

AMC Outdoor Leader Handbook



Appalachian Mountain Club
Education Department

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Introduction

Leadership is the association between an individual (the leader) and a group of people sharing a common interest or goal, with the leader directing the group to behave in a certain way. One of the leader's most important functions is to influence the members of the group to work together for the benefit of all. In the course of many outdoor activities, a group of people working together will be able to accomplish much more than one person acting alone—and the activity will be safer and more enjoyable. The leader's ultimate responsibility is to the group as a whole, rather than to himself or herself or to his or her friends.

When we address the issue of outdoor leadership, we must consider the characteristics of the leader and group members; the outdoor environment in which the activity takes place; and the group's objectives for the activity. Also, it is important to recognize that although an individual may be an effective leader in one situation, he or she may not be effective in others. For example, a person who can successfully lead a small, experienced group of day hikers in the White Mountains of New Hampshire might find it difficult to lead a large group of less experienced day hikers in Harriman State Park in New York or vice versa.

Outdoor leadership skills can be developed and improved upon over time through combination of self-study, formal training, and experience. Leadership training workshops are offered frequently by volunteers and staff of the AMC. The trainings range between one-day or weekend trainings in each chapter to the 5-day Mountain Leadership School held in the White Mountain National Forest's backcountry each summer. Prospective leaders should start by co-leading hikes and backpacking trips with experienced leaders and by volunteering to "sweep" on these activities. (By sweeping, a leader will gain first-hand experience of the problems likely to occur in back of the group.) We also recommend that prospective leaders hike and backpack with a number of different leaders to familiarize themselves with a variety of leadership styles and techniques. After observing different styles, leaders can choose techniques that work best for them.

This AMC Outdoor Leader Handbook has the following goals:

- **To provide information for leaders to assist them in leading safe and enjoyable AMC trips.**
- **To raise each leader's level of outdoor leadership awareness.**
- **To help leaders become aware of the skills they need to develop.**
- **To build confidence and enthusiasm about leading AMC trips.**
- **To teach leaders how to plan, organize, and lead AMC trips.**

Leaders and Groups

It's one thing to be proficient at an outdoor activity and quite another to lead a group of people proficiently on an outdoor activity.

Leadership is an elusive concept. What makes people follow a leader? And why do some people follow while others do not? Are people born with the ability to lead or can it be developed? Exactly what is leadership?

The Situation: There must exist a situation where leadership is required. This can be a crisis, a planned event, a group of people learning to interact with each other, or a situation in which something needs to happen. Leadership is a response to a need.

The Leader: Simply defined, *leadership* is the association between an individual (the leader) and a group of people sharing a common interest or goal, with the leader directing the group to behave in a certain way. The leader accepts responsibility for the needs of the group and influences its members to work together for the benefit of all. *The leader is responsible for what is said and done while the group is together.*



The Followers: The individual members of a group must be willing to be led, and they must agree to follow a course of action to meet the group's goals. Group members must view their acceptance of the leader's guidance as the way to achieve their own goals. Leadership fails when the group does not accept the leader.

No single personality type is preferable for leadership. However, the person who is comfortable making decisions and who enjoys responsibility and the dependence of others will find more enjoyment in serving as a leader. Shy, introverted people may not enjoy being in the leadership role, but they might be very effective leaders. Good leadership traits may be found in all personality types.

Some people seem to be "born leaders." But most become good leaders through hard work and many years of experience. In the outdoors, a leader must be prepared to face physiological, psychological, and environmental challenges. Experience will generally reduce the leader's anxiety about the situations that may confront him or her, and thus make the leader more confident and skillful than someone who lacks experience. An experienced leader will also have a better idea of how their personality will affect others and will have more skill in selecting an appropriate approach to his or her followers, depending on the situation.

Leadership Styles

The way in which a leader approaches both the group and the situation is called *leadership style*. For example, a leader may decide to be low key instead of highly interactive. The leader's style reflects his or her personality, experience, and the situation at hand. A style type should be selected according to the situation and the followers. A leader may have to employ a different style for each person in the group because people respond differently to each style.

Choice of style greatly influences the leader's effectiveness. A decision to change styles can be very important either as a long-term adaptation or as a quick adjustment in response to a new situation. When faced with many options, a leader must adopt a style that will safely bring about unity when the followers cannot agree.

It is possible to delineate several styles of leadership. No leader should rely on only one. Leadership styles are fluid and most people will find themselves using several or all the styles at one time or another depending upon the situation. The four main styles are:

- **Authoritarian**
- **Selling**
- **Consulting**
- **Engaging**

1. **Authoritarian:** This leader is in command. He or she makes the decisions for the group. This leader orders the followers. This style is task-oriented and geared to deal with the problem at hand. For example, a thunderstorm is approaching. The leader assesses the situation and says, "Everyone turn around now! We're going down." This style is particularly useful with children, or groups in crisis or close to panic. When well done, this style can be very attractive to many followers who do not want to be involved in any of the decision making.
2. **Selling:** This leader also knows what he or she wants the group to do. There is little room for the followers not to buy the leader's point of view. The leader sells, persuades, and convinces the followers to do what he or she has decided. Continuing with our bad-weather example (but without a thunderstorm), this leader would say, "Look guys, there are some clouds building up over there. I think it's a bit risky to continue. We're probably going to get caught in a storm. We definitely don't want to get wet, right? Let's go down."
3. **Consulting:** This leader also makes the decision for the group. The difference is that the followers' opinions are solicited and considered before he or she arrives at a decision. This leader questions, listens, reflects, and often paraphrases what has been said, and then he or she directs the group. The followers have a much greater sense of participation in the decision-making process. In this style there is a focus on the process of decision making rather than just the outcome. This leader would start by

saying, “Look at those clouds over there. What do you think about continuing?” He or she would then listen to everyone's concerns and considerations, think about what everyone said, and then *the leader* would make the final decision. “I've thought it over and I've decided that we should go down. I know that not everyone feels the same, but I agree with Bob and Sarah that it's too risky to continue.”

4. **Engaging.** This leader makes decisions only in emergencies, spending time facilitating the followers in making their own decisions. He or she will lead the group in questioning, listening, reflecting, and informing to allow the followers to arrive at a decision about what is to be done. This leader allows the group to hold the responsibility to make its own decision.

This leader might be the first to notice and mention the clouds building up, but he or she might also wait until someone in the group mentioned it, and then say, “I noticed them, too. What do you think? Should we continue to the top?” He or she would continue to ask questions and encourage everyone in the group to voice an opinion, occasionally summarizing what he or she is hearing. “So far this is what I hear: John and Sue, you definitely want to go down. Sandy, you seem undecided. What considerations do you have?” The discussion would continue until a solution was found that everyone could accept. “I have a real sense now that we all want to go back down to camp.” With this style the leader facilitates the decision, but the group makes the decision. Discussions take time, but the end result is greater support for each decision.

Leader and follower participation in the decision-making process varies with each of these styles. The authoritarian or controlling leaders have all of the decision-making responsibility, while the engaging type leaders give their followers all the responsibility.

There are two other styles that are worth mentioning, but they are not as easy to define as the above four: **Laissez-faire** and **Charismatic**.

5. **Laissez-faire.** This leader is not concerned with moment-to-moment decision making. This style is suitable only with groups of competent, friendly, and well-motivated participants. For this style to work, each group member and the group as a whole must make good decisions. With this style it is often difficult to recognize the leader until a situation arises where he or she is needed. Most of the time this leader's role is not different from that of other followers.
6. **Charismatic.** This is the leader whom others wish to follow because of the attractiveness of his or her personality. This is the leader who inspires us and makes us want to accomplish more. Taken to extremes, this can be a very dangerous style if participants stop using their own judgment and follow blindly. This is often the style we think of when we think of “leadership,” but it is not a style that we attempt to teach or develop. Its role is limited in the outdoor environment, but it does have a place. When followers are tired and hungry, it helps to have the lift that an inspirational leader can provide.

Participant Roles

As we saw in the preceding section, leadership is not isolated in the leader but is very strongly linked to the participants. Just as there are models for leadership styles, there are also models for participant roles. There are three major roles:



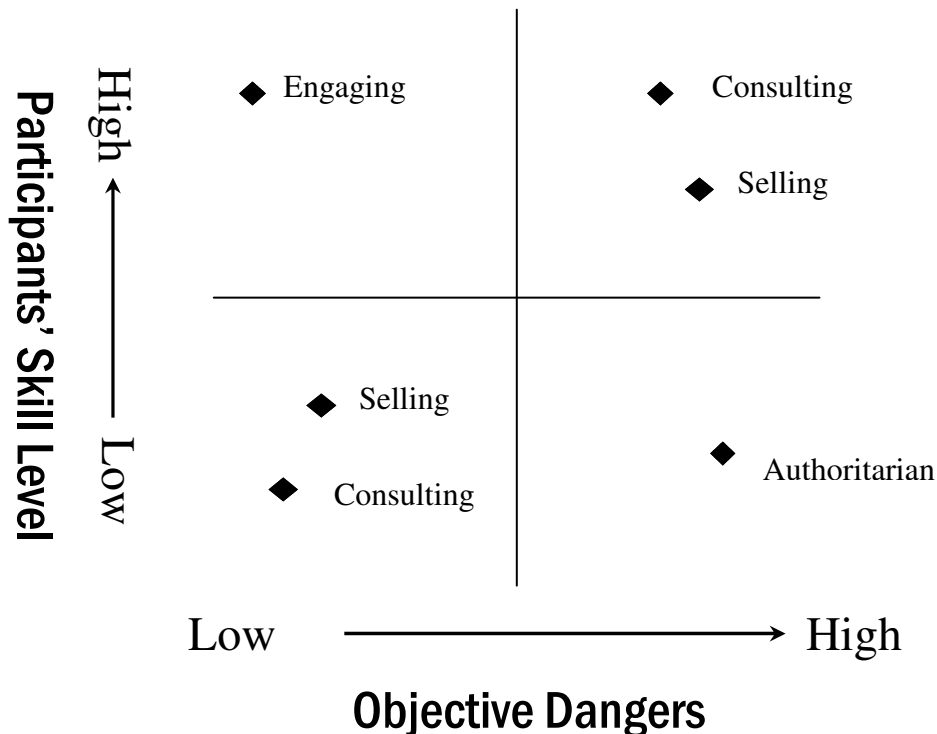
- **Opposer**
- **Follower**
- **Bystander**

1. **Opposer.** This person tends to criticize, challenge, and either overtly or covertly tries to undermine the leader. This opposition can be very subtle (someone in the back of the line muttering and complaining under his or her breath) or very obvious (someone who is constantly questioning the leader's decisions in front of the whole group). The leader's reaction to this type of participant is usually anger. Some leaders are intimidated.
2. **Follower.** This person respects authority and is usually very supportive of the leader. This participant may develop a real dependence on the leader or may just have a need to accept someone else's guidance. The leader's reaction to this person is usually one of appreciation. This is the follower who confirms the leader's role.
3. **Bystander.** This person tends to be somewhat aloof, going along with the program, whatever it may be. If there is a conflict in the group, the bystander will not become involved or take sides. The leader's reaction to this person is bland or neutral as contrasted with the negative reaction to the opposer and the positive reaction to the follower.

