DRAFT ASRC Training Guidelines

Call-Out Qualified (CQ) ASRC Member

- To become a Call-out Qualified (CQ) ASRC member, the person who is applying for membership must meet all of the requirements specified in the ASRC Articles of Incorporation and By-Laws.
- 2) To become a CQ member, the applicant must complete and file an ASRC Application for Membership and submit it to the Group Training Officer (GTO).
- To participate in field activities during a mission with ASRC involvement, a CQ member must have met the minimal Personal Equipment requirements as specified in Section 3.1 of the ASRC Operations Manual. The CQ member must also attend an ASRC Search and Rescue orientation given by the GTO or authorized representative.

(The items are listed below for information only. A list of these items belongs in the Operations Manual and not in the Training Standards.)

- Appropriate clothing and footgear
- Water container of 1 or 2-liter capacity;
- 5 large trash bags;
- 4. Headlamp or flashlight and second light source;
- 5. Compass;
- 6. Waterproof pen/pencil and paper (zip-lock bag is adequate);
- Daypack (knapsack, rucksack or backpack acceptable);
- Food for 48 hours;
- 9. Lighter, waterproof matches, candle or other fire source;
- 10. Knife
- 11. Personal First Aid kit;
- 12. Whistle:
- 13. 2 pairs plastic or vinyl examination gloves.

\SRC Field Team Member (FTM)

ASRC FTM closely resembles GSAR Level I. Italicized items are additional requirements for ASRC members.

I. Qualifications

- A. To become a Field Team Member (FTM), the applicant must:
 - Be an Active Member of the ASRC, as specified by the ASRC Bylaws;
 - Have met all the requirements as a CQ member;
 - Participate satisfactorily in four (4) ASRC or Group training sessions, including sessions on Personal Wilderness Survival and basic ground search theory, as judged by the GTO;
 - Meet the technical standards listed below, as judged by the GTO;
 - Successfully pass a standard ASRC FTM written test and complete the standard ASRC FTM skills evaluation checklist, as verified by the GTO;
 - Be proposed for membership by the GTO at a group business meeting and receive a simple_majority of the vote.
- B. Field Team Members must meet annual continuing education requirements and maintain skills proficiency by participating in a minimum of six (6) training sessions and respond to a minimum of two incidents per year.

II. Equipment Requirements

- Meet the minimal Personal Equipment as specified in the ASRC Operations Manual.
- III. Knowledge and Performance Specifications

A. SAR Operations

- Describe areas of responsibility for search and rescue as defined by the National SAR Plan.
- Describe areas of responsibility at the state level.
- List several resources that might be utilized during a SAR event.
- List several factors that may result in an aircraft being listed as missing.
- Describe the basic principles of the ICS and define the major staff positions as used in SAR.

B. Legal Aspects of SAR Operations

- Outline the provisions of the "Good Samaritan" law.
- Define the terms "implied consent," "expressed consent," "Informed consent" and "abandonment."
- Define the four (4) facts necessary to prove negligence.

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- 4. Describe several methods of reducing liability exposure.
- 5. Describe the circumstances when entry upon private property may be justified.

a. Define the problems involved with this action and possible solutions.

Briefly explain how the following legal concepts apply to search and rescue operations: 6.

Civil suits and criminal actions: a.

- Standards of care: b.
- C. The right to emergency assistance and duties to provide emergency assistance:

d. Crime scene protection:

Declaration of death and confirmation of death; e.

f. Confidentiality.

Personal Equipment

Explain these principles of clothing selection: 1.

Choice of clothing material, listing the "3 W's" of clothing for wet, cool climates, and explaining a.

Wetproof/windproof, as in the advantages, disadvantages, and uses of waterproof shell b. garments, and the water penetration resistance of: coated nylon; 60/40 cloth; 65/35 cloth; and waterproof/ breathable fabrics;

Layering and other cold weather dressing concepts, including: ventilation, "dressing cold," and C.

the dangers associated with overheating in the winter,

d. Loft and other properties of clothing suitable for various weathers, including a description of clothing materials, including cotton, down, wool, and synthetic libers, in terms of dry warmth, wet warmth, wind protection, absorption and retention of water, and wicking of water.

2. Describe several ways to prevent excessive body heat loss. Describe the following concepts and

their importance to maintaining body temperature.

