



Standard Classification System of Human Land Search and Rescue Resources¹

This standard is issued under the fixed designation F1993; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This classification is intended to identify the common functional units and single resources, used in search and rescue operations; to aid search and rescue (SAR) managers and Authorities Having Jurisdiction (AHJs) in assembling or ordering resources for search, rescue, or search and rescue incidents, and to aid in identifying the tasks for which crews have been trained.

1.2 This classification is intended as a supplement to the resource typing specifications of the Incident Command System and specifically as a means of typing human resources used in land search and rescue activities.

1.3 This classification is suitable for classifying search and rescue crews for land search and rescue incidents.

1.4 This classification does not attempt to classify individuals or put forth standards of performance or training for individuals, nor is it meant to convey certification, skill proficiency, or other measures of the level of performance of the resource. These qualifications are the responsibility of the local agencies responsible for utilizing the resource.

1.5 This guide identifies human based resources. Canine crew (or team) classifications are defined in Guide [F1848](#).

1.6 This guide does not classify air resources (Guides [F2958](#) and [F3026](#)) or water resources (Guides [F1739](#), [F1783](#), and [F1824](#)).

2. Referenced Documents

2.1 *ASTM Standards*:²

- [F1633 Guide for Techniques in Land Search](#)
- [F1739 Guide for Performance of a Water Rescuer—Level I](#)
- [F1783 Guide for Performance of an Ice Rescuer—Level II](#)
- [F1824 Guide for Performance of a Water Rescuer—Level II](#)

¹ This guide is under the jurisdiction of ASTM Committee [F32](#) on Search and Rescue and is the direct responsibility of Subcommittee [F32.02](#) on Management and Operations.

Current edition approved July 1, 2016. Published August 2016. Originally approved in 1999. Last previous edition approved in 2005 as F1993 - 99 (2005) which was withdrawn January 2014 and reinstated in July 2016. DOI: 10.1520/F1993-16.

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.

- [F1848 Classification System for Canine Search 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](#)
- [F2752 Guide for Training for Level I Rope Rescue \(R1\) Rescuer Endorsement](#)
- [F2794 Guide for Level 1 \(Basic\) Mounted Search and Rescue \(MSAR\) Responder](#)
- [F2852 Practice for Training a Land Search Tracker](#)
- [F2954 Guide for Training for Level II Rope Rescue \(R2\) Rescuer Endorsement](#)
- [F2955 Guide for Training for Level III Rope Rescue \(R3\) Rescuer Endorsement](#)
- [F2958 Guide for Helicopter Inland Search and Rescue \(SAR\) Technician](#)
- [F3024 Guide for Training of a Land Search and Rescue \(SAR\) Strike Team/Task Force Leader](#)
- [F3026 Guide for Helicopter Inland Search and Rescue \(SAR\) Crew Chief](#)
- [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 \(Alpine Endorsement\)](#)
- [F3098 Guide for Training of Non-Wilderness Land Search Team Member](#)
- [F3175 Guide for Training and Equipping Search and Rescue Personnel Operating on Mountain Bikes \(Mountain Bike SAR Endorsement\)](#)
- [F3193 Guide for Training of a Land Search and Rescue Team Leader](#)
- [F3194 Guide for Training for Personnel Operating Small Land Off Road Vehicles \(ATV-ROHV Ops Endorsement\)](#)

2.2 *ANSI Standard*:³

- [ANSI/SVIA 1-2010 Four Wheel All-Terrain Vehicles - Equipment, Configuration, and Performance Requirements](#)

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

3. Terminology

3.1 Definitions:

3.1.1 *ATV-ROHV, n*—a motorized off-highway vehicle designed to travel on four low-pressure tires, having a seat designed to be straddled by the operator, and handlebars for steering control. ATVs are subdivided into two types as designated by the manufacturer. **ANSI/SVIA 1-2010**

4. Significance and Use

4.1 Classification of human land search and rescue resources is based upon the training of the personnel and their ability to perform specific tasks.

4.2 Human search and rescue resources are classified by *category, kind, and duration*.

5. Classification of Human Land Search and Rescue Resource Categories

5.1 *Category* identifies the specific task for which a human resource is trained:

5.1.1 *Land Search*—Crews trained in land search techniques.

5.1.2 *Land Rescue*—Crews trained in land rescue techniques.

5.1.3 *Land Search and Rescue*—Crews trained in both land search and rescue techniques.

5.1.4 *Untrained*—Crews untrained in either land search or rescue techniques.

6. Classification of Human Land Search and Rescue Resource Kinds

6.1 *Kind* further defines a human land search and rescue resource's capabilities in regard to a particular category:

6.2 *Land Search*

6.2.1 *Non-Wilderness:*

6.2.1.1 A crew (or team) that operates in the non-wilderness environment.

6.2.1.2 The crew (or team) consists of two to eight individuals operating as a single resource trained and tasked for land search.

