC or their designee.
5. The student will use the training and skills they have obtained over the last two days to perform the rescue of the single distressed swimmer.
6. The scenario ends when the swimmer is handed off to EMS and all students involved in the scenario have been accounted for.

Topic 22-1 Distressed victim(s) from a disabled watercraft rescue scenario.....01:00

### In Water Skills Training

Terminal Learning Objective (TLO): The students will work together as a team, building on their personal and independent capabilities and limitations. Students will develop the IC system and delegate positions with tactical objectives to systematically develop a plan for a successful rescue.

### Enabling Learning Objectives (ELO):

1. Each student will evaluate the effectiveness, risks and alternatives for rescuing the passengers of a disabled watercraft.
2. Close consideration will be applied to each situation in order to protect the lives and safety of rescuers and the passengers of the watercraft.
3. Clear and simple instructions will be communicated to the passengers to don Personal



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Floation Devices (PFDs)

4. Open water rescuers will account for the number of person's onboard (POB), their ages, medical conditions. The increased risk to all parties in the event abandoning ship or remaining onboard is called for will be evaluated.
5. The choice to direct passengers to abandon ship will take into account for rapidly evolving and increasing hazards to staying onboard the craft i.e. surf, currents and/or especially hazardous conditions of the boat such as fuel in the bilges, flooding, fire or any other hazard(s).
6. Having the passengers remain onboard the craft will be taken into consideration. The crafts operator will be required to turn engine(s) off and show the keys to the Open water rescuer prior to the swimmer approaching.
7. Students will demonstrate their understanding of options for attaching to the disabled watercraft.
8. Students will demonstrated their ability to tow and maneuver the disabled craft under swimming power alone as a solo swimmer.
9. Students will demonstrate their understanding of the option to introduce other Open water rescuers, work in cooperation and in tandem to tow and maneuver the disabled watercraft
10. Open water rescuer(s) will work in tandem to reduce vessels rate of drift, hold station, or pull the boat to a safe location under their own power.
11. The student will perform all skills using the utmost safety while performing the skills.
12. The scenario ends when all distressed rescued victims are handed off to EMS and all students involved in the scenario have been accounted for.

**Course**

**Hours**.....24:00

### Texts and References

- U.S.L.A. Open Water Rescue Manual
- U.S. Coast Guard Helicopter Rescue Swimmer Manual
- U.S. Navy Seal Rescue Swimmer Manual
- NFPA 1670 Standards on Operation and Training for Technical Rescue Incidents
- NFPA 1006 Standard for Technical Rescuer Professional Qualifications



# COURSE INFORMATION AND REQUIRED MATERIALS

## OPEN WATER RESCUER COURSE PLAN

### Open Water Rescue Cadre

September 30, 2013

#### Statewide Training and Education Advisory Committee Members

Dennis Childress, Southern California Training Officers Association  
Dan Stefano, Division Chief, City of Laguna Beach Fire Dept.  
John Wagner, Northern California Training Officers Association

#### Open Water Rescuer Cadre

Jeff Boyles, Battalion Chief/Training Services, Newport Beach Fire Department  
Scott Diederich, Marine Safety Lieutenant, City of Laguna Beach  
Geoff Gray, Alameda Fire Department, Water Rescue Program Manager  
Tony Hargett, Engineer, Sacramento Metropolitan Fire Department  
Dan Ingalls, Owner, National Marine Safety Center  
George Kabris, Marine Officer/Lifeguard, Ventura Harbor  
Eric McCoy, Fire Captain/Investigator City of Huntington Beach  
Paul Matheis, B.S., EFO, PDM Consulting  
Kyle Merkins, Assistant Chief San Francisco Fire Department  
David Terry, Firefighter Humboldt Bay Fire Department.  
Rob Williams Assistant Chief, Laguna Beach Fire, Marine Division

#### SFM Staff

Rodney Slaughter, Deputy State Fire Marshal



# United States Lifesaving Association

PO Box 366 • Huntington Beach, California 92648 • Tel: 866-FOR-USLA (866-367-8752)

[www.usla.org](http://www.usla.org)

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October 9, 2013

**B. Chris Brewster**  
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**Dr. Peter Wernicki**  
*Medical Advisor*

**John "Chip" More**  
*Legal Advisor*

Tonya Hoover, State Fire Marshal  
P.O. Box 944246  
Sacramento, CA 94244-2460

RE: STEAC Open Water Rescuer Training Proposal

We have been made aware of a proposal before the Statewide Training and Education Advisory Committee to create a new course of instruction in open water rescuer training for California firefighters. We understand it will be reviewed for approval in the near term. This letter is intended to address concerns related to firefighter safety and readiness which need further attention as part of this proposal, as well as to propose some alternatives.

The United States Lifesaving Association is the national nonprofit association of beach lifeguards and open water rescuers. We are the closest organization in our profession to the National Fire Protection Association. Our standards are utilized by most of the major open water lifeguard agencies in the United States, including California, as well as a number of fire agencies. We certify (essentially accredit) lifeguard agencies, fire departments and other groups which demonstrate that they train to our standards and requirements. These standards are aimed at rescuer safety, citizen safety, and professionalism.

We are pleased to note that the proposal before STEAC includes reliance on our training manual and various USLA standards. We are concerned that the course, as presently proposed, is inadequate in length and scope to prepare those trained, and that this could place firefighters at unnecessary risk by sanctioning training well below national standards for entry level beach lifeguards.

