Land Search Field Team Member

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1.1 Introduction

Mission
The mission is to develop and provide credentialing for local search and rescue responders to ensure effective efficient response to missing person’s incidents. The North Carolina Division of Emergency Management (NCEM) is frequently called upon to assist in resource coordination for local mutual aid in response to a missing person incident. This standard is the minimum recommended training for responders to be considered for deployment by NCEM.

Scope
The Land Search Field Team Member (FTM) is the foundation for response to a lost or missing person incident including ground search for a missing aircraft. This standard is the minimum recommended training for those responders not already governed by a training guideline for response to persons in distress. Additionally, this standard does not purport to address all hazards, safety concerns, or skill requirements for a local Authority Having Jurisdiction (AHJ).

Where there currently exists an infrastructure to credential rescue technicians in the State of North Carolina, this standard is intended to provide credentialing to members of the first responder community that have limited or no responsibility for rescue. Land Search Team Members, Law Enforcement Officers, Canine Handlers, Mounted Search Team Members, etc. provide a vital service in the swift conclusion of a missing person incident, greatly increasing the likelihood of a positive outcome.

Basis
The NCEM Land Search Field Team Member (FTM) Standard provides State-level credentialing of first responders to a national standard and meets the requirements for knowledge, skills, and abilities set forth in ASTM F2209 and NIMS Wilderness Search Technician. To be NIMS compliant a Field Team Member must complete training in ICS-100, ICS-200, ICS-700, ICS-800, blood-borne pathogens, HazMat awareness, cardio-pulmonary resuscitation (CPR), and first aid.
1.2 Knowledge and Performance Expectations

The Land Search Field Team Member (FTM) standards were developed to define the minimum requirements necessary for a majority of incidents. The FTM should be capable of performing these functions anytime of the year, day or night, and in all weather conditions experienced in the State of North Carolina. In order to accomplish this, the FTM should be able to:

1. Understand the principles of search and rescue.
2. Navigate accurately on land.
3. Survive an unexpected wilderness emergency.

The FTM will demonstrate an understanding of the items listed under each subject. Some items may require performance of manual skills; these items are listed in 1.4 Credentialing.
Land Search Field Team Member

1.3 Knowledge, Skills, and Abilities

A. SAR Operations

1. Explain policies and guidelines common in North Carolina as they pertain to the phases of a missing person incident including; Callout, Incident Check-in, Mission Briefing and Debriefing, and Demobilization.
2. Describe the process for originating a search mission and who is responsible for the missing person operation.
3. List several factors that may result in a person or aircraft being listed as missing.
4. List several resources that might be utilized during a SAR event.
5. Describe the basic principles of the Incident Command System and define the major staff functions.
6. Describe proper conduct as it relates to interaction with law enforcement, local government officials, family of the missing subject(s) and the media.
7. Describe general safety considerations in SAR operations, including dealing with critical stress.
8. 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 and HIPAA.
4. Describe the responsibility for Insurance Coverage; Liability and Worker’s Compensation.
5. Define the terms “implied consent,” “expressed consent”, “informed consent” and “abandonment”.
6. Define several factors necessary to prove negligence.
7. Describe several methods of reducing liability exposure.
8. Define the three “types” of trespassing.
9. Describe the circumstances when entry upon private property may be justified and 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.
Land Search Field Team Member

i. Waterproof, windproof
   ii. Layering
   iii. Loft
b. Considerations for choosing socks and footwear
c. Backpack/daypack
d. Personal safety items
e. Fire starting aids
f. Items for signaling and navigation
g. Light sources and batteries
h. Considerations for food and water in the field
i. Consideration, advantages, and disadvantages for electronic devices (phone, radio, GPS, signaling, etc.)

2. Demonstrate possession of the following personal equipment:
   a. Day pack
   b. Appropriate clothes and footgear for both fair and foul weather;
   c. Water containers with total of at least two-liter capacity;
   d. Headlamp (or flashlight) and second light source;
   e. Lighter, matches and candle, or equivalent waterproof fire source;
   f. Multipurpose tool
   g. Compass
   h. Personal first aid kit
   i. Whistle
   j. Survival/Improvisation kit

3. Explain blood-borne pathogens and the principles of body substance isolation procedures.

D. Wilderness Survival

1. Define short-term vs. long-term wilderness survival.
2. Explain the basic needs for survival and prioritize them.
3. Describe several problems commonly encountered on SAR missions that may lead to a survival situation.
4. Describe the psychological factors that may affect survival ability.
5. Explain the “energy reserve” concept.
6. Define average daily food and water requirements.
7. Describe the body’s physiologic response to both cold and heat stress.
8. Define the following environmentally-related problems and their recognition, treatment, and prevention.
   a. Hypothermia
   b. Hyperthermia
   c. Frostbite
Land Search Field Team Member

10. Describe several ways to help prevent environmental emergencies.
11. Demonstrate the ability to start a small cooking/warming fire using items from the 24 hour pack and the surrounding environment.
12. Demonstrate the ability to construct an improvised shelter using items from the 24 hour pack and the surrounding environment.
13. Demonstrate a signaling technique.

