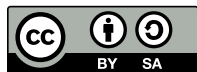**APPALACHIAN
SEARCH AND RESCUE
CONFERENCE**

Training
Standards

ASRC Training Standards
Draft version 8.0 ?? ??? ????
Approved by ASRC Board of Directors ?? ??? ????

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This document may be downloaded from
http://archive.asrc.net

Contents

Overview

Background

The ASRC was founded to provide highly skilled assistance to local agencies to respond to wilderness missing person and rescue situations. This remains the prime mission of the conference and member Groups.

The intent of this manual is to be a performance guide for ground search and rescue for ASRC members.

FEMA (the US Federal Emergency Management Agency) says:

A Land Search and Rescue (SAR) Team conducts search, rescue, and recovery in response to natural and human-caused events that may occur in one or more of the wilderness or urban environments.

Properties that define an Urban Environment include:
- *A significant number of people occupying the land*
- *A significantly developed area with structures and facilities*
- *Roads and easy means of travel*
  Urban Development areas are classified as:
- *Residential – where people live*
  - *Trailer parks, Retirement communities, Suburbs*
  - *Seasonal communities, temp housing (campgrounds, RV Parks)*
- *Non-Residential – where people go to do other things*
  - *Shopping Malls, Schools, Amusement Parks*

A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. In the Wilderness Act, further definition of an area of wilderness is:

An area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which:

(1) Generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable;

(2) Has outstanding opportunities for solitude or a primitive and unconfined type of recreation;

(3) Has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and

(4) May also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Land search and rescue, which the ASRC generally calls wilderness search and rescue, requires knowledge and skills that can be grouped and titled in different ways. As discussed in the *ASRC Training Guide,* we have divided the Field IV, III, II and I standards, educational goals, curricula and terminal learning objectives into the following areas:
- Safety, Health and First Aid
- Communications
- Land Navigation
- Operations, Management and Leadership
- Search
- Rescue

The core competency of the ASRC is the effective and efficient application of field search and rescue skills. An understanding of field operations and skills is also needed for search managers to provide effective mission management. Field Team Leader and Field Team Member are operational titles. To avoid confusion, this document uses the separate titles of "Field Level XX" based upon the acquisition of knowledge and skills in the various aspects of ground search and rescue. The assignment of members with various certification levels to operational assignments is at the discretion of incident management.

These performance standards are what we expect those credentialed at certain levels to know and be able to do. There is some overlap between knowing and doing. Those standards that begin with "Know…" generally refer to book-learning: things that the credentialed member should understand. And, those that start with "Demonstrate the ability to" refer to skills that have some psychomotor component, and that the credentialed member should be able to perform. In other words, if you're planning to test someone against these standards, "Know…" is for the written test, and "Demonstrate the ability to…" is for the practical test.

Those performance standards that contain a mix of written-test and practical test material will have both "Demonstrate the ability to…" and "Know…" in the wording. These items could be tested with a combination of a written and practical test items, or could be tested solely via a practical test that involves oral questioning.

More background on the ASRC's training and credentialing system is available in the *ASRC Training Guide*.

Field Self-Sufficiency

FEMA types of field teams are based upon the maximum time during which a crew (or team) is prepared, in terms of training and equipment, to function in the field before requiring additional logistical support.

- Deployed for up to 12 hours at a time
- Deployed for up to 24 hours at a time
- Deployed for up to 72 hours at a time

Based on the typical operational needs found in the ASRC service area, all levels of ASRC certifications should prepare for a 24-hour field task deployment. If extended self-sufficient operations will be required, field teams will receive prior notice and should consider having the additional supplies and equipment to prepare for up to 72-hour deployments.

The *ASRC Training Guide,* available at [archive.asrc.net,](archive.asrc.net) provides many more details of the ASRC training and credentialing program.

Field Level Advancement Path

The following brief summary is supplemented by the grid at the end of this Overview, taken from the *[ASRC Training Guide,](ASRC Training Guide)* a separate publication that explains the ASRC training and credentialing system in detail, as well as providing training curricula for all the levels.

- Field Level IV (Trainee)
  · Awareness-level search
  · Awareness-level horizontal litter handling (nontechnical evacs)
  · Awareness-level for area wilderness search and rescue hazards
- Field Level III
  · Member of a field team
  · Operations-level search
  · Operations-level horizontal litter handling (nontechnical evacs)
  · Awareness-level low angle rescue (semi-tech evacs)
- Field Level II
  · Technician-level search: leads simple search tasks
  · Operations-level for low angle rescue (semi-tech evacs): participates in these rescues
  · Technician-level for horizontal litter handling (nontechnical evacs): leads these rescues
  · Credentialed with wilderness first aid
- Field Level I
  · Specialist-level for search: leads complex search tasks, may serve as briefer/debriefer in Base
  · Technician-level for low angle rescue (semi-tech evacs): leads these rescues

Search Manager Advancement Path

In addition to certifying field skills, the ASRC certifies Search Managers with the skills necessary to lead missions. (This path reflects the plan to change from a four-level to a three-level Search Manager credentialing in version 8.1 of the Training Standards.)

- Search Manager Level III
  · Base Staff for all missions
  · Initial on-site leadership for very small missions
- Search Manager Level II
  · Leads more complex missions
- Search Manager Level I
  · Coordinates response and allocates resources for concurrent missions
  · Serves as a resource for Level III and II Search Managers

Wilderness First Aid

To maintain operational effectiveness, the "force protection" aspects of wilderness first aid are essential skills for SAR personnel. The ASRC standards for the Field levels integrate these wilderness first aid force protection knowledge and skills, as well as some subject/patient assessment and treatment knowledge and skills.

Groups that elect to integrate wilderness first aid training into their field training should incorporate the wilderness first aid skills that are located at the beginning of each level. Groups may elect instead require members to seek external wilderness first aid certifications in accordance with the ASRC medical policy. Regardless of how Groups manage their members' wilderness first aid training, internally or externally, all ASRC members are

Terminology

The following acronyms and terms are used in this document:

- **GTO** Group Training Officer
- **TO** Training Officer
- **AHJ** Authority Having Jurisdiction: in ASTM F-30 Committee in SAR, includes both RAs and organizations such as the ASRC that credential individuals, but often used as a synonym for RA
- **RA** Responsible Agency (a government entity)
- **ICS** Incident Command System
- **IC** Incident Commander
- **ASRC** Appalachian Search and Rescue Conference
- **PPE** Personal Protective Equipment
- **SAR** Search And Rescue

- **SM** Search Manager
- **Awareness level** A basic competency level that stresses hazard recognition
- **Operations level** Individuals who identify hazards, use equipment and apply limited techniques specific to search and rescue
- **Technician level** Individuals who identify hazards, use equipment and apply advanced techniques specific to search and rescue
- **Specialist level** Individuals who identify hazards, have a very in-depth and highly advanced level of knowledge regarding search and rescue, use equipment and apply advanced techniques specific to search and rescue

Accommodations

These standards address the knowledge and skills expectations for able-bodied team members. The ASRC wishes to include and benefit from the skills provided by members who have physical or other limitations.