Just as with leadership style, participant roles are flexible. A person who is by nature a follower, may suddenly become an opposer if he or she is put into a position that is threatening or uncomfortable. Conversely, an opposer might decide to be a follower if he or she is impressed with the actions of the group leader and gain sufficient respect for him or her.

Adapting Leadership Styles to Participant Roles

How does the leader's style mesh with the participants' roles and abilities? When do you use what style? What situation calls for what style? These are difficult questions to answer but can be the key to excellent, flexible leadership. We can make a few suggestions based on examples of different situations and different types of groups. You will notice that objective hazards and participant skill are critical – the greater the risk, the more forceful or decisive your leadership style will most likely need to be. However, because each group is different, any style may work in any situation.



There are no rules and regulations governing the choice of leadership style. The leader must approach each situation and each follower as a new and unexplored adventure. A leader's experience in previous situations will help get him or her get started, but flexibility and the ability to recognize the necessity for flexibility are the keys to success. Leaders need the ability to switch from one style to another as the situation changes and as they get to know their followers.

This is also an important factor to consider when selecting or working with a co-leader. If there is a particular leadership style that is most challenging for you, you may want to seek out co-leaders who are able to take over when that style is needed. When working with a co-leader, you should discuss your strengths and weaknesses in terms of leadership style so that you can give each other support as well as opportunities to practice different roles.

Group Life Cycles

Simply defined, a **group** is an assemblage or collection of people sharing some kind of interrelationship. We can identify many different types of groups, both large and small. Examples of large groups might include a society, a community, a major business enterprise (such as a “Fortune 500” company), an organization (such as the AMC), or a sub-organization (such as an AMC chapter). Small groups may be defined as those consisting of no more than twenty to thirty people. Examples of small groups might include a family, a project team in the workplace, a committee (such as an AMC chapter’s hiking or backpacking committee), a trail maintenance crew, or a gathering of friends.



Groups engaging in the kinds of outdoor activities addressed by this manual are small groups, ideally consisting of around ten people. In some instances, such as on any backpacking trip or on hikes in environmentally sensitive areas, the group size must be limited to ten or less. In many cases the local land agency puts limits on the number of people (in a group) allowed in certain areas. Be sure to check with the managing agency for the area in which you intend to travel. In other instances, such as day hikes in a heavily used park close to major metropolitan areas, the group size may consist of more than ten people—but it becomes more difficult to lead a larger group.

We can identify certain characteristics that are inherent to a small group. Its members must:

- Be able to communicate easily with one another.
- Be engaged in an activity in which they share a common fate.
- Be aware of their interdependence and recognize that it is in their interest to cooperate with one another.
- Remain together for a sufficient period of time.

In many respects, a small group of individuals is a complex living entity. If its members remain together long enough, a group can progress through a series of **developmental stages or “life cycle,”** just like the individual human beings who comprise it. The pioneering work in group development was done by Bruce W. Tuckman. Tuckman reviewed many studies to determine the five stages of group development, better known as the group life cycle. The five distinct stages are:

- **Forming**
- **Storming**
- **Norming**
- **Performing**
- **Adjourning**

It should be noted that groups who have a short life span may not go through all the stages and in some cases groups will not go through the stages in sequential order. Leaders and group members who understand this developmental life cycle are better equipped to survive the shaky and sometimes turbulent beginnings of a group and thereby reap the benefits of the group as it matures into a cohesive functional unit in the adulthood stage. Also, the leader plays a key role in the closure or termination of the group. Each stage in the group's development will be experienced—no matter how unpleasant—as our own unique example of the inevitable cycle of group development.

Stage One: Forming

The Group Dynamic: There are countless scenarios that can bring a collection of people together as a group. Although these scenarios are as diverse as the individuals who may constitute the group, there are some behavioral dynamics that are common to all newly formed groups. The dominant behavioral characteristics of individual members in an forming group are politeness and superficiality. Interpersonally the members experience a sense of approach/avoidance anxiety as they carefully position themselves in relation to one another. The main intra-group dynamic is inclusion/exclusion. Each individual questions whether he or she wants to be a member of the group, and the group questions whether it wants him or her as a member.

Leadership: Leader-group behavioral dynamics in an forming group are characterized by the members' dependency on leadership—and at the same time their aloofness toward leadership. Because of the confusion, ambiguity, and anxiety that pervade the newly formed group, it searches desperately for leadership. At this point, any reliable direction, guidance, or information might quickly be embraced by its members. The group is ready to progress beyond forming when a common level of expectation has been developed.

The leader's focus during the forming of a group should be on the following:

- Allowing distance.
- Working on involvement at a safe pace.
- Setting Expectations!
- Furnishing information or rules for group operation.
- Gently inviting trust.
- Minimizing competitive interaction.
- Fostering a common level of expectation.

Many groups that meet for a day trip proceed no further than the forming stage. Groups involved in simple activities that can be accomplished by individual members without interaction—such as hiking or biking—may never get past the superficiality of the initial stage. If the completion of a group task is required, such as cooking a meal, then the group may progress beyond forming.

Stage Two: Storming

The Group Dynamic: This is a crucial stage in the group's life cycle because it deals both with power and with the decision-making processes that are necessary for the group

to function later on. Storming is the most difficult stage for the group as a whole and for its individual members. The identities of individuals clash with the newly forming identity of the group. The dominant individual behavior of group members at this stage is a conflict between autonomy and affiliation. The individual strives to regain his individuality and state his needs as he affiliates with the group. A full range of emotions is usually applied to this task.

Interpersonally the group members are concerned with control needs such as influence and status. They question whether they are in control and whether there is a sense of direction. They react negatively to leadership in its infancy. The group is ready to progress beyond storming only when group members create and agree upon an acceptable order and process for group decision-making. A group that tries to progress beyond this stage without resolving these control issues will only be forced to return to the storming stage for a later resolution.

Leadership: The leader's focus during the storming stage of a group should be on the following:

- Allowing autonomy.
- Acting non-punitively to affronts on authority.
- Enforcing group rules and policies.
- Clarifying issues.
- Maintaining sufficient authority and control



A group cooking its first meal together usually exhibits the storming stage. Expressions such as “too many cooks spoil the soup” and “if you can’t stand the heat get out of the kitchen” are frequently heard and are expressions of the control issues that dominate this stage. Group members who attempt to lead or cook are frequently greeted with criticism and their efforts undermined until the group reaches an acceptable order and process.

Stage Three: Norming

The Group Dynamic: In this stage the group begins “norming” their roles in relation to one another. The group begins to accept and establish their role and place among the group. During this stage the group begins to understand each other’s strength and weaknesses. Tasks are defined and decisions are made according to the order and processes established in the storming stage. The group begins to move forward as one and often tasks begin to take shape with very little direction.

Leadership: As the group functions together, a trust evolves among its members. Leadership behavior should involve clarification and facilitation. Good leadership styles to try at this stage are those involving consensus and shared leadership.

The leader's focus in the norming stage of a group should be on the following:

- Listening to group members
- Supporting the group as a whole
- Encouraging total participation
- Encouraging productive conflict

The sense of accomplishment in finishing a task, reaching a consensus, or solving a problem is a powerful unifying force within the group. A group identity emerges from a feeling of uniqueness with the group fully aware of its strengths and weaknesses.

A group that has successfully prepared its first meal together is a force to be reckoned with. Its members have established an identity that will bond them together to tackle even bigger challenges at later points during the group's existence.

Stage Four: Performing

The Group Dynamic: During this stage the group has established themselves as a unit and not merely as a collection of individual group members. An individual group member's behavior is dominated by involvement and commitment toward the group and its goals. Interpersonally there is both caring and conflicting interaction between group members. Intra-group behavior is directed toward "norming and performing." The group members work collaboratively and synergistically toward the group's goal. Tasks are accomplished by a blend of leading, sanctioning, and following through.

Leadership: This is the leader's reward for all the hard work they put in helping the group form. During this stage the leader should move towards a clarification and directional role.

- Clarifying
- Maintaining sense of purpose/direction
- Supports the group
- Balances being involved, but not too involved
-

The leader's job is to clarify tasks and questions, but only at crucial times. This can be hard if you start to see the group head back towards the storming stage.

In addition the leader needs to keep the group on track. Do not let them make a big mistake or a careless decision if someone can get hurt. However, this is the time when you can allow the group to fail and succeed. Do not interfere so that the group cannot enjoy their success and failures.

Stage Five: Adjourning

After a group successfully completes its full life cycle, there is a natural tendency for its members to attempt to remain together. But, failure to disengage once the cycle has concluded will only lead to a hollow, unfinished feeling in the future. Thus, Tuckman,

along with Mary Jenkins, years after his first group life cycle study, added the fifth and final stage to group development: Adjourning.

The Group Dynamic: An individual's behavior at closure may reflect a sense of loss and even a denial of the significance of the group to him or her. Separation conflicts may be eased through a process known as "clustering," in which the group members position themselves close to one another at the conclusion of the activity. Intra-group behavior might include evaluations of the group or a brief summary of the group's challenges and successes.

Leadership: The leader should facilitate an event at the end of the trip. It is helpful to consider this adjourning stage during your pre-trip planning so that you can let folks know of your plans before or during the hike. The length/extent of the closure activity depends upon the length of the activity and to what stage of group development the group was able to advance during their time together.

- Facilitate clustering so that no one feels left out or is forgotten
- Facilitate any evaluations that are occurring within the group.

Some Ideas for closure:

- Thank the participants, shake hands, and invite them to other AMC activities.
- A Group Photo
- A "tailgate" party—can be as simple as a bag of M&Ms or could be as complex as a grilling event.
- Suggest the group visits a nearby restaurant or dairy bar.

Many times, successful groups plan reunions. If these reunions do occur, feelings are never the same as before, because the context for each of the members has changed. It is far better to savor the joy of the experience at closure than to try to recreate the experience in the future. Complete the cycle and share the good-byes without sorrow. Learn from your experience and look forward to your next group activity.