We are somewhat mystified over the desire to create a new and unique open water rescuer training course based in significant part on USLA standards, when many of the nation's most respected lifeguard agencies within fire agencies such as Los Angeles County, San Diego, and Newport Beach already offer courses of consistent quality certified to USLA standards. With such ready availability and a history of success, why create a unique course?

Open water areas vary in many ways around the USA, from surf beaches, to inland lakes and rivers of varying sizes, to reservoirs. As well, flooding can cause otherwise dry areas to become open water and can create extraordinary hazards which require very specialized training.

Recognizing this variety, as well as the fact that water rescue agencies could not and would not wish to train their personnel to every type of open water condition (including those never experienced in their area), the USLA certification program requires localized training, using national standards. Thus, for example, an individual who will not be assigned to rescue at a surf beach need not be trained in that environment, but is also not considered qualified to perform rescues in that environment. It is a simple reality that if an individual cannot be provided training in given environmental conditions, that individual cannot be expected to safely perform rescues in that environment.

Our training approach is further based on an expectation that training will be provided by experienced open water rescuers who have worked in USLA certified programs, that those trained in the basics will initially be assigned to work under the supervision of experienced rescuers, and that they will work in teams, with backup immediately available from similarly trained personnel. We offer two types of certification with similar standards, though tailored to assignment. One is the Lifeguard Agency Certification Program and the other is the Aquatic Rescue Response Team certification program. The former is aimed at traditional beach lifeguard programs and the latter at teams typically under the oversight of fire departments and sheriff's departments. We would be pleased to discuss ways the pending proposal could be regularized with our ARRT program (attached).

It is critical to note that each of our programs involves a 40 hour minimum training period (exclusive of medical aid training). This is viewed by the USLA as a bare minimum prior to an aquatic rescuer working under the immediate supervision and oversight of trained and experienced rescuers in an agency. Those so trained are perhaps equivalent to probationary firefighters who will need further in-service training and oversight.

In that context, allow me to provide some specific feedback and suggestions regarding the most recent draft of the proposal under consideration (attached), which was forwarded to me as the "third draft proposal."

1. Swim Test: We are pleased to note that the initial swim test proposed is consistent with USLA guidelines; however, the USLA swim test is one that is required to be "met and maintained." That is, credentialed rescuers must maintain this level of fitness and swimming ability to safely and adequately perform their duties. This is a requirement of USLA certification. Regular swim skill testing to demonstrate maintenance of this critical skill is essential to rescuer, fellow rescuer, and citizen safety, but is not presently part of the proposal.
2. Instructor Qualifications: The proposal does not include any minimum standards for course instructors. The USLA requires that instructors of Aquatic Rescue Response Team courses must have worked a minimum cumulative total of 5,000 hours of employment as an aquatic rescue response team member or as a professional lifeguard at a lifeguard agency which meets the minimum recommended guidelines of the USLA. This is probably not dissimilar for requirements or de facto requirements for firefighter trainers. We also require scuba certification (so that instructors are at minimum aware of scuba and the challenges presented by rescuing scuba divers). Instructors of open water rescuer courses must have

demonstrated skills and experience to be able to adequately train others, but instructor qualifications are not presently part of the proposal.

3. Course Length: The proposed course is 24 hours in length. As previously noted our minimum accepted course length is 40 hours and includes very specific curriculum topics. Those completing courses conducted by USLA certified agencies are considered raw rookies in need of direct supervision from more experienced rescuers. The 24 hours of training which is proposed is not adequate for professional open water rescuers.
4. Environment Specific Training: The open water environment takes many forms and has a variety of hazards. Recognizing the cost and impracticality in training every rescuer in every aquatic environment, our approach allows agencies to train in aquatic hazards specific to the area of assignment, but to avoid training in other environments. Thus, for example, an inland agency need not train in surf rescue. However, a rescuer is not considered qualified for all environments. Trainees should be provided training that is appropriate to their assignment area, but their training should make clear that being an open water rescuer does not qualify one to perform rescues in environments in which they have not been trained. This is not currently addressed in the proposal.
5. Swiftwater and Flood Rescue: The USLA recognizes that swiftwater and flood rescue is a specialized discipline that can be extraordinarily dangerous and that requires intensive training above and beyond the minimums. Many firefighters nationwide have died in swiftwater and flood rescue efforts. We did not find any limitations in the training proposal that would confine the qualifications of trained individuals. For the safety of rescuers, it should be made clear that this course is not intended for nor does it qualify the trained person for swiftwater or flood rescue. Moreover, considering the potential deployment of these individuals in flooding, the course should include information on the hazards of swiftwater and flooding so that those trained understand these are no-go situations absent specialized training.
6. Team Deployment: Like firefighters, open water rescuers work in teams for obvious reasons of safety. The training proposal does not include standards under which those trained should be deployed. It seems possible that a fire agency might keep one open water rescuer on one apparatus and consider that adequate to respond to aquatic emergencies involving in-water rescue. We view in-water rescue as having hazards similar to burning buildings, such that if one member of the team needs assistance, it can be immediately provided by others. The proposal, as reviewed, seems aimed at training individuals, not addressing safe deployment. Standards for safe deployment are essential to avoid having single rescuers assigned to circumstances where they may have no backup from similarly trained rescuers.
7. Incident Command Training: The course, as presented, includes incident command training. This training would seem particularly valuable for supervisory personnel who are likely to be involved in oversight of aquatic rescues. We would not wish to discourage this training for all aquatic rescuers; however, incident command training

would seem to detract from the basic training time needed to learn aquatic rescue. It would seem appropriate as a training adjunct.