In consultation with the Conference Training Officer, Group Training Officers shall provide accommodations to members with such limitations. While alternate means of skills or knowledge assessment may be offered, due to the life-safety nature of the work performed, no knowledge requirements may be omitted.

Waiver of physical skills is acceptable. However, the Group must have a mechanism in place to ensure that the member is restricted from performing those waived skills at a mission.

Group Requirements

Each accredited group shall:
- Maintain a current database or record of individual certifications, including:
  · Field and Search Manager training level
  · Specialized skills & equipment
  · Participation in training
  · Relevant external certifications held

- Develop training and testing materials for team-specific aspects of this standard, including alerting procedures and AHJ/RA-specific requirements
  · Classify members, based on their physical capabilities, to complete various types of SAR tasks
  · Maintain policies, based on the local jurisdiction, for: drug and alcohol use, dependency, and abuse; sexual harassment; and culture, race, sex/gender, and age sensitivity
- Operate within the National Incident Management System (NIMS)/Incident Command System (ICS)
- Maintain a training and education program with a goal of preventing SAR-related death, injuries, or illnesses
- Develop and maintain a risk management plan
  · Identify regional and mission risks
  · Determine its significance
  · Implement training to address each risk

Group-Specific Additions

Some Groups have chosen to pursue additional skills or credentialing to meet specific local needs such as: cave rescue, Mountain Rescue Association accreditation for high-angle rescue, wilderness medicine, and support for local National Parks. These additional skill sets are encouraged to the extent that they do not detract from fulfilling the core mission. Groups are encouraged to develop/adopt separate stand-alone standards and training programs for the non-core missions that a local team chooses to support.

Groups may add these mission-driven requirements to the Field IV-I levels to meet Group needs. Groups are encouraged to develop supplemental materials (including testing) to ensure that members are familiar with local alerting, response, and external agency relations, as well as the additional skill the Group requires of members.

Search Manager standards are Conference-wide. Groups may not make additions or deletions from the Search Manager standards.

Field Grid	Field IV (trainee)	Field III	Field II	Field I
Timeframe	Can complete in **one weekend** (includes skill verification)	Can complete in **6 months**	Can complete in **6 months**	Can complete in **6 months**
Rough Old ASRC	**CQ** (Callout Qualified)	**FTM** (Field Team Member) part 1	**FTM** part 2	**FTL** (Field Team Leader)
Rough VDEM Equiv.	(Planned CQ equivalent)	Search Team Member	Search Team Leader	(no equivalent)
Rough MRA Equiv.	(no equivalent)	Support = Operations	(no equivalent)	Technician = Rescue (requires additional rescue capability)
Rough NASAR Equiv.	(no equivalent)	SAR Tech III	SAR Tech II	SAR Tech I
Rough NFPA Equiv.	Awareness	Operations	Technician	Specialist
Survival	Basics of cold-weather and hot-weather **survival**	Knows how to find or build temporary **shelter**	Demonstrate ability to **bivouac overnight** personally	Can **supervise team overnight** bivouac members and manage less-prepared members
Comms	**Report** USNG position **over team radio.**	Install batteries, install antenna, and change channels on team radio; **proficiency with ASRC communications** protocols and prowords	Proficiency with **phonetic alphabet**; actions to **improve radio or cellphone communications**; **network discipline**	Understanding of **mission-level communications** issues and best practices
Navigation	**Report USNG position** over team radio	Can use orienteering **compass**; basic understanding of topographic **maps**; can **navigate** to point using GPS/compass/topo map	Expert at reading topo maps; can complete 3-station **basic orienteering course in daylight**.	Complete 3-station **orienteering course at night** with retroreflective markers
Operations	Knows how to be **alerted**, and how to **sign in and out** of a mission	Knows about **staging operations** at Base	Can get briefing and **brief team**; knows **find management**	Can **brief and debrief field team leaders**
Leadership	Directly **supervised** by (paired with) a Field-III or higher on all tasks	Can, if needed, **lead team** of unskilled searchers on **simple tasks**	Simple leadership skills (**basic field team management**)	More comprehensive **leadership skills**
Search	Best practices for **conduct** during SAR operations, **hazard awareness**	**Member of search team** ("Operations" level)	**Leads search teams** ("Technician" level)	**Leads complex search tasks** ("Specialist" level)
Ropework and Knots	(None)	Tie-in for semi-tech evac • ASRC seat harness • Barrel knot (double fisherman's) • Water knot • Overhand (backup)	Rig belays, lowering, hauling • Figure 8 family (bend, follow-through) • Modified basket hitch, wrap-3-pull-2	Supervise rigging, solve problems • Butterfly knot • Münter hitch • Radium load-releasing hitch
Rescue	Nontechnical **litter bearer**	**Semi-tech litter bearer** ("Awareness" level)	Belayer or haul team s**upervisor for semi-tech** evacuations ("Operations" level); **can rig anchors and belay**, lowering and haul systems	**Leads semi-tech evacuations** ("Technician" level), **supervises rigging**
Equipment	Personal equipment in a **pack**; know how to select appropriate personal gear and personal protective equipment (e.g., helmet, clothing, boots)	Webbing 2 carabiners 2 Prusiks	Helmet	(No additional)
Wilderness First Aid/ Medical	Beestings, including **anaphylaxis; ticks; poison ivy; hypothermia; frostbite; dehydration** and **heat illness**	Personal **hygiene** for disease prevention; fatigue, exhaustion and nutrition; **bloodborne pathogens; confidentiality**	Additional **basic wilderness first aid**, including wilderness specific **CPR**, to meet Wilderness Medical Society curriculum; **improvised evacuations; receives ASRC wilderness first aid card/credential**	(No additional)

Requirements for All Members

All members shall:
- Meet the minimum age requirement, as determined by the Group policy or local jurisdiction
- Meet the minimum educational requirements, as determined by the Group policy or local jurisdiction
- Meet the minimum fitness requirements, as determined by the Group policy or local jurisdiction
- Complete the medical requirements, as determined by the Group policy or local jurisdiction
- Complete background checks, as determined by the Group policy or local jurisdiction
- Meet, or exceed, minimum participation requirements for training and operations, as defined by the Group policy or local jurisdiction
- Demonstrate proficiency in individual skills and abilities as implemented in the following performance standards
- Wear environmentally appropriate identifiable uniforms, or markers, as determined by the Group policy
- Possess adequate food, water, and equipment to sustain themselves for at least 24 hours, in any season, or longer as determined by Group policy or local jurisdiction in the anticipated areas of operation
- Know and follow safe driving procedures, as determined by the Group policy or local jurisdiction
- Be prepared to wear the ASRC Blue uniform shirt for multi-Group training and responses

Field IV (Trainee)

OVERVIEW

A Field IV has the knowledge, skills and equipment to respond safely to a ground search and rescue incident, to avoid becoming a significant burden, and to participate in on-the-job training during search and rescue operations. A Field IV is expected to maintain effectiveness and avoid becoming a burden on the field team for at least 6 hours.

A Field IV can recognize the hazards and risks in field training and operations in the usual search and rescue environment in the ASRC area. A Field IV also knows enough followership to not get in political trouble, for example, by saying the wrong thing to the wrong person. Field IVs are not to engage in any direct subject/patient care, so are not at risk for bloodborne pathogens; knowledge of bloodborne pathogens and risk mitigation is required at the Field III level.