The routes of heat loss and their relative importance; a.

b. The use of energy stores to produce heat, and the metabolic costs of shivering;

Vasodilation, sweating, and behavior means of increasing heat loss, and the long term C. consequences of them;

d. Vasoconstriction and behavior as a means of conserving heat;

e. The effects of tobacco and alcohol on normal heat homeostasis;

f. The particular danger of hypothermia weather.

3. Explain the selection principles for these items:

a. Boots;

b. Sleeping bag;

Ground protection and insulation; C.

d. Backpack/daypack;

e. Tent:

f. Personal safety items;

Fire starting aids: g.

ħ. Items for signalling and navigation;

i. Light sources and batteries:

Emergency shelters, i.

k.

4. Describe the basic characteristics (voltage, life, weight, cost, temperature characteristics and dangers) of carbon-zinc, alkaline, lithium, and nickel-cadmium battery cells.

Wilderness Survival

1. Define short-term versus long-term survival.

- 2. Describe several problems commonly encountered on SAR missions that may lead to a survival situation.
- 3. Describe the psychological factors that my affect survival ability.

4. Explain the "energy reserve" concept.

5. Describe the body's physiologic response to both cold and heat stress.

Define the following temperature-related diseases and their recognition, treatment and prevention: 6.

Hypothermia; a. b. Frostbit;

Trench foot (immersion foot); C.

d. Heat stroke:

e. Heat exhaustion;

ŧ. Dehydration.

Be able to develop an "action plan" based on the STOP rule for a given wilderness emergency scenario.

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- 8. Demonstrate the ability to bivouac in any type weather conditions, without significantly affecting functional ability. 9 Define average daily food and water requirements. Land Navigation and Orienteering Identify and define the following terms or concepts: 1. Latitude and longitude:
 - Degrees, minutes and seconds; b. C. True north and magnetic north; Declination.
 - d.
- 2. Demonstrate the ability to read and interpret topographic map border information, colors and symbols. Demonstrate the ability to read a 7.5 minute topographic map, including the following information:
 - a. Grades of highways, roads, trails and bridges;
 - b. Power lines and other landmark lines:
 - C. Buildings, schools, churches and cemeteries;
 - d. Storage tanks, wells, mines, caves, picnic areas and campsites;
 - e. Benchmarks (control stations) and spot elevations,
 - f. Boundaries and fence lines:
 - Contour lines, depressions, cuts and fills; g.
 - Perennial and intermittent streams, springs, falls and marshes; h.
 - i. Valleys, ridges, peaks and sags (saddles, cols);
 - Elevations and general land contours.
- 3. Describe the various parts of the compass and demonstrate the ability to use it to plot a course on a map, including northing and declination correction.
- 4. Define the following plotting methods or grid systems and demonstrate the ability to use them to determine the coordinates for a given point.
 - Latitude Longitude; a.
 - b. UMS;
 - UTM: C.
 - d. ASRC Grid;
 - e. LORAN, using a topographic map;
 - f. Using a ruler and a topographic map.
- Demonstrate the ability to perform the following navigational functions: 5.
 - Obtain and follow a simple compass bearing; a.
 - Determine a reciprocal; b.
 - Move around obstacles; C.
 - Find a position by triangulation and by resection; d.
 - Measure distance by pacing; e.
 - Determine position by terrain feature identification. f.
- Describe the significance and use of these orienteering concepts: 6.
 - Catching features: a.
 - b. Collecting features:
 - C. Attack points:
 - d. Aiming off:
 - Coarse and fine orienteering. e.
- 7. Demonstrate the ability to navigate at night.
- Demonstrate proficiency in photocopying grid overlays onto maps. 8.
- Search Skills
 - Identify the most basic tenet of search and rescue, the one that should govern all SAR activity. 1.
 - 2. Identify the primary goal of all SAR activity.
 - 3. Identify and define four (4) key points of search theory.
 - 4. Describe the standard techniques for these search tactics:
 - Attraction: a.
 - Containment; b.
 - Survey search; C.
 - Hasty search (scratch search); d.
 - Sweep search (open grid search); 0.
 - Line search (closed grid search); 1.
 - Route search. g.
 - 5. Describe standard procedures for working with search dogs, tracking/trailing dogs and mantrackers.
 - Define the four (4) core elements of tactical operations.
 - Briefly describe the five (5) phases of a SAR event.
 - Demonstrate the following abilities in the field:

