

### XIII. MINIMUM STANDARDS FOR WILDERNESS RESCUE TECHNICIAN CERTIFICATION

This program is designed to provide specialty certification and training for Volunteer Firefighters, Volunteer Search & Rescue Technicians, Volunteer Emergency Medical Technicians and others as the Board may determine.

Technical Search & Rescue Personnel who have received training prior to passage of this program may, upon providing proof to a Board member and receiving approval, apply the training hours for certification. Any training hours earned prior to July 1, 2008 must be approved by the Board.

#### A. Reference Materials

The jurisdictional entity in which the Technical Rescue Personnel serves must have access to the following reference materials:

##### NFPA

*NFPA 1006: Standard for Technical Rescuer Professional Qualifications*, ed. 2008

*NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents*, ed. 2004

##### IFSTA

*Fire Service Search and Rescue*, 7th Ed. (2005)

*Principles of Vehicle Extrication*, 2nd Ed. (2000)

*Technical Rescue for Structural Collapse, North American Version*, 1st Ed. (2003)

##### Other

Jurisdictionally developed codes and protocols

#### B. Prior to beginning this course of instruction, trainee shall complete the following FEMA courses:

1. IS-100.a – Introduction to ICS
2. IS-200.a – ICS for Single Resources and Initial Action Incidents
3. IS-700 or 700.a – Introduction to NIMS
4. IS-800 – Introduction to National Response Framework
5. IS-5.a – An Introduction to Hazardous Materials

#### C. Applicants must successfully pass both of the following:

1. all psycho-motor skill demonstrations
2. a comprehensive final examination

#### D. The Certification Program offers two levels of Wilderness Rescue Technician Certification:

##### 1. **Wilderness Rescue Technician I**

- a. Applicants must complete both of the following:
  - i. SFFMA Wilderness Rescue Technician I – Phase I coursework
  - ii. SFFMA Wilderness Rescue Technician I – Phase II coursework
- b. Upon meeting all requirements, an application should be completed, signed by the applicant, Certification Coordinator, and Fire Chief and sent to the Austin office, accompanied by the twenty dollar (\$20.00) application processing fee.
- c. Upon review the Austin office will issue the appropriate certificate and, upon request, a shoulder patch. A permanent record of the certification will be maintained in the Austin office.

##### 2. **Wilderness Rescue Technician II**

- a. Applicants must complete all of the following:
  - i. SFFMA Wilderness Rescue Technician I – Phase I coursework
  - ii. SFFMA Wilderness Rescue Technician I – Phase II coursework
  - iii. minimum of two (2) years as a Wilderness Rescue Technician
  - iv. SFFMA Wilderness Rescue Technician II coursework
- b. Upon meeting all requirements, an application should be completed, signed by the applicant, Certification Coordinator, and Fire Chief and sent to the Austin office, accompanied by the twenty dollar (\$20.00) application processing fee.
- c. Upon review the Austin office will issue the appropriate certificate and, upon request, a shoulder patch. A permanent record of the certification will be maintained in the Austin office.

E. Training Requirements

<b>WILDERNESS RESCUE TECHNICIAN I – PHASE 1</b>		
<b>SECTION</b>	<b>SUBJECT</b>	<b>HOURS</b>
1	Witness Interview and Victim Profile Development	4
2	Evidence Collection, Documentation, and Interpretation	6
3	Wilderness Environment Work Preparedness	10
4	Wilderness Environment Navigation	20
<b>TOTAL RECOMMENDED HOURS</b>		<b>40</b>
<b>WILDERNESS RESCUE TECHNICIAN I – PHASE 2</b>		
<b>SECTION</b>	<b>SUBJECT</b>	<b>HOURS</b>
5	Wilderness Survival	6
6	Establishment of Specialized Resources Need	2
7	Victim Location	8
8	Victim Management	6
9	Victim Movement	18
<b>TOTAL RECOMMENDED HOURS</b>		<b>40</b>
<b>WILDERNESS RESCUE TECHNICIAN II</b>		
<b>SECTION</b>	<b>SUBJECT</b>	<b>HOURS</b>
1	Victim Profile Development	8
2	Wilderness Rescue Incident Plan Development	8
3	Team Management and Direction	16
<b>TOTAL RECOMMENDED HOURS</b>		<b>32</b>

