

MAINE ASSOCIATION FOR SEARCH AND RESCUE

Search Team Member Certification Standard

Appendix C

Testing Objectives

To be certified by the Maine Association for Search and Rescue as a Search Team Member a person must do all of the following.

- I. Introduction to Search and Rescue
 - A. To demonstrate an understanding of the concepts involved in Search and Rescue, the trainee shall:
 1. Define the following terms:
 - a) Search
 - b) Rescue
 - c) Recovery
 - d) (LAST) Locate, Access, Stabilize, Transport
 2. Explain the importance of the following components of SAR operations:
 - a) Preplanning
 - b) Notification
 - c) Planning/Strategy
 - d) Tactics/Operations
 - e) Suspension
 - f) Critique
 3. Describe his or her personal limitations and strengths as a member of a search crew.
 - B. To demonstrate an understanding of where the responsibilities for Search and Rescue lie in the State of Maine, the trainee shall:
 1. List the four main provisions of Section 1, Title 12 MRSA, section 10105, subsection 4 (the Maine SAR statute).
 2. List the major responsibilities for search and rescue in Maine under the Maine SAR Plan for the following authorities:
 - a) Local SAR Authorities
 - b) Warden Service
 - c) Marine Patrol
 - d) U.S. Coast Guard
 - e) State Park Rangers
 - f) Federal Park Authorities
 - g) Civilian SAR units
- II. Search Operations
 - A. The trainee shall list the information needed by a search team member when alerted.
 - B. The trainee shall describe the callout and dispatch procedure used by his/her

- unit.
- C. The trainee shall explain the purpose of the Incident Command System.
- D. The trainee shall list procedures for:
 - 1. Checking in at the incident
 - 2. Crew mission briefing (search data)
 - 3. Crew mission debriefing (planning data)
 - 4. Departing the incident
 - 5. Dealing with the media
 - 6. State insurance coverage and claims
- E. The trainee shall describe briefly the procedures necessary when interacting or working as a search team member with the following SAR specialties and/or personnel:
 - 1. Dog teams
 - 2. Aircraft
 - 3. Listening posts
 - 4. Infrared detectors
 - 5. Technical rescue teams
 - 6. EMS personnel
 - 7. Trackers
 - 8. Other units or organizations

III. Legal Aspects for the Searcher

- A. The trainee shall describe the basic legal aspects of the following, as they apply to a search team member:
 - 1. Searcher knowledge and training
 - 2. Rendering medical assistance
 - 3. Physical ability of the searcher
 - 4. Equipment suitability
 - 5. Individual and team discipline
 - 6. Team supervision
 - 7. Crime scene preservation
 - 8. Deceased victim
- B. The trainee shall explain the legal limits for a search team member in regard to entering private property during a search.
- C. The trainee shall describe the basic legal aspects of the following, as they apply to the agency in charge of a search operation:
 - 1. Responsibility to provide emergency response
 - 2. Finding a deceased subject
 - 3. Protecting a crime scene
 - 4. Providing Critical Incident Stress Debriefing for responders

IV. Search Techniques and Tactics

- A. The trainee shall define:
 - 1. Point Last Seen (PLS)
 - 2. Last Known Point (LKP)

3. Probability of Area (POA)
4. Probability of Detection (POD)
- B. The trainee shall explain the factors that affect POD estimation at the search team level.
- C. The trainee shall explain the differences between the two basic categories of search tactics (Passive and Active).
- D. The trainee shall list and describe the following passive search tactics:
 1. Investigation
 2. Attraction
 3. Confinement/containment
 4. Track traps
- E. The trainee shall demonstrate knowledge of lost person behavior:
 1. Explain how the behavior of lost persons affects search tactics.
 2. List several issues that affect the behavior of lost persons.
 3. Explain the significance and use of the lost person questionnaire.
- F. The trainee shall describe the following search tactics, and list their advantages and disadvantages:
 1. Hasty Search (Type I)
 2. Efficient Search (Type II)
 3. Thorough Search (Type III)
 4. Tracking
 - a) Explain the difference between a track and a sign
 - b) Describe how to protect a track or sign
 - c) Describe how to protect an area for trackers
 - d) Describe sign-cutting
- G. The trainee shall demonstrate the following techniques of searching as a search team member:
 1. Hasty search (Type I)
 2. Efficient (Type II)
 3. Thorough (Grid) search (Type III)
- H. The trainee shall define the functions of these search team positions:
 1. Search team leader
 2. Search team member
 3. Navigator
 4. Radio operator
- I. The trainee shall define the following (as used in the State of Maine):
 1. Search segment or area
 2. Base line
 3. Guide line
 4. End line
 5. Grid line
 6. Flagger
 7. Guide person
 8. Flanker