8. Multiple Victim Rescue: The course does not reference multiple victim rescue. This is a common scenario for open water rescuers. The course should include training in multiple victim rescue.
9. Regular Training and Drills: Open water lifeguards are regularly involved in aquatic rescue, just as firefighters are regularly involved in fire, rescue and medical responses. Nevertheless, the USLA program requires that personnel be provided daily opportunities, conditions permitting, for activities such as swimming, aquatic rescue drills and running. The aquatic aspect of this would seem particularly important in your application, since aquatic rescue is likely to be very infrequent for firefighters. We also require drills, at least once a month, in likely rescue evolutions. Regular training and drills in aquatic rescue are necessary to maintain adequate skills to perform safely in aquatic emergencies and should be a part of required ongoing training. No regular training is included as part of the proposal.
10. Annual Rescue Skills Training: The USLA does not consider a one-time course to be adequate to maintain necessary aquatic rescue skills indefinitely, even for those regularly involved in aquatic rescue. We require that a minimum of minimum of sixteen (16) hours per year in formal training directly related to aquatic rescue be provided to maintain status as an aquatic rescuer. The course, as proposed, makes no provision for ongoing training.

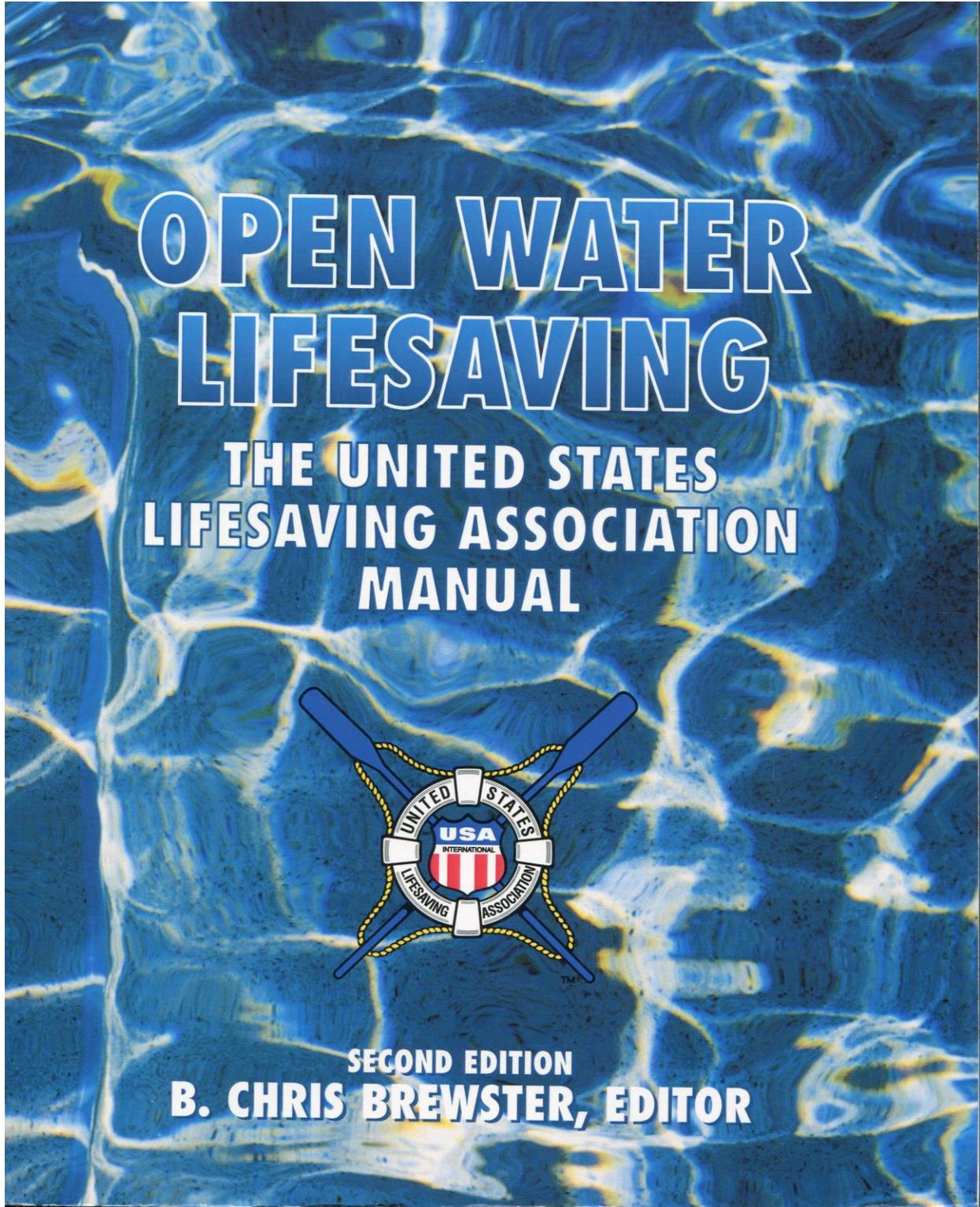
In summary, we laud the desire to ensure adequate standards for the training of firefighters in water rescue and have offered such standards nationwide for many years. Over 120 lifeguard and fire agencies are certified. We believe the proposal has promise, but have identified areas that need further attention. The simplest solution would be to use existing standards and curricula already successfully employed throughout California and nationwide. In any case, we would be pleased to work with your office to find a solution that would ensure appropriate levels of safety and professionalism.