\* The recommended hours for skills evaluation is based on 12 students. Actual hours needed depends on the number of students, the number of examiners, availability of equipment, and the student skill level

1. Curriculum for Wilderness Rescue Technician I – Phase 1

**SECTION 1 WITNESS INTERVIEW AND VICTIM PROFILE DEVELOPMENT – 4 HOURS**

- 1-01 Trainee shall correctly identify the most common ICS forms used to document a lost or missing person report.
- 1-02 Trainee shall correctly identify common traits found in lost or missing persons, critical in establishing a victim profile.
- 1-03 Trainee shall correctly identify how to identify the probabilities of the last known location of a lost or missing person.
- 1-04 Trainee shall correctly identify how to establish the probability area for a given victim.
- 1-05 Trainee shall correctly identify how to establish the probability of detection for a given victim.
- 1-06 Trainee shall correctly identify the factors that directly influence the establishment of a search priority for a given victim.

**SECTION 2 EVIDENCE COLLECTION, DOCUMENTATION, AND INTERPRETATION – 6 HOURS**

- 2-01 Trainee shall correctly identify methods of documenting evidence so that the chain of evidence is maintained.
- 2-02 Trainee shall correctly identify rules for interpreting evidence.
- 2-03 Trainee shall correctly identify methods of collecting evidence so that the search and possible investigative actions are not compromised.
- 2-04 Trainee, given a simulated incident shall demonstrate documenting, collecting, and interpreting evidence, with no more than one instructor assist.
- 2-05 Trainee shall demonstrate man tracking and following clues to the end in an area between 2-4 acres, using man-tracking skills, with no more than one instructor assist.

**SECTION 3 WILDERNESS ENVIRONMENT WORK PREPAREDNESS – 10 HOURS**

- 3-01 Trainee shall correctly identify common weather conditions and their impact on rescue technicians in the field.
- 3-02 Trainee shall correctly identify common dangers inherent with common weather conditions.
- 3-03 Trainee shall pass a 24-hour pack inspection, using the standard pack list established by the AHJ for Wilderness Rescue Technicians
- 3-04 Trainee shall correctly identify the keys to survival in a wilderness environment.
- 3-05 Trainee shall correctly identify the common poisonous animals and insects in the area of the AHJ.
- 3-06 Trainee shall correctly identify the common poisonous plants in the area of the AHJ.
- 3-07 Trainee shall correctly identify knowledge required to read road and topographic maps.
- 3-08 Trainee shall correctly identify major components, types, and features of a magnetic compass.
- 3-09 Trainee shall correctly identify the theories of how the Global Positioning System (GPS) works.
- 3-10 Trainee shall demonstrate how to use a compass to navigate a simple orienteering course of not less than six points covering between 1-4 acres, with no more than one instructor assist.

- 3-11 Trainee shall demonstrate how to utilize a GPS unit to mark a point, with no instructor assist.
- 3-12 Trainee shall demonstrate how to signal using non-electronic signaling devices, with no instructor assists.
- 3-13 Trainee shall correctly identify actions to take to maintain hygiene in a field environment.