E. Land Navigation

1. Define the following terms or concepts.
   a. Geographic Coordinate System
   b. Universal Transverse Mercator System
   c. US National Grid System
   d. True north and magnetic north
   e. Declination
   f. Datum

2. Demonstrate the ability to read and interpret topographic map border information, colors and symbols, including the following information:
   a. Grades of highways, roads, trails and bridges;
   b. Power lines and other landmark lines;
   c. Buildings, schools, churches and cemeteries;
   d. Storage tanks, wells, mines, caves, picnic areas and campsites;
   e. Benchmarks (control stations) and spot elevations;
   f. Boundaries and fence lines;
   g. Contour lines, depressions, cuts and fills;
   h. Perennial and intermittent streams, springs, falls and marshes;
   i. Valleys, ridges, peaks and sags (saddles, cols);
   j. Elevations and general land contours; and
   k. Photo revisions

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. Demonstrate the ability to use the USNG system to determine the coordinates for a given point.

5. Demonstrate the ability to perform the following navigational functions.
   a. Determine position by terrain feature identification
Land Search Field Team Member

b. Intersection and resection
c. Obtain and follow a simple compass bearing
d. Determine a reciprocal or back azimuth
e. Move around obstacles
f. Measure distance by pacing

6. Demonstrate basic knowledge of Global Position Satellite (GPS) receivers:
   a. Advantages and disadvantages between GPS receivers and map and compass for land navigation.
   b. Importance of having the GPS datum match the map datum.

F. Search Skills

1. Demonstrate an understanding of these search tactics.
   a. Attraction
   b. Containment
   c. Hasty Search
   d. Open Grid Search
   e. Closed Grid Search
   f. Signcutting
   g. Interviewing

2. Describe techniques for increasing clue awareness.

3. Describe procedures for working with specialty resources such as:
   a. Airscent dogs
   b. Tracking/trailing dogs
   c. Field team signcutters
   d. Mantrackers
   e. All-terrain Vehicles (ATV’s) and Utility Task Vehicles (UTV’s)
   f. Equestrian teams
   g. Aircraft
   h. Unmanned Aerial Systems (UAS)

4. Describe the functions of the following Field Team positions:
   a. Field team member
   b. Field team leader
   c. Medical officer
   d. Navigator
   e. Radio operator

5. Describe the process of briefing and debriefing.

6. Describe basic leadership principles (including but not limited to responsibility, delegation and safety).
G. Incident Site Procedures (Aircraft Crash or Possible Crime Scene)

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 (safety knot)
   b. Square Knot
   c. Figure 8 on a bight
   d. Figure 8 on a bight (follow through around an object)
   e. Clove hitch
   f. Water knot
   g. Double Fisherman Bend
   h. Prusik
   i. Improvised Harness
   j. Munter hitch

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.
3. Describe the considerations for requesting a helicopter based rescue.

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.
1.4 Credentialing

The NC Land Search Team Member may be credentialed through reciprocal acceptance of equivalent credentialing by the NCEM SAR Coordinator or satisfactory demonstration of all knowledge, skills, and abilities listed in 1.3 under the supervision of an authorized NCEM Land Search Team Member Instructor.

Training

NCEM, in partnership with subject matter experts from NC State Parks and Recreation and the NC Search and Rescue Advisory Council has developed a core curriculum designed to meet the training requirements for this standard. The Land Search Field Team Member course is designed to be a 48 hour full-immersion training using the NASAR® text “Fundamentals of Search and Rescue” by Jones and Bartlett Publishers. Completion of the Land Search Field Team Member course does not guarantee that a credential will be issued. All components of the standard must be satisfactorily demonstrated to an authorized NCEM Land Search Field Team Member Instructor in order to receive a certificate of completion.

Course Requirements

The Land Search Field Team Member course may be configured at the discretion of the Instructor. Sample timelines, practical evolutions, and support materials are available to all authorized Instructors.