If approached for search and rescue help, a Field IV knows enough about Group alerting and the ASRC policy of not self-deploying to be able to:

- Assist a representative of an Agency Having Jurisdiction/Responsible Agent (AHJ/RA) to alert the Group
- For someone who is not from an AHJ/RA, explain how to contact the appropriate AHJ/RA, likely by calling 9-1-1, and why this is necessary.

Those at this level function only under direct supervision of a more senior member. As a best practice, trainees should not enter a high-hazard zone, such as at the edge of a cliff during a cliff rescue, but may serve other support functions outside the high-hazard zone. Field IVs may accompany field teams if their equipment, knowledge, and skill sets do not impose a significant burden to the team.

Field IV is a temporary entry level credential. The local team's Group Training Officer acts as the executive agent of the ASRC Credentialing Board in conferring the Field IV credential. Within a short period of time (we recommend a maximum of 18 months; the term must be specified by each Group's policy), all Field IV members must progress to a higher level of credentialing.

To become a Field IV, we require no prior wilderness, first aid/medical or search and rescue experience.

REQUIREMENTS

To be credentialed as a Field IV, an individual must:

- Complete the Group application process
- Acquire all Group-required clearances (e.g., criminal background check, child abuse clearance)
- Gain an understanding of the Group's policies and procedures
- Successfully complete, and possess certification for, the FEMA online course IS-100.b (ICS-100.b), IS-100.c (ICS-100.c): *Introduction to the Incident Command System,* or a subsequent equivalent
- Study the free online ASRC text *Essentials for Search and Rescue,* and pass a brief online test on this material administered by the ASRC Credentialing Board, as reflected in the following Field IV performance standards
- Demonstrate possession of all minimum required equipment, as listed in the next section
- Participate in a minimum of one group practical field training or exercise (preferably should pass the Field IV the written test on hazard awareness before practical training)
- Demonstrate the ability to safely accompany a field team on a supervised simulated or real search or rescue task; in case the Field IV gets separated from the field team, this includes determining and reporting via handheld radio or cellphone the member's current USNG grid position

PACK CHECK LIST

To be credentialed as a Field IV, an individual must demonstrate possession of the following equipment:
- Appropriate field pack
- Food for 24 hours
- Water (at least 1 liter)
- Personal Protective Equipment (PPE):
  · Medical Gloves (non-latex, at least 2 pairs)
  · Leather palm (or similar) Work gloves
  · High-visibility vest with reflective markings
  · Eye protection (safety glasses)
- Clothing
  · Outerwear appropriate to the current weather and sufficient for unexpected changes in weather
  · Footwear appropriate to the current weather
- Survival Equipment
  · Trash bags (5)
  · Five one-gallon zip lock bags
  · Fire-starting material
  · Matches or lighter (waterproof)
  · Whistle (plastic, without cork)

- · Personal first aid kit
- · Small knife or multi-tool
- Search Equipment
  - · Orienteering style compass (clear rectangular base)
  - · GPS unit or GPS smartphone app recommended but not required
  - · Headlamp and second light source (with extra set of batteries for each)
  - · Pencil and paper in a zip-lock bag, or waterproof paper/pen
  - · Roll of plastic surveyor's flagging tape
  - · Permanent marker (e.g., Sharpie) to write on flagging tape

Field IV (Trainee) Performance Standards

A. Safety, Health and First Aid

1. Demonstrate the ability to maintain effectiveness and avoid becoming a significant burden on a field team, other than mentoring of the Field IV trainee, for at least 6 hours, through knowing, anticipating and recognizing hazards and risks that are encountered during typical tasks, and taking appropriate measures to mitigate them, including:

   a. Subjective hazards

   b. Fatigue and falling asleep at the wheel

   c. Lightning strikes

   d. Slips and falls

   e. Rockfall

   f. Streams and lakes

   g. Pedestrian-vs-vehicle and pedestrian-vs-train accidents

   h. The following wilderness search and rescue dangers, also recognition and basic field treatment for injury or illness from:

      (1) Hypothermia

      (2) Frostbite

      (3) Dehydration, including monitoring urine amount and color

      (4) Heat exhaustion

      (5) Heatstroke

      (6) Bees and wasps

      (7) Ticks

      (8) Poison ivy

2. Demonstrate the ability to select and use proper personal protective equipment for the field tasks, including clothing and footwear appropriate for the current weather, and when PFDs (personal flotation devices) are appropriate

3. Demonstrate the ability to select extra clothing, shelter and other gear and supplies to carry in the field pack, appropriate for possible changes in weather or a forced overnight bivouac

B. Communications

1. Demonstrate the ability to use a handheld radio to safely and effectively use ASRC communications best practices to effectively communicate, in English, a USNG position (does not require memorization of the phonetic alphabet at the Field IV level)

C. Land Navigation

1. Demonstrate the ability to, using the candidate's choice of a personal GPS device, a personal smartphone with a GPS app (USNG app is sufficient), or a Group-owned GPS device, determine the current USNG position

D. Operations, Management and Leadership

1. Know the candidate's Group alerting process, member tracking, and the candidate's role in the system

2. Know potential problems from not signing into or out of a mission

3. Know a good definition of a wilderness/land search and rescue staging area

4. Know good definitions of the terms freelancing and self-deploying in the wilderness/land search and rescue context

5. Know good reasons why freelancing/self-deploying can interfere with an organized search effort

6. Know good principles for interfacing with the media

E. Rescue

1. Know ASRC standard best practices for

   a. As part of a 6 person team, picking up, carrying and putting down a litter, including laddering and toenailing, with attention to back safety

   b. Rotating litter bearers off and on the litter and through the litter bearer positions

   c. Giving and responding to litter movement commands

Field III

Overview

A Field III has the knowledge, skills and equipment to respond to a ground search and rescue incident.

Typical roles for ASRC members trained to the Field III level are to lead teams on simple linear tasks (i.e., trail or road walking), or, supporting a Field II or Field I member to help coordinate and supervise untrained emergent volunteers.

A Field III can recognize the common hazards and risks of search and rescue tasks and how to mitigate them.

A Field III can operate common search field team equipment such as handheld radios and GPSs, and can perform basic land navigation.

A Field III knows enough of the mechanics of leadership, and of search tactics, to manage a team of untrained volunteers on a simple, easy search task, and to identify and provide initial management for a potential crime scene. A Field III should be able to serve as a member of a field team on both day and night tasks.

A Field III can confidently and competently serve as a litter team member in a low-angle rescue operation (a nontechnical evacuation; no ropes involved).