Decision Making

Actions have consequences.

In our day-to-day lives, we are constantly making decisions—some of which are insignificant and others that have long-term consequences. When we make our decisions, we often do not pay too much attention to the information or thought processes we utilize. Most of us like to view ourselves as informed, responsible, rational, human beings who exercise good judgment. But in reality, when we make decisions we often rely on information that is faulty, irrelevant, and incomplete. And we allow our decision-making processes to be influenced both by peer pressure and by our own personal desires, prejudices, and deeply engrained behavior patterns.

Simply defined, *decision making* is the process of selecting among alternative choices. A basic decision-making model consists of the following steps:

- Identifying and defining the problem.
- Generating solutions.
- Evaluating solutions.
- Selecting a solution (making a choice).
- Implementing the solution.
- Evaluating the outcome.

Some decisions can be made slowly over a long period of time, others must be made in an instant. In some situations there is a vast amount of reliable information, in others there is very little. Sometimes we can make our decisions when we are calm and relaxed, other times we must make them when we are under severe stress. In some situations, there may be an optimal solution—which we can identify if we work at it. But many times there is none—we must make a choice and hope for the best. If we are lucky, when we make a poor choice, we can begin the process again and hope for a better outcome.

Three scenarios follow to illustrate some of the challenges of decision making. The first is an example of a situation in which there appears to be no optimal solution. In the second, there is an optimal solution that a leader would need knowledge and experience to identify. The third is an example of a situation in which employing a risk/benefit approach is ideal and in which the leader would need to draw upon his or her knowledge of leadership styles and participant roles.

Scenario One: No Clear Solution

You are leading a group of ten people on a day hike in New York's Harriman State Park on a Sunday in early August and the weather is sunny and warm. After lunch, two hikers inform you that instead of continuing with the group, they would like to leave early. One of them is an experienced hiker in his seventies who has participated on many group hikes in the park, the other is an inexperienced hiker in her late twenties. You discuss with them the quickest, easiest way out and provide them with a map on which you have outlined their route. The two of them depart and the rest of the group continues the hike.

When you return to the parking lot at the conclusion of your hike, shortly after 3 p.m., you discover the cars of the two hikers parked in the parking lot with the hikers nowhere in sight. The boyfriend of the missing female hiker had remained with the group, and he informs you that his girlfriend had planned to wait in the car until he returned. (You learn that one of her reasons for leaving early was so that the older hiker would not have to walk back alone.) You wait another fifteen minutes, but still the hikers have not appeared. As a leader what should you do?

The problem is that two hikers have failed to return to the meeting location at the expected time. Neither you nor anyone at the scene knows what became of them. They may be lost, one of them may be hurt or ill, or they may simply be slow in walking back. Alternative approaches to addressing this problem might include the following:

(1) Assume that the two missing hikers are seriously lost or that one of them is hurt or ill, and immediately call the park rangers for help. This would be the safest choice—but not necessarily the most practical. Just because the experienced hiker has participated on many group hikes in the park does not mean that he knows how to navigate on his own. If either of the two were hurt or ill, the victim might require medical attention as soon as possible. But, calling the rangers immediately might be over-reacting. The two missing hikers are not unreasonably late. The weather is warm and dry, and about four more hours of daylight remain.

(2) Assume the missing hikers are either walking very slowly or became temporarily lost, and that they will appear soon. Plan to remain in the parking lot and wait at least an hour before doing anything else. This might be a sensible approach. After lunch, your group proceeded at a relatively fast pace with only brief stops for water. Maybe the two who left early decided to walk slowly and make frequent rest stops. Even if the hikers did get lost, if they studied the map, they might be able to find their way, and they also might encounter other hikers who could give them directions.

(3) Start looking for the missing hikers yourself accompanied by any volunteers. This might also be a sensible approach. As long as you are careful about hiking out only a set distance or amount of time and there is someone to remain behind in the parking lot, this approach might help you solve your problem more quickly than other alternatives. However, if the missing hikers were on an alternate trail or if the search was too lengthy, this process might create additional problems.

(4) Take the attitude that since these two individuals chose to leave the hike, you are not responsible for them. This approach would be careless and irresponsible, since the two hikers are obviously missing. One of them is over seventy years old and the other is a very inexperienced hiker. (If the situation had involved hikers who had chosen to leave your hike to go off on their own, and you were unaware of where they went or when they planned to return, then this would be a more reasonable approach.)

Scenario Two: A Clear Solution

You are leading a group of eight backpackers on a three-day trip in early September. Several hours after you depart from the trailhead, your sweep informs you that one person in the group is having difficulty keeping up. You approach this person and she complains that she is experiencing severe leg cramps and that she feels weak and a little dizzy and nauseous. Her skin is cool and clammy. She does not know why she feels ill. As a leader, what should you do?

The problem is that one of the members of your group is unable to keep up because she is suffering from leg cramps and she feels weak and ill. Alternative approaches to addressing this problem might include the following: (1) assume that the victim is too ill to continue, abort the trip, and begin planning for her evacuation; (2) assume that nothing is seriously wrong, allow her to rest awhile, and then urge her to continue; (3) assume that she is suffering from heat exhaustion, administer the appropriate first aid, and then reassess her condition. In this situation, the third alternative is the best solution. It deals first with the immediate problem of the condition of the victim and leaves some flexibility as to the next step for the trip overall.

In a scenario such as this, a knowledge of wilderness first aid is critical in making the best decision. If the leader lacked such knowledge, he or she could consult other members of the group to determine if someone else might be able to help. (The leader should not necessarily be the one who administers first aid—especially if others in the group are more qualified.) In the absence of anyone with appropriate training, the leader would have had to make a conservative decision and end the trip.

Scenario Three: A Risk/Benefit Approach

You are leading a group of ten hikers in a remote wilderness area that is unfamiliar to everyone in the group. The group is on a marked trail when one hiker notices a nearby hill and suggests that it would be fun to “bushwhack” to the top. Four other members of the group think this is a great idea. The hill is well below tree line, and off-trail hiking is permitted in the area. As you survey the steep slope leading to the summit, you notice many rocks and boulders. From the way they are perched, you become concerned that the rocks and boulders might be unstable. The five hikers are eager to get started and they are trying to sell you and the others on their plan. As a leader what should you do?

The problem is that members of your group are proposing a route that you believe might be hazardous. In a situation such as this, evaluating risks and benefits can greatly

simplify the decision-making process. Approaches to addressing this problem might include:

(1) *Solicit everyone's opinion and if the group is in favor of the excursion, agree to proceed with the assumption that if all are careful, the group can avoid any hazards posed by unstable rocks and boulders.* If you had reason to believe the rocks and boulders on the steep slope were unstable, then this approach would be reckless and irresponsible. There would be little or no time for people to get out of the way of falling rocks or boulders, which would be likely to kill or seriously injure anybody in their path.

(2) *Mention your concerns to the group and agree to proceed to the foot of the hill where you will then reassess the hazards.* This approach might not be viable because even at the foot of the hill, it would probably be difficult for you to determine the stability of the rocks and boulders. Also, once the group began the excursion, people might be reluctant to turn back.

(3) *Carefully explain your concerns to the group, stressing that if any rocks or boulders became dislodged, they could easily kill or seriously injure anyone in their path.*

Emphasize the challenges and benefits of your intended route. In this situation, the third alternative would offer the best solution. The risk of death or serious injury resulting from someone being hit by a falling rock or boulder would outweigh the satisfaction that the hikers might derive by scrambling up an interesting but untested slope. (Hopefully during its “adolescence” phase, the group adopted a workable decision-making process, and those who originally favored the excursion will accept this as a sensible decision. If not, the leader might need to employ an “authoritarian” style.)

In the context of outdoor leadership, it is important to note that there is a physical side of decision making. Our brain's ability to function can be affected by conditions such as dehydration, body temperature, fatigue, and our emotional state (panic, for example). Perhaps the most striking illustration of the effects that brain chemistry can have on one's ability to think rationally can be seen in hypothermic individuals. This condition occurs when a person becomes too cold and his or her body temperature drops below a certain point. The behavior of an individual suffering from hypothermia becomes confused, erratic, and apathetic. Judgment is so severely impaired that the victim will fail to put on warm clothing, cast aside essential equipment, and disregard his or her direction of travel.

As outdoor leaders, our ultimate goal is to provide a group of individuals with a safe and enjoyable outing. There will always be known and unknown risks associated with the activities that we have chosen to lead. And there will always be disagreement among a group's members. Utilizing our own personal knowledge and experience, combined with that of those who accompany us, we follow a basic model and do our best to make prudent decisions. We take sufficient time to gather and evaluate information, we consider the needs and desires of those in our group, we give some thought to the consequences of our actions, and we take precautions to avoid conditions (such as hypothermia) that will result in the impairment of our brain's ability to function. We also recognize that in the real world, luck (or chance) sometimes plays a major role in determining the outcome of our choices.

Trip Planning and Management

Because AMC members enjoy such a broad range of recreational activities, trip planning and management varies greatly throughout the club—everything from urban walks or short walks in local parks to technical whitewater kayaking. Not all of the information in the following section will apply to all activity leaders – leaders must tailor the elements of trip planning to fit their activities. If in doubt, err on the side of safety and on the side of greater planning and detail.

At first, the process of trip planning and management may seem daunting. Try to keep a few things in mind:

- Even if you are inexperienced in planning group activities, you most likely have experience planning a family vacation, personal trip, etc. that will help you along the way.
- Checklists are good aids for successful trip planning. This section will provide you with several checklists to help you get started.
- A good trip plan is detailed. While the amount of detail should be dictated the complexity and risk of the trip, in general, the more detail the better.
- A good trip plan has a substantial margin of safety. Be prepared to be flexible – build alternatives into your trip so you can deal easily with complications that may arise.



Routes and Trip Plans

Once you have defined what type of trip you are going to lead and the general area you are going to lead it in, you need to develop a trip plan or itinerary. The route is going to be the main part of that trip plan for most trips. **Below are some factors you need to consider in developing your route.** You do not necessarily need to approach these factors in this order – depending on your interests and the nature of your trip, certain elements of the route planning process might be more important than others.