Credentialing requirements

In order to demonstrate the KSA's identified in 1.3 the FTM must pass a 100 question, multiple choice, written exam with a score of 70% or greater (time limited to 2 hours unless reasonable accommodation is requested in advance) and 6 practical skills evaluation stations;

1. 24 Hour Pack
2. Survival Skills
3. Navigation
4. Rope Skills
5. Open Grid Search Techniques
6. Field Team Member Operations
Land Search Field Team Member

All components of each section must be successfully demonstrated to receive credit for the section. All skills demonstrations must be completed within one year of passing the written exam. The FTM candidate must maintain a copy of their skills sheet to present to an Instructor for re-evaluation. Re-evaluation of previously completed skills sections is at the discretion of the Instructor.
Land Search Field Team Member

24 Hour Pack

FTM will demonstrate possession of required personal SAR equipment. All items must be present and the pack suitable for SAR operations. 1.3 C.2

Situation Narrative:

Remove all items from your pack and organize them for inspection. Be sure to remove all items from first aid kits, clothing bags, and other organizational pouches. As each item is called please hold it up until acknowledged by the instructor.

**Personal First Aid**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>1 quart sized ziplock bag for kit</td>
</tr>
<tr>
<td>☐</td>
<td>4 aspirin or ibuprofen tablets</td>
</tr>
<tr>
<td>☐</td>
<td>4 antihistamine tablets, diphenhydramine 25mg</td>
</tr>
<tr>
<td>☐</td>
<td>4 antacid tablets</td>
</tr>
<tr>
<td>☐</td>
<td>2 antiseptic cleansing pads</td>
</tr>
<tr>
<td>☐</td>
<td>1 antiseptic ointment</td>
</tr>
<tr>
<td>☐</td>
<td>6 various sizes of Band-Aids</td>
</tr>
<tr>
<td>☐</td>
<td>1 pair trauma shears</td>
</tr>
<tr>
<td>☐</td>
<td>1 single edged safety razor</td>
</tr>
<tr>
<td>☐</td>
<td>1 roller gauze bandage</td>
</tr>
<tr>
<td>☐</td>
<td>2 large safety pins</td>
</tr>
<tr>
<td>☐</td>
<td>1 pair forceps or tweezers</td>
</tr>
<tr>
<td>☐</td>
<td>1 moleskin</td>
</tr>
<tr>
<td>☐</td>
<td>2 pair's nitrile or latex exam gloves</td>
</tr>
<tr>
<td>☐</td>
<td>1 clean towlette</td>
</tr>
</tbody>
</table>

**Improvisation/Survival Kit**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>5-10 feet of woven steel wire</td>
</tr>
<tr>
<td>☐</td>
<td>1 space type blanket or sleeping bag</td>
</tr>
<tr>
<td>☐</td>
<td>50 feet nylon twine or small cordage</td>
</tr>
<tr>
<td>☐</td>
<td>1 signaling mirror</td>
</tr>
<tr>
<td>☐</td>
<td>1 long burning candle</td>
</tr>
<tr>
<td>☐</td>
<td>8 matches in a waterproof container</td>
</tr>
<tr>
<td>☐</td>
<td>5-10 feet duct tape</td>
</tr>
<tr>
<td>☐</td>
<td>1 large leaf bag (trash bag)</td>
</tr>
<tr>
<td>☐</td>
<td>8 plastic zip ties</td>
</tr>
<tr>
<td>☐</td>
<td>1 toilet paper or baby wipes</td>
</tr>
<tr>
<td>☐</td>
<td>1 shelter material, 8x10 minimum</td>
</tr>
<tr>
<td>☐</td>
<td>1 metal cup or pot</td>
</tr>
</tbody>
</table>

**Personal SAR Equipment**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>1 pack, 1800 cubic inch (minimum)</td>
</tr>
<tr>
<td>☐</td>
<td>2 water containers, &gt;2 liters combined total</td>
</tr>
<tr>
<td>☐</td>
<td>1 pad and pencil</td>
</tr>
<tr>
<td>☐</td>
<td>1 black or blue permanent marker</td>
</tr>
<tr>
<td>☐</td>
<td>1 orienteering compass</td>
</tr>
<tr>
<td>☐</td>
<td>1 pair clear goggles or other eye protection</td>
</tr>
<tr>
<td>☐</td>
<td>1 roll flagging or surveyor tape</td>
</tr>
<tr>
<td>☐</td>
<td>1 measuring device, 18 in. minimum</td>
</tr>
<tr>
<td>☐</td>
<td>1 tracking stick, minimum of 42&quot; long</td>
</tr>
<tr>
<td>☐</td>
<td>1 1” tubular webbing (length suitable for harness)</td>
</tr>
<tr>
<td>☐</td>
<td>2 prusik slings (suitable for 8mm to 11mm rope)</td>
</tr>
<tr>
<td>☐</td>
<td>2 operable light sources, flashlight or headlamp</td>
</tr>
<tr>
<td>☐</td>
<td>4 zip lock bags</td>
</tr>
<tr>
<td>☐</td>
<td>1 waterproof clothes bag</td>
</tr>
<tr>
<td>☐</td>
<td>1 extra set clothing for climate</td>
</tr>
<tr>
<td>☐</td>
<td>1 extra pair socks</td>
</tr>
<tr>
<td>☐</td>
<td>1 durable rain gear</td>
</tr>
<tr>
<td>☐</td>
<td>1 durable gloves, leather palm</td>
</tr>
<tr>
<td>☐</td>
<td>1 whistle</td>
</tr>
<tr>
<td>☐</td>
<td>1 insect repellent</td>
</tr>
<tr>
<td>☐</td>
<td>1 lip balm</td>
</tr>
<tr>
<td>☐</td>
<td>1 sunscreen lotion</td>
</tr>
<tr>
<td>☐</td>
<td>1 watch</td>
</tr>
<tr>
<td>☐</td>
<td>1 multi-purpose tool</td>
</tr>
<tr>
<td>☐</td>
<td>2 locking carabiners</td>
</tr>
<tr>
<td>☐</td>
<td>1:24,000 scale grid reference tool</td>
</tr>
</tbody>
</table>
Land Search Field Team Member