Requirements

To be credentialed as a Field III, a member must:
- Successfully complete, and possess certification for, IS-200.b: *ICS for Single Resources and Initial Action Incidents;* IS-200.C: *Basic Incident Command System for Initial Response;* or a subsequent equivalent

Pack Check List

In addition to the equipment required for Field IV, the Field III must demonstrate possession of the following equipment:
- 1 inch tubular webbing (25' length for average weight member or 30' length for larger)
- 2 locking carabiners (aluminum)
- 2 lengths of 7 mm or 8 mm climbing-grade accessory cord suitable for tying Prusik loops
- A mountaineering helmet with chin strap (may be team helmet loaned to member; if so, the member must demonstrate donning and adjusting to fit head and snugging chinstrap)

Field III Performance Standards

A. Safety, Health and First Aid

1. Know how to deal with hazards and confidentiality issues, including

   a. Ward against communicable diseases through good hygiene in the field and at Base

   b. Recognize and manage fatigue and exhaustion in self and others with attention to nutritional needs

   c. Recognize the risks of blood-borne pathogens and use personal protective equipment to protect against blood-borne pathogens

   d. Know the hazards of waterborne illness and the advantages and disadvantages of current field water purification methods

   e. Select and prepare an overnight bivouac site

   f. Follow ASRC confidentiality best practices and other legal constraints as far as subject, mission and any first aid or medical issues, particularly as regards the press

2. Demonstrate the ability to camp overnight at an austere Base with backpacking-type sleeping bag, pad and tent or over-the -bag bivouac sac (may use borrowed or rented gear)

B. Communications

1. Demonstrate the ability to use a handheld radio with ASRC communications best practices, including standard prowords and the phonetic alphabet, without reference to written communications references, to communicate effectively and efficiently in English during field tasks

2. Demonstrate the ability to confidently and reliably operate standard handheld radio controls and perform simple field maintenance tasks on a Group-owned radio:

   a. Operate off/on switch

   b. Operate volume adjustment

   c. Operate push to talk

   d. Operate channel selector

   e. Attach and detach antenna

   f. Replace battery

   g. Toggle keyboard/channel select lock if available

   h. Know other buttons might accidentally hit and how to recover from them

3. Know the uses, advantages and disadvantages of

   a. Signal mirrors and improvised mirrors (knifeblade, mirror on compass)

   b. Whistles

   c. Smoke

   d. Flares

   e. Chemical luminescent light sticks

C. Land Navigation

1. Demonstrate the ability to interpret the following topographic map features:

   a. Contour lines, including index, intermediate and supplementary contours, and reliably identifying:

   (1) Ridges and summits

   (2) Valleys and depressions

   (3) Even, convex and concave slopes

   (4) Saddles and knolls

   (5) Index contours

   (6) Supplementary contours

   b. Common USGS topographic map symbols:

   (1) Boundaries

(2) Buildings, including schools and houses of worship

(3) Built-up areas

(4) Cemeteries

(5) Boundary monuments, benchmarks and spot elevations

(6) Railroads, roads and trails

(7) Bodies of water, rivers, streams and intermittent streams

(8) Woodland overprint

(9) Photorevisions

(10) Declination

(11) UTM edge ticks and grids

(12) Scale bars

c. North arrow declination indicators:
   i.   True north
   ii. Grid north
   iii. Magnetic north

2. Demonstrate the ability to measure distance on topographic maps:

   a. Use scale bars

   b. Know that UTM/USNG grids are 1 km

   c. Use transparent grid overlays

3. Demonstrate the ability to:

   a. Plot a set of UTM/USNG coordinates on a map

   b. Read off UTM/USNG coordinates from a point on the map

4. Know the three most common different grid datums and their importance

5. Know the advantages, disadvantages, common uses and differences of the following grid systems:

   a. Latitude/longitude

   b. UTM

   c. USNG

   d. ASRC Grid System

6. Know the definitions of true north, grid north and magnetic north

7. Demonstrate the ability to use an orienteering type compass to:

   a. Correct for magnetic declination, going from map to compass and compass to map, without using a mechanical declination adjustment

   b. Orient a paper map to grid north

   c. Take a bearing on a visible object, correct for magnetic declination, and report the correct true (grid) bearing

   d. Given a true (grid) bearing, set it on the compass with correction for declination

8. Demonstrate the ability to do the following with the member's choice of a personal GPS, a personal GPS app, or a Group GPS:

   a. System Operations:

      (1) Turn unit on and off or open and close app (and make app stop using cellphone battery)

      (2) Check battery charge

      (3) If applicable, change battery; if cellphone, how to attach external battery charger

   b. Setup:

      (1) Set datum to correct datum (usually WGS84 or NAD83 but not NAD27)

      (2) Set units for distance (usually miles or meters/kilometers)

      (3) Set the grid location format to USNG (US National Grid), or, on older units, UTM

   c. Determine the UTM and USNG coordinates for your current location

   d. Track Logging:

(1) Clear the track log (if available on the unit or app being used)

(2) Turn track logging on and off

(3) Rename a track

(4) Find an existing track on the GPS unit or GPS app

e. Waypoints:

(1) Mark your current location as a waypoint

(2) Select a point on the map and mark as a waypoint

(3) Locate a previously stored waypoint

(4) Input USNG coordinates to create a new way-point (e.g., a find to which you must navigate)

(5) Rename a waypoint

(6) Locate a particular waypoint stored in the GPS unit or GPS app

9. Demonstrate the ability to orient a map:

a. By inspection (terrain association)

b. By compass

10. Know and demonstrate the ability to use the follow-ing orienteering concepts:

a. Handrail

b. Catching feature

c. Map simplification

d. Comparing routes as far as difficulty of travel/hazards, elevation change, and difficulty of naviga-tion/"safety" in terms of getting lost

e. Attack point

f. Aiming off

g. Rough vs precision navigation

h. Thumbing a map

11. Demonstrate the ability to:

a. Adjust for declination on a nonadjustable compass

b. Use a protractor, and points A and B on a map, to determine the true and magnetic bearing from A to B

c. Use a compass, and points A and B on a map, determine the true and magnetic bearing from A to B

d. Given a true bearing, set the corresponding mag-netic bearing on the compass

12. Demonstrate the ability to read and navigate using a topographic map, a compass and a GPS, and basic orienteering concepts, to complete a basic-level orienteering course safely and confidently during the day

D. Operations, Management and Leadership

1. Know and demonstrate the ability to use basic field team leadership skills to manage a search field team:

a. Using a Task Assignment Form as a guide, obtain a briefing at Base for all relevant available infor-mation and use this information to brief team members, including the field team's planned strategy and tactics

b. Delegate tasks to field team members, using stan-dard field team position terms and duties:

(1) Field Team Leader

(2) Assistant Team Leader

(3) Navigator

(4) Radio Operator

(5) Medic

(6) Rescue Specialist

(7) Safety Officer

(8) Canine Handler

(9) Dog team flanker for a dog task (area and trailing)

c. Anticipate and prepare for emergencies during the task, including selecting appropriate equipment and supplies to take

d. Assess team members' capabilities and measure them against the expected task requirements

e. Consciously develop situational awareness of the environment, of self and of others, and model this situational awareness for other field team members

f. Manage the team's pace, keep the team together, and monitor task progress and accomplish the task if within the capabilities of the team's members

g. Debrief the team after finishing the task, and then provide debrief information to Base