Sincerely,



B. Chris Brewster  
President (president@usla.org)

Encl: Open Water Rescuer Course Proposal  
USLA Aquatic Rescue Response Team Guidelines



*Open Water Rescuer Student Book*

# TRAINING & STANDARDS OF AQUATIC RESCUE RESPONSE TEAMS

## THE UNITED STATES LIFESAVING ASSOCIATION

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### United States Lifesaving Association Overview

The United States Lifesaving Association (USLA) is a nonprofit membership organization. To qualify as a Professional Member of the USLA an individual must be a current member of an ocean, bay, river or other open water lifesaving or aquatic rescue service. Our membership includes aquatic rescue professionals from virtually every major lifeguard service in the US and from many allied aquatic rescue services. Our mission includes the promotion of high standards of professional open water lifesaving and the provision of water safety education to the general public. We are the United States' Full Member to the International Life Saving Federation.

USLA members primarily associate through local chapters, which are generally constituted by reason of a common hiring agency or for reasons of geographic unity. The chapters form regions. There are currently eight regions which compose USLA: New England, Mid-Atlantic, South Atlantic, Southeast, Great Lakes, Gulf Coast, Southwest and Northwest. Every state is represented by one of these regions. Officers of the Regional Councils meet biannually at national meetings as the USLA Board of Directors.

Those who do not qualify at the Professional Member level will qualify in one of our other member categories, such as Associate Member or Alumnus Member. Membership is open to all. There is also a Corporate Member category. Further information on membership can be found at: [www.usla.org](http://www.usla.org).

Membership dues help to support USLA programs including the Certification Program. Those interested in membership in USLA should first check to see whether they are already represented by an existing chapter. In any case, you can enroll as a member on our website at: [www.usla.org](http://www.usla.org). If you are interested in forming a chapter, please contact our secretary at: [secretary@usla.org](mailto:secretary@usla.org). If you have questions about the certification process, please contact: [certification@usla.org](mailto:certification@usla.org).

## Purpose

Each year public safety professionals tragically lose their lives in the water trying to save others. Sometimes these accidents are unpreventable, but more often they are a direct result of a lack of training, fitness, proper equipment, or a combination thereof. When the rescuer dies, the victim may also die for lack of a rescuer. The aquatic environment, be it in surf, river, ice, swiftwater, or a lake, can be unforgiving; but with proper training and standards, tragedy can be averted.

According to Susan Baker, writing in *The Injury Factbook*, in America drowning is the third most common cause of unintentional injury death for all ages and ranks second for ages 5 - 44. It has been estimated that for every 10 children who drown, 26 are admitted to hospitals and 140 are treated in emergency rooms. All too often, these near drowning cases result in permanent, lifetime disability which leads to early death. Therefore, the impact of aquatic accidents is actually far greater than that represented by the number of drownings alone.

Since distress in the aquatic environment can lead quickly to drowning, the on-site preventive services typically provided by lifeguards are of critical importance, particularly in areas with high levels of water use. Statistics clearly show that the chance of drowning at a beach protected by lifeguards is extremely small. Unfortunately, professional lifeguards are not available everywhere aquatic accidents occur.

Many aquatic accidents happen in areas never intended for recreational swimming and the victims may not have expected to find themselves in the water at all. In other instances, poor planning by local officials may cause inadequate staffing of lifeguards. For reasons such as these, public safety professionals with other primary duties must sometimes attempt water rescue. Although many public safety agencies have created *aquatic rescue response teams* such as dive teams, swiftwater rescue teams, ice rescue teams, and the like, national standards have been lacking and the teams have not always been adequately trained or prepared.

USLA's expertise in developing standards for rescue in both the surf and inland open water environments is internationally recognized. Since 1981, USLA has promulgated recommended guidelines for open water lifeguard training and standards. USLA has since provided the National Lifeguard Agency Certification Program to recognize lifeguard agencies which meet the standards. While America's open water lifeguards effect over 80,000 aquatic rescues a year, sometimes in very challenging conditions, serious injury or death of a lifeguard trained to USLA standards is extremely unusual. This has led to requests from other aquatic rescue groups for leadership from USLA in developing a similar system of guidelines for the training and standards of aquatic rescue response teams, the subject of this booklet.

There are several key differences between the USLA programs for lifeguards and for aquatic rescue response teams. For example, the lifeguard program has a heavy emphasis on prevention, water surveillance, and victim recognition. Such skills are of lesser importance to aquatic rescue response teams, which typically respond to reports of emergencies already identified by others. The focus is therefore on rescue, rather than prevention. Nonetheless, if members of aquatic rescue response teams are to effectively and safely accomplish their duties, they must find ways to maintain adequate levels of rescue skills and fitness. This requires a respect for the aquatic environment and a commitment to proper preparation.

Despite differences, the general approach of the USLA National Aquatic Rescue Response Team Certification Program is similar in many ways to that created for professional lifeguards. It depends upon a flexible curriculum that can be adjusted to address the local environment and specific responsibilities of the team. For this reason, team members are only considered qualified for work on the team for which they have been trained and must be retrained if they move to another area or employer. The employer, not USLA, is responsible for ensuring that standards and training levels are maintained.