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- a. Demonstrate clue consciousness:
- Function as a member of a grid team, sweep team, and hasty team, and understand his/her role b. and duties in each type of search pattern;
- Accompany a dog handler on a simple search task; C.
- Demonstrate the knowledge required to responsibly and effectively handle the media in the d. capacity of a FTM;
- Work well with people, as determined by the GTO; 0.
- Utilize the ASRC grid system. f.
- Explain the use and operation of Direction-Finding instruments for locating downed aircraft. 9.

Incident Site Procedures and Disciplines

- Describe several hazards commonly associated with an aircraft crash site.
 - List additional hazards that may be present if the crash involves a military aircraft. a.
- 2. Define the proper approach to an aircraft crash site.
- 3. Explain the importance of the accurate documentation of events at an incident site.
- 4. Describe the proper methods to use to secure a site adequately.
- Explain the importance of clue preservation at both an aircraft crash site and a possible crime scene. 5.
- Define the relationship of the FTM to the press. 6.

H. Ropes and Technical Hardware

- Describe the several types of rope commonly used in wilderness rescue work, their construction, use 1.
- 2. Describe the use and care of the carabiner, the Figure-8 descender and the brake-bar rack descender.
- 3. Demonstrate the ability to tie correctly these knots:
 - Figure-8 loop; a.
 - Figure-8 bend; b . .
 - Square knot; C.
 - Water knot (overhand bend); d.
 - Prusik knot: e.
 - Double fisherman's knot or barrel bend; 1.
 - A redundant seat harness; g.
 - h. Bowline knot;
 - i. Girth hitch:
 - Taut-line hitch.
- 4. Demonstrate these rope handling techniques:
 - Uncoiling and stacking a rope; 8
 - Inspection; b.
 - Throwing. C.

Litter Handling Techniques

- Demonstrate these litter handling techniques:
 - Patient loading: a.
 - Litter lift, lower and carry; b.
 - Litter bearer rotation; C.
 - d. Litter laddering, including toe-nailing;
- Be able to act as litter captain in a non-technical evacuation, including the proper use of toenailing. 3. laddering, and rotation of litter bearers.
- Be able to be a litter team member on a semi-technical evacuation and describe the personal 4. equipment required for the rescuer's safety.

Belays

- Demonstrate proper belay techniques including:
 - a. Anchoring;
 - Belayer tie-in; b. .
 - Stance: C.
 - d. Aim;
 - Uphill and downhill travel; 0.
 - ASRC Standard Calls; f.
 - Tree-wrap and mechanical brakes.

Field Team Organization

- 1. Define "field team."
 - Describe at least five (5) types of search tearn, 2.
 - Describe at least four (4) types of rescue team. 3.
 - Define the functions of the following field team positions:

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- Field Team Leader;
- b. Medical Officer;
- c. Rescue Specialist;
- Radio Operator.

L. Helicopter Operations

- Describe the hazards to ground personnel working around a helicopter.
- Describe standard protocols for helicopter operations.
- Explain proper procedures for hoist operations.
- Describe the considerations for selecting and preparing an LZ.

M. Field Communications

- Describe the use and dangers of these signalling devices:
 - Aerial flares:
 - b. Smoke;
 - Signal mirrors;
 - d. Fires:
 - e. Panels and paulins;
 - Hand and body signals.
- Define the special problems associated with the field use of portable radios and list some possible solutions.
- Briefly describe basic radio procedures including courtesy, security, brevity and the use of the phonetic alphabet and 10 codes.
- Be able to use reliably all group-owned VHF-FM base and commonly encountered hand-held radios, including being able to:
 - Adjust of channel, volume, squelch and PL controls;
 - Describe and observe FCC regulations and the ASRC radio SOP;
 - Describe indications of a low battery and the technique for changing the radio(s) battery;
 - c. Describe various techniques for improving marginal communications encountered while using VHF-FM hand-held radios.
- Demonstrate knowledge of ASRC status codes.
- Demonstrate non-radio communications with audible and visual signals such as: whistle or loud noise maker; signal mirror, fire & smoke and lights.
- N. Wilderness Medicine
 - Current American Red Cross Standard First Air card or equivalent, or higher certification.

