

United States Lifesaving Association

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Guideline: Training & Standards of Aquatic Rescue Response

Teams

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Introduction

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.

Guidelines

Introductory Note: 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.

Chair National Certification Committee: If you have questions not answered by this document, you may email the National Certification Committee Chair at certification@usla.org.

1. Steps to Certification

- 1.1. 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.
- 1.2. 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), 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 must be enclosed.
- 1.3. 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.
- 1.4. 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.
- 1.5. 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.

- 1.6. 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.
- 1.7. 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.
- 1.8. 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.
- 1.9. Certified teams are empowered to issue USLA approved certificates and wallet cards to those who successfully complete a certified course of instruction.

2. Aquatic Rescue Response Team Instructor

2.1. 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:

- 2.1.1. 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.
- 2.1.2. Education Must possess a high school diploma or equivalency certificate.
- 2.1.3. 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.
- 2.1.4. Scuba Certified Certified as a scuba diver by a nationally recognized certifying agency if scuba is utilized by the agency.

3. Aquatic Rescue Response Team Member

Minimum Recommended Standards To Be Met and Maintained Include:

- 3.1. Age -- 18 years
- 3.2. Education -- Must possess a high school diploma or equivalency certificate.

- 3.3. 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.
- 3.4. 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 doctor, or the doctor's designated physician's assistant or ARNP (advanced registered Nurse Practitioner).
- 3.5. Medical Aid and CPR Certification -- Must be certified as having successfully completed a medical aid course equivalent to U.S. Department of Transportation Emergency Medical Responder, Emergency Medical Technician, or paramedic.
- 3.6. 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.
- 3.7. 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.
- 3.8. Strength & Stamina -- Must demonstrate an ability through a test of strength and stamina to perform the rigorous physical duties of an open water rescuer.

4. Recurring Training

4.1. 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:

- 4.1.1. Daily Physical Training Employees are provided daily opportunities, conditions permitting, for activities such as swimming, rescue drills and running.
- 4.1.2. 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.
- 4.1.3. 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:

• <u>The Open Water Lifesaving – The United States Lifesaving Association Manual</u>, United States Lifesaving Association, B. Chris Brewster - Editor, ISBN 1-323-58456-0

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
- <u>Technical Rescue Program Development Manual</u>, 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 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
 - i) Offshore winds
 - k) Storm drains

- 1) 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.

- 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.

- 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.

- 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.

- 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.