The Aquatic Rescue Response Team Certification Program is aimed at members of the agency selected to effect water rescue. For obvious reasons of safety, these are the only members of the agency who should be expected to attempt a rescue of a person or persons in distress in the aquatic environment. This does not however, prevent teams from including support personnel who do not meet the minimum standards presented in this booklet, so long as they are not the persons assigned to effect aquatic rescue.

A key role of USLA is to promote high levels of water safety. In cases that USLA believes certification of an aquatic rescue response team might in any way negatively impact the provision of appropriate levels of preventive lifeguard services, certification will not be extended. Furthermore, since the ARRT program is generally confined to response and rescue, it represents a level of certification more limited in scope than that of the minimum standard for lifeguard agencies.

In areas where USLA certified open water lifeguard agencies exist, USLA strongly recommends that any aquatic rescue response team work in concert and under the general direction of that lifeguard agency. Likewise, aquatic rescue response teams are strongly encouraged to tap the resources of a USLA certified lifeguard agency in conducting training, setting policy, and recruiting prospective team members.

The training and standards covered in this program are not intended to prepare trainees for rescues in swiftwater or ice conditions, but rather to serve as a prerequisite for such training. USLA hopes to provide specialized training standards for those conditions in the future.

In promulgating these guidelines, USLA recognizes that significant attention will be paid to the minimum swimming proficiency standard – 500 meters over a measured course in 10 minutes or less. It is the same minimum USLA swim standard set for lifeguard agencies, although many exceed it. The reason for the identical swimming proficiency standard is that rescues performed by members of an aquatic rescue response team can be just as arduous as those performed by professional lifeguards. In many cases, in fact, there may be less backup available and conditions causing distress may be more severe. Therefore, these rescuers must be similarly physically prepared to safely complete the rescue.

While many swiftwater rescue, dive rescue, or ice rescue team members appropriately utilize personal floatation devices and other equipment intended to safeguard them during rescue, all rescuers can unexpectedly find themselves without such equipment, and even with it, strong swimming skills are a must when performing rescue in and upon the water. In surf conditions and strong currents, swimming may be the only practical method of expeditious rescue that maintains an adequate level of safety for both rescuer and victim.

The USLA swim standard was set based on the results of a national conference convened in 1980 which included all of the major organizations concerned with saving life in the water. The conference was specifically designed to determine the appropriate minimum standards for open water rescue. Although few aquatic rescues are 500 meters in length, this standard addresses the possibility of adverse conditions often evident in aquatic rescue, such as swimming against a current, with a victim or multiple victims, perhaps panicked victims, and in water that may be significantly colder than that in which the test is conducted. Cardiovascular fitness, along with swimming skills, must be high enough to allow the rescuer to deal effectively with the unexpected. In short, the standard is set high enough to help ensure that the rescuer is adequately physically prepared for the rigors of aquatic rescue.

The USLA Lifeguard Agency Certification Program brought the first national standards forward for professional open water lifeguard agencies. It has resulted in a significant improvement in rescuer safety and the quality of preparedness of these agencies. It is our hope that in developing standards for aquatic rescue response teams, we will be able to extend the same benefits to these groups.

## **Steps to Certification of Aquatic Rescue Response Teams**

In November 1996, the United States Lifesaving Association (USLA) Board of Directors unanimously endorsed a system to allow national certification of the training programs and standards of aquatic rescue response teams. The following are the steps involved in the certification process. This certification system does not involve direct certification of aquatic rescuers by USLA. Instead, upon favorable review, USLA extends national certification that an agency's training program and standards, as presented by the agency, fall within the recommended guidelines of USLA. Training must be conducted on the waterways of the agency where the rescuer will be employed or on nearby waterways with comparable conditions and geographic features. This program is reviewed on a regular basis and is subject to change without notice.

1. Read the minimum recommended standards and course curriculum. To be certified, all standards must be met and all of the Required Course Curriculum Elements (with noted exceptions) must be covered in training. The resource material referenced later should be of assistance in making any necessary modifications.
2. An agency wishing to have its aquatic rescue response team training program and standards certified as meeting recommended guidelines of USLA submits an application, which can be found in the Training and Certification section of the USLA website ([www.usla.org](http://www.usla.org)), with two copies of the agency's training curriculum and standards to: PO Box 1266, San Marcos, CA 92079-1266. A check covering the application fee (\$500 at the time of printing) must be enclosed.
3. The Secretary or designee will file one copy and send the second copy to a USLA Certification Officer from the USLA region in which the agency lies. The Secretary or designee will attempt to choose a Certification Officer who is geographically close to the applicant.
4. Within sixty (60) days of receiving an application, the Certification Officer is responsible for conducting a thorough review and submitting written findings to the Secretary. The review must include, at a minimum, checking all documents submitted and ensuring that they show the agency to be in compliance with the current recommended guidelines of USLA. It is also suggested, but not required, that an on-site review be conducted.
5. Upon receiving the written findings of a Certification Officer, the Secretary or designee will file a copy of the findings and forward a copy to the Certification Committee Chair for review by the Certification Committee. The Certification Committee is then responsible for recommending approval or disapproval to the Board of Directors, with final approval requiring a vote of the full Board. The Board of Directors typically meets in November and May of each year.
6. After a favorable decision by the Board of Directors, a certificate so stating will be issued and valid for a period of three (3) years. The agency must then reapply, again submitting the current fee.
7. Any changes to the recommended guidelines which may be made by the Board of Directors after an agency has been certified become effective for future applications and renewals, but create no mandate for currently certified agencies. However, all certified agencies are strongly encouraged to adhere to the most current recommended guidelines.
8. It is the sole obligation of the certified employing agency to ensure that the training process and standards detailed in the application for certification are maintained at all times. That responsibility notwithstanding, the Board of Directors may withdraw certification at any time for cause if it finds that an agency is no longer in compliance.
9. Certified teams are empowered to issue USLA approved certificates and wallet cards to those who successfully complete a certified course of instruction.