**Survival Skills**

A. Using items from their 24-hour pack and the surrounding environment the FTM will build a small cooking fire and will bring 8 ounces of water to a boil. Once complete the FTM will properly extinguish the fire following leave no trace principles and ensure no embers remain. 1.3 D.11

B. Using items from their 24-hour pack and the surrounding environment the FTM will construct an improvised shelter. Once use of the shelter is complete the FTM will properly return all materials following leave no trace principles. 1.3 D.12

C. Using items from their 24-hour pack and the surrounding environment the FTM will demonstrate a signaling technique. 1.3 D.13

**Navigation**

A. Given a map of the local area, the FTM will orient the map to the terrain without using a compass, identifying three landmarks. Upon orienting the map to the terrain the FTM will demonstrate orienting the map to the compass. 1.3 E.5 a,b

Instructor will provide a 1:24,000 scale, USGS 7.5 minute topographic map of the area.

Situation Narrative:

a. Orient the map to the terrain, once you have located our position point out two land features supporting your conclusion.

b. Orient the map to your compass.

B. FTM will demonstrate the ability to plot 10 meter USNG coordinates and determine headings and distances using a 1:24,000 USGS 7.5 minute topographic map. 1.2 E.4

Instructor will provide a 1:24,000 scale, USGS 7.5 minute topographic map and navigation worksheet.

Situation Narrative:

Using the provided map and worksheet plot the 5 provided USNG coordinates, and accurately define the land features associated with each. Once you have plotted the points determine the distance and heading for each leg.
Land Search Field Team Member

C. FTM will demonstrate the ability to perform navigational functions. Using the course sheet completed in Part B, the student will navigate to each of 4 points on a land navigation course. 1.3 E.5

Instructor will establish a land navigation course consisting of course markers set in a defined area of average terrain and vegetation for the local jurisdiction. Course markers are not standardized but are to be highly visible and recognizable as land navigation course points. Each course point will be marked and flagged so as to be easily identifiable from a distance of 15 meters. The total number of course points in the navigation station will allow for no more than 3 students to utilize the same course. A minimum of 8 points is recommended. No point on the course will be located within 100 meters of any other point. The maximum course length shall be 1,500 meters.

Instructor will provide a 1:24,000 scale, USGS 7.5 minute topographic map and navigation worksheet.

Situation Narrative: Using the navigation course sheet and map completed in Part B, navigate to all 4 navigation course markers marking the course sheet as you reach each point.

D. FTM will demonstrate the ability to obtain and follow a simple compass bearing, measure distance by pacing, and moving around obstacles. 1.3 E.5

Instructor will establish a straight line navigation course with an impassable obstacle the student cannot travel through. The obstacle may be simulated if monitored by a test proctor. The straight line distance shall be between 100 and 200 meters in length and have an obstacle greater than 50 meters by 20 meters.