**SECTION 4 WILDERNESS ENVIRONMENT NAVIGATION – 20 HOURS**

- 4-15 Trainee shall correctly identify the various types of search patterns and techniques.
- 4-16 Trainee shall, given a simulated incident and topographical maps, demonstrate how to grid a search area, with no more than one instructor assist.
- 4-17 Trainee shall demonstrate how to use a compass and topographical maps of a simulated search area, to navigate between at least 8 geographical features covering an area of between 10-40 acres and taking GPS readings at each feature, with no more than one instructor assist.
- 4-18 Trainee, working as a team member, shall demonstrate conducting a search of a given area, and documenting the evidence and search, with no more than one instructor assist.
- 4-19 Trainee, when given the appropriate equipment, shall correctly demonstrate conducting a low angle raise using a simple hauling system incorporating a 2:1 and 3:1 hauling operation to include a visual safety check, a pre-hauling load test of all systems with verbal confirmation acknowledged by all rescue personnel, and the use of appropriate commands, with no instructor assists.
- 4-20 Trainee, when given the appropriate equipment, shall correctly demonstrate constructing a vertical lowering system using a Stokes Basket, rescue knot, appropriate lifelines, edge protection devices, and necessary auxiliary rope rescue equipment, with no instructor assists.
- 4-21 Trainee, when given the appropriate equipment, shall correctly construct a belay system designed to arrest the fall of a load in the event of a failure of a primary lowering operation and demonstrate the safe activation of the belay system, with no instructor assists.
- 4-22 Trainee, when given the appropriate equipment, shall correctly demonstrate conducting a vertical lowering operation to include a visual safety check, a pre-lowering load test of all systems with verbal confirmation acknowledged by all rescue personnel, and the use of appropriate commands, and utilization of a belay system during the operation, with no instructor assists.

2. **Curriculum for Wilderness Rescue Technician I – Phase 2**

**SECTION 5 WILDERNESS SURVIVAL – 6 HOURS**

- 5-01 Trainee shall correctly identify various types of emergency shelter and the environments conducive for each.
- 5-02 Trainee shall demonstrate how to construct an emergency shelter using only natural resources and equipment carried in the 24-hour pack, with no more than one instructor assist.
- 5-03 Trainee shall demonstrate how to build and extinguish a small fire, so that safety is maintained, with no instructor assists.
- 5-04 Trainee shall correctly identify how to identify sources of water that can be used for human consumption in a wilderness environment.
- 5-05 Trainee shall correctly identify how to identify sources of water that should not be used for human consumption in a wilderness environment.
- 5-06 Trainee shall correctly identify the various methods and tools for purifying water for human consumption.
- 5-07 Trainee shall correctly identify possible sources of food that can be used for human consumption in a wilderness environment.
- 5-08 Trainee shall correctly identify common sources of food that should not be used for human consumption in a wilderness environment.
- 5-09 Trainee shall correctly identify the various methods and tools for preparing natural sources of food for human consumption.

**SECTION 6 ESTABLISHMENT OF SPECIALIZED RESOURCES NEED – 2 HOURS**

- 6-01 Trainee shall correctly identify how to determine what specialized resources are needed for given search and rescue incidents.
- 6-02 Trainee shall correctly identify how to identify when a specialized resource should be used so that efficiency of the operation is maximized.
- 6-03 Trainee shall correctly identify when and where helicopter landing zones may be established so that safety is a priority.

## **SECTION 7 VICTIM LOCATION – 8 HOURS**

- 7-01 Trainee, working as a member of a team, shall demonstrate how to conduct a search using the route search technique and locate a victim, identifying clues and documentation actions, in an area between 4-10 acres, with no more than one instructor assist.
- 7-02 Trainee, working as a member of a team, shall demonstrate how to conduct a search using the area search technique and locate a victim, identifying clues and documentation actions, in an area between 4-10 acres, with no more than one instructor assist.

## **SECTION 8 VICTIM MANAGEMENT – 6 HOURS**

- 8-01 Trainee shall correctly identify aspects of victim behaviors and management.
- 8-02 Trainee, given a simulated incident with physical injuries, shall demonstrate how to apply first aid and manage a victim, with no more than one instructor assist.
- 8-03 Trainee, given a simulated incident with physical and mental limitations, shall demonstrate how manage an elderly victim, with no more than one instructor assist.

