3 OCT 1987

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APPLICANT MEMBERSHIP:

Purpose: to participate in Group training sessions.

General:

1. The applicant must complete an ASRC Application for membership, and submit it to a Group Training Officer (GTO).

2. The time limit for Applicant Membership shall be less than six months.

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TRAINEE MEMBERSHIP:

Purpose: to be capable of serving as a trained field team member.

General:

1. To become a trainee, the applicant must:
   a. be an Applicant Member
   b. participate satisfactorily in four training sessions, as judged by the GTO
   c. meet technical standards listed below, as judged by GTO
   d. possess all gear required, as set by the ASRC
   e. be proposed for Trainee membership by GTO at a Group business meeting and receive a favorable vote in accordance with ASRC Bylaws.

2. Trainee membership expires in one calendar year unless extended according to the ASRC Bylaws.

Technical Standards: Survival and Wilderness Travel

1. Applicant exhibits ability and knowledge to travel safely in the wilderness, as determined by the GTO.

2. The applicant must understand:
   a. short-term survival priorities
   b. the heat balance of the body
   c. heat loss and ways to prevent it
   d. the physiology of heat loss, including exhaustion and fatigue
   e. hypothermia and frostbite
   f. heat exhaustion, heat cramps, heatstroke and exhaustion
   g. general survival techniques
   h. the STOP mnemonic.

Technical Standards: Search

1. The applicant must be able to:
   a. demonstrate clue-consciousness
   b. function as a member of a grid team, sweep team, and hasty team, and understand his/her role in each
   c. accompany a dog handler on simple search tasks
   d. work well with people
   e. operate and set up any Group-owned hand-held radio
   f. utilise the ASRC grid
   g. serve as a litter team member on a non-technical evacuation
   h. responsibly and effectively handle the media in the capacity of a field team member.

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ASSOCIATE MEMBERSHIP:

Purpose: to be capable of serving as a Field Team Leader.

General:

1. To become an Associate Member a person must:
   a. be a Trainee Member
   b. complete 10 ASRC or Group training sessions as a Trainee, including 2 on search and 2 on rescue
   c. respond to 2 incidents per year
   d. meet the technical standards listed below, as judged by GTO
   e. possess all gear required, as set by the ASRC
   f. be proposed for Associate membership by GTO at a Group business meeting and receive a favorable vote in accordance with ASRC Bylaws.

2. Associate Members must complete annual continuing education requirements, and maintain skills proficiency, as determined by the ASRC.

Technical Standards: Survival and Wilderness Travel

1. Convincingly explain the important psychological aspects of survival, including:
   a. reactions to fear, pain, discomfort, and danger, and their effects on the mind and body
   b. the dangers of panic, and techniques for preventing panic
   c. evaluating and acknowledging the limits of oneself and others
   d. the way artificial goals may interfere with rational judgement
   e. the concept of one's pack and equipment as a life support system.

2. Briefly describe the following physiological concepts pertinent to survival:
   a. homeostasis
   b. energy level and exhaustion
   c. fatigue
   d. daily caloric (food) and water needs of the human body
   e. the relative energy content and availability of fat, protein, starch, and sugar, including the effects of different levels of exertion and seasonal differences
   f. conditioning for search and rescue, including conditioning for strength, flexibility, and endurance.

3. Explain the "energy budget" concept of body temperature homeostasis, including the following key points:
   a. the routes of heat loss, and their relative importance:
      i. temperature (conduction and radiation)
      ii. windchill (convection)
      iii. wetchill (conduction and evaporation)
   b. the use of energy stores to produce heat, and the metabolic costs of shivering
   c. vasodilation, sweating, and behavior as means of increasing heat loss, and the long-term consequences of them
   d. vasoconstriction and behavior as means of conserving heat
   e. the effects of tobacco and alcohol on normal heat homeostasis
   f. the particular danger of "hypothermia weather" that is, temperatures near freezing with wind and rain.

4. Explain the major points of wilderness clothing selection, including:
   a. listing the "3 W's" of clothing priority for wet cold climates, and explaining their importance. They are:
      i. wind protection,
      ii. waterproof clothing
      iii. wool (or other warm-when-wet) clothing
   b. the advantages, disadvantages, and appropriate uses of waterproof shell garments, and the water penetration resistance of: urethane-coated nylon, "60/40 cloth", "65/35 cloth", and Gore-tex
   c. cold-weather dressing concepts, including: the layer principle, ventilation, "dressing cold", and the dangers associated with overheating in the winter
   d. description of clothing materials, including cotton, down, wool, and synthetic fibers, in terms of dry warmth, wet warmth, wind protection, absorption and retention of water, and wicking of water.

5. Briefly describe pertinent local weather patterns, including the signs of arriving cyclonic winter storms, cold fronts, warm fronts, and local storms.

6. Bivouac overnight with normal field pack gear in summer, spring or fall, and carry out incident tasks for a full day following.

7. Build a functional emergency overnight shelter from local materials, and build a fire using field pack gear.

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Technical Standards: Land Navigation

1. Given a standard 7.5 minute U.S. Geological Survey (USGS) topographic quadrangle map, correctly identify the following:
   a. grades of highways, roads, trails, and bridges
   b. power and other landmark lines
   c. buildings, schools, churches, and cemeteries
   d. storage tanks, wells, mines, caves, picnic areas, and campsites
   e. benchmarks (control stations) and spot elevations
   f. boundaries and fence lines
   g. contour lines, depressions, cuts, and fills
   h. perennial and intermittent streams, falls, springs, and marshes
   i. valleys, ridges, peaks, sags (saddles, cols)
   j. elevations and general land contours.

2. Given a photocopy 7.5 minute series topographic map section 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:
   a. latitude and longitude
   b. the ASRC grid system
   c. the Uniform Map System
   d. an azimuth and distance off a VOR
   e. Universal Transverse Mercator (UTM)

3. Demonstrate northing techniques by:
   a. pointing out the North Star
   b. using the "sun and stick" method.

4. Briefly explain and give examples of the use of the following land navigation concepts:
   a. catching features
   b. "collecting" features
   c. attack points
   d. aiming off
   e. coarse and fine orienteering.

5. Given only a 7.5 minute topographic quadrangle or an orienteering map with an attack point and a target plotted on it, and a standard orienteering compass, reliably and accurately:
   a. calculate the true bearing from the attack point to the target
   b. calculate and set on the compass the magnetic bearing to the target
   c. follow the bearing accurately, including triangulating and boxing around obstacles.

6. Correctly locate a position on a topographic map given:
   a. the bearings to two landmarks indicated on the map (resection)
   b. the bearing to one landmark indicated on the map, and the information that the position is on a specified linear feature (modified resection).

7. Given bearings from two locations to a target, correctly locate it on a topographic map (triangulation).

8. Consistently complete point-to-point orienteering courses.

9. Demonstrate the ability to navigate at night.

10. Demonstrate proficiency in photocopying grid overlays onto maps.

Technical Standards: Search

1. Briefly explain the following search concepts:
   a. passive and active search methods
   b. clue finders and subject finders
   c. containment
   d. binary search and cutting for sign
   e. the hasty search
   f. the "bastard search"
   g. sweep search
   h. survey search
   i. grid search
   j. attraction.

2. Know and understand the ASRC Operations Manual.

3. Lead a Field Team competently on:
   a. scratch, survey, perimeter cut, sweep, and saturation search tasks
   b. interrogation and visual search tasks.

4. Demonstrate ability to properly brief and debrief a field team.

5. Reliably use VHF-FM mobile and handheld radios to communicate incident information including:
   a. adjustment of channel, volume. squelch, and PL (CTCSS) controls
   b. using the ASRC radio SOP, including proper station identification and observance of FCC regulations, proper use of prowords, and use of the ICAO (ITU) phonetic alphabet
   c. describing various techniques for improving marginal communications encountered while using VHF-FM handheld radios.

6. Demonstrate the ability to track a person for twenty feet over various terrain types, with knowledge of:
   a. tracking sticks
   b. the effects of the sun and how to use them
   c. how to identify shoe type and provide measurements
   d. how to find stride length and width.

Technical Standards: Rescue

1. Correctly coach and supervise an untrained litter team in a non-technical evacuation including toe-nailing, laddering, and rotation of litter bearers.

2. Be a litter team member on a semi-technical evacuation.

3. Correctly tie, contour, and back up the following:
   a. the ASRC seat harness
   b. figure-of-eight on a bight
   c. bowline knot
   d. square knot
   e. barrel knot and bend
   f. girth hitch
   g. taut-line hitch
   h. figure-of-eight follow-through.

4. Demonstrate or describe the following:
   a. ground-to-air panel and hand signals
   b. air-to-ground aircraft signals
   c. helicopter landing zone preparation and marking
   d. rules for approaching helicopters.

Technical Standard: Emergency Medicine

1. Complete an ASRC "Fundamentals of Wilderness First Aid" course.

2. Possess a valid American National Red Cross or American Heart Association 2-rescuer Basic Cardiac Life Support (Cardio-Pulmonary Resuscitation) card.

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CERTIFIED MEMBERSHIP:

Purpose: to be capable of serving in any capacity on an incident, except as IC or Rescue Specialist.

General:

1. To become a Certified Member a person must:
   a. be an Associate Member
   b. complete 10 ASRC or Group training sessions as an Associate, including 2 on search and 2 on rescue
   c. respond to 2 incidents per year
   d. meet the technical standards listed below, as judged by GTO
   e. possess all gear required, as set by the ASRC
   f. be proposed for Certified membership by GTO at a Group business meeting, and receive a favorable vote in accordance with ASRC Bylaws.

2. Certified members must complete annual continuing education requirements, and maintain skills proficiency, as determined by the ASRC.

Technical Standards: Survival and Wilderness Travel

1. Distinguish equipment suitable for wilderness search and rescue, including boots, packs, sleeping bags and pads, and stoves.

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

3. Travel cross-country competently in a middle-Appalachian wilderness area during any time of the year, including:
   a. large stream crossings
   b. fourth class rock climbing
   c. proper pace and rest stop use.

4. Bivouac overnight with normal field pack gear in winter and carry out incident tasks for the following full day.

5. Describe the means of transmission, preventive measures, and appropriate measures in suspected or possible exposure, if any, for the following diseases:
   a. Rocky Mountain Spotted Fever
   b. Tetanus
   c. Rabies
   d. enteritis and diarrhea (viral, bacterial, or protozoal)
   e. chiggers, ticks, and mites
   f. Lyme disease.

6. Briefly describe the causes, prevention, diagnosis, and wilderness treatment for the following:
   a. muscle cramps
   b. friction blisters
   c. tendonitis;
   d. localized infection, including ingrown nails and abscesses
   e. contact dermatitis (e.g. poison ivy)
   f. poisonous bites and stings, pit viper bites, spider bites, and bee stings
   g. allergic and anaphylactic reactions
   h. animal and human bites
   i. fever
   j. snowblindness
   k. hypothermia (acute, subacute, and chronic)
   1. heat cramps, heat exhaustion. heatstroke, and dehydration.

7. Briefly describe how one should treat the following medical problems in a wilderness setting:
   a. subungual hematomas
   b. nosebleed
   c. ear infection
   d. conjunctivitis, a foreign body in the eye, and eye abrasions
   e. burns and frostbite
   f. minor and major soft tissue injuries
   g. sprains, strains, and dislocations
   h. closed fractures, including improvised splinting
   i. open fractures
   j. shock
   k. gastroenteritis, diarrhea, and vomiting
   1. attached ticks and embedded chiggers.

8. Present important factors involved in the decision to:
   a. administer oral fluid and electrolyte replacement
   b. wait for an evacuation team versus beginning an evacuation with improvised methods.

9. Properly use the following improvised evacuation methods:
   a. 2-person linked-arms "chair" carry
   b. 2-person packstrap-and-pole carry
   c. both split coil and sling "piggyback" carries
   d. improvised stretchers, rope stretcher, rope and pole stretcher, parka and pole stretcher, and blanket and pole stretcher.

Technical Standards: Land Navigation

1. Consistently complete point-to-point orienteering courses of at least a 6-hour duration, at night.

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Technical Standards: Search

1. Have met all requirements to be an ASRC Incident Staff member.

2. Explain the use and operation of DF-ing instruments for locating downed aircraft.

3. Be able to set up commonly-used ASRC radio equipment, including:
   a. mobile and base radios
   b. antennas and masts
   c. power supplies
   d. linear amplifiers.

4. Outline the delegation of authority and responsibility for search and rescue in states where ASRC Groups are located.

5. Briefly explain how the following legal concepts apply to search and rescue operations:
   a. Good Samaritan laws
   b. civil suits and criminal actions
   c. standards of care
   d. the right to emergency assistance and duties to provide emergency assistance
   e. abandonment
   f. implied consent
   g. entry, during incidents, upon private property posted "No Trespassing"
   h. crime scene protection
   i. declaration of death and confirmation of death
   j. confidentiality.

Technical Standards: Rescue

1. Correctly tie, contour, and back up the following:
   a. water knot (overhand bend, ring bend)
   b. Prussik knot
   c. Headden knot
   d. clove hitch
   e. load-releasing hitch
   f. cross-chest harness

2. Demonstrate the following rope handling techniques:
   a. coiling and uncoiling a mountaineer's coil
   b. coiling and uncoiling a inverted-loop coil.
   c. stacking and inspecting the rope
   d. rigging to an anchor using:
      i. a bowline
      ii. a tree wrap and tie-off
      iii. loop webbing slings
   e. casting, padding, and rigging static lines.

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3. Belay competently, including:
   a. proper anchorage, tie-in, stance, and aim for hip belays
   b. correct calls, up rope, slack, and fall-catching
   c. prussik belays.

4. Demonstrate competence in braking litters with tree wrap belays and with figure-eight descenders.

5. Serve competently in all positions on a semi-technical evacuation team, including:
   a. serving as rope team member with tree wrap brakes and with figure eight descender brakes
   b. rigging and directing a brute-force hauling system and z-haul system, with and without directional pulleys
   c. serving as rope team member with either hauling system
   d. serving as litter captain
   e. selecting a suitable anchor point.

6. Properly load and tie a patient into a Stokes litter, and rig it for semi-technical evacuations.

7. Demonstrate competence in route selection for a semi-technical evacuation.

8. Rappel properly with:
   a. the arm rappel (French arm rappel, back rappel)
   b. a figure eight descender (single and double wrap)
   c. a Munter (Italian) Hitch
   d. a long rappel rack.

9. Switch from rappel to ascend, and back to rappel.

10. Ascend sixty feet using only prussik knots.

11. Demonstrate the knowledge of, and ability to care properly for, ropes and technical rescue equipment.

Technical Standard: Emergency Medicine

~~Same as those for Associate Membership~~

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INCIDENT COMMANDER:

General:

1. To become an Incident Commander a person must:
   a. be an Incident Staff member for a minimum of 6 months
   b. have worked as an Incident Staff member on three incidents, including:
      i. once as Planning Section Chief
      ii. once as Operations Section Chief or Division Supervisor
   c. be proposed for Incident Command membership, by an ASRC Incident Comander, to the ASRC Board of Directors.
   d. receive a written performance evaluation from the Incident Commander on each of the three incidents in item b., above
   e. receive a favorable vote from the members in that person's Group who have Conference voting rights
   f. receive a favorable vote by two-thirds of the entire ASRC Board of Directors.

2. Incident Commanders must complete annual continuing education requirements, and maintain skills proficiency, as determined by the ASRC. They must also pass an annual review by the entire ASRC Board of Directors.