- **Distance** – how far you will travel? This will have a significant impact on the difficulty level of your trip. Keep in mind how many hours of daylight you will have, when you will be getting started, etc.
- **Water** – is it available? On a day hike, you will most likely be able to carry all the water you need, but it is still a good idea to bring a purification system (like iodine or a filter) and know where you will come across water. On a longer trip, this is an extremely important factor. Be especially wary of long stretches above tree line.
- **Terrain** – what are the trail conditions like? There are many things to consider here. Will the trail be relatively flat, steep, rough, exposed, potentially slippery? Will it require scrambling? Keep in mind the season and recent weather, and check with a local rangers office or other local services to get a report on trail conditions or possible closures.
- **Potential Hazards** – what points along the route have an associated increased risk? If you will be spending time above treeline, consider danger from lightning storms. Stream or river crossings and road crossings are also potential hazard points. Even particularly steep or rocky sections of trail are places you will want to pay attention to in your planning.
- **Alternate or “Bail Out” Routes** – what are the potential ways you could alter your route if you run into problems? As was mentioned in the beginning of this section, having a substantial margin of safety and the ability to be flexible are critical in route planning. If someone were to be injured, you were to run into a lightning storm, or you simply found that your group was considerably slower than expected, how would you change your route accordingly? It is also nice to plan “extras” – a spectacular lunch view or a peak that you do not advertise or count on being able to do, but that you can take on with a strong group.

Once you have your route planned, you will need to consider additional factors to make your trip plan complete. As with the elements of the route, elements of the trip plan may be more or less important depending on the activity.

- **Time Management** – This includes all the time related factors on your trip. When will you tell people to meet? When do you hope to leave the trailhead? What is your turnaround time? How many hours a day will you hike (or bike, paddle, ski, etc.)?

You can use a general formula to try and get a sense of where your group should be throughout the course of the day – start with a basic pace of 2 miles/hour and add 1 hour for every 1000 feet of elevation gained and ½ hour for every 1000 feet of elevation you lose. While you should have some idea of when you plan to finish your trip, make sure participants realize that the finish time is a goal, not a guarantee.

- **Emergency Action Plan** – These are all the things you need to consider in case an emergency should occur on your activity. If you are roadside and need help, you will most likely call 911. However, you should also know where the nearest hospitals are in case you have a more minor injury. If you are traveling in the backcountry, you should be aware of whatever search and rescue resources are available and how to contact them.
- **Regulations, Permits and Reservations** – You must always be aware of the regulations for the area in which you are operating your activity. If you are camping, you may need a permit – be sure to investigate as early as possible so that you can reserve space if you need it. If you are running a trip in the White Mountain National Forest, you'll need an Outfitter Guide Card, which you can acquire through your chapter.
- **Food and Equipment** – Needs will vary greatly depending on the trip. Make sure that you plan well and provide for a margin of safety – emergency food that is easy to prepare, repair kits for critical equipment, duct tape, extra fuel if you are using stoves, etc. In addition, make sure that you plan for group needs as well as individual needs and are clear in communicating to participants what they are expected to bring (and NOT to bring).
- **Cancellation** – if there is a possibility your trip may cancel, make sure you plan for this eventuality. Have a contact list so you can get in touch with everyone. If there is any money involved, decide how and when you will refund it.



Screening Participants

An essential part of trip planning as well as risk management is determining who is qualified to participate in your trip. As mentioned before, the broad range of trips one might consider has a direct effect on the level and depth of screening – from no screening (show and go) to extensive questioning of participants and possible reference checking. The goals, location, and time of year of the trip also affect the requirements of the trip and consequently the screening. Likewise, screening will vary depending on whether the trip is intended for children, adults, or both.

Although good screening will not eliminate all problems that might occur during the trip, it can go a long way to limiting risk proactively before a trip. The main goal of screening is to match a participant with the physical and equipment requirements of the trip. You want the trip to be enjoyable for all (remember that the goals of all trips are: safety, fun, and reaching the final planned destination.) During the initial contact with a prospective participant, you have the opportunity to explain the trip's expectations and requirements (equipment, clothing, cost, goals). Sometimes people will screen themselves from a trip after they hear additional details and requirements. This is certainly preferred over your having to screen them off the trip by indicating that it is too difficult. In that case, if the trip is an AMC sponsored event we strongly encourage leaders to suggest a more suitable trip for the participant. This is especially important for new AMC members or the inexperienced person who might feel they are being "blown off." Another approach with an inexperienced person is to not accept or deny them when they first call but determine if they are willing to be on a waiting list. Call a leader leading an easier trip to verify space and then call back the person to indicate that the other leader has room on their trip. Alternatively, you can list or point them to easier trips.

Another purpose in screening is to limit group size. Certain locations have regulations on the maximum number of people traveling and/or camping together. Note that if neither you nor your co-leader has done the trip before it will be more difficult to screen since the physical requirements will be less clear. In this case you may need to set a higher experience level and requirements.

If your trip is advertised in publications or a newsletter, keep in mind:

- Be prepared for a phone call anytime – did you state when to call? Avoid screening via email unless you know the person and their abilities. A direct conversation is preferred since it is more interactive and allows you to get a better sense of a person's true abilities and experience.
- Have a list handy of questions to ask (see below). You may need to explain why you are asking these questions (as the leader you are responsible for the group and want everyone to have a good time). Develop your own style. A relaxed conversation that encourages the potential participant to volunteer information about themselves is better than just hitting them with a battery of questions.
- If they qualify for the trip, provide initial information (follow-up later with email or printed information sheet).
- Remember that screening does not end until the trip actually begins – be sure to check equipment/clothing at the trailhead or starting location.

The following questions can be used to screen participants for outdoor trips. The difficulty level of the trip will determine which questions to ask.

1. What is your name/ address/telephone number? (spell if necessary)
2. Are you a member of the AMC? Of what chapter? For how long?
3. Who is coming with you? (that person needs to call the leader). Do not allow the caller to “register” another person unless you already know that person and their experience level.
4. What is your experience level? Explain the trip rating system if applicable.
5. What is the longest trip you have been on?
6. Have you gone with a group before?
7. What other trips have you been on and who led them? What trips have you done in the past 6 months? What kind of exercise do you do regularly? How often?
8. Do you have the equipment that is needed for the trip?
9. What is the worst problem you have ever had on a trip?
10. Do you have any medical problems or are you taking any medications that could be pertinent to the trip? Allergies? Asthma?
11. Do you have any medical training that you wish to share with me or the group?
12. Do you have any questions?

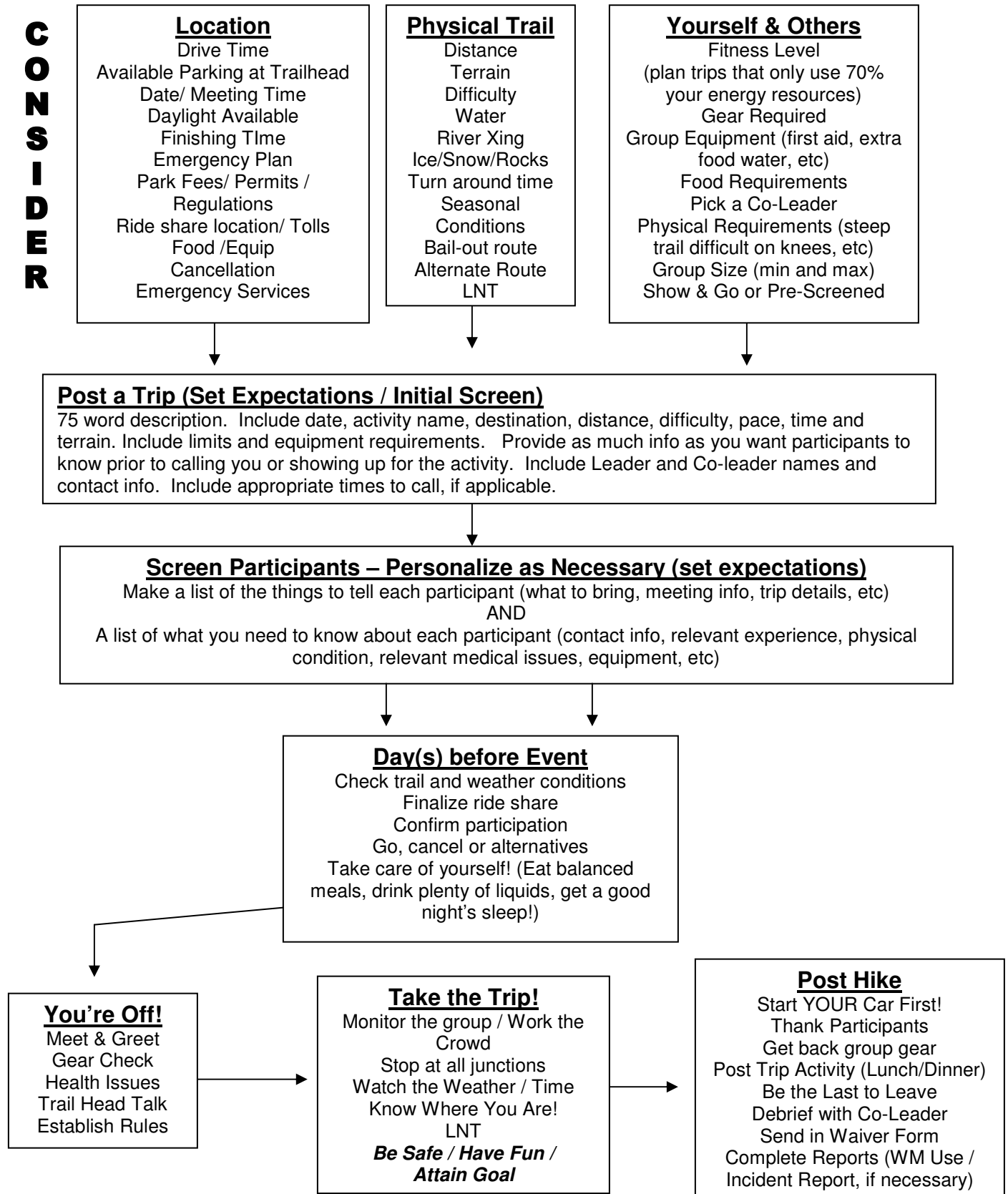
After obtaining answers, you may then decide whether the trip will be beyond their level of skill, within it, or too elementary. If they wish to participate in trip that is too easy for them, that is their decision. However, if they wish to go on a trip that is beyond their ability, that is your decision. For an advanced trip it is best not to accept someone that you do not know until you have a chance to check their references – others they have gone with and leaders. As a leader it will be your responsibility to recommend that they do not participate. If they persist, you may have to refuse to take them. Explain that the trip includes certain risks (mention them) and that an inexperienced participant could create a possible burden on the leader and other participants. Encourage them to try another easier trip so they can build up their skills. If their equipment is incomplete or inadequate, you may require them to obtain the proper gear, for their own comfort and safety and that of the group.