## **SECTION 9 VICTIM MOVEMENT – 18 HOURS**

- 9-01 Trainee, working as a team member, shall demonstrate how to package a patient in a stokes basket or backboard device, so that the victim is secured for movement and further injuries are mitigated against, with no more than one instructor assist.
- 9-02 Trainee, working as a team member, shall demonstrate moving a victim up and down a low-angle environment, using rope rescue equipment, with no more than one instructor assist.
- 9-03 Trainee, working as a team member, shall demonstrate moving a victim up and down a high-angle environment of at least 10 feet, using rope rescue equipment, with no more than one instructor assist.
- 9-04 Trainee, working as a team member, shall demonstrate moving a victim .25 miles using only human power, over typical terrain, ensuring victim and rescuer safety is maintained, with no more than one instructor assist.

### **3. Curriculum for Wilderness Rescue Technician II**

## **SECTION 1 VICTIM PROFILE DEVELOPMENT – 8 HOURS**

- 1-01 Trainee shall correctly identify the various common types of physical and/or psychological conditions that influence the development of a victim profile.
- 1-02 Trainee shall correctly identify the various methods to use and to avoid when interviewing witnesses and family members.
- 1-03 Trainee shall correctly identify how analysis of collected evidence may impact the development of a victim profile.
- 1-04 Trainee, given a simulated wilderness search and rescue (SAR) incident, shall develop a victim profile, using collected evidence and interviews, with no more than one instructor assist.

## **SECTION 2 WILDERNESS RESCUE INCIDENT PLAN DEVELOPMENT – 8 HOURS**

- 2-01 Trainee shall correctly identify the various common errors made in unsuccessful SAR operations.
- 2-02 Trainee shall correctly identify how the ICS is typically established for a small scale incident (one missing person)
- 2-03 Trainee shall correctly identify how the ICS is typically established for a long-term, medium scale incident (2-5 missing persons).
- 2-04 Trainee shall correctly identify the effective use of SAR resources.
- 2-05 Trainee shall correctly identify objectives, tactics and strategies to effectively conduct a wilderness SAR incident response.
- 2-06 Trainee shall correctly identify factors involved in contributing to response personnel stress and how that impacts the mission.
- 2-07 Trainee shall correctly identify factors that contribute to the safety of the response to the wilderness SAR incident to both response personnel and victims.
- 2-08 Trainee shall correctly identify factors involved in establishing operational periods and shift assignments.
- 2-09 Trainee shall correctly identify involved in determining communications requirements both on-site and to county/state agencies.
- 2-10 Trainee shall correctly identify the factors involved in establishing the Incident Command Post and Incident facilities.
- 2-11 Trainee shall correctly identify the common forms used to document a wilderness SAR incident.
- 2-12 Trainee, given a simulated table top incident, shall demonstrate establishing and maintaining the documentation system for a wilderness SAR incident.

### **SECTION 3 TEAM MANAGEMENT AND DIRECTION – 16 HOURS**

- 3-01** Trainee, given a simulated table top incident, shall demonstrate how to establish the ICS, to include personnel assignments, communications, location of facilities and safety considerations.
- 3-02** Trainee, given a simulated table top incident of a large-scale or long-term incident, shall demonstrate how to establish the ICS, to include personnel assignments, communications, location of facilities and safety considerations.
- 3-03** Trainee, working as a team on a small-scale table-top, simulated wilderness SAR incident, shall demonstrate the ability to function as an Incident Commander.
- 3-04** Trainee, working as a team on a small-scale table-top, simulated wilderness SAR incident, shall demonstrate the ability to function as an Operations Section Chief.
- 3-05** Trainee, working as a team on a small-scale table-top, simulated wilderness SAR incident, shall demonstrate the ability to function as Logistics Section Chief.
- 3-06** Trainee, working as a team on a large-scale, long-term table-top, simulated wilderness SAR incident, shall demonstrate the ability to function as a member of the ICS staff.