Field Team Leader

NOTE: ASRC FTL closely resembles GSAR Level II. Italicized items are additional requirements for ASRC members

I. Qualifications

- A. To become a Field Team Leader (FTL), the applicant must:
 - Meet all standards established for Field Team Member;
 - Have participated in two searches or search simulations as an FTM;
 - Be proposed for FTL membership by the GTO at a group business meeting and receive a simple majority of the vote.
 - Successfully pass the standard ASRC FTL written test and the standard ASRC FTL skills practical test.
- 5. Be at least 18 years old.
- B. FTL must meet annual continuing education requirements and maintain skill proficiency by participating in a minimum of six (6) training sessions and respond to a minimum of two (2) missions a year.
- II. Equipment Requirements
 - A. Possess proper equipment as outlined in the ASRC Operations Manual, section 3.1.

III. Knowledge and Performance Expectations

- A. Field Team Leaders are expected to meet all of the requirements of Part III of the ASRC FTM Standards. The Items listed below are additional requirements.
- B. SAR Operations
 - Define the role of the field team for these types of missions:
 - Lost person search;
 - b. Downed aircraft search;
 - c. Natural disaster assistance.

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- DRAFT ONLY 1. List the various types of resources in each of the following categories that may be utilized in a typical SAR event: Ground search: a. Air search; b. C. Logistics: d. Communications: e. Command. Search Tactics Describe in detail the responsibilities of the Field Team Leader when carrying out a field task. Explain the execution of these search tactics using an average size and properly equipped field team. 2 a. b. Attraction: Survey search: C. Hasty search (scratch search); d. Sweep search (open grid search); e. Line search (closed grid search). 1. Passive and active search methods; g. Clue finders and subject finders; h. í. Binary search and cutting for sign; The "Bastard Search"; į. Survey search; k. Describe in detail the tasks that must be completed once the field team returns to base camp. 3. D. Search Management Outline standard search strategy for: 1. Downed aircraft; a. Lost person, wilderness; b. Lost person, rural; C. d. Lost person, urban. 2. Describe the five (5) phases of a search mission and the primary activities that occur during each phase. Rescue Operations Describe how to formulate a rescue plan. 1. 2. List the four (4) phases of a rescue mission. 3. Describe the major factors a team leader must consider once a victim is located. 4. Describe the manpower and equipment requirements and the team organizational structure necessary to accomplish an advanced semi-technical rescue operation. Equipment 1. Describe basic team equipment, other than required personal gear, for a wilderness SAR team. 2. Define a pre-plan for insuring immediate availability of team equipment in the event of a call-out. 3. Define an equipment inspection and maintenance program that includes member's personal equipment, team equipment and the team vehicle. Mission Performance Demonstrate the ability to travel cross country on foot, in any weather conditions, navigating by map 1. and compass, and to establish an emergency bivouac, all without compromising the assigned task. 2. Demonstrate the ability to organize and execute the six (6) tactics listed under Part III.C.2, shown below. Containment; a. b. Attraction: C. Survey search:
 - d. Hasty search (scratch search);
 - е. Sweep search (open grid search);
 - 1. Line search (closed grid search).
 - Demonstrate the ability to secure a scene properly, extricate and treat a patient, and evacuate a 3. patient using the method most appropriate for a given situation.
 - Briefly describe pertinent local weather patterns, including the signs of arriving cyclonic winter storms, 4. cold fronts, warm fronts, and local storms.
 - 5. Be able to bivouac on a winter night using appropriate field gear.
 - Travel competently in a middle-Appalachian wilderness area during any time of year, including: 6. E I I I I I WOO
 - Stream crossing evaluation;
 - Boulder-field and steep trail climbing.