V. Clue Awareness

- A. The trainee shall demonstrate an understanding of the concept of searching for clues, not just subjects.
- B. The trainee shall list the types of clues most likely to be observed by field searchers, the probable locations of each, and methods of preservation.
- C. The trainee shall demonstrate the ability to observe and evaluate clues.
- D. The trainee shall explain the importance of handling clues as potential evidence of a crime.
- E. The trainee shall describe what to do after finding:
 - 1. A clue
 - 2. The search subject alive
 - 3. The search subject deceased

VI. Scene Preservation

- A. The trainee shall explain the application of the legal requirements for preservation of crime/fatality and aircraft scenes.
- B. The trainee shall describe measures that may be taken to protect a scene from disturbance.
- C. The trainee shall describe procedures for protecting an area for a search dog team.
- D. The trainee shall describe procedures for handling a potential scent article for a search dog team.

VII. Communications

- A. The trainee shall demonstrate:
 - 1. The ability to communicate search information effectively.
 - 2. An understanding of the ICS communication doctrine.
 - 3. The ability to correctly operate a hand-held radio.
 - 4. An understanding of the radio protocols in effect during search operations.
 - 5. The ability to transmit and receive coordinates for a geographical location.

VIII. Rescue Equipment

- A. The trainee shall describe the care, maintenance, and proper handling techniques for the following equipment:
 - 1. Rescue ropes
 - 2. Webbing and harnesses
 - 3. Rescue hardware

IX. Litter Handling and Patient Evacuation

- A. The trainee shall describe at least two types of stretchers or litters.
- B. The trainee shall describe and demonstrate the following procedures for use of a litter:
 - 1. Lifting and loading a patient.

2. Lifting, lowering, and carrying techniques, including passing litter over an obstruction.
 3. Litter crew procedures and commands, including proper litter bearer rotation.
- X. Helicopter Operations
- A. The trainee shall list the safety rules for approaching, leaving, loading, and riding in helicopters.
 - B. The trainee shall describe the procedures used to safely assist with helicopter hoist operations.
- XI. Searcher Safety and Health
- A. Maintenance of Health
 1. For a given search scenario, the applicant shall describe how he or she would maintain his or her health. Methods shall include measures from at least the following topics.
 - a) Physical fitness
 - b) Nutrition
 - c) Hydration
 - d) Safety
 - e) Environmental conditions
 - f) Personal hygiene
 - g) Stress, including awareness of the causes and symptoms of post-traumatic stress
 - h) Bodily fluid isolation and personal protective equipment (PPE)
 - B. Scene Safety

The trainee shall demonstrate an understanding of what circumstances require special precautions and what those precautions should be for:

 1. Situational Awareness:
 - a) Risks above
 - b) Risks below
 - c) Risks around
 - d) Risks from subject
 2. Weather
 - a) Changes:
 - (1) Temperature
 - (2) Clouds
 - (3) Wind
 - b) Local effects
 - c) Severe weather:
 - (1) NWS warnings
 - (2) Storm hazards (lightning, sleet, etc.)
 3. Environmental Hazards
 - a) Terrain
 - b) Flora and fauna

- c) Day vs. night
- d) Water hazards and safety techniques
 - (1) Still and running water
 - (2) Low head dams
 - (3) Strainers
 - (4) Ice
 - (5) Wading safety
 - (a) Team wading
 - (b) Pole wading
 - (6) Partner pairings around the water
 - (7) Defensive swimming
 - (8) Rescue - reach/throw
 - (9) Ice self rescue and partner rescue

XII. SAR Clothing

- A. The trainee shall explain the concept of clothing as a system, especially in regard to the following:
 - 1. The five ways the body loses heat
 - 2. The effects of heat loss and their importance
 - 3. How to prevent heat loss.
- B. The trainee shall list and explain the advantages and disadvantages of various common clothing materials.
- C. The trainee shall describe the clothing required for a particular set of conditions described by the examiner.