6.2.1.3 All of the crew (or team) members meet the requirements of Guides **F3098, F2209, F2751, F2685, F3193, or F3024**.

6.2.1.4 The crew (or team) leader meets the requirements of Guides **F2685, F3193, or F3024**.

6.2.2 *Wilderness:*

6.2.2.1 A crew (or team) that operates in the wilderness environment.

6.2.2.2 The crew (or team) consists of two to eight individuals operating as a single resource trained and tasked for land search.

6.2.2.3 All crew (or team) members meet the requirements of Guides **F2209, F2751, F2685, F3193, or F3024**.

6.2.2.4 The crew (or team) leader meets the requirements of Guides **F2685, F3193, or F3024**.

6.2.3 *Mountainous:*

6.2.3.1 A crew (or team) that operates in mountainous terrain.

6.2.3.2 The crew (or team) consists of two to eight individuals operating as a single resource trained and tasked for land search.

6.2.3.3 All crew (or team) members meet the requirements of Guides **F2209, F2751, F2685, F3193, or F3024**.

6.2.3.4 The crew (or team) leader meets the requirements of Guides **F2685, F3193, or F3024** and has a Guide **F3024** (mountain) or **F3028** (alpine) endorsement.

6.2.3.5 Prior to crew (or team) assignment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.2.4 *Alpine:*

6.2.4.1 A crew (or team) that operates in alpine terrain.

6.2.4.2 The crew (or team) consists of two to eight individuals operating as a single resource trained and tasked for land search.

6.2.4.3 All crew (or team) members meet the requirements of Guides **F2209, F2751, F2685, F3193, or F3024**.

6.2.4.4 The crew (or team) leader meets the requirements of Guides **F2685, F3193, or F3024** and has a Guide **F3028** (alpine) endorsement.

6.2.4.5 Prior to crew (or team) assignment, the number of personnel with Guide **F3028** (alpine) endorsements shall be considered with the understanding that a crew (or team) is exposed to increased risk when few members possess this endorsement.

6.2.5 *Tracking:*

6.2.5.1 A crew (or team) consists of one to three individuals operating as a single resource trained and tasked in tracking.

6.2.5.2 All personnel actively tracking on the team meet the requirements of Guide **F2852**.

6.2.5.3 The crew (or team) leader meets the requirements of Guides **F2685, F3193, or F3024**.

6.2.5.4 Prior to crew (or team) assignment in mountainous terrain or the alpine environment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.2.6 *Mounted:*

6.2.6.1 A crew (or team) that consists of one to three individuals operating as a single resource deployed on horseback.

6.2.6.2 All personnel assigned to a mounted crew (or team) meet the requirements of Guide **F2794**.

6.2.6.3 The crew (or team) leader meets the requirements of Guides **F2685, F3193, or F3024**, and Guide **F2794**.

6.2.6.4 Prior to crew (or team) assignment in mountainous terrain or the alpine environment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.2.7 *Mountain Bike:*

6.2.7.1 A crew (or team) that consists of one to three individuals operating as a single resource deployed on mountain bikes.

6.2.7.2 All personnel assigned to a mountain bike crew (or team) meet the requirements of Guide **F3175**.

6.2.7.3 The crew (or team) leader meets the requirements of Guides **F2685**, **F3193**, or **F3024**, and Guide **F3175**.

6.2.7.4 Prior to crew (or team) assignment in mountainous terrain or the alpine environment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.2.8 *ATV-ROHV:*

6.2.8.1 A crew (or team) that consists of one to three individuals operating as a single resource deployed on one to three ATVs or ROHVs.

6.2.8.2 All personnel assigned to a ATV-ROHV crew (or team) meet the requirements of Guide **F3194**.

6.2.8.3 The crew (or team) leader meets the requirements of Guides **F2685**, **F3193**, or **F3024**, and Guide **F3194**.

6.2.8.4 Prior to crew (or team) assignment in mountainous terrain or the alpine environment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.3 *Land Rescue and Land Search and Rescue*

6.3.1 *Wilderness and Non-Wilderness:*

6.3.1.1 A crew (or team) that operates in the wilderness environment.

6.3.1.2 The crew (or team) operates in non-technical terrain.

6.3.1.3 The crew (or team) consists of two to eight individuals operating as a single resource trained and tasked for land rescue or land search and rescue.

6.3.1.4 All crew (or team) members meet the requirements of Guides **F2751**, **F3193**, or **F3024**.

6.3.1.5 The crew (or team) leader meets the requirements of Guides **F3193** or **F3024**.

6.3.2 *Mountainous:*

6.3.2.1 A crew (or team) that operates in mountainous terrain.

6.3.2.2 The crew (or team) consists of two to eight individuals operating as a single resource trained and tasked for land rescue or land search and rescue.