## **Aquatic Rescue Response Team Instructor**

The following are the minimum recommended standards for instructors of ARRT training programs. This does not preclude the use of assistants, field training officers or others who do not meet these minimum standards. These are the minimum recommended standards for lead instructors. ARRT instructors are directly responsible for ensuring that minimum standards are met and that all training modules are taught by persons with proper credentials.

### **Minimum Recommended Standards To Be Met and Maintained Include:**

1. Work Experience -- Must have worked a minimum cumulative total of 5,000 hours of employment as an aquatic rescue response team member or as a professional lifeguard at a lifeguard agency which meets the minimum recommended guidelines of USLA.
2. Education -- Must possess a high school diploma or equivalency certificate.
3. Medical Aid Certification -- Must be currently certified by an agency recognized by the Federal Government or the state government in the state of employment to instruct any medical aid or CPR course provided to trainees by the employing agency or must ensure that a person so certified is responsible for providing such training.
4. Scuba Certified -- Certified as a scuba diver by a nationally recognized certifying agency if scuba is utilized by the agency.

## **Aquatic Rescue Response Team Member**

### **Minimum Recommended Standards To Be Met and Maintained Include:**

1. Age -- 18 years
2. Education -- Must possess a high school diploma or equivalency certificate.
3. Swimming Ability -- Must demonstrate and maintain an ability to swim 500 meters over a measured course in ten (10) minutes or less. Must demonstrate an ability to successfully perform open water rescue.
4. Health & Fitness -- Must possess adequate vision, hearing acuity, physical ability and stamina to perform the duties of an open water rescuer as documented by a medical or osteopathic physician.
5. Medical Aid and CPR Certification -- Must be certified as having successfully completed a medical aid course equivalent to Department of Transportation First Responder, Emergency Medical Technician, or paramedic.
6. Training -- Must be certified by the employing agency as successfully completing a course consisting of a total of not less than forty (40) hours in open water rescue which meets the curriculum requirements of the United States Lifesaving Association ARRT program. This shall not include the minimum training hours required for medical aid and CPR.
7. Scuba Training -- Any aquatic rescuer who will be required to utilize scuba in the course of employment must, at a minimum, be certified as a scuba diver at the advanced level by a nationally recognized certifying agency.
8. Strength & Stamina -- Must demonstrate an ability through a test of strength and stamina to perform the rigorous physical duties of an open water rescuer.

## **Recurring Training**

Recurring training is essential to ensuring that personnel maintain adequate levels of knowledge and fitness to continue to perform lifesaving tasks. In addition to maintaining the minimum standards necessary for the position, employees should be provided drills and formal training to ensure high levels of performance.

### **Minimum Standards for Recurring Training:**

1. Daily Physical Training - Employees are provided daily opportunities, conditions permitting, for activities such as swimming, rescue drills and running.
2. Annual Rescue Skills Training - Subsequent to initial training being provided, team members must successfully complete a minimum of sixteen (16) hours per year in formal training directly related to aquatic rescue.
3. Regular Drills - Drills are conducted such as mock rescues and other emergencies at least once per month which allow each team member some degree of participation.

## Resource Material

### Required for All Students:

- **Open Water Lifesaving, The United States Lifesaving Association Manual**, *United States Lifesaving Association, B. Chris Brewster - Editor, ISBN 0-536-73735-5*

### Recommended:

- **Emergency Care and Transportation of the Sick and Injured**, *American Academy of Orthopaedic Surgeons, James D. Heckman - Editor, ISBN 0892031050*
- **Waves & Beaches**, *Willard Bascom, ISBN 0385148445*
- **Chapman Piloting, Seamanship and Small Boat Handling**, *Elbert S. Maloney, ISBN 0688116841*
- **Advanced Diving Technology and Techniques**, *National Association of Underwater Instructors, ISBN 0916974545*
- **Rescue Diver Manual**, *PADI, Alex Brylske et al, ISBN 1878663097*
- **The DAN Emergency Handbook: A Guide to the Identification of and First Aid for Scuba (Air Diving Emergencies)**, *John Lippman, Stan Bugg, ISBN 0959030611*
- **Scuba Lifesaving and Accident Management**, *YMCA, Tom Leaird - Editor, ISBN 087322132X*
- **Swiftwater Rescue**, *Slim Ray, ISBN 0964958503*
- **Technical Rescue Program Development Manual**, *United States Fire Administration, Federal Emergency Management Agency*
- **The Incident Command System (NFA-ICS-SM)**, *National Emergency Training Center, FEMA*

# Required Course Curriculum Elements

## Terms

**Identify** means provide a full explanation to students and take steps to validate their comprehension and retention.

**Demonstrate** means show students how to accomplish the skill and ensure that they can adequately demonstrate an ability to perform it.