Situation Narrative: Starting at this beginning point you must navigate on a given bearing to the marked end point. There is an obstacle flagged off that cannot be traveled through. Using appropriate techniques determine the distance from point A to B. No distance will be greater than 200 meters.
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Rope Skills

A. Given a length of rope the FTM will tie;
   1. Simple Overhand knot (Safety Knot) 1.3 H.2a
   2. Square knot 1.3 H.2b
   3. Figure 8 on a bight 1.3 H.2c
   4. Figure 8 on a bight (follow through around object) 1.3 H.2d
   5. Clove hitch 1.3 H.2e
   6. Double Fisherman Bend 1.3 H.2g
   7. Prusik 1.3 H.2h
      i. 7a. Demonstrate use of the prusik as a progress capturing device
   8. Munter Hitch 1.3 H.2j
      i. 8a. Demonstrate use of the Munter as a belay and reverse the belay

B. Given a length of webbing the FTM will tie;
   a. Water knot 1.3 H.2f
   b. Improvised Harness 1.3 H.2i

Instructor will provide a piece of rope >12 feet in length and 8mm to 10mm in diameter, a piece of rope 6 feet in length and 4mm-6mm in diameter, and a piece of 1” tubular webbing suitable for a harness (20’-30’).

Situation Narrative:

You will be given a length of rope and webbing to demonstrate your ability to tie 9 knots and a harness. Tie the knot as directed being sure to dress the knot in its ready position and present it for inspection.

1. Using the long rope tie a simple overhand knot or safety knot.
2. Using the long rope tie a square knot.
3. Using the long rope tie a figure 8 on a bight.
4. Using the long rope tie a figure 8 on a bight, follow through around an object.
5. Using the smaller rope tie a clove hitch around an object.
6. Using the smaller rope tie a double fisherman bend, creating a prusik loop.
7. Using the webbing, tie a water knot.
8. Using the webbing, tie an improvised harness.
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9. Using the prusik loop you made, demonstrate tying a prusik on the larger rope and its use as a self-belay.

10. Using the long rope tie a munter hitch on a carabiner and demonstrate its use as a belay.

Search Techniques

The FTM will demonstrate using an Open Grid Search Technique to search for clues in an area identified by the Instructor. Students will work in a team of 3 to 5 with the Instructor acting as Team Leader. The student must demonstrate knowledge of Open Grid Search Techniques and as a team must achieve a confirmed Probability of Detection (POD) of 50%. 1.3 F.1.e

Instructor will establish a search area in terrain and vegetation that represents the average difficulty for the region. The search area must be no less than 20 meters wide per search team member and 150 meters in length. The Instructor will place an established number of playing cards throughout the search area and establish search lanes along the starting control line for the searchers. The instructor will act as the guide for the search and direct the searchers to the middle of their search lane along the starting control line. If using a route such as a road, trail, or power line to determine bearing, the Instructor will walk along the route feature and provide direction down the control line. If using a heading or azimuth to determine bearing the Instructor will walk from the middle of the control line, providing direction down both sides of the control line. The Instructor will not point out clues to the searchers. The Instructor will clearly identify the beginning and end of the skill station. The slowest searcher will establish the pace of the group; the group will be allowed 10 minutes to search the area.

Situation Narrative:

Your search team has been assigned to search the area for clues, the clues you are looking for are playing cards. Search lanes have been established for you with a critical spacing of 1, and I will act as your “Guide” and navigator. We will be searching for 150 meters and have 10 minutes to complete the search. Use proper search techniques ensuring you provide adequate coverage in your search lane. The team POD will be at least 50%.
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Field Team Member Operations
The FTM will perform as a team member for a simulated search mission functioning as a team member during both day time and night time operations. The FTM will utilize knowledge and skills to conduct all phases of a missing person search and appropriately demobilize from the scenario. Specific skills evaluated include;

a. Check in 1.3 A.1
b. Receive mission Brief 1.3 A.1
c. Utilize attraction techniques 1.3 F.1a
d. Perform as a member of a Hasty team 1.3 F.1c
e. Sign-cut for clues 1.3 F.1f
f. Perform mission debrief 1.3 A.1
g. Perform operation critique 1.3 A.1

Reciprocity
Persons requesting reciprocal credentialing must present current credentials meeting the Land Search Field Team Member Standard to the NCEM SAR Coordinator. Current accepted credentials include but are not limited to;

NASAR® SAR Tech II
North Carolina Office of State Fire Marshal Technical Rescuer - Wilderness
Virginia Division of Emergency Management Field Team Member
Appalachian Search and Rescue Conference Field Team Member
Land Search Field Team Member

Qualification Card
Upon completion of Section 1.4, a state-issued qualification card will be presented. The state-issued card signifies that each component of Section 1.4 has been successfully completed by the Field Team Member. The state-issued qualification card does not represent sponsorship by NCEM. An example of the qualification card is shown below.
1.5 Positions

NCEM SAR Coordinator
The NCEM State SAR Coordinator will approve Instructor Applications and ensure course completion in TERMS.