XIII. SAR Ready Pack

- A. Given a 24 hour ready pack, the trainee shall describe and/or demonstrate the use of its contents. The recommended contents of the ready pack are listed in Appendix D of MASAR's Search Team Member certification standard).

XIV. Basic Survival

- A. To demonstrate knowledge of the principles of basic survival, the trainee shall:
 - 1. List a minimum of three methods for avoiding getting lost.
 - 2. List the basic necessities for survival and prioritize them for a given situation.
 - 3. Explain the survival situation plan (STOP): Stay, Think, Observe, and Plan.
 - 4. Define "Positive Mental Attitude".
 - 5. Differentiate between the requirements for short term survival vs. long term survival.
 - 6. List the basic aspects to be considered for emergency shelters.
- B. To demonstrate knowledge of the techniques required to survive in the field, the trainee shall perform the following tasks:

1. Using the contents of a ready pack and available natural materials, build a suitable shelter. Explain how the shelter fulfills the requirements for survival.
2. Using the contents of a ready pack and available natural materials, in the field conditions, build a fire that will burn thumb-sized pieces of wood.
3. Describe at least two methods for purifying water in the field.
4. Describe two methods for improvising signals to attract attention, and explain the advantages and disadvantages of each.

XV. Land Navigation

- A. The trainee shall list at least three types of maps used in SAR and explain the differences between them.
- B. Given five topographical map symbols, the trainee shall identify, and describe the significance of, each.
- C. Given five types of topographical border information, the trainee shall identify the information and explain its use.
- D. The trainee shall identify and explain the following terms or concepts:
 1. Contour lines
 2. True north
 3. Magnetic north
 4. Declination
 5. Determining distances
- E. The trainee shall compare the following location methods, explain their advantages and disadvantages, and use each method to determine the coordinates for a given point on a map.
 1. Latitude and Longitude
 2. UTM - (Universal Transverse Mercator)
 3. Map feature reference.
- F. Given coordinates or another reference, the trainee shall use each of the location methods above to locate a given point on a map.
- G. The trainee shall describe at least three parts of the compass and demonstrate the ability to use it to plot a course on a map.
- H. The trainee shall perform the following navigation functions:
 1. Orient a map
 - a) By terrain
 - b) By compass
 2. Determine the elevation for a specified location on a map
 3. Obtain a compass bearing from a map and follow it in the field
 4. Obtain a back azimuth
 5. Estimate distance traveled in the field
 6. Take a bearing in the field and transfer it to a map.
- I. The trainee shall demonstrate the ability to navigate, during daylight hours, a course with a minimum of three (3) legs, using map and compass alone. The trainee shall complete the course within a specified time limit, which shall be set by the evaluator. The ends of two of the legs shall be provided, one in

- lat/long coordinates and the other in UTM coordinates.
- J. The trainee shall demonstrate the ability to navigate, at night, a course with a minimum of three (3) legs, using map and compass alone. The trainee shall complete the course within a specified time limit, which shall be set by the evaluator. The ends of two of the legs shall be provided, one in lat/long coordinates and the other in UTM coordinates.
 - K. Demonstrate an understanding of the use and value of GPS receivers in ground search by doing the following:
 - 1. Compare navigating by GPS with navigating by map and compass, explaining advantages and disadvantages of each method.
 - 2. Explain the shortcomings of GPS navigation and the risks involved when relying on GPS receivers for navigation.
 - 3. Explain the significance of synchronizing the GPS datum with that of maps used for SAR operations.