If they qualify for the trip, mention the requirements, such as deadline for deposit, cancellation policy, length of trip, where and when to meet and what type of snack or food to bring. Explain how long after the set meeting time you will wait for all to appear. Say that you will start the trip promptly.

Note that a goal of AMC trips is to make them comfortable, inviting and accessible for people of any age, gender, race, religion, ethnicity, ability, sexual orientation, or socioeconomic status. Some AMC programs are designed for a certain age range of members or for a special activity or topic. However, any person who meets the minimum qualifications (skills, experience, fitness) established by the trip leader(s) for an activity is eligible to attend, if space is available.

Remember that a well-planned trip and well-prepared participants make for an enjoyable and safe experience for all. Good screening can do much to ensure that this will happen.

TRIP PLANNING AND MANAGEMENT FLOWCHART



Trip Management

Getting to the Meeting Place

1. Determine the weather early enough to cancel, if necessary.
2. Have list of participants meeting at designated meeting spot.
3. Arrive on time or EARLY to inspire some confidence in your participants.

At the Trip Meeting Place

1. Have your participants sign in and sign the AMC Volunteer Release Agreement (discussed in *AMC Policy and Forms* section). Know who has vehicle keys; gas in vehicle; snow shovel, etc.
2. Review equipment, especially critical items, including food and water. If you will be backpacking, this is especially important – make sure the stoves work, the tents all have poles and flies, etc. If someone in your group is unprepared and has inadequate equipment, you will need to either provide them with adequate gear, or ask them not to participate.
3. Set a positive tone for the group. Encourage everyone to make introductions. On the trail or on the river, everyone will need to watch out for each other. One's individual welfare is inseparable from that of the group.
4. Outline the trip plan – make sure everyone is familiar with the pace, destination, timetable, etc. Tell people what's going on!
5. Review the goals and expectations of your activity, making sure that everyone understands AMC's priorities: to maintain the safety of the group first, have a good time, and thirdly reach the summit or run the rapid.
6. Review any rules that might apply to your activity. On a hiking trip, this may mean staying together and stopping at trail junctions or other potentially confusing points; on a biking trip, this may mean wearing a helmet and obeying traffic laws, etc.
7. Assign lead and sweep responsibilities (if appropriate).

On the Trip

1. Set a reasonable pace – a group moves efficiently at a pace that allows everyone to keep up and minimizes long stops and fast starts. Let the pace flow smoothly with the terrain and conditions at a speed that can be maintained. Think tortoise, not hare.
2. Avoid the “slinky effect” wherein the fastest member of the group hikes quickly to the next stopping point, waits for the slowest member, and then takes off as soon as that person arrives. In this situation, the fastest member gets many breaks while the slowest gets none. Try to keep every member of the group engaged with one another and hiking together.
3. Stay together. The group has more strength in equipment and knowledge than an individual. Keep the group together by:

- Maintaining visual contact with the person in front of and behind you.
 - Assembling at junctions or other potentially confusing points
 - Assigning the slowest member to lead position, if pace is a problem.
4. Watch the weather.
 5. Watch the actions of the group for problems – if someone is having difficulty, alleviate the trouble early and encourage everyone in the group to do the same. If someone is getting “hot spots,” stop immediately for blister prevention; if someone cannot keep up, try lightening their load or asking them to hike near the front of the group, etc.
 6. Maintain communication, discuss potential changes of plan, let everyone know about any changes, turnaround time, etc.
 7. Be willing to turn the group around. Start by having a turnaround time based on the amount of daylight, the weather conditions, your group’s actual abilities on this trip, and anything else you know about the route you will be taking. When these factors change, you must change also. The desire of the group to reach an objective often does not accurately reflect the situation. Pay attention to facts rather than emotions and have plan B always in mind.
 8. Be aware of your surroundings, escape routes and alternatives.
 9. Take decisive action in an emergency.
 10. Have an identifiable group first aid kit.
 11. Talk about environmental sensitivity.

At the End of the Trip

1. Account for all members of the group.
2. Make sure everyone has transportation.
3. Sign out at point of registration (if possible).
4. Return, sort or collect equipment.
5. Trip closure, brief good-bye, and congratulations to everyone.
6. Determine if group is meeting down the road for a post trip gathering.
7. Review trip with the co-leader and trip members (if you choose).
8. Make trip report (if required).



Leave No Trace & Backcountry Ethics

Wildlands attract us for many meaningful reasons. For some, they possess the beauty, mystery, serenity, and tranquility we often lack in our day-to-day lives and landscapes. For others, they represent the true meaning of “wild”—untamed, untouched, and untraveled. For most of us, however, the wildlands we travel to are not areas where none have traveled before us—they are instead filled with well-traveled trails, rivers, and campsites that many have used before us, and may even be within the bounds of a state or national park or forest.

While the wilderness may seem rugged and permanent, it is actually an inherently fragile environment that has evolved over thousands of years. Ecosystems can be drastically altered in just minutes. And while the impact of one or two visitors may be minimal, the impact of several thousand visitors a year can be devastating for these fragile environments. Some would say that we are “loving our wilderness to death,” and if our practices don’t change, we will destroy much of the natural wilderness we love to experience. Specialized ecological processes can take many years to complete, especially in fragile environments such that as above treeline, but can be undone in moments by the careless actions of outdoor recreators.

Our outdoor recreation can be the cause of many detrimental environmental impacts that we unknowingly contribute to while we “experience” the wilderness. Because humans have already drastically altered so much of the world’s wildlands, it is increasingly important that we learn about backcountry ethics, and learn specific minimal-impact travel skills. A knowledge and deep understanding of the importance of backcountry ethics and minimal impact skills that the AMC promotes is essential for all of our outdoor leaders. Furthermore, it is the leader’s responsibility to impart this knowledge to group members so that they too will act appropriately.

When you prepare to take a group into the wilderness, you must take into consideration *Leave No Trace* (LNT) practices and techniques that have become the national standard for outdoor and wilderness travel. Further information about LNT, and LNT teaching materials can be found on the non-profit program’s website, www.lnt.org. For further discussion of LNT techniques, and for information regarding climates not found in the Northeast, *Soft Paths*, by Bruce Hampton and David Cole (published by NOLS), is a great resource. The AMC has a partnership with Leave No Trace, Inc and is one of the organizations that teaches LNT Trainer and Master courses. For further training in LNT, more information about these courses can be found on the AMC’s website, www.outdoors.org. For now, however, familiarize yourself with the *Leave No Trace* program by reading more about it in the following section of this manual.

The Principles of Leave No Trace

Leave No Trace, Inc. is a national non-profit organization that aims to promote awareness about the importance of the minimal impact skills mentioned above. The program is based upon seven main principles that every AMC outdoor leader should know, understand, and use. These seven principles are based upon basic common sense—you will probably find that you already practice many of them.

The following list is an excerpt from Leave No Trace, Inc.'s website, www.lnt.org:

1. Plan Ahead and Prepare

- Know the regulations and special concerns for the area you'll visit.
- Prepare for extreme weather, hazards, and emergencies.
- Schedule your trip to avoid times of high use.
- Visit in small groups. Split larger parties into groups of 4-6.
- Repackage food to minimize waste.
- Use a map and compass to eliminate the use of marking paint, rock cairns or flagging.

2. Travel and Camp on Durable Surfaces

- Durable surfaces include established trails and campsites, rock, gravel, dry grasses or snow.
- Protect riparian areas by camping at least 200 feet from lakes and streams.
- Good campsites are found, not made. Altering a site is not necessary.

In popular areas:

- Concentrate use on existing trails and campsites.
- Walk single file in the middle of the trail, even when wet or muddy.
- Keep campsites small. Focus activity in areas where vegetation is absent.

In pristine areas:

- Disperse use to prevent the creation of campsites and trails.
- Avoid places where impacts are just beginning.

3. Dispose of Waste Properly

- Pack it in, pack it out. Inspect your campsite and rest areas for trash or spilled foods. Pack out all trash, leftover food, and litter.
- Deposit solid human waste in catholes dug 6 to 8 inches deep at least 200 feet from water, camp, and trails. Cover and disguise the cathole when finished.
- Pack out toilet paper and hygiene products.
- To wash yourself or your dishes, carry water 200 feet away from streams or lakes and use small amounts of biodegradable soap. Scatter strained dishwater.

4. Leave What You Find

- Preserve the past: examine, but do not touch, cultural historic structures and artifacts.
- Leave rocks, plants and other natural objects as you find them.
- Avoid introducing or transporting non-native species.
- Do not build structures, furniture, or dig trenches.

5. Minimize Campfire Impacts

- Campfires can cause lasting impacts to the backcountry. Use a lightweight stove for cooking and enjoy a candle lantern for light.
- Where fires are permitted, use established fire rings, fire pans, or mound fires.
- Keep fires small. Only use sticks from the ground that can be broken by hand.
- Burn all wood and coals to ash, put out campfires completely, then scatter cool ashes.

6. Respect Wildlife

- Observe wildlife from a distance. Do not follow or approach them.
- Never feed animals. Feeding wildlife damages their health, alters natural behaviors, and exposes them to predators and other dangers.
- Protect wildlife and your food by storing rations and trash securely.
- Control pets at all times, or leave them at home.
- Avoid wildlife during sensitive times: mating, nesting, raising young, or winter.

7. Be Considerate of Other Visitors

- Respect other visitors and protect the quality of their experience.
- Be courteous. Yield to other users on the trail.
- Step to the downhill side of the trail when encountering pack stock.
- Take breaks and camp away from trails and other visitors.
- Let nature's sounds prevail. Avoid loud voices and noises.



Applying the Principles of Leave No Trace

Aside from being aware of the specific Leave No Trace principles, a general knowledge of why we practice low-impact backcountry travel is essential. Below you will find both general explanations of why specific LNT principles are important for both humans and the environment, and some useful guidelines with which all AMC leaders should be familiar.

1. Plan Ahead and Prepare:

Why? Extensive planning and preparing before the trip is a crucial element of your leadership. This step is not just about safety—i.e. planning alternative routes that could be used in the case of an emergency. In terms of LNT, good planning and preparation for your trip will often reduce the chance that your group may be tempted to make an environmentally unsound or unethical decision in a desperate moment. Leaders who have taken the time to prepare well for their trip and have taken all LNT principles into account *before* the trip will have a much better sense of how to most appropriately lead their group while following a good environmental ethic.