- DRAFT ONLY 7. Given a photocopy of a 7.5-minute series topographic map with an ASRC grid overprint, the original 7.5-minute quadrangle map, and a Uniform Map System (UMS) gridded aeronautical chart of the area. identify points via: Latitude and longitude; a. The ASRC grid system; b. The Uniform Map System; C. d. The azimuth and distance off a VOR; The Universal Transverse Mercator System. 0. Given only a 7.5-minute topographic quadrangle or an orienteering map with an attack point and a 8. target plotted on it, and a standard orienteering compass, reliably and accurately: Calculate the true bearing from the attack point to the target; a. Calculate and set on the compass the magnetic bearing to the target; b. Follow the bearing accurately, including triangulating and boxing around obstacles; C. 9. Correctly locate and position a point on a topographic map given: a. The bearings to landmarks indicated on the map (resection): The bearing to one landmark located on the map, and the information that the position is on a b. specified linear feature (modified resection); 10. Given bearings from two locations to a target, correctly locate it on a topographic map (triangulation). Demonstrate the ability to lead a field team competently on: 11. a. Containment, attraction, survey, hasty, sweep and grid search tasks; b. Cutting for sign; C. Simple tracking: d. Interrogation and visual search tasks; 0. Non-technical and semi-technical evacuation and direction finding. 12. Demonstrate the use of the following basic skills and techniques: a. Tracking sticks: The effects of the sun and how to use them; b. How to identify shoe type and provide measurement; C. How to find stride length and width. d. 13. Demonstrate the ability to brief properly a field team before a task, including: Appropriate subject information and history, subject's equipment and medical history; a. b. Weather: C. Terrain: d. The search task, how to perform it, what its objectives are; 8. Information from the team members, such as medical difficulties and other input; Team equipment and personal gear needed; f. g. Adequately evaluate team members' abilities to do the task; h. Time available for the task and the limitations it may impose upon the task. 14. Demonstrate the ability to debrief properly a field team after a task, including: Following proper procedure once team has returned to base; a. Acquiring team member input (POD, clues, hazards, other pertinent information). Ropes and Technical Hardware Demonstrate the ability to tie correctly the knots below (in addition to those knots listed in the FTM 1. standards): Butterfly: a. b. Bowline-on-a-coil; C. One-way knot; Sheet bend; d. e. Frost knot; f. ASRC seat harness. Load-releasing hitch; g. Cross-chest harness. h. Assemble and use a single line rappel system that includes a belay. 2. Demonstrate the ability to direct a six person litter team safely in rigging a Z-haul system (2:1 system), a 3.
- Demonstrate the ability to direct a six person litter team safely in rigging a Z-haul system (2:1 system), a 4:1 hauling system, a "brute force" hauling system, and, using the systems, to move a litter a minimum of 100 feet up a 45 degree slope.
- Demonstrate the ability to rig to an anchor using the following methods:
 - Bowline;
 - b. Tree-wrap and tie-off;
 - Using webbing sling loops;
 - Demonstrate the ability to cast, pad and rig static lines.
- Demonstrate the ability to belay competently, including:

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nights.

- a Proper anchoring, stance, tie-in and aim;
- b. Correct use of calls and fall catching;
- c. Prusik belays.
- Demonstrate competence in braking litters with tree wrap belays and mechanical devices.
- 8. Serve competently in all positions on a semi-technical rescue, including:
 - Serving as rope team member with tree-wrap brakes and Figure 8 brakes;
 - e. Selecting suitable anchor points.
- Demonstrate the ability safely to load and tie a patient into a Stokes litter, and rig it for semi-technical evacuations..
- Demonstrate competence in route selection for a semi-technical evacuation.
- Demonstrate the knowledge of and ability to care properly for ropes and technical rescue equipment.
- Emergency Medicine
 - Current American National Red Cross Standard First Aid card or equivalent, or higher certification.

ASRC Incident Staff

There is no relationship between this qualification and that of any other organization. This person should be capable of handling the positions of Plans Officer or Operations Officer on a search. Finance Officer or Logistic Officer are not addressed by the requirements below. Finance is generally not one of our concerns. Logistics is best handled by a local person such as a rescue squad or fire department member, or a police officer or sheriff.

i. Qualifications

- A. To become Incident Staff certified, the applicant must:
 - 1. Be an ASRC Field Team Leader (FTL);
 - Have served as FTL on at least three field tasks;
 - Meet the technical standards set below, as determined by the Group Training Officer selected by the ASRC Board of Directors;
 - Be proposed for Incident Staff qualification by a GTO at an ASRC Board of Director's business meeting and receive a simple majority of the vote.
 - Complete the Managing the Search Function course and successfully pass the test;
 - Serve as a member of the Command Post or Base Staff on one incident.
- Maintain FTL status. Participation as ASRC Incident Staff on one mission counts as one training session..