2. Know best practices for what you should do if you are the first member of your team to arrive at a mission:

a. If your Group is the first SAR team at mission

b. If other SAR teams are already on scene

3. Know best practices for raising safety or other concerns with a leader as recommended by the International Association of Fire Chiefs (Crew Resource Management):

a. Opening or attention getter

b. State your concern

c. State the problem as you see it

d. State a solution

e. Obtain agreement

4. Know the followership principle of graded assertiveness

E. Search

1. Know the definitions of the following search terms:

a. Term definitions

(1) Search

(2) Rescue

(3) Recovery

(4) Point Last Seen (PLS)

(5) Last Known Position (LKP)

(6) Initial Planning Point (IPP)

(7) Active vs passive search

(8) Planning area

(9) Search segment

(10) Probability of Detection (POD)

(11) Probability of Area (POA), also known as Probability of Confinement (POC)

(12) Decision points

b. Search resources

(1) Human field teams

(2) Dogs

(3) Horses

(4) ATVs

(5) Mountain bikes

(6) Planes

(7) Helicopters

(8) Drones

c. Search strategies

(1) Investigation

(2) Confinement

(3) Attraction/Passive

(4) Hasty search

　(5)　Area search

d.　Search tactics

　(1)　Looking

　(2)　Listening

　(3)　Smelling

　(4)　Tracking/trailing

e.　Confinement patrol task

f.　Reflex tasks

g.　Hasty (Type I) task

h.　Area tasks

　(1)　Sweep (Type II) task

　(2)　Saturation/Line (Type III) task

i.　Man-tracking and signcutting tasks

j.　Air-scenting dog task

k.　Trailing dog task

l.　Flankers

2.　Know how to, and demonstrate the ability to, lead a team in accomplishing simple linear search tasks, including

a.　Communicate with those at Base by knowing basic search management terms (e.g., PLS, reflex task)

b.　Coach untrained team members in basic lost-person search techniques, including assessing, marking, protecting and communicating clues

c.　Identify, mark and protect "sign," as the term is used in mantracking, and communicate information about this sign to Base

d.　Identify, protect and document potential crime scenes, and maintain chain of custody for crime scenes

e.　Observe relevant legal principles related to entry upon private property during a search

F.　Rescue

1.　Demonstrate the ability to serve as litter captain for a low-angle rescue without a rope belay (non-technical evacuation), and as a litter bearer for a low angle using a rope belay (semi-tech evacuation), including

a.　Coach a litter team to safely lift, carry and put down a litter for a nontechnical evacuation, including standard calls and procedures for litter bearer rotation, laddering and toenailing

b.　Serve as a litter bearer on a low-angle rescue using a rope belay (semi-tech evacuation), including standard litter captain calls to the rope team, both uphill and downhill

c.　Serve as a member of a haul team for a low angle rescue raising the litter (semi-tech evac with haul system), using standard calls

d.　Handle ropes using ASRC best practices, including identifying appropriate ropes for low-angle rescue (semi-tech evacuations), uncoiling, inspecting, stacking, coiling, and fashioning a tensionless hitch anchor to a tree

e.　Competently and reliably tie overhand knots, barrel knots, overhand bends, 3-wrap Prusik knots, and the ASRC Seat Harness

Field II

Overview

A Field II possesses the minimum knowledge, skills and equipment to lead field teams on complex search tasks.

Typical roles for ASRC members trained to the Field II level are to lead teams on complex search tasks including difficult navigation and cross-country travel ("bushwhacking"), or to supervise a simple rescue involving ropes.

A Field II can care for the members of the field team at the standard wilderness first aid level. Credentialing at the Field II level also confers an ASRC wilderness first aid certificate, compliant with the guidelines published in the *Journal of Wilderness and Environmental Medicine* in 2013.[*]

A Field II is able to apply radio principles to problem-solve when radio or cellphone communications are difficult or equipment seems to be malfunctioning.

A Field II is proficient in land navigation using orienteering techniques.

A Field II can lead field teams on search tasks that challenge the team's physical and emotional status.

A Field II is competent at managing potential clues, including mantracking "sign."

A Field II can manage a find: assess the need for more resources, provide wilderness first aid to a patient, plan an evacuation, and if need be, manage a low angle rope system (a semi-tech evac).

Requirements

To be credentialed as a Field II, a member must successfully complete, and possess certification for, these courses:

- IS-700.a: *National Incident Management System (NIMS), An Introduction;* IS-700.B, *An Introduction to the National Incident Management System;* or a subsequent equivalent
- A hazardous material awareness training course: one of the following or an equivalent approved by the ASRC Credentialing Board:
  - FEMA IS-5.A: *An Introduction to Hazardous Materials* or a subsequent equivalent
  - NFPA 472: *HazMat Awareness*
  - OSHA 1910.120(Q)(6)(i): *HazMat Awareness Training*
  - CERT *HazMat Introduction*

To be credentialed as a Field II, a member must participate in at least 3 field tasks as part of a field search team. At least one of which must be at a real mission or full-scale simulation.

Pack Check List

There are no pack check requirements for Field II beyond what is required at the Field IV and Field III levels.

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[*] Donelan, S. (2013). "Minimum Guidelines and Standards for Wilderness First Aid." Wilderness & Environmental Medicine 24(4): 454-455.
Johnson, D. E., et al. (2013). "Minimum Guidelines and Scope of Practice for Wilderness First Aid." Wilderness & Environmental Medicine 24(4): 456-462.

Field II Performance Standards

A. Safety, Health and First Aid

1. Know legal concepts relevant to wilderness first aid, including:

    a. Informed consent

    b. Implied consent

    c. Express consent

    d. Competence

    e. Restraint

    f. Duty to act

    g. Abandonment

    h. Negligence

    i. Medical licensure and practice of medicine vs first aid

2. Assessment

    a. Know how to assess patients at the wilderness first aid level, including:

    (1) Scene safety survey

    (2) Primary survey including:
        i. Recognize and manage cardiac arrest with external cardiac compression
        ii. Manage the airway without adjuncts
        iii. Manage respiratory arrest with mouth-to-mouth artificial respiration
        iv. Recognize tension pneumothorax
        v. Recognize and treat flail chest
        vi. Recognize and control bleeding
        vii. Recognize and treat for shock
        viii. Determine Status 1, Status 2 or Status 3, including determining death

    (3) Secondary survey, including:
        i. Taking a basic history
        ii. Assess level of consciousness
        iii. Inspect, palpate, percuss (only for tension pneumothorax) and auscultate as appropriate for a basic physical exam, without adjuncts

    b. Demonstrate the ability to apply and operate an Automated External Defibrillator (AED)

    c. Demonstrate the ability to apply and appropriately tighten and secure both pre-made and improvised tourniquets

    d. Demonstrate the ability to measure and record radial pulse and respiratory rate

    e. Demonstrate the ability to palpate the following pulses:

    (1) Carotid

    (2) Radial

    (3) Femoral

    (4) Dorsalis pedis

    (5) Posterior tibialis

3. Know principles of human thermoregulation, including:

    a. Heat balance

    b. Physical modes of heat loss

    c. Human compensatory mechanisms including:
        i. Sweating
        ii. Vasodilation and vasoconstriction
        iii. Shivering