6.3.2.3 All crew (or team) members meet the requirements of Guides **F2751**, **F3193**, or **F3024**.

6.3.2.4 The crew (or team) leader meets the requirements of Guides **F3193** or **F3024**, and has a Guide **F3024** (mountain) or **F3028** (alpine) endorsement.

6.3.2.5 Prior to crew (or team) assignment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.3.3 *Alpine:*

6.3.3.1 A crew (or team) that operates in alpine terrain.

6.3.3.2 The crew (or team) consists of two to eight individuals operating as a single resource trained and tasked for land rescue or land search and rescue.

6.3.3.3 All crew (or team) members meet the requirements of Guides **F2751**, **F3193**, or **F3024**.

6.3.3.4 The crew (or team) leader meets the requirements of Guides **F3193** or **F3024**, and has a Guide **F3028** (alpine) endorsement.

6.3.3.5 Prior to crew (or team) assignment, the number of personnel with a Guide **F3028** (alpine) endorsement shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess this endorsement.

6.3.4 *Mounted:*

6.3.4.1 A crew (or team) that consists of one to three individuals operating as a single resource deployed on horseback for land rescue or land search and rescue.

6.3.4.2 All crew (or team) members meet the requirements of Guides **F2794** and **F2751**.

6.3.4.3 The crew (or team) leader meets the requirements of Guides **F3193** or **F3024**, and Guide **F2794**.

6.3.4.4 Prior to crew (or team) assignment in mountainous terrain or the alpine environment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.3.5 *ATV-ROHV:*

6.3.5.1 A crew (or team) that consists of one to three individuals operating as a single resource deployed on one to three ATVs or ROHVs.

6.3.5.2 All crew (or team) members meet the requirements of Guides **F3194** and **F2751**.

6.3.5.3 The crew (or team) leader meets the requirements of Guides **F3193** or **F3024**, and Guide **F3194**.

6.3.5.4 Prior to crew (or team) assignment in mountainous terrain or the alpine environment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.3.6 *Rope Rescue Crew (or Team):*

6.3.6.1 A crew (or team) that operates in technical terrain.

6.3.6.2 The crew (or team) consists of one to eight individuals operating as a single resource on a rope team (e.g., haul team, belay team, litter team, etc.).

6.3.6.3 All crew (or team) members meet the requirements of Guide **F2751** and have a Guide **F2752**, **F2954**, or **F2955** endorsement.

6.3.6.4 The crew (or team) leader meets the requirements of Guide **F3193** or **F3024**, and has a Guide **F2954** or **F2955** endorsement.

6.3.6.5 The complexity of the task or mission and the number and type of rope rescuer endorsements (Guides **F2752**, **F2954**, and **F2955**) shall be considered when selecting crew leaders and members.

6.3.6.6 Prior to crew (or team) assignment in mountainous terrain or the alpine environment, the number of personnel with

Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is exposed to increased risk when few members possess one or both of these endorsements.

6.3.7 *Rope Rescue Strike Team, Task Force, or Group:*

6.3.7.1 A strike team, task force, or group that operates in technical terrain.

6.3.7.2 The strike team, task force, or group consists of two to seven crews (or teams) operating to complete a common task (e.g., a rescue).

6.3.7.3 All crews (or teams) meet the requirements of **6.3.6**.

6.3.7.4 The strike team, task force, or group leader meets the requirements of Guide **F3024**, and has a Guide **F2954** or **F2955** endorsement.

6.3.7.5 The complexity of the task or mission and its members' rope rescuer endorsements (Guides **F2752**, **F2954**, and **F2955**) shall be considered when selecting group leaders.

6.3.7.6 Prior to crew (or team) assignment in mountainous terrain or the alpine environment, the number of personnel with Guide **F3024** (mountain) or **F3028** (alpine) endorsements shall be considered, with the understanding that a crew (or team) is

exposed to increased risk when few members possess one or both of these endorsements.

7. Classification of Human Land Search and Rescue Resource Duration

7.1 *Duration* indicates the maximum period of time during which a crew (or team) is prepared, in terms of training and equipment, to function in the field before additional logistical support will be required.

7.1.1 *12h*—A resource that can be deployed for up to 12 hours at a time.

7.1.2 *24h*—A resource that can be deployed for up to 24 hours at a time.

7.1.3 *72h*—A resource that can be deployed to remote locations for up to 72 hours without additional logistical support.

8. Keywords

8.1 human resource typing; incident command system; search and rescue

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org). Permission rights to photocopy the standard may also be secured from the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, Tel: (978) 646-2600; <http://www.copyright.com/>