## **I. Introduction**

### **Knowledge Objectives**

1. Identify historical methods of rescue and water safety practices.
2. Identify current patterns of water use and statistical information regarding drowning.
3. Identify the hazards of effecting rescue in the aquatic environment.

## **II. Environmental Conditions**

### **Knowledge Objectives**

1. Identify the various types of waves and the forces effecting their formation, if the team serves an aquatic area with wave action.
2. Identify the characteristics and means of recognizing the types of currents and related water hazards experienced in waters served by the team, including (if present at waters served by the team):
  - a) Rip currents (all varieties)
  - b) Longshore currents
  - c) Tidal currents
  - d) Swiftwater (river) currents, including:
    - i. Low head dams
    - ii. Reversals
    - iii. Strainers
    - iv. Hydraulics
    - v. Floating debris
    - vi. Holes
3. Identify hazards associated with the following which are present at waters served by the team:
  - a) Calm and rough water
  - b) Warm and/or cold water
  - c) Surf
  - d) Inshore holes
  - e) Sandbars
  - f) Rocks
  - g) Reefs
  - h) Lightning
  - i) Ice
  - j) Offshore winds
  - k) Storm drains
  - l) Bottom contours and composition
  - m) Jetties (groins) and piers
  - n) Water animals, particularly those which can cause harm

### III. Drowning Prevention

#### Knowledge Objectives

1. Identify signs, public education, routine patrols, and other methods that can be employed to prevent aquatic accidents.
2. Identify the importance of prevention and preventive services, such as lifeguard protection.
3. Identify ways to recognize potential victims and proper water scanning techniques.
4. Identify indications and signals of distress from:
  - a) Swimmers
  - b) Power boats
  - c) Sail boats
  - d) Divers
  - e) Surfers, including boardsailors
  - f) Rafters
  - g) Kayakers

### IV. Basic Rescue Techniques and Procedures

#### Knowledge Objectives

1. Identify the importance of maintaining a position of safety when effecting a rescue.
2. Identify the advantages and disadvantages of reaching, wading, and throwing assists.
3. Identify the components of a swimming rescue and the steps contained in each component:
  - a) Recognize and respond
  - b) Contact and control
  - c) Signal and save
4. Identify the appropriate method of entry for various types of water conditions, including, if applicable to the team's waterways:
  - a) Shallow water
  - b) Deep water
  - c) Unfamiliar water
  - d) Surf
  - e) Currents
5. Identify the characteristics of a proper approach to a victim.
6. Identify the appropriate victim approach for different rescue situations: front surface, rear surface or underwater.
7. Identify considerations when making contact with a victim.
8. Identify the general principles of defense, release, and escape from a panicked victim.
9. Identify the value of an arm assist or cross chest carry for rescue without equipment.
10. Identify the usefulness and limitations of the rescue tube and rescue can in the following situations:
  - a) Unconscious victim
  - b) Conscious victim
  - c) Multiple victim rescue
  - d) Defense against a panicked victim
  - e) Rescue breathing in the water
11. Identify the need for swim fins during swimming rescues and proper techniques for their use.
12. Identify the usefulness and limitations of the rescue paddleboard in the following situations:
  - a) Long distance rescue
  - b) Multiple victim rescue
  - c) Rough water or high surf rescue
  - d) Rescue from currents

- e) Artificial respiration on a rescue board
  - f) CPR on a rescue board
13. Identify the priority of resuscitation over removal of a victim from the water.
  14. Identify the need to assess for spinal injury prior to effecting a rescue or moving a victim.
  15. Identify appropriate methods of lifting and removing a victim from the water.
  16. Identify appropriate methods for use of mask and snorkel to surface dive for a submerged victim.
  17. Identify swiftwater self rescue techniques including proper body position and ferry angle.
  18. Identify methods of promoting personal safety through stretching exercises, use of wetsuits, helmets, and other protective gear, and the use of rescue equipment and victims as buffers from sources of injury.
  19. Identify the value of US Coast Guard approved personal floatation devices (PFDs) for rescuers and victims.

### **Skill Objectives**

1. Demonstrate proper water entry procedures, including shallow water dive and porpoising.
2. Demonstrate the heads-up breast stroke and heads-up crawl stroke.
3. Demonstrate the front surface approach, rear surface approach and submerged victim approach.
4. Demonstrate the arm assist and cross chest carry.
5. Demonstrate the use of the rescue tube or rescue can for the following situations:
  - a) Conscious victim
  - b) Unconscious victim
  - c) Panicked victim
  - d) Artificial respiration in the water
  - e) Multiple victims
6. Demonstrate use of the rescue paddleboard, if used by the agency, in the following situations:
  - a) Conscious victim
  - b) Unconscious victim
  - c) Artificial respiration on a rescue board
  - d) Multiple victims
7. Demonstrate rescue using any other basic equipment provided by the agency.
8. Demonstrate appropriate methods of lifting and removing a victim from the water.
9. Demonstrate releases and escapes from a panicked victim or victims.
10. Demonstrate the donning and use of swim fins.
11. Demonstrate donning and clearing of mask and snorkel, and surface dive to recover a minimum 150 pound victim from a depth of at least ten feet of water.
12. Demonstrate proper spinal injury management during a rescue.