II. Equipment Requirements

- Meet the minimum Personal Equipment as specified in the ASRC Operations Manual.
- III. Knowledge and Performance Specifications
 - A. SAR Operations
 - Demonstrate a working knowledge of the ICS concepts.
 - B. Legal Aspects
 - Outline the delegation of authority and responsibility for search and rescue in states where ASRC is located.
 - Explain how the following legal concepts apply to search and rescue operations:
 - Good Samaritan Laws; Civil suits and criminal actions; Standards of care; the right to emergency assistance and duties to provide emergency assistance; Abandonment;
 - b. Implied consent;
 - Entry, during incidents; on property posted "No Trespassing";
 - d. Crime scene protection;
 - e. Declaration of death and confirmation of death;
 - Confidentiality.
 - C. Fleid Operations
 - Describe sources of weather information.
 - Assign realistic tasks to field teams, given terrain, weather, personnel and the context of a search.
 - Produce legible color-enhanced copies of maps with ASRC grids.
 - D. Search
 - Brief a field team properly before a task, including:
 - Subject information and history, subject's equipment, behavior and medical history;
 - b. Weather;
 - c. Terrain
 - d. The search task, how to perform it, what its objectives are;
 - e. Estimated time to complete the task

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- Describe aircraft crash scene considerations
- Debrief a field team properly after a task, including
 - POD, clues, safety hazards, map updates, other pertinent field information, other information,
 - Availability for reassignment;
 - Specialty team debriefing, including:
 - Dog -- air movement;
 - 2) Aircraft;
 - Direction Finding;
 - 4) Tracking;
 - Evacuation (paperwork and documentation must be completed and checked);
 - Medical (paperwork and documentation must be completed and checked).
- Plot (triangulate) bearings from Direction-Finding instruments.
- Handle the media as assigned by the IC.
- 5. Be able to complete and ASRC map problem defined as follows. Given a search scenario, an ASRC OPS Kit, the ASCI Incident Staff member must be able to complete an accurate Strategy Map using ASRC and ICS symbols. The IS member must then use the map to:
 - Use the Task Assignment Procedure to generate a set of appropriate tasks to complete the initial strategy with the given resources;
 - Fill out a Task Assignment Form properly for each task;
 - c. Start a Status Map using the standard ASRC symbols
 - Generate Medical, Evacuation and Demobilization Plans.

E. Communications

- 1. Equipment:
 - a. Be able to set up antennas using available high points and ground planes;
 - Describe the proper placement of antennas.
- 2. ASRC Radio Communications Policy and SOP:
 - Describe the responsibilities of being Net Control;
 - Describe corrective action of FCC regulation;
 - Describe ASRC Radio SOP violations and the possible action(s) to take to control them;
 - d. Explain the following about the SERA band:
 - What SERA stands for;
 - 2) The significance of the frequencies: 155.205, 155.160, 155.340, 155.400.
- Management:
 - a. Maintain a radio equipment sign-out log;
 - Interface with other organizations providing radio communications at missions (CAP, HAM, etc.)
 - Planning -- describe what is needed and how they can be put to best use;
 - 2) Resources -- describe what the organization can provide and when;
 - Operations -- find out what they need during operations and try to provide it.
 - Explain when portable telephone systems are practical.
 - Explain when a temporary commercial telephone line installation is practical. Describe the procedure to obtain a temporary installation.

Incident Command

1.

- To become a Incident Command qualified, the applicant must:
 - a. Be an Incident Staff member for at least 6 months;
 - b. Have participated in at least three (3) active missions as an Incident Staff member, as a part of the decision-making effort for the missions, including:
 - Once as Planning Section Chief;
 - Once as Operations Section Chief or Division Supervisor.
 - Be proposed for Incident Command certification by an ASRC Incident Commander at an ASRC Board of Director's business meeting;
 - d. Receive a favorable written performance evaluation from the incident Commander on each of the three incidents in item b) above;
 - Receive a simple majority of the vote of the member's group;
 - Receive a favorable vote by two-thirds of the entire ASRC Board of Directors;