AMC Guidelines:

- Educate yourself about the area you will be traveling in—are there any endangered species there? Are there any rules about group size or fires, or any fees at shelters?
- Repackage all food to eliminate excessive garbage in the backcountry and bring the correct amount of food so that burying surplus food is not a temptation.
- Avoid congested areas whenever possible, especially at peak times such as Memorial Day weekend to avoid crowds and to respect the wildlife in the area.
- Use proper equipment, and understand the potential detrimental effects your equipment may have on the environment if used improperly. For example, carry stoves so that you will avoid making fires, and carry trekking poles on your pack instead of using them while hiking through areas in which they are not needed so as to reduce rock scarring and contributions to muddiness and/or erosion.
- Make sure you read the weather report before the trip, so that you will be aware if hypothermia or heat exhaustion will be a threat—these are debilitating conditions that will impair good judgement.

2. Travel and Camp on Durable Surfaces:

Why? Traveling and camping on durable surfaces is very important so that we minimize long-lasting impact on the environment. Leaders should recognize which land surfaces are durable and are therefore resistant to impact (such as grasses, leaf litter, rocks, sand, and snow). Leaders should also recognize which surfaces are less resistant to the impact of trampling—marshy and boggy areas, mosses, low growing shrubs, and small seedling plants. Trampling will cause vegetation damage and soil erosion in every environment—it creates and enlarges trails and campsites, removes vegetation and leaf litter needed to hold soils in place against loss to wind and rain, hardens the ground and destroys habitat for decomposers, and eventually takes the “wild” out of the wilderness.

AMC Guidelines:

- Remember that good campsites are found, not made. Plan to spend some time looking for a good site (relatively flat and clear) instead of altering an area to make it a good campsite for your group (pulling up small shrubs and plants, etc.).
- Keep group size small—LNT, Inc. advises that groups should not exceed ten people for overnight trips, and designated wilderness areas often have similar regulations. Remember to concentrate impact in popular areas and disperse impact in pristine areas—that is, follow the same route from your campsite to the water source in popular areas, but change your route to the water source in pristine areas.
- Stay on already heavily impacted trails, and spread the group out when bushwhacking. When your group moves to the side of the trail to let others pass, try to find durable surfaces to stand on if possible.
- It is a natural tendency to try to walk around muddy sections of the trail and not directly through, even when wearing heavy hiking boots. As a leader, it is especially important that you walk in the center of the trail despite the mud so that you set an example for your group. Keep an eye out for this problem, and don't hesitate to speak up if you see group members avoiding the mud. If you know beforehand that you will be traveling through mud, suggest that group members bring gaiters.
- If a tree has fallen across the trail, go under it or over it if possible, instead of bushwhacking around it.
- In alpine zones (above treeline), pay particular attention to where you step in the fragile environment that surrounds you. Stay on trails, and be careful not to step on any plants as one small plant may have taken many years to develop in such a harsh environment.
- When you break camp, re-cover scuffed up areas with leaf litter or pine needles, replace and rocks or branches you moved, and remember to make it look like no one slept there the night before.

3. Dispose of Waste Properly:

Why? In the backcountry, waste—namely food waste and human waste—cannot be picked up by the garbage truck or flushed down the toilet, never to be seen again. Most food and human wastes will biodegrade eventually, but natural biodegrading processes cannot keep up with the pressure that increasing human impact puts on the environment. Furthermore, the waste left in the backcountry is unsightly, and the scent of this waste attracts wild animals which in turn become much more of a nuisance, and much more dangerous, once accustomed to the smell of the waste humans leave behind. In order to be good stewards of the wildlands, we must pack out everything we have packed in, and dispose of all human waste properly.

AMC Guidelines:

- As a general rule, carry out everything that you carry in, and pick up all litter you see that others have left behind. Even trash that seems to be biodegradable (like orange peels or apple cores) must be carried out.

- Use a bit of cheesecloth or a screen to filter out bits of food before you scatter your dishwater. Throw these bits into your trash bag.
- Be especially careful to carry out all toilet paper and hygiene products—how many of us have had the unpleasant experience of coming across soiled toilet paper on the trail, especially in popular areas like the White Mountains?
- Plan meals that involve minimal garbage, especially messy and smelly garbage.
- Fires should not be used to dispose of food waste, as scraps and smells will still attract animals. Likewise, buried food scraps are quickly dug up by animals that will disturb the land by their digging.
- Read and follow any instructions regarding the use of an outhouse. Never dispose of any type of trash in outhouses—these facilities are costly and time-consuming to maintain. Outhouses are intended for human waste only, and putting trash inside them decreases their effectiveness.
- Avoid polluting water sources by urinating and using cat holes at least 200 feet away from any water. Remember—water sources must be kept clean for future users.

(See *Human Waste and Hygiene* section for a more extensive discussion of proper human waste disposal.)

4. Leave What You Find:

Why? Many of us visit the wildlands because we enjoy getting to know the land—understanding its natural and human history, and discovering rare treasures that cannot be found in more populated areas. But because so many of us enjoy this aspect of the wilderness, it is important that we do not take the rocks, feathers, antlers, plants, or human historical artifacts that we find. We must leave them there for others to enjoy, as removing these items may disrupt the environment. Photos, drawings, prose, and memories should be your only souvenirs.

AMC Guidelines:

- When traveling in an area rich with human history, “Take only photos, leave only footprints.” It is important for leaders to make sure that their groups do not alter areas of historical or cultural value.
- Remember that the Archeological Resources Protection Act and the National Historic Preservation Act protects all artifacts of historical value, and that excavating, disturbing, or removing these things from public lands is illegal.
- While picking vegetation might be a simple pleasure, remember that the wildlands are for everyone (and everything) to share—that very branch or flower could be another’s home or food source.
- Do not build cairns or mark trees with blazes unless authorized to do so.
- When blueberries or other edible fruits are found and properly identified, feel free to taste a few, but remember that over-harvesting could negatively impact the growth of new plants and that animals depend on them for food.
- Never bring new plants or animals into the wildlands—invasive species can cause large-scale, irreversible changes to ecosystems by out-competing and eliminating native species.

5. Minimize Campfire Impacts:

Why? Campfires have long been the cause of too much impact on the environment in one small location. They cannot be justified for the sake of tradition or their beauty. In most cases, campfires are unnecessary, time-consuming, and should not be used—food should be cooked with a camp stove, and even s'mores can be made with the camp stove's flame! Firewood collection leaves the ground barren and trees scarred. Large fire rings with partly burned trash, food, and logs are unsightly. And most importantly, campfires are often the cause of wildfires. If you must make a fire, remember that using LNT techniques can eliminate the lasting impacts of a campfire.

AMC Guidelines:

- Always carry appropriate clothing and equipment (a stove and sufficient fuel) so that building a fire does not become necessary.
- Never make a fire where fires are not permitted, and make sure to use an established fire ring or a LNT technique (such as a fire blanket, pan, or a mound fire) where fires are permitted.
- Use your creativity to come up with alternatives to having a fire even where they are permitted—perhaps the group would enjoy sitting around a candle lantern while telling stories or sharing their thoughts about the trip.
- Make sure you only use small sticks on the ground for your fire—never break branches from trees or shrubs for firewood.
- Never leave a fire unattended, even for a minute. Keep water close by in case it gets out of hand.
- Before you go to bed, put the campfire out completely (make sure it is cool to the touch) and make sure that only ashes remain where your fire was. Scatter ashes away from the campsite.

6. Respect Wildlife:

Why? For many of us, observing wildlife is one of the greatest pleasures we could hope to enjoy when we spend time in the wildlands. Unfortunately, much of the world's wildlife faces threats from habitat loss and fragmentation, invasive species, pollution, over-exploitation, poaching, and disease. Although protected lands offer a refuge from some of these problems, they cannot protect all wildlife everywhere. In order for any animal to survive, it must be able to successfully overcome the constant challenges and threats of the world in which it lives. The presence of humans can often interfere with the daily routine of animals, causing them to flee, attack, abandon their young or habitat, or become dangerously attracted to human food or trash. For example, bears that begin to hang around campgrounds looking for food are often either removed or destroyed. For these reasons, outdoor recreators must act responsibly and learn to travel and camp in a way that will not disturb the surrounding wildlife.

AMC Guidelines:

Always observe or photograph an animal from a safe, non-threatening distance. If the animal noticeably changes its behavior as you are watching it, back off until it resumes its former behavior.

- Be aware that many larger mammals (for example, deer and moose) use human-made trails too. Often these trails are used because they present the path of least resistance. Always stay alert when traveling on trails, and move out of the way if an animal comes charging down the trail.
- Avoid quick movements and direct eye contact with animals at all times.
- As a general rule, travel quietly except when in bear country—in bear country, make noise so that bears will be aware of your presence and get out of your group's way.
- If you are traveling with any small children, make sure they too understand how to respect wildlife. Only bring pets with you if you know that you can keep them under control at all times.
- Know the sensitive times (mating, nesting) and particular habitats of the animals in the areas you wish to travel in—avoid these times.
- Store all food, smelly trash, toiletries, bug spray, sunscreen, soiled toilet paper and hygiene products securely in stuff sacks that should be hung from a tree during the night. These “bear bags” will deter large and small animals if hung properly.

7. Be Considerate of Other Visitors:

Why? Outdoor recreation is pursued by people of all types with all sorts of different motivations. Some seek solitude, others companionship and social interaction. Because we must share the mountains, rivers, lakes, and forests with other outdoor enthusiasts, it is important that we remember that our usual manners and etiquette toward our neighbors are still applicable even though we are away from home. When you are considerate of others, others will be considerate of you and your group, and all will be able to enjoy the wilderness in their own way.

AMC Guidelines:

- Always maintain a cooperative and friendly attitude with the people you run into on the trail, or near your campsite. Remember that in emergency situations, we rely on the people we run into for help.
- Keep your intuitive perception tuned in to your conversations with other outdoor enthusiasts—sometimes a friendly and inquisitive conversation is well-received, and other times those you meet may prefer the peace, quiet, and solitude of the wilderness.
- Instruct your group to step to the side of the trail when needed to let smaller or faster groups than yours pass.
- If possible take trail breaks and camp away from the sight of other visitors.
- Never bring any electronic equipment (especially things that make noise) into the wilderness solely for your own pleasure. Many people feel that these objects don't belong in the wilderness setting and will be offended by their presence.
- Keep voices low and pets quiet—let this be a time to tune into nature.