Search and Rescue Technical Advisory Committee
The Search and Rescue Technical Advisory Committee provides oversight to the NC Search and Rescue Program and it’s ancillary Technical Advisory Groups (TAG’s). In accordance with G.S. §166A-66 the SAR-Advisory Committee is comprised of representatives from:

- DPS-NCEM Director (Chair)
- Each state USAR regional contract response team’s Chief or Deputy Chief
- NC Office of State Fire Marshal
- DPS-NC Highway Patrol
- DPS-NC National Guard
- NC Association of Rescue and EMS, Inc.
- NC Association of Fire Chiefs
- NC State Firefighters Association
- NC Emergency Management Association

Wilderness Search TAG
The Wilderness Search Technical Advisory Group (WSAR-TAG) will evaluate curriculum and approve revisions ensuring the course meets established accepted standards. The WSAR-TAG will also make determination for approval of reciprocal and equivalent training.

The WSAR-TAG will consist of:

- DPS-NCEM Operations Chief (Chair)
- DPS-NCEM SAR Coordinator (Vice Chair)
- DPS-NCEM Area Coordinator from each Geographic Branch
- DNCR-State Parks
- NC Wildlife Resources Commission
- DOI-Office of State Fire Marshal
- NC Association of Rescue and EMS
- NC Search and Rescue Advisory Council
- NC Sheriff’s Association
Land Search Field Team Member

NCEM Land Search Field Team Member Instructor

**Apprentice Instructor**
- Assist in teaching the course under the supervision of an Instructor Trainer.
- Work toward completing the apprenticeship requirements in 1.8.

**Assistant Instructor**
- Assist in teaching the course under the supervision of an Instructor.

**Instructor**
- Responsible for instructing and coordinating courses.
- Responsible for selecting and coordinating Assistant Instructors and support personnel.

**Instructor Trainer**
- Responsible for Training Instructors
- Authorized to conduct Instructor Workshops
1.6 Instructor Application Process

Instructor Application Requirements

☐ Submit a completed NCEM SAR Instructor application
☐ Submit a completed Professional Behavior Agreement
☐ Successfully passed the LSFTM written exam with a 90% score or better within 3 years of submitting your application
☐ Successfully completed all KSA’s within 3 years of submitting your application

Upon approval of application:

☐ Attend an Instructor Workshop or work as an apprentice to an approved Instructor for a minimum of 2 courses completing the apprenticeship requirements in 1.8 and provide a completed Instructor KSA.

Instructor Trainer Application Requirements

☐ Meet the requirements to be an Instructor
☐ Have taught the course a minimum of 5 times
☐ Receive approval from NCEM

Reciprocity

The Instructor Apprentice process may be waived for current NASAR, FUNSAR or NC OSFM Wilderness Technical Rescue Instructors with completion of an Instructor workshop and KSA requirements.

Submission

Applications should be submitted in hard copy to: NCEM Emergency Services Branch, 1636 Gold Star Drive, Raleigh, NC 27606 or by email to ESF9@ncdps.gov.
1.7 Instructor Guidelines

Instructors must teach at least once (1) every three (3) years to remain an authorized Instructor.

Instructors are approved by NCEM.

All courses must be posted in TERMS a minimum of 2 weeks prior to the course.

All courses must be taught with a minimum of 2 instructors.

Instructors are responsible for the training location and testing sites, and shall have sufficient training materials available to attendees for their courses.

All attendees must take and pass the exam at the end of the course to receive credit for taking the course. 70% is the passing score for the course exams.

Upon completion of the course, the Instructor will submit the completed course documentation packet to NCEM in either electronic or paper format within 14 days of completion of the course. If course is delayed due to weather or any other consideration, the Instructor will notify the SAR Coordinator as soon as practical.

Course Documentation Packet includes:

- [ ] Attendee Roster
- [ ] Written Exam Answer Sheets, TERMS Course Roster, Candidate KSA Sheets.
- [ ] Course Critiques

The Instructor MUST keep a duplicate copy of all course rosters to submit in the event the course documentation packet is lost in the mail. Upon confirmation by NCEM the Instructor may destroy the course documentation copy.
1.8 Instructor Apprenticeship

Apprentice Instructor
The Apprentice Instructor will be required to participate in all of the following:
☐ Constructing the Land Navigation Course.
☐ Developing and Planning the SAR Mission Practical Exercise.
☐ Working as a team controller during the team skills training mission.
☐ Managing the SAR Mission Practical Exercise.
☐ Evaluate student’s skills and abilities during the practical exercises for;
  ☐ 24 Hour Pack Check
  ☐ Rope Skills
  ☐ Open Grid Search Techniques
  ☐ Land Navigation

Instructor
The Apprentice Instructor will be required to teach at least one topic from each of the following groups:

Group # 1
  SAR Operations
  Legal Aspects

Group # 2
  Personal Equipment
  Wilderness Survival

Group # 3
  Land Navigation

Group # 4
  Search Skills

Group #5
  Incident Site Procedures
  Basic Rescue Operations
  Helicopter and Aircraft Operations
  Field Communications
Land Search Field Team Member

1.9 Supporting Materials

- KSA Check Sheet
- Instructor Application
- Professional Behavior Agreement
- Instructor KSA Check Sheet
# Land Search Field Team Member

## KSA Check Sheet

**NCEM Land Search Field Team Member**

**Required Knowledge, Skills, and Abilities**

<table>
<thead>
<tr>
<th>Last Name:</th>
<th>First Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

| Written Exam Score: |  |

<table>
<thead>
<tr>
<th>Data Completed</th>
<th>Instructor Initial</th>
<th>Reference</th>
<th>Skill/Knowledge</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

### Survival Skills

- **1.3.D.11** Construct small cooking fire, boiling 3 ounces of water
- **1.3.D.12** Construct improvised shelter, appropriate to stay 12-24 hours
- **1.3.D.13** Demonstrate a signaling technique

### Navigation

- **1.3.E.5a** Terrain Association
- **1.3.E.3** Map Orientation
- **1.3.E.4** Plot USNG Coordinates
- **1.3.E.5c** Determine a bearing between two points on a map
- **1.3.E.5c-d** Navigate a route
- **1.3.E.5e** Follow a straight line compass bearing
- **1.3.E.5e** Navigate around an obstacle
- **1.3.E.5f** Measure a distance between two points

### 24 Hour Pack

### Rope Skills

- **1.3.H.2a** Overhand knot
- **1.3.H.2b** Square knot
- **1.3.H.2c** Figure 8 on a bight
- **1.3.H.2d** Figure 8 on a bight around an object
- **1.3.H.2e** Clove hitch
- **1.3.H.2g** Double Fisherman’s Bend
- **1.3.H.2h** Prusik hitch
- **1.3.H.2i** Munter hitch

### Webbing

- **1.3.H.2j** Water knot
- **1.3.H.2j** Improvised harness

### Open Grid Search Techniques

- **1.3.F.1d** Maintain spacing
- **1.3.F.1d** Maintain direction of travel
- **1.3.F.1d** Maintain communication with team
- **1.3.F.1d** Obtain 100% POD

### Field Team Member Operations

- **1.3.A.1** Check in
- **1.3.A.1** Receive mission brief
- **1.3.F.1a** Utilize attraction techniques
- **1.3.F.1c** Perform as member of Hasty Search Team
- **1.3.F.1f** Sign-out for clues
- **1.3.A.1** Perform mission debrief
- **1.3.A.1** Perform operation critique

By signing below I agree that I have satisfactorily completed all above indicated components of the NCEM Field Team Member standard.

**Student:**

**Date:**

Print name of all assessors in this box: ____________

Remarks:

The person indicated on this form has satisfactorily completed all components of the NCEM Field Team Member standard.

**Instructor:**

**Date:**

---

NCEM Land Search Field Team Member v1.8

eff: 7 March 2018

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# Land Search Field Team Member

## Instructor Application

**State of North Carolina**  
Division of Emergency Management

## Search and Rescue Instructor Application

<table>
<thead>
<tr>
<th>Applicant Information</th>
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</thead>
<tbody>
<tr>
<td>Full Name:</td>
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<td>Last</td>
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<td>First</td>
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<tr>
<td>M.I.</td>
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<tr>
<td>Date:</td>
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<tr>
<td>Address:</td>
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<tr>
<td>Street Address</td>
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<tr>
<td>City</td>
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<tr>
<td>Apartment/Unit #</td>
</tr>
<tr>
<td>Phone:</td>
</tr>
<tr>
<td>E-mail Address:</td>
</tr>
<tr>
<td>Last 4 digits of SS #:</td>
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<tr>
<td>County:</td>
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</tbody>
</table>

### Adult Education Experience

Please describe your adult education experience and attach copies of any courses you have taken in adult methodology.

### Course Information

Please list the courses you wish to teach. (attach copies of course certificates and NREMT certificates where applicable)

<table>
<thead>
<tr>
<th>Course Name:</th>
<th>Course Number:</th>
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Date you completed the class:
- [ ] YES (Date of Completion: )
- [ ] NO
- [ ] N/A

Have you taken a Train the Trainer for the class?:
- [ ] YES (Date of Completion: )
- [ ] NO
- [ ] N/A

<table>
<thead>
<tr>
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- [ ] NO
- [ ] N/A

Have you taken a Train the Trainer for the class?:
- [ ] YES (Date of Completion: )
- [ ] NO
- [ ] N/A

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</table>

Date you completed the class:
- [ ] YES (Date of Completion: )
- [ ] NO
- [ ] N/A

Have you taken a Train the Trainer for the class?:
- [ ] YES (Date of Completion: )
- [ ] NO
- [ ] N/A

### Signature

I certify that my answers are true and complete to the best of my knowledge.

Signature of applicant: ________________________ Date: ________________________

Signature of NCEM SARCO: ________________________ Date: ________________________

Approved by NCEM Training: ________________________ Date: ________________________
Guidelines for Professional Behavior

These guidelines for professional behavior were designed to assure the professionalism of NCEM SAR Instructors and representatives and their relationships with emergency services organizations. These guidelines are to be followed at all times by any personnel participating in training sponsored by NCEM or personnel representing NCEM through providing instruction. These guidelines pertain to involvement as well with any Ambulance Service, Fire Department, State Organization, EMS Organization, Hospital (in any capacity), Rescue Squad and/or the public. All training sites will have a copy of these guidelines on hand at all time. Any instructor found not following these guidelines may/will receive disciplinary action as seen appropriate by NCEM.

1. All persons will act in a Professional manner at all times.
2. Anyone found to be under the influence of alcohol and/or drugs will immediately be suspended from activity, with further disciplinary actions to follow as allowed.
3. Everyone must follow FERPA and HIPAA rules and regulations at all times. Anyone found to be out of compliance will immediately be suspended. The length of suspension will depend upon the length of the investigation that will be conducted by the Coordinator, and/or Director or his designee.
4. Anyone that is found to be deficient in her/his skills and/or knowledge can be removed from the NCEM SAR Instructor Cadre. The length of suspension may vary, and will depend upon successful completion of a remediation process. This process may/will be set by the State SAR Coordinator, and/or the Director of Emergency Management or his designee. The remediation process will cover all necessary actions, information, and/or skills that the team member is found to be deficient in.
5. Any instructor found to be physically or verbally causing detrimental actions towards North Carolina Emergency Management, the NCEM Search & Rescue Program, as well as its Coordinator, Directors, Instructors or other students, may/will receive immediate disciplinary action. The Coordinator, Director, and/or instructors will determine these disciplinary actions.

All instructors and support personnel involved with any North Carolina Emergency Management Search and Rescue training will be required to sign this agreement prior to the start of training.

By signing below I indicate I have read and do fully understand the consequences that are stated within these guidelines. I understand that this profession is considered a Public Safety Profession. I understand that at all times I am in the watching eye of the general public, as well as other Public Safety Professionals. I understand that any and all actions considered inappropriate may affect my career, as well as the status of North Carolina Emergency Management, the NCEM Search and Rescue Program, the Program Coordinator, and any other instructors associated with the Division.

______________________________  ________________________
Instructor Signature                  Date

______________________________
Instructor Name Printed
# NCEM Land Search Field Team Instructor

**Required Knowledge, Skills, and Abilities**

<table>
<thead>
<tr>
<th>KSA</th>
<th>N/A</th>
<th>Score</th>
<th>Date Completed</th>
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**Administrative Requirements**

1. Complete a completed NCEM SAR Instructor Application
2. Submit a completed Professional Behavior Agreement
3. Pass the LSF6T written exam with 90% or better within 3 years
4. Pass the LSF6T KSA’s within 3 years
5. Attend an Instructor Workshop

**Apprentice Participation**

1. Constructing a completed NCEM Instructor Application
2. Completing the SAR Mission Practical Exercise
3. Working as a team leader during the team skills training mission
4. Managing the SAR Mission Practical Exercise
5. Evaluating student’s skills and abilities during the practical exercises for:
   - 24 Hour Pack Check
   - Rope Skills
   - Open Grid Search Techniques
   - Land Navigation

**Apprentice Instruction Topics (Complete one topic from each group)**

1. **Group #1**
   - SAR Operations
   - Legal Aspects

2. **Group #2**
   - Personal Equipment
   - Wilderness Survival

3. **Group #3**
   - Land Navigation

4. **Group #4**
   - Search Skills

5. **Group #5**
   - Incident Search Procedures
   - Basic Rescue Operations
   - Helicopter and Aircraft Operations
   - Field Communications

**Required Course**

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<th>Remarks</th>
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**Apprentice Course #1**

**Apprentice Course #2**

The undersigned agrees that they have satisfactorily completed all requirements of the NCEM Field Team Member Instructor standard.

Student: ____________________________ Date: __________

The undersigned agrees that the participant indicated on this form has satisfactorily completed all requirements of the NCEM Field Team Member Instructor standard.

Instructor: ____________________________ Date: __________

SAR Coordinator: ____________________________ Date: __________