4. Know standard wilderness first aid level management of heat illness, including:

    a. Dehydration

    b. Heat syncope

    c. Heat cramps

    d. Heatstroke, including:

    (1) Pathophysiology

    (2) Recognition

(3) Cooling methods

(4) Cooling goals

5.   Know field management of hypothermic team members and find subjects, including:

   a. Incipient hypothermia

   b. Signs and symptoms of bad hypothermia

   c. Diagnosing hypothermia without a thermometer

   d. Treating bad hypothermia in the field, including:

      (1) Insulating and adding heat as much as possible

      (2) Not being concerned about rewarming shock in the field except to evacuate the patient flat

      (3) Avoiding bumps that might cause ventricular fibrillation

      (4) Dealing with severe hypothermia that might mimic death, including questions of whether to start external cardiac compressions or not and about the efficacy of extended CPR even if interrupted

6.   Know standard wilderness first aid treatment of:

   a. Minor and major wounds

   b. Blisters

   c. Burns including grading of burns and the rule of nines

   d. Nosebleeds

7.   Musculoskeletal

   a. Know management of musculoskeletal injuries, including:

      (1) Bruises/contusions

      (2) Sprains and strains

      (3) Twisting injuries of the ankle including the Ottawa criteria

      (4) Closed and open fractures

      (5) Joint dislocations including how to reduct digit and patella but not other dislocations

      (6) Improvised splinting

      (7) Understanding the pathophysiology of compartment syndrome and recognizing compartment syndrome

   b. Demonstrate the ability to apply and secure both pre-made and improvised extremity splints

8.   Know basic multisystem trauma recognition and management, including the concepts of the Golden hour in the golden day, and general principles for managing multisystem trauma in the backcountry

9.   Know common injury patterns from lightning strikes, and know triage and immediate treatment for a group struck by lightning

10. Know search-and-rescue-focused, standard wilderness first aid level assessment and management of trauma, including:

   a. Head (brain) trauma

   b. Pelvic fractures

   c. Possible spinal injury including the NEXUS criteria and the need to prevent decubiti

   d. Chest trauma including:

      (1) Pneumothorax

      (2) Hemothorax

      (3) Broken ribs

      (4) Flail chest

      (5) Sucking chest wounds

      (6) Submersion injury

11. Know how to recognize and treat "dry" and envenomated bites from local pit vipers

12. Know standard wilderness first aid level recognition and treatment of common or severe medical problems, including "red flags" (indicators of a serious problem), specifically:

a. Hypoglycemia

b. Chest pain

c. Decreased level of consciousness

d. Seizures

13. Know "red flags" (indicators of a serious problem) for the following medical problems:

    a. Abdominal pain

    b. Vomiting and diarrhea

    c. Urine problems including urinary tract infection and hematuria (blood in urine)

    d. Cough

    e. Fever

14. Know the seriousness of:

    a. Persistent blurred vision

    b. Uncontrolled nasal or other bleeding

    c. Head injury with decreasing level of consciousness

    d. Airway compromise

15. Know how to recognize immediate stress reactions, and to provide psychological first aid

16. Know the factors that go into evacuation urgency decisions

17. Know basic improvised evacuation methods, including:

    a. Split-coil and sling piggyback carries

    b. Packstraps and pole carry

    c. Poles-and-blanket and poles-and-parkas stretchers

B. Communications

1. Know basic radio principles relevant to the ASRC, including

a. Electromagnetic waves, wavelength and frequency, and effect of frequency on radio signal propagation

b. The difference between AM and FM and how speaking loudly on FM decreases signal strength

c. Simplex vs duplex

d. Retransmitters (remote bases) and repeaters

e. Antenna principles, including:

    (1) Antenna radiation patterns and effective radiated power (ERP)

    (2) The effect of ground planes and reflectors and how to improvise them in the field

    (3) How to use other teams to relay to Base

f. Carrier squelch, monitor buttons, and PL tone squelch

g. Basic principles of network discipline

h. Techniques for improving cellphone communications in the backcountry, including use of texting instead of voice, and ways to improve antenna effective radiated power (ERP)

C. Land Navigation

1. Demonstrate the ability to interpret the following information on a USGS topographic map:

a. Border information (scale, datum, declination, contour interval, adjacent maps)

b. Information conveyed by various colors

c. USGS symbols for
   i.   Highways, roads, trails and bridges
   ii. Power lines, pipelines
   iii. Buildings, schools, churches and cemeteries
   iv. Storage tanks, wells, mines, caves, picnic areas and campsites
   v.   Benchmarks (control stations) and spot elevations
   vi. Boundaries, fence and other landmark lines
   vii. Ponds, lakes, rivers,
   viii. Perennial and intermittent streams
   ix. Marshes & swamps

d. Photo revisions

2. Know coordinate grids including degree variants and UTM/USNG variants:

a. Degrees, minutes and seconds (DD° MM' SS")

b. Decimal degrees (DD.DDDDD)

c. Degrees and decimal minutes (DD MM.MMM)

d. Universal Transverse Mercator (UTM)

e. Military Grid Reference System (MGRS)

f. US National Grid (USNG)

3. Demonstrate the ability to competently plot an orienteering-type route between two points on a map, and identify places where the following orienteering concepts could be used:

a. Handrail

b. Catching feature

c. Map simplification

d. Comparing routes as far as difficulty of travel/hazards, elevation change, and difficulty of navigation/"safety" in terms of getting lost

e. Attack point

f. Aiming off

g. Rough vs precision navigation

h. Thumbing a map

4. Demonstrate the ability to reliably complete basic-level orienteering courses at night

5. Demonstrate the ability to transfer .gpx files between a smartphone GPS app, a dedicated GPS unit and a laptop computer in Base

D. Operations, Management and Leadership

1. Know the meaning of the following concepts as related to field team and individual field team member morale:

a. Esprit de Corps

b. Human capital

c. Member engagement

d. Recognition

e. Trust

f. Concern for welfare and opinions of team members

g. Prestige

2. Know the meaning of the following concepts as related to the family liaison role

a. Physical support: food, water, shelter, rest

b. Emotional support: not leaving them alone

c. The "D" word ("dead") and techniques for breaking bad news to family

d. Maintaining personal mental health when serving as liaison with family: recognizing immediate stress reactions in self and seeking help if needed

3. Know how to deal with family members in the field:

a. Prepare for immediate stress reactions and grief reactions in field

(1) Emotional support

(2) Physical support
   i. Plan for support for family getting back to Base safely
   ii. Plan for family that refuse to leave field and their safety

E. Search

1. Know basic search tactics and demonstrate the ability to lead a team as follows:

a. Communicate with those at Base by knowing basic search management terms (e.g., PLS, reflex task)

b. Coach untrained team members in basic lost-person search techniques, including assessing, marking, protecting and communicating clues

c. Identify, mark and protect "sign," as the term is used in mantracking, and communicate information about this sign to Base

d. Identify, protect and document potential crime scenes, and maintain chain of custody for crime scenes

e. Observe relevant legal principles related to entry upon private property during a search

f. Perform the following type of tasks:

   (1) Hasty tasks

   (2) Sweep tasks

   (3) Line search tasks

   (4) Serving as flanker for search dogs or mantrackers

g. As part of these tasks, perform the following

   (1) Briefing by Base

   (2) Assembling field team

   (3) Assessing team members' capabilities and limitations and comparing with assigned task

   (4) Briefing field team

   (5) Delegating duties/positions as appropriate

   (6) Acquiring the necessary equipment for task

   (7) Completing Task Assignment Form (TAF)

   (8) Performing task

   (9) Assessing for completion of task

   (10) Assessing team members' condition at end of task and arranging for rest and rehab or return to duty as appropriate

   (11) Debriefing field team members

   (12) Debriefing task with Base

2. Demonstrate the ability to lead a team on a sweep (wide-spaced, Type II) search task of 20 acres.

3. Demonstrate the ability to lead a line (close-spaced, saturation, Type III) search task, placing and removing markers at the edges for at least two instances of placing and removing edge markers.

4. Demonstrate use of a tracking stick to follow a trail for 5 steps

F. Rescue

1. Know how to do paving, turtling and lap pass, and demonstrate the ability to coach a litter team in performing them

2. Know basic care principles for nylon kernmantel rope

3. Demonstrate the ability to use best practices for uncoiling, stacking, and casting a rope for a static line, and coiling and inspecting a rope

4. Know the properties, advantages and disadvantages of wrap-3, pull-2 and modified basket hitch anchors, and demonstrate the ability to rig them

5. Know the properties, advantages and disadvantages, and demonstrate the ability to reliably and confidently tie the following knots:

   a. Figure 8

   b. Figure 8 on a bight

   c. Figure 8 follow-through loop

   d. Figure 8 bend

   e. Clove hitch

6. Demonstrate the ability to reliably and confidently use best practices to

   a. Belay a climber

   b. Bottom-belay a rappeller

   c. Belay and lower a litter with tree wraps

   d. Lower a litter with a mechanical device

e. Belay a litter with Prusik loops and with a mechanical device

f. Perform as a member of a rotating belay/lowering team, both uphill and downhill rope team rotations, and managing (but not rigging) a 3:1 haul system.

7. Know and demonstrate the ability to use standard best practices for litter packaging, tie-in and semi-tech (low-angle rope rescue) litter rigging

Field I

Overview

The Field I possesses the minimum knowledge, skills and equipment to lead a field team on a complex search task or supervise a simple rescue involving ropes, including a deep understanding of leadership principles.

Typical roles for ASRC members trained to the Field I level are to lead teams on search tasks that are long, in unfavorable weather, or involve difficult navigation or cross-country travel, and to supervise a steep low-angle rope rescue (semi-tech evac).

A Field I can use knowledge of the area's geography, climate, microclimate, weather, flora and fauna to provide an expert assessment of hazards to be expected on a search task, to assess and manage emergency stream crossings, and to select and prepare emergency overnight bivouac sites for a field team.

A Field I can set up and operate a Base radio, and apply large-network best practices to maintain network discipline during a large search.

A Field I can communicate grid positions to aircraft in terms pilots understand.

A Field I has a deep understanding of field team leadership, and can lead field teams on search tasks that challenge the team physically and emotionally.

A Field I knows enough about search management terminology and concepts to communicate effectively with Base staff, to assist in Base with briefing and debriefing teams, and manage attraction stations and large-team saturation (line) search tasks.

A Field I can rig and supervise a steep low-angle rope rescue (steep semi-tech evac), including using a Radium load-releasing hitch to switch from raise to lower and from lower to raise; and to use a Münter hitch when other alternatives are not available.

Requirements

To be credentialed as a Field I, a member must participate in at least 3 field team tasks (total 6 since joining ASRC), including at least 3 at a real mission or full-scale exercise, and at least 2 serving as leader of a field team.

To be credentialed as a Field I, a member must pass a review with Group equipment, and be able to answer the following questions:

Demonstrate proficiency in the use and operation of all Group Equipment

- What is its proper name?
- What are its primary functions?
- What are its primary features?
- What are some of the "do" and "don't" for proper handling/use?
- Describe the inspection procedures for function, wear and damage

To be credentialed as a Field I, a member must know the standard search operating procedures, requirements, and protocols of the state and other major local AHJ partners.

Pack Check List

There are no pack check requirements for Field I beyond what is required at the Field IV and Field III levels.

Field I Performance Standards

A. Safety, Health and First Aid

1. Know the basics of mid-Appalachian terrain, climate, weather, botany and zoology pertinent to SAR team members serving in the field:

    a. Know the effects of altitude on precipitation

    b. Know the danger and likelihood of injury or illness from flora and fauna, including animal and insect attacks, and irritant plants:

       (1) Dangers from fauna:
           i. Bears
           ii. Mountain lions
           iii. Coyotes
           iv. Feral pigs
           v. Humans
           vi. Bees and wasps

       (2) Dangers from flora:
           i. Poison ivy
           ii. Stinging nettles
           iii. Thorns
           iv. Giant hogweed

    c. Know the basic climate and weather of the mid-Appalachian region, including common seasonal weather patterns:

       (1) Climate vs weather

       (2) Continental vs. maritime climates

       (3) Elevation and latitude effects on temperature and flora

       (4) Climate change effects on the mid-Appalachians

       (5) Hadley cells

       (6) Prevailing westerlies, the Great Lakes, the Gulf of Mexico, and their effects on precipitation including the rain shadow effect

       (7) Hurricanes

       (8) Nor'easters

       (9) Polar vortexes and bomb cyclones

       (10) Summer weather and thunderstorm patterns

       (11) Using smartphone apps and reading the sky to predict very near-term weather

2. Know about emergency stream crossings, as an individual and as a group

B. Communications

1. Know and demonstrate the ability to set up and properly operate a radio station at Base, including:

    a. Considerations for placing Base antennas with reference to communications efficacy, high points and ground planes, and dangers including wind and lightning

    b. How to assemble handheld radios, and properly handle sign-in/sign-out of such radios

    c. How to change handheld radio batteries

    d. How to set up and use battery chargers

    e. How to identify and prioritize batteries for charging or sign-out

    f. How to determine when battery charging is complete

    g. Observing the FCC rules under which ASRC operates:
       i. Use and number of units allowed for each FCC licensed frequency used by ASRC
       ii. Announcing the ASRC callsign
       iii. Concerns with interference with other channel users

    h. Carrying out the duties and responsibilities of Net Control

    i. Following ASRC Communications best practices on the ASRC Radio Crib Sheet

j. Using the Equipment Log to track radio equipment and the Communications Log to track radio traffic

C. Land Navigation

1. Demonstrate the ability to use a GPS or smartphone GPS app to ascertain and communicate DD MM.MMM coordinates of a given location (either current location or another specified location) to a helicopter as a landing zone (LZ)

D. Operations, Management and Leadership

1. Know the following concepts and how they affect the ability to lead:

    a. Personal characteristics

    b. Multitasking

    c. Decision-Making:

       (1) Gary Klein's theory of decision-making

       (2) Heuristics

       (3) Subjective vs objective Hazards

    d. Selective attention

    e. Human nature

    f. Genetics and human behavior

    g. Personality types, including:

       (1) Charisma

       (2) Contentiousness

       (3) Specific personality characteristic of emergency services workers including SAR group members

       (4) Psychopaths and sociopaths

    h. Whackers and whacker management

    i. The Dunning-Kruger effect

j. Business management principles appropriate to leading volunteers:

   (1) Frederick Winslow Taylor

   (2) W. Edwards Deming

k. Rhetoric, including public speaking basics

2. Know the basics of the following management styles and how they apply to leading volunteer teams:

    a. Management by exception

    b. Laissez-faire management

    c. Charismatic leadership

    d. Task-oriented leadership

    e. Autocratic command-and-control leadership

    f. Transformational leadership

    g. Psychological safety in leadership

    h. Thought leadership (memes)

    i. Rules vs. best practices

    j. Groupthink

    k. Danger of leader asking question then proposing leader's own solution in stifling alternatives

3. Know sources of authority and how applicable they are to leading a field team:

    a. From place in change of command

    b. From expertise

    c. From charisma and past interpersonal relations

    d. From "referent authority": granted by team members

    e. From being able to provide information

    f. From being able to reward or punish

    g. From subordinates granting authority

4. Followership and mentoring:

a. Adult learning modes:

  (1) Visual

  (2) Auditory

  (3) Read/write

  (4) Kinesthetic

b. Adult learner characteristics:

  (1) Autonomous and self-directed

  (2) Have accumulated a foundation of expertise and knowledge

  (3) Are goal oriented

  (4) Are relevancy-oriented

  (5) Are practical

  (6) Need to be shown respect

E. Search

1. Know the following terms used in SAR, their definitions, and their implications

  a. Areas of expertise/types of SAR

    (1) USAR: Urban Search and Rescue

    (2) Urban Search

    (3) Wilderness Search and Rescue

    (4) Rescue

    (5) Recovery

  b. Search Strategy/Planning Terms and Concepts

    (1) ICP: Incident Command Post

    (2) Base

    (3) LKP: Last Known Point

    (4) PLS: Point Last Seen

    (5) IPP: Initial Planning Point

    (6) Planning region

    (7) Searchable segment

    (8) POA: Probability of Area

    (9) POD: Probability of Detection/POC: Probability of Containment

    (10) POS: Probability of Success

    (11) MPQ: Missing Person Questionnaire

    (12) GIS: Geographic Information System

    (13) Statistical model for determining POA

    (14) Travel-time model for determining POA

    (15) Trail-based model for determining POA

    (16) Mattson consensus method for determining POA ("Mattson")

    (17) Shifting POA

    (18) Decision points

    (19) Sweep width

    (20) Bike wheel model

    (21) Axle

    (22) Rim

    (23) Hub

    (24) Spokes

    (25) Reflectors

  c. Common types of search task

    (1) Reflex search task

    (2) Containment search task

    (3) Hasty search task

    (4) Sweep search task

    (5) Line (saturation) search task

(6) Mantracking search task

(7) Cutting for sign (signcutting) search task

(8) Airscenting dog search task

(9) Trailing dog search task

(10) HRD (Human Remains Detection) search task

(11) UAV (unmanned aerial vehicle = drone) search task

(12) Manned aircraft search task

d. Canine-specific terms

(1) Field team vs Dog team

(2) Alert (dog team)

(3) Refind (dog team)

2. Know the principles and planning considerations for an attraction station along a road and one that requires a backcountry camp-in

3. Know the differences in leading a team on a hasty or sweep (wide-spaced search) and leading a large team on a saturation (line) search task

F. Rescue

1. Demonstrate the ability to reliably and confidently tie and use a Münter hitch for belaying, rappelling and lowering

2. Demonstrate the ability to reliably and confidently tie a butterfly knot (Alpine butterfly) and know its uses

3. Demonstrate the ability to tie and use a Radium load-releasing hitch

4. Demonstrate the ability to rig and manage lowering and raising systems for steep low angle rope rescue (steep semi-technical evacs) including:

   a. Mechanical braking systems

   b. 3:1 hauling systems, including using a Radium load-releasing hitch and other rigging to switch from lower to raise and from raise to lower

5. Know the advantages and disadvantages of single-line systems, single-line systems with a separate backup, and dual-capability two-tensioned line systems.

6. Know general principles for setting up a helicopter landing zone (LZ), and principles for those on the ground interacting with a helicopter crew, including essential elements of safety

Search Manager IV

[reserved]

Search Manager IV Performance Standards

[reserved]

Search Manager III

[reserved]

Search Manager III Performance Standards

[reserved]

Search Manager II

[reserved]

Search Manager II Performance Standards

[reserved]

Search Manager I

[reserved]

Search Manager II Performance Standards

[reserved]

Change History

Old versions are posted in the ASRC Archive at http://archive.asrc.net.

??? ???? (Version 8.0)

Major restructuring, see the new ASRC Training Guide for details.

January 2017 (Version 7.2)
- Reformatted using the new ASRC *Branding Guide*.
- Minor editorial changes, fixed misspellings and typographical errors.
- Added a few older versions of the *ASRC Training Standards* to this list.

May 2016 (Version 7.2)
- Corrected spelling, typographical and formatting issues.
- Adjusted verbiage across certification levels for consistency and to remove duplication.
- Replaced/corrected online classes that have changed since the last update.
- Removed non-search management classes from list of Search Manager approved education courses.
- Incorporated ASRC Credentialing Policy Manual concepts.

May 2012 (Version 7.1):
- Corrected spelling, typographical and formatting issues.
- Corrected missing ICS-700 class in the CQ requirements.
- Added additional, recognized classes to Search Manager certifications.

October 2011 (Version 7.0):
- Updated knowledge and performance expectations for all certifications.
- Updated NIMS/ICS and required training requirements for IS/IC certifications.
- Updated required class for NIMS/ICS certifications.

October 2008 (Version 6.3)
- FTM and FTL recertification policy approved on April 9, 2005 was added to the Training Standards baseline.
- Corrected typo in IS recertification requirements.
- Updated reference to the "Z-Haul" system in the FTL standard to correctly reflect that it provides a mechanical advantage of 3:1 rather than 2:1 as stated in the previous version.

July 2008 (Version 6.2)
- Included NIMS/ICS training requirements for each credential, including optional requirements for command and staff certifications.
- Included Conference Dispatch Officer certification
- The CDO Standard established the NIMS-compliant format and structure for future revisions

March 2003 (Version 6.1)
- Updated ASRC address.
- Adjusted AO requirements (VII.A.1) based on Feb 2003 BOD meeting to require FTL and MLSO or equivalent instead of being IS.

August 2001
- Updated manual produced

March 2001 (Version 6.0)
- IS recertification changes

January 2001
- IC standards rewritten

April 1997
- MS Word Revision

April 1994 & August 1994 (Version 5.3)
- CQ changes approved

October 1993 (Version 5.2)
- AO standards added

February 1993
- IC change

June 1991
- IS/IC changes

October 1989
- Communications changes

March 1989

May 1987 (Version 4)
- Name changed to *ASRC Training Standards* from *ASRC Training Guide*.

JANUARY 1986 (VERSION 3.3)

JULY 1983 (VERSION 3.0)