Human Waste and Hygiene

As a group leader, part of your responsibility in following the practices of *Leave No Trace* is to address the issues of human waste and hygiene with your group—preferably *before* the trip. Because human beings represent a significant source of contamination to backcountry water supplies, it is the leader’s responsibility to inform participants of proper procedures, even on dayhikes. Not only is this responsibility environmentally important, it is also important for the emotional safety of group members who may feel uncomfortable asking questions or discussing human waste and hygiene with new acquaintances. Try to speak with ease and humor about this topic to help people overcome any nervousness and teach them how to responsibly dispose of their own waste while in the woods. Keep the following points in mind:

- If there is an outhouse or composting toilet, use it. Be sure to read and follow any instructions provided and do not dispose of trash in outhouses or composting toilets.
- If there are no facilities, waste should be buried in a “cat hole,” about 6 inches deep, at least 200 feet away from any water, trail, or campsite.
- Whenever possible, stay 200 feet from water sources when you urinate.
- Buried toilet paper is often dug up by animals and so should be packed out in double zip-lock bags. If you feel adventurous, natural alternatives to toilet paper can be used—leaves, smooth rocks, sticks or snow can work well.

In addition to making sure everyone is following minimal impact practices, leaders may want to deal with other issues related to human waste and hygiene. Because most of us are so accustomed to the accessibility and ease of use of modern bathrooms, “toileting” in the wilderness can be a major area of concern. Understanding the techniques of eliminating body wastes and maintaining privacy—especially when part of a group—can be problematic if not addressed explicitly. The following tips may be useful, especially to beginner hikers and backpackers:

- The squat position may be difficult if you not accustomed to it, and can become unbearable if maintained for a long time. If there is a tree nearby, hold on to it and balance over your cat hole.
- For a natural toilet seat, dig your cat hole just behind a small log. You can sit on the log while extending your buttocks over the cat hole.
- Dig a hole near something you can lean back into. This can be tricky and may require something soft between your lower back and the log or rock to prevent scrapes.

Weather

Weather is an important factor in any outdoor activity. Being aware of the weather forecast and preparing your group for it will help make your trip more enjoyable and safe. Before going on a trip, listen to the local television or radio forecasts. You can find excellent forecasts for your destination using the internet. If traveling in New Hampshire, the Mt. Washington Observatory's forecast for the White Mountains is available by calling the AMC at Pinkham Notch (603-466-2721). Remember, in case the weather is inclement or threatening, make sure the participants know how to find out if you have canceled or not.

As we all know, forecasts are not entirely accurate, especially in the mountains. You and your group must always be prepared for the worst possible conditions that may occur at a given time of year. You can stay one step ahead of the weather by paying attention to what is going on around you and applying some basic principles of meteorology. You can easily master these basic principles, but, like all rules, they are not always accurate. The more you know about the weather, the better off you will be and the more fun you are likely to have.

Rule #1: Mountains Often Cause Their Own Weather

When wind hits a mountainside, it meets a barrier. The mountain funnels the wind into valleys or forces it over the mountain or ridge top. If the wind goes over the mountain, its speed increases, the air cools, and moisture may begin to condense.

Rule #2: The Higher You Go, The Cooler It Gets! (Usually)

The adiabatic lapse rate states that for every 1,000 foot elevation gain there will be a cooling of 3 to 5 degrees Fahrenheit. The exact lapse rate depends on whether you are above or below the dew point. As you climb, prepare for cooler temperatures.

Rule #1 showed that when wind hits a mountainside, the mountain forces it up and over. As the air goes up, it cools off and moisture in it may condense, forming a fog or a cloud, or increasing the size of existing clouds. As the moist, hot air cools, it condenses and forms water droplets on cooler surfaces. If the mountains cause the air to cool enough and if the air contains enough moisture, it will condense, causing rain or snow if the right conditions exist. Because of the exposure to high winds, cooler temperatures and lightning, move your group off peaks and ridges at the sight of bad weather.

One exception to Rule #2 is a temperature inversion. An inversion usually happens on a clear, still night because cool air sinks down into valleys. During a temperature inversion, if you stay higher on a mountain, you can experience temperatures up to 20 degrees Fahrenheit warmer than in the valley.

Rule #3: A Falling Barometer Can Spell Trouble

A change in barometric pressure over several hours usually indicates a change in the weather. Of course, knowing this isn't going to do you much good in the field unless you bring your own barometer (a somewhat unreasonable idea). A more practical option is

the pocket altimeter. An altimeter can help you figure out your location and tell you about the trend in barometric pressure. Generally high, steady barometric pressure indicates good weather. Falling barometric pressure indicates that bad weather is coming, and rising barometric pressure indicates improving conditions. Good altimeters are somewhat expensive, however they can prove highly valuable and fun to learn and use.

Rule #4: Fronts Bring Bad Weather

A front is the dividing line between two air masses, one of which pushes the other out of its way. Fronts are often associated with bad weather and high winds. When a cold front moves in, cold air forces out warmer air. Similarly, when a warm front moves in, warm air forces out cold air. Cold fronts move relatively quickly (up to 35 mph) and often cause rapid and dramatic storms. They may not last as long as the warm front, but they pack a real punch in many cases. Thunder and lightning are not uncommon and those towering thunderheads (cumulonimbus clouds) are most often associated with the cold front. Warm fronts, on the other hand, tend to last longer and are not usually as dramatic (long rainy days). Warm fronts give more advanced warning (by high, thin clouds) than cold fronts and take longer to clear out.

Rule #5: Forecasting Means Noticing Weather Changes Throughout The Day

To stay one step ahead of the weather, keep an eye on the clouds and notice what they are doing. Are those fluffy cumulus clouds you saw in the morning getting larger, growing significantly by 1 or 2 PM? If so, they may well produce showers. Are the thin wispy cirrus clouds that seemed so high earlier, bunching together and thickening? Is the cloud ceiling lowering during the day? If the answer is yes to any of these questions, something is up and it is probably not going to lead to lots of sunshine.

Also, consider the direction or change in the direction of the wind. The weather in the Northeast is mainly continental; the predominant wind direction is westerly (from the West). Westerly winds generally give us fine weather, though plenty of storms come on this winds, too. A southerly wind could spell trouble: warm moist air may be moving north. A northerly wind, or a change to a northeasterly wind, indicates that bad weather is a strong possibility. The northeast is famous for its Nor'easters (low pressure storms centered just off the coast which deposit large amounts of snow or rain). In 1968 a series of these storms left the winter snowfall on Mt. Washington at a high of 566 inches (47 feet, 2 inches) for the season.

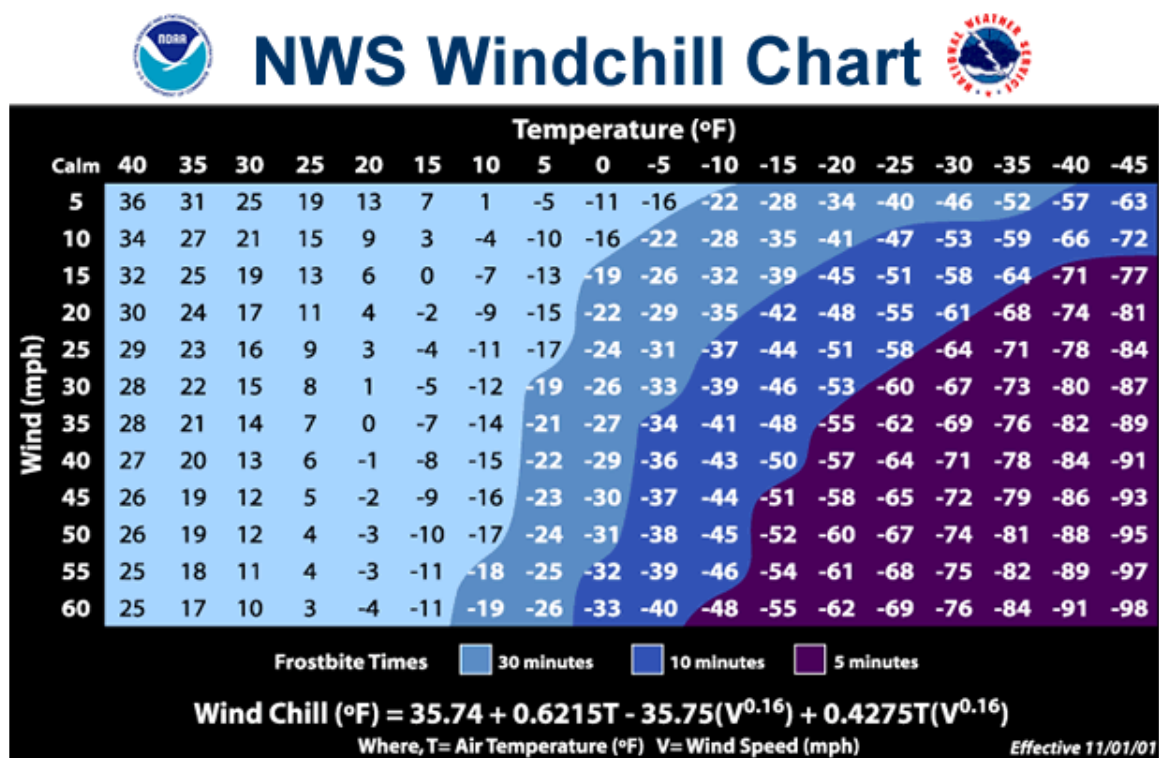
Weather Summary

Northeast weather can change dramatically in a relatively short time. Because of this, one must always *be prepared!* **Ample warm clothing, rain gear and wind protection are a must any time of the year.** Good wind protection will save you from the cooling effects of wind chill.

To maximize your forecasting abilities, you must be aware of the ever changing environment around you. Continual awareness of the sometimes subtle changes in cloud

formations and wind direction will give you the edge you need. If the weather starts changing, let the group members know so they can be ready to put on their rain or wind gear, or understand the need to turn back early if that is the only safe way to go.

Proficiency in weather forecasting comes with practice. Get a cloud and wind chart, use your compass to determine wind direction changes, and keep your eye on the elements. Besides being practical, you can have fun teaching this skill to participants.



Source: <http://www.weather.gov/os/windchill/index.shtml>

Lightning

Prior Planning

- ◆ **Examine Route** – Determine if there are areas of high risk (see the next section). Plan for bail out points if there are parts of the route that will be exposed to higher than normal lightning danger.
- ◆ **Weather Report** – Obtain one if possible and consider modifying your plan if the forecast calls for t-storms.
- ◆ **Daily Pattern** – T-storms in the northeast generally do not follow a predictable one. Certain mountainous areas have very regular patterns of summer T-storms. Know the pattern and plan accordingly to be in a safer area at the time of the likely storms.