## **V. Advanced Rescue Techniques and Procedures**

### **Knowledge Objectives**

1. Identify considerations of the following rescue situations, if they may develop on waterways served by the employing agency:
  - a) Rescue from a pier
  - b) Rescue from rock areas
  - c) Rescue of a scuba diver
  - d) Rescue of victims in a rip current
  - e) Rescue of victims in various surf conditions
  - f) Rescue of victims in swiftwater (river or flood currents)
  - g) Ice rescue

2. Identify the usefulness, limitations, and hazards of shore based lines and throw bags for the following purposes:
  - a) Victim rescue
  - b) Rescuer safety
3. Identify considerations when utilizing a helicopter for a rescue.
4. Identify considerations when assisting a disabled vessel and the passengers thereof.
5. Identify the benefits, limitations and proper methods of using powered and non-powered vessels for the following tasks:
  - a) Preventive patrols
  - b) Calm water rescue
  - c) Rough water rescue
  - d) Multiple victim rescue
  - e) Victim transport
  - f) Victim resuscitation and CPR
  - g) Rescue of victims in swiftwater (river or flood currents)
  - h) Ice rescue
6. Identify the importance of equipment maintenance.
7. Identify factors which increase the risk of legal action.
8. Identify the importance of in-service training.
9. Identify the need for personal protection from environmental exposure.
10. Identify the risks of personal injury to rescuers posed by trauma and biohazards, particularly during training and rescue responses.

#### **Skill Objectives**

1. Demonstrate the effective use of power and non-power vessel support used by the team.
2. Demonstrate the proper use of throw-bag and lines for:
  - a) Victim rescue
  - b) Rescuer safety
3. Demonstrate methods of utilizing a helicopter for aquatic rescue if helicopter support may be used by the team.
4. Demonstrate ice rescue procedures if ice rescue is a responsibility of the team

## **VI. First Aid in the Aquatic Environment**

#### **Knowledge Objectives**

1. Identify conditions which warrant suspicion of head, neck, and back injuries.
2. Identify methods of handling head, neck, and back injuries.
3. Identify symptoms and treatments for the following injuries or medical problems:
  - a) Injuries caused by dangerous water animals and organisms in the locale of the agency
  - b) Drugs/alcohol
  - c) Heat cramps, heat exhaustion and heat stroke
  - d) Sunburn
  - e) Hypothermia and cold water drowning
  - f) Near drowning (water aspiration)
  - g) Scuba illness and injury

#### **Skill Objective**

1. Demonstrate methods for safely extricating a person with head, neck or back injuries from distress, including:
  - a) Calm water
  - b) Surf or current swept water (if experienced in waters served by the team)
  - c) Single rescuer head splint roll

- d) Standing backboard

## VII. Search and Recovery

### Knowledge Objectives

1. Identify methods for establishing landmarks in searches for submerged victims, including fixing the "last known point" of the victim prior to submersion.
2. Identify the usefulness and limitations of the line sweep and circular sweep search patterns.
3. Identify the usefulness and limitations of the use of mask, fins, and snorkel in search and rescue operations.
4. Identify the usefulness and limitations of scuba in search and rescue operations.
5. Identify considerations in body recovery.
6. Identify line and shore signals for search and recovery.
7. Identify considerations in effecting a rescue from a submerged automobile.

### Skill Objectives

1. Demonstrate a line sweep and circular sweep search.
2. Demonstrate the use of landmarks.
3. Demonstrate the use of scuba in search and recovery, if scuba is used by the team.

## VIII. Communications

### Knowledge Objectives

1. Identify the basic functions of a communications system.
2. Identify considerations for communicating with the public under stressful circumstances.
3. Identify the usefulness and limitations of the following means of communication in and around the water:
  - a) Personal contact
  - b) Whistle
  - c) Flags
  - d) Two-way radio
  - e) Public address systems
  - f) Megaphones
  - g) Arm signals
  - h) Signs
4. Identify appropriate radio procedures if two-way radios are used by the team:
  - a) Internal radio procedures
  - b) Radio procedures with other agencies
5. Identify the following arm signals from a rescuer in the water:
  - a) Under control (both signals)
  - b) Assistance needed
  - c) Resuscitation case
  - d) Code X (missing victim)
6. Identify the following arm signals from a rescuer on shore:
  - a) Return to shore
  - b) Go farther out
  - c) Go left
  - d) Go right
  - e) Stay there (or search there)
  - f) Identify the diver flag.

### **Skill Objectives**

1. Demonstrate all methods of communication used by the team for water rescue work, such as:
  - a) Whistle systems
  - b) Two-way radios
  - c) Megaphone
  - d) Arm signals
2. Demonstrate all methods of rescuer to victim communications used by the team including:
  - a) Personal contact
  - b) Whistle
  - c) Public address systems
  - d) Megaphones
  - e) Signs

## **IX. Command and Planning**

### **Knowledge Objectives**

1. Identify the need for and methods to access backup in emergencies.
2. Identify the emergency plan for summoning other local safety agencies including ambulance services, police, and rescue personnel, as well as the correct way to interface.
3. Identify the incident command system and the manner in which it can be employed by aquatic rescuers.

## **X. Records and Reporting**

### **Knowledge Objectives**

1. Identify the need for precision in keeping written records.
2. Identify important details which should be included in an incident report.
3. Identify the importance of incident and activity reports as legal documents.
4. Identify the need for keeping accurate statistics on team activities.