

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF EMERGENCY MANAGEMENT
SEARCH AND RESCUE PROGRAM'S
STANDARDS FOR FIELD TEAM MEMBER (FTM)**

I. PURPOSE

- A) The Field Team Member (FTM) standards were developed to define the minimum requirements necessary to perform the following functions in the general environment of the Commonwealth of Virginia.
1. Missing person search
 2. ***Ground portion of missing aircraft search***
 3. ***Non-technical rescue***
- B) The FTM should be capable of performing these functions anytime of the year, day or night, and in all weather conditions experienced in the Commonwealth. In order to accomplish this, the FTM should be able to:
1. Understand the search and rescue system used in the Commonwealth.
 2. Navigate accurately on land.
 3. Survive an unexpected wilderness emergency.

II. COURSE ADMISSION CRITERIA

- A) Age
1. Minimum age for FTM is 16, with parental consent.
- B) Affiliation and Experience

Applicants for FTM training should hold active membership in a professional SAR group, or an established emergency services organization such as a law enforcement agency, rescue squad, or fire department. First consideration for training will be given to these applicants. Additional factors such as prior experience, potential for use of training, number of SAR missions per year and other criteria may also be considered.

III. KNOWLEDGE AND PERFORMANCE EXPECTATIONS

A) Search and Rescue Operations

The FTM will demonstrate an understanding of the items listed under each subject. Some items may require the performance of manual skills.

1. SAR Operations

- a. Describe how search missions are originated.
- b. List several factors that may result in *a person* or aircraft being listed as missing.
- c. List several resources that might be utilized during a SAR event.
- d. Describe the basic principles of the Incident Command System and define the major staff functions.
- e. Describe proper searcher conduct as it relates to law enforcement, family of the missing subject(s) and the media.
- f. Describe general safety considerations in SAR operations, including dealing with critical stress.
- g. Be familiar with and describe the NIMS management system.

B) Legal Aspects of Search and Rescue

1. Describe responsibilities for search and rescue as defined by the National SAR Plan.
2. Describe responsibilities at a state level.
3. Demonstrate an understanding of the basic provisions of the “Good Samaritan” law.
4. Define the terms “implied consent,” “expressed consent,” “informed consent” and “abandonment”.
5. Define several factors necessary to prove negligence.
6. Describe several methods of reducing liability exposure.
7. Describe the circumstances when entry upon private property may be justified.
8. Define the problems involved with this action and possible solutions.

C) Personal Equipment

1. Explain the basic principles of selection for the following items:
 - a. *Choice of clothing material as it relates to the body's needs and environmental conditions.*
 - b. *Waterproof, windproof*
 - c. *Layering*
 - d. *Loft*
 - e. *Boots*
 - f. *Backpack/daypack*
 - g. *Personal safety items*
 - h. *Fire starting aids*
 - i. *Items for signaling and navigation*
 - j. *Light sources and batteries*
 - k. *Food and water*

D) Wilderness Survival

1. Define short-term vs. long-term wilderness survival.
2. Describe several problems commonly encountered on SAR missions that may lead to a survival situation.
3. Describe the psychological factors that may affect survival ability.
4. Explain the "energy reserve" concept.
5. Define average daily food and water requirements.
6. Describe the body's physiologic response to both cold and heat stress.
7. Define the following environmentally-related problems and their recognition, treatment and prevention.
 - a. Hypothermia
 - b. Hyperthermia
 - c. Frostbite
 - d. Dehydration
 - e. *Insect borne diseases*
8. Describe several ways to help prevent environmental emergencies

E) Land Navigation

1. Define the following terms or concepts.
 - a. Latitude and longitude
 - b. Degrees, minutes and seconds.
 - c. True north and magnetic north.
 - d. Declination
2. Demonstrate the ability to read and interpret topographic map border information, colors and symbols.
3. Describe the various parts of the compass and demonstrate the ability to use it to plot a course on a map, including northing and declination corrections.
4. Define the following plotting methods or grid systems and demonstrate the ability to use them to determine the coordinates for a given point.
 - a. ***UTM/USNG***
 - b. ***Latitude and Longitude***
 - c. ***Random Grid (i.e. ASRC)***
5. Demonstrate the ability to perform the following navigational functions.
 - a. Obtain and follow a simple compass bearing.
 - b. Determine a reciprocal.
 - c. Move around obstacles.
 - d. Measure distance by pacing.
 - e. Determine position by terrain feature identification.
 - f. ***Intersection and resection.***
6. Describe how to use these orienteering concepts.
 - a. Catching features
 - b. Collecting features
 - c. Attack points
 - d. Aiming off
7. ***Demonstrate basic knowledge and use of GPS such as:***
 - a. ***Setting for the correct DATUM***
 - b. ***Marking a way point***

F) Search Skills

1. Demonstrate an understanding of these search tactics.
 - a. Attraction
 - b. Containment
 - c. Survey Search
 - d. Hasty Search (Scratch Search)
 - e. Sweep Search (Open Grid Search)
 - f. Line Search (Closed Grid Search)
 - g. Signcutting
 - h. Interviewing
2. Describe techniques for increasing clue awareness.
3. *Describe procedures for working with specialty teams such as*
 - a. *Airscent dogs*
 - b. *Tracking/trailing dogs*
 - c. *Field team signcutters*
 - d. *Mantrackers*
4. *Describe the proper use of basic Virginia SAR forms*
5. Describe the functions of the following Field Team positions:
 - a. Field team member
 - b. Field team leader
 - c. Medical officer
 - d. Rescue specialist
 - e. Radio operator
6. Describe the process of briefing and debriefing.
7. Describe basic leadership principles (including but not limited to responsibility, delegation and safety).