Location During a Lightning Storm

- ◆ **Avoid** – Peaks, ridges and other high points, open bodies of water, shallow caves and the drainage bottoms (wet or dry).
- ◆ **Other Potentially Dangerous Areas** – Wet or lichen covered rock, cracks or crevices in rock, wet ropes and tree roots can all serve as conductors.
- ◆ **Head For** – Wooded areas with trees of generally equal height. Position yourself equidistant between trees of approximately equal height. Avoid the tallest trees. Valleys (but not drainage bottoms) and low on slopes are better than most locations higher up. If you are out on the water, head for shore.
- ◆ **If Caught in the Open** – Utilize likely strike points as a means of protection. Locate a tree, pinnacle or other point that is 5 or more times your height. Estimate the height of the object and position yourself approximately 50% of that distance from the base of the object. Avoid being the highest point in your vicinity.

As a Storm Approaches

- ◆ **Monitor** – Keep a diligent eye on the approach of weather systems. Learn to identify the cumulonimbus clouds that are likely to produce lightning discharges.
- ◆ **Flash to Crash** – When you see lightning begin counting off the seconds until you hear thunder. The light reaches you almost immediately, however the sound travels more slowly. The sound of thunder takes approximately 5 seconds to travel 1 mile – dividing your second count by 5 gives the approximate distance of the storm in miles.
- ◆ **Head to Safer Areas** – Generally it is advisable to head for safer areas if you feel that a thunder storm may be approaching. If your route takes you into an exposed area, this is likely the time to alter your plan.

“Lightning Drill”

- ◆ **Two to Three Miles Away** – At this distance (based on your second count) a group should enter into a “lightning drill.” Three miles (15 seconds) is the standard for US Outward Bound Schools.
- ◆ **Ideal “Drill”** – This consists of squatting on insulating material (if available), heels touching, knees apart and hands off the ground. You should be in this position when the storm is at its closest. The insulating material might be a sleeping pad, a pack or a coiled climbing rope.

- ◆ **Sitting** – The duration of the storm may make it difficult to squat the whole time, thus individuals may choose to sit when the storm is not immediately on top of them.
- ◆ **Spread Out** – Groups should spread out to reduce the likelihood of more than one person being affected by a strike. Everyone should be within audio or visual contact of other group members.
- ◆ **Location, Location** – Lightning drills should be conducted in safer areas of terrain, as outlined above. When caught in an highly exposed area, it is usually advisable to continue travel to a safer area (if one is nearby) rather than enter into a lightning drill.
- ◆ **Hypothermia** – This is a real concern during lightning drills. Make sure everyone has raingear and, if necessary, insulating layers. Snacks and water should be available.
- ◆ **Falling Objects** – Be aware of dead trees or branches close to your location that might get blown down.
- ◆ **Holding Tight** – If the group is in a tent or under a tarp in an ideal location, it may be advisable to remain dry and sheltered.
- ◆ **Metal** – Avoid any contact with metal, which can cause serious burns if it is exposed to current.

First Aid

- ◆ **Pulse & Breathing** – If a patient has no pulse provide CPR (chest compressions and rescue breathing). For the patient with a pulse who is not breathing, provide rescue breathing. Spontaneous resuscitation is more likely after a lightning strike than with other causes of loss of circulation or respiration. Wilderness protocols instruct to continue CPR for as long as is feasible for the rescuers.
- ◆ **Burns & Trauma** – Both are common in lightning victims. Evaluate and treat accordingly.
- ◆ **Evacuate** – Carefully decide on a safe and expedient evacuation plan.



Behind the Guidelines

Lightning is a real hazard for the outdoor enthusiast. The highest concentrations of lightning injuries occur high in mountainous areas and on large bodies of water. A majority of the 200-300 lightning fatalities in the US each year are people who were engaged in recreational activities. On the positive side, most of those affected by lightning are not killed, and many are not seriously injured.

A knowledge of lightning and prudent decision making eliminate much of the risk of lightning. It is useful to plan for possible lightning in advance and to practice re-analyzing your situation once out in the field. The differential between the speed of light and the slower speed of sound make it possible to learn the approximate distance of any given storm. Use the distance of the storm and observations on its movement to create a plan of action.

The highest object in a given area is the most likely to be struck by lightning, thus many of the guidelines above are an attempt to keep people from being that high point. The lightning drill is important in that the insulating material may help protect a person in the event of lightning splash or ground transfer. The squatting position allows current to flow through the lower body without running through the heart. Many lightning strikes have effected more than one person, thus it is critically important to spread out to avoid this situation.

It is important to remember that most lightning victims are not exposed to a direct strike. A person can come into contact with lightning four different ways:

1. Direct Hit
2. Ground Transfer – Electrical energy, dissipating outward from the object it hits, flows through the ground and potentially those nearby.
3. “Splash” – Lightning hits another object and splashes onto objects or people nearby.
4. Direct Transmission – Lightning hits an object the person is in contact with and current is transferred.

Those who do not suffer the effects of a direct strike are far more likely to recover. Lightning knocks many victims into unconsciousness or may otherwise effect their level of consciousness. Victims may also suffer paralysis of extremities, ruptured eardrums, and, of course, burns. Treat these conditions as outlined above, but keep in mind that the electrical current which caused the heart to stop or breathing to stop may not have permanently damaged the organs. Unless it is dangerous or you are completely exhausted, do not stop CPR or rescue breathing on a lightning victim.

A commonly repeated story from the North Carolina Outward Bound School illustrates the benefits of rescue breathing and being prepared. This particular course was caught on a ridge in a storm and both instructors were knocked unconscious by ground transfer lightning. Luckily the instructors, who were not breathing, had just taught their students rescue breathing and CPR (as is required on US Outward Bound courses). The students performed rescue breathing on their instructors and both spontaneously began breathing within a short period of time.

First Aid and Accident Scene Management

This handbook cannot cover all aspects of first aid and accident management. Anyone venturing away from the 911 safety net should pursue training in wilderness first aid—a course teaching a systematic response to emergency situations. A systematic approach and role playing scenarios are emphasized in all of the nationally available wilderness first aid trainings.

Wilderness First Aid (WFA) is the most basic level of training, and is generally taught as a two day hands on course. Wilderness First Responder (WFR), an eight to ten day course is generally accepted as the minimum training for professional outdoor leaders. Other trainings available include Wilderness Advanced First Aid, a four day course, and Wilderness Emergency Medical Technician (WEMT), the most rigorous training. These courses are far superior to standard first aid courses for dealing with emergencies in backcountry and some rural situations. This type of “wilderness” training can also be very useful for those venturing to nations with less developed emergency medical care systems.

Contact information for organizations providing wilderness medical training can be found in the resources section at the back of this book. You can also contact your AMC chapter for information on trainings in your area, or check the listings in *AMC Outdoors*. The remainder of this section contains some basic principles of emergency response and suggestions for the first aid kit all backcountry travelers should carry.

Principles of Wilderness First Aid Kits

Every individual engaged in an outdoor activity group should carry an individual first aid kit and one person in every group, usually the leader, should carry a group first aid kit.

- Your first aid kit should not contain items you don't know how to use.
- Your first aid kit should ideally contain items that either serve multiple uses or can't be improvised.
- There is no perfect first aid kit – they are ALWAYS a compromise in space, weight, usefulness, and cost.
- Don't be afraid to carry a first aid booklet – even if you are well trained, no one's memory is perfect.
- Carry a pen or pencil and a first aid report form or blank paper. Write down as much information as possible while you are administering care to a patient.
- Be Prepared to improvise what you don't have available in your kit.
- Items can change seasonally, with the location and duration of trip – for example, you won't need a snake bite kit for ski trips.
- Your first aid kit should be crush proof and water proof and be able to stand abuse – start with a heavy duty nylon fanny pack and pack items inside it in freezer-type zip-lock plastic bags.
- Most items will remain usable over long periods of time, but you should check expiration dates periodically.
- If you carry medications, make sure they are labeled.

- A useful first aid kit can take a long time to develop. Add things you wished you had from the last time you needed the kit and remove things you have never used.
- Commercial kits are expensive, and sometimes have things you won't need or can't use, but they might be a good compromise if you don't know where to start. Better yet, buy the case empty and stock it yourself.
- First aid kits don't save lives. It's the skill and training of the user that will make the difference.
- Keep a checklist of items in your kit, review the contents and refill if necessary immediately after each trip.

The Ten Commandments of Wilderness First Aid Emergency Management

- I. Thou shalt not become a victim
- II. Your safety and the safety of you group comes first.
- III. Thou shalt remain calm and use thy brain.
- IV. Thou shalt use what thou hast and improvise what thou hast not.
- V. Thou shalt always remember the ABC's (if you don't know your ABC's, see Commandment IX).
- VI. Thou shalt not leave thy patient alone.
- VII. Thou shalt write it down for if it wasn't written it wasn't done.
- VIII. Thou shalt not take it all on thine own head but delegate it out for thou art not alone.
- IX. Thou shalt get trained and stay current.
- X. Thou shalt plan ahead, keep thine eyes open and sweat the details for an ounce of prevention is worth a pound of cure.



Hypothermia and Hyperthermia

HYPOTHERMIA

Hypothermia—the lowering of one’s internal body temperature—is the number one cause of accidents and deaths in the backcountry. We are warm-blooded animals and we require a constant body temperature to insure our survival. Doing this in our day-to-day life is usually pretty easy: if we are cold, we turn up the heat; if we get wet, we go to the closet and change our clothes. These luxuries do not exist in the backcountry. The lowering of normal body temperature from 98.6 degrees to 97 or 96 degrees can make a backpacker confused or disoriented; further lowering of body temperature to 95 or 94 degrees can be fatal. Initial identification and prompt action are the keys to preventing hypothermia from taking another victim. Remember, hypothermia occurs in all four seasons; it is 100% preventable and 100% treatable if recognized in time.

Preventing heat loss can be done in a variety of ways

- Controlling convection - wear wind and rain gear to prevent wind currents from transporting the heat away from you
- Controlling evaporation - sweating leads to a wet body and a wet body is a cold body. It is important to maintain a warm, dry body by not over-sweating. To control evaporation reduce the amount of insulation or ventilate your insulation and/or wind and rain barrier
- Controlling radiation - prevent your body from radiating its heat to the surrounding air. Insulate the total body, especially the head, with the proper fibers. We lose a large quantity of heat from our head
- