



Standard Guide for Training of a Land Search and Rescue Team Leader¹

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1. Scope

1.1 This guide establishes the minimum training requirements, including general and field knowledge, skills, and abilities, for personnel who lead land search and rescue teams.

1.2 Land Search and Rescue Team Leaders direct search and rescue teams on the surface of the land only, including urban or disaster areas that may be isolated or have lost supporting infrastructure.

1.3 This guide does not provide the minimum training required for conducting rescues in partially or fully collapsed structures, in or on water, in confined spaces, or underground (such as in caves, mines, and tunnels), or in mountainous terrain.

1.4 Personnel trained to this guide alone are qualified to conduct or lead search and rescue operations on non-technical terrain.

1.5 Personnel trained to this guide alone are not qualified to direct rope rescues. No knots, rope work, or high angle or low angle rescue skills are included in this guide.

1.5.1 The minimum training required for rope rescue can be found in Guides [F2752](#), [F2954](#), and [F2955](#).

1.5.2 Personnel trained to this standard and having a Rope Rescuer Endorsement (Guides [F2752](#), [F2954](#), [F2955](#)) are qualified to supervise rope rescue teams of equal level or lower.

1.6 A Land Search and Rescue Team Leader can be utilized as a team leader for land search or rescue teams, a single resource, or a support person for a canine search team.

1.7 Land Search and Rescue Team Leaders are eligible to supervise Land Search, Land Rescue, Land Search and Rescue, and Untrained teams or crews as defined in Classification [F1993](#) for non-wilderness and wilderness operations. In addition to meeting the requirements of this guide, Search and Rescue Team Leaders shall have the identified endorsement for the reason identified:

1.7.1 *Mountainous Terrain*—Search and Rescue Team Leaders shall meet the requirements of Guides [F3027](#) or [F3028](#);

1.7.2 *Alpine Terrain*—Search and Rescue Team Leaders shall meet the requirements of Guide [F3028](#);

1.7.3 *Mountainous Operations*—Search and Rescue Team Leaders shall meet the requirements of Guide [F3175](#);

1.7.4 *ATV-ROHV Operations*—Search and Rescue Team Leaders shall meet the requirements of Guide [F3175](#);

1.7.5 *Rope Rescue Operations*—Search and Rescue Team Leaders shall meet the requirements of Guides [F2954](#) or [F2955](#).

1.8 Search and Rescue Team Leaders supervising Mounted Teams shall also meet the requirements of Guide [F2794](#).

1.9 Further training may be required before a Land Search and Rescue Team Leader can supervise a particular team, depending on local needs, regulations, or policies of the authority having jurisdiction.

1.10 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards*:²

[F1591 Practice for Visual Signals Between Persons on the Ground and in Aircraft During Ground Emergencies](#)

[F1633 Guide for Techniques in Land Search](#)

[F1773 Terminology Relating to Climbing, Mountaineering, Search and Rescue Equipment and Practices](#)

[F1993 Classification System of Human Search and Rescue Resources](#)

[F2209 Guide for Training of Land Search Team Member](#)

[F2685 Guide for Training of a Land Search Team Leader \(STL\)](#)

[F2751 Guide for Training of a Land Search and Rescue Team Member](#)

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

- F2752** Guide for Training for Level I Rope Rescue (R1) Rescuer Endorsement
- F2794** Guide for Level 1 (Basic) Mounted Search and Rescue (MSAR) Responder
- F2954** Guide for Training for Level II Rope Rescue (R2) Rescuer Endorsement
- F2955** Guide for Training for Level III Rope Rescue (R3) Rescuer Endorsement
- F3027** Guide for Training of Personnel Operating in Mountainous Terrain (Mountain Endorsement)
- F3028** Guide for Training of Search and Rescue Personnel Operating in the Alpine Environment (Alpine Endorsement)
- F3068** Guide for Contents and Use of a Position Task Book (PTB)
- F3175** Guide for Training and Equipping Search and Rescue Personnel Operating on Mountain Bikes (Mountain Bike SAR Endorsement)
- F3194** Guide for Training for Personnel Operating Small Land Off Road Vehicles (ATV-ROHV Ops Endorsement)
- 2.2 *Other Document:*
- NWCG PMS 307** Work Capacity Testing for Wildland Firefighters³

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

- 3.1.1 *high angle terrain, n*—a tract of land with an average slope greater than 50° from horizontal.
- 3.1.2 *land rescue team, n*—an organized group of people who perform rescue on the surface of the earth without the use of ropes.
- 3.1.3 *low angle terrain, n*—a tract of land with an average slope of 30 to 50° from horizontal.
- 3.1.4 *non-technical terrain, n*—a tract of land characterized by minimal slopes and little variation in elevation, where a person is able to move safely and effectively on two feet, without handholds, and without the need for a belay.
- 3.1.5 *qualified supervisor, n*—an individual with demonstrated knowledge or competence in a task, to whom the AHJ has granted the authority to observe and oversee an individual performing that task.
- 3.1.6 *rescue, n*—an operation to retrieve persons in distress, provide for their initial medical or other needs, and deliver them to a place of safety.⁴
- 3.1.7 *technical terrain, n*—a tract of land characterized by significant variation in elevation, where a person is not able to move safely and effectively on two feet without handholds and a belay.
- 3.1.8 *wilderness, n*—a setting in which the delivery of patient care by SAR personnel is adversely affected by logistical complications, such as : an environment that is physically stressful or hazardous to the patient, SAR personnel, or both;

remoteness of the patient’s location, such that it causes a delay in the delivery of care to the patient; or lack of adequate medical supplies, equipment, or transportation.

3.2 For definitions of other terms used in this guide, see Guide **F1633**, Terminology **F1773**, Classification **F1993**, Guide **F2209**, and other references within this guide.

4. Significance and Use

4.1 This guide establishes the minimum knowledge, skills, and abilities that a person must have to perform as a Land Search and Rescue Team Leader. No other skills are included or implied.

4.2 Every person who is identified as a Land Search and Rescue Team Leader shall have met the requirements of this guide.

4.3 This guide is to be used by individuals, organizations, and agencies having jurisdiction that wish to identify the minimum training required for a Land Search and Rescue Team Leader.

4.3.1 Though this guide establishes the minimum training required for a Land Search and Rescue Team Leader, it does not imply that a Land Search and Rescue Team Leader is a “trainee,” “probationary,” or other similar term member of an AHJ.

4.3.2 Determining the requirements and qualifications for team members is the responsibility of the AHJ.

4.3.3 The AHJ shall determine the depth or detail of training required to meet these needs.

4.3.4 Nothing in this standard precludes an AHJ from requiring additional knowledge, skills, or abilities for its members.

4.4 This guide can be used to evaluate a document or training program to determine if its content includes the topics necessary for training individuals to operate as a Land Search and Rescue Team Leader.

4.5 This guide by itself is not a training document. It is an outline of the topics required for training or evaluating a Land Search and Rescue Team Leader.

4.6 This guide does not stand alone and must be used with the referenced documents to provide specific information needed by a Land Search and Rescue Team Leader or AHJ.

4.7 This guide can be used to evaluate a book or other document to determine if its content meets the necessary topics for training an Land Search and Rescue Team Leader. Likewise, this guide can be used to evaluate an existing training program to see if it meets the requirements in this guide.

4.8 The knowledge, skills, and abilities presented in the following sections are not in any particular order and do not represent a training sequence.

4.9 A Land Search and Rescue Team Leader shall document his or her training by completion of a position task book, compliant with Guide **F3068**, or by field demonstration under qualified supervision.

³ http://www.nwcg.gov/pms/pubs/newshelt/workcptest_lo.pdf

⁴ Definition from the “National Search and Rescue Plan of the United States (NSP) 2007” http://www.uscg.mil/hq/cg5/cg534/manuals/Natl_SAR_Plan%282007%29.pdf

4.10 Unless stated otherwise, an ability or proficiency in a skill shall be demonstrated for initial qualification and then as often as required by the AHJ.

4.11 Except where a physical skill or ability must be demonstrated the AHJ shall determine the best way to evaluate a person's knowledge. This may be by written exam, oral exam, demonstration, or by some combination of the three.

4.12 Additional skill set-specific endorsements may be used in conjunction with this document to train rescue personnel for other rescue disciplines.

5. Personal Fitness and Health

5.1 Land Search and Rescue Team Leaders shall demonstrate annually that they meet the requirements of a medical fitness standard selected by the AHJ.

5.2 Land Search and Rescue Team Leaders shall demonstrate annually that they meet the requirements of a physical performance standard determined by the AHJ.

5.2.1 The recommended minimum physical performance requirement for a Land Search and Rescue Team Leader is the "Moderate" level as defined in NWCG PMS 307 "Work Capacity Testing for Wildland Firefighters" (see Appendix 1).

6. General Knowledge and Skills

6.1 A Land Search and Rescue Team Leader shall have met all of the qualifications for, and have functioned as, a Land Search Team Leader, as defined in Guide **F2685** or an equivalent, for a length of time determined by the AHJ.

6.1.1 The minimum recommended time period is 1 year.

6.2 A Land Search and Rescue Team Leader shall have met all of the qualifications for, and have functioned as, a Land Search and Rescue Team Member (ASTM **F2751**) or equivalent for a length of time determined by the AHJ.

6.2.1 The minimum recommended time period is 1 year.

6.3 A Land Search and Rescue Team Leader shall maintain certification in adult, child, infant, and two rescuer CPR.

6.4 A Land Search and Rescue Team Leader shall maintain certification in basic first aid or a more advanced level of emergency care, as required by the AHJ.

7. Personal Safety

7.1 As determined by the AHJ, a Land Search and Rescue Team Leader working on or around a rescue operation should wear, as a minimum, Personal Protective Equipment (PPE) including but not limited to, the following:

7.1.1 Helmet;

7.1.2 Gloves;

7.1.3 Eye protection;

7.1.4 Hearing protection;

7.1.5 Additional land rescue-specific PPE may be required by the AHJ.

8. Leadership Knowledge and Skills

8.1 A Land Search and Rescue Team Leader shall demonstrate an understanding of the following in regard to a rescue team:

8.1.1 Team leader responsibilities;

8.1.2 Handling team deficiencies in the field, such as lack of equipment;

8.1.3 The concept of Situational Awareness and its importance during rescue operations;

8.1.4 Managing time and appropriate delegation of tasks during the rescue operation.

8.2 A Land Search and Rescue Team Leader shall know the standard operating procedures, requirements, and protocols of the AHJ in regard to land rescue operation safety.

9. Communications

9.1 A Land Search and Rescue Team Leader shall demonstrate the ability to brief a land rescue team on the following subjects:

9.1.1 Subject medical condition;

9.1.2 Terrain;

9.1.3 Tactics;

9.1.4 Weather;

9.1.5 Safety and hazards;

9.1.6 Assignment objectives.

9.2 A Land Search and Rescue Team Leader shall demonstrate the ability to clearly and effectively provide the following information when debriefed by incident management:

9.2.1 The method(s) employed to complete a rescue operation;

9.2.2 Safety issues identified during a rescue operation;

9.2.3 Difficulties, problems, or both encountered during a rescue operation.

9.3 A Land Search and Rescue Team Leader shall demonstrate the ability to utilize ICS forms to document mission-specific information required for rescue operations in the field.

9.4 A Land Search and Rescue Team Leader shall demonstrate clear and effective radio communications within the ICS framework.

10. Rescue Concepts and Capabilities

10.1 A Land Search and Rescue Team Leader shall demonstrate the following:

10.1.1 Given background information and applicable reference materials, size up a potential land rescue scene;

10.1.2 Determine the number and location of victims, the type of rescue needed, and the resources needed to safely and effectively perform the rescue operation;

10.1.3 Assess the risks and benefits of a rescue operation and recommend methods for avoiding or mitigating the most likely risks to rescuer and victim(s);

10.1.4 Select and maintain a point of access to victim(s) and identify an escape route.

10.1.5 Identify the following factors that affect rescue efficiency, and discuss their effects on a rescue operation:

10.1.5.1 Access time;

10.1.5.2 Terrain;

10.1.5.3 Vegetation and ground cover;

10.1.5.4 Weather;

10.1.5.5 Darkness;

10.1.5.6 Environmental hazards;

10.1.5.7 The number of victims;

10.1.5.8 The physical and mental condition of rescue team members;

10.1.5.9 The physical and mental condition of the victim(s);

10.1.5.10 The skill and proficiency of rescue team members.

10.2 Land Search and Rescue Team Leaders shall demonstrate that they have the following capabilities:

10.2.1 Able to be self-sufficient in the normal area of operations for a period of at least 24 hours;

10.2.2 Able to perform their normal duties in any and all normally expected conditions, including darkness, in their normal area of operations;

10.2.3 Able to perform their normal duties in any and all non-technical terrain likely to be encountered in the normal area of operations;

10.2.4 Able to recognize, and make adjustments for, reasonably anticipated seasonal conditions which may affect their rescue duties;

10.2.5 Able to recognize hazardous environments and adjust their actions to avoid or mitigate the hazards;

10.2.6 Able to safely and effectively perform land rescue duties within an incident management system;

10.2.7 Able to safely and effectively locate and access a patient in non-technical terrain in the normal area of operations.

10.3 Land Search and Rescue Team Leaders shall demonstrate an understanding of the unique needs of patients during extended transports and how they affect a rescue operation including:

10.3.1 Procedures for managing body fluid isolation;

10.3.2 Use of personal protective techniques to prevent contamination by body fluids;

10.3.3 Adapting immobilization, patient protection, and security of a patient in a litter to facilitate easy and effective care during transport;

10.3.4 Methods for mitigating the negative effects of prolonged transport.

10.4 Land Search and Rescue Team Leaders shall demonstrate the ability to direct land rescue team members performing the following litter transport skills:

10.4.1 Lifting and loading a patient into a litter;

10.4.2 Lifting and lowering a litter;

10.4.3 Transporting a litter on non-technical terrain, including implementing litter bearer rotation techniques;

10.4.4 Passing obstacles with a litter using standard techniques such as hand pass and lap pass;

10.4.5 Employing litter transport assist devices used by the AHJ;

10.4.6 Transporting a litter to and from, loading a litter into, and unloading a litter from, aircraft used by the AHJ.

10.5 Land Search and Rescue Team Leaders shall demonstrate the ability to provide advanced ground support for helicopter operations, including the following:

10.5.1 Familiarity with the type(s) and application of helicopter(s) used for land rescue missions by the AHJ;

10.5.2 Identify possible landing zones in the wilderness setting;

10.5.3 Establish landing zones in the wilderness setting;

10.5.4 Deploy team members appropriately to secure a landing zone;

10.5.5 Demonstrate the ability to communicate with helicopter crews using visible communication signals in accordance with Practice **F1591**.

11. Rescue Operations

11.1 A Land Search and Rescue Team Leader shall demonstrate the ability to select a strategy for rescuing a subject which safely and effectively achieves the goals assigned by incident management.

11.2 A Land Search and Rescue Team Leader shall demonstrate the ability to plan a land rescue, including:

11.2.1 Selecting a safe and effective route to the victim(s);

11.2.2 Selecting an appropriate rescue method, taking into account the following:

11.2.2.1 Terrain;

11.2.2.2 Weather;

11.2.2.3 Time of day;

11.2.2.4 Environment;

11.2.2.5 Available resources, including personnel and equipment.

11.2.3 Estimating the time required to complete the assignment.

11.3 A Land Search and Rescue Team Leader shall demonstrate the ability to lead a land rescue team, using a rescue method and equipment commonly employed by the AHJ, including the following:

11.3.1 Briefing rescue team members;

11.3.2 Delegating tasks for efficient and safe operations;

11.3.3 Maintaining progress throughout the rescue operation;

11.3.4 Debriefing team members following completion of the rescue operation;

11.3.5 Briefing incident management following completion of the rescue operation.

12. Keywords

12.1 experience; leadership; rescue; wilderness

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