G) Incident Site Procedures

1. Define the proper approach to an incident site.
2. Describe the proper method used to secure an incident site.
3. Explain the importance of clue preservation at both an aircraft crash site and a possible crime scene.

4. Explain the importance of accurate documentation of events at an incident site.
5. Describe several hazards commonly associated with an aircraft crash site.

H) ***Basic Rescue Operations***

1. Describe the types of rope ***and technical hardware*** commonly used in wilderness rescue work, their construction, use and care.
2. Demonstrate the ability to correctly tie these knots:
 - a. Simple overhand
 - b. Overhand bend (water knot, ring bend)
 - c. Simple Figure 8
 - d. Figure 8 loop
 - e. Figure 8 bend (follow through)
 - f. Square knot
 - g. Prussik
 - h. Double fisherman or barrel knot
3. Demonstrate these litter techniques with appropriate calls.
 - a. ***Patient loading***
 - b. ***Lift, lower and carry***
 - c. ***Rotation***
 - d. ***Laddering, including toe nailing***
 - e. ***Caterpillaring***
 - f. ***Turtling***
 - g. ***Lap Pass***
 - h. ***Simple rope belay***

I) ***Helicopter and Aircraft Operations***

1. Describe the hazards to ground personnel working around a helicopter or other aircraft.
2. Describe the considerations for selecting and preparing a ***helicopter LZ***.

J) Field Communications

1. Describe the use and dangers of these signaling devices:
 - a. Aerial flares
 - b. Smoke
 - c. Signal mirrors
 - d. Fires
2. Define the special problems associated with the field use of portable radios and list some possible solutions.
3. Describe basic radio procedures including courtesy, security, brevity, use of the phonetic alphabet and problems with 10 codes.

IV. TEST METHODS

A) Written Test

1. The test consists of at least 100 questions representative of the material presented in the course.
2. The test is administered at the beginning of the course as a pre-test, and again at the end of the course as a post-test. Students who pass the pre-test are not required to take the post-test. Passing score is 80 percent.
3. Failure of the post-test constitutes failure of the course.

B) Practical Test

1. The practical test consists of several stations that test certain skills presented in the course. Students are requested to perform those skills in the presence of an examiner.
2. Each station has specific requirements and well defined criteria for pass/fail.
3. A student who fails a practical station(s) may repeat that station (s) once on the same day. Failure of a second attempt constitutes failure of the course.

C) Retesting

1. Students who complete the required training, but fail either the written or practical test, are eligible for retesting.
2. Each student is responsible for making arrangements for retesting with the course coordinator on an individual basis.
3. If a student fails any portion of a retest, the record reverts to inactive and the course must be repeated or challenged.

B) *Equivalent Training and/or Experience*

Those individuals who, by virtue of past training and experience, possess the necessary knowledge and skills may be permitted to challenge the class. Upon successful completion of the written and practical exam, the individual will be certified as an FTM.

C) Certification

Upon successful completion of training, a certificate will be issued to the trainee by VDEM. This certificate does not constitute a license to practice the skills taught in the training program, but signifies only that the person holding the certificate has met an established standard of knowledge and performance and should be able to function in a competent manner at the level indicated on the certificate.

VI. *RECERTIFICATION PROCEDURES*

A) *Notification of Expiration of Certification*

1. ***Six (6) months prior to the expiration date, a letter will be sent noting the expiration date and defining the recertification procedure.***
2. ***A second letter will be sent during the expiration month stating that if recertification is not accomplished within six (6) months of expiration, certification will be dropped.***
3. ***Individuals applying for recertification must meet or exceed the following continuing education credits (CEUs). CEUs will be a combination of training, missions and demonstration of practical skills to recertify.***

- a. ***Presentation of a copy of his/her log book documenting the following continuing education credits (one hour per credit) documenting a minimum of 24 hours of training over a three year period, signed off by an organization's training officer.***
- b. ***Demonstration of participation in a minimum of nine (9) real or simulated missions) over the three year period. Mission records should be signed off by Mission Operations or Training Officer; the mission sign in sheets will also be recognized.***

B) Procedure

1. Certification may be renewed by successfully completing the written and practical tests, and meeting any other requirements for certification for Field Team Member that exist at the time of recertification.
2. Each person is responsible for making individual arrangements for recertification testing with the VDEM Search and Rescue Coordinator.
3. Certification will be valid for three (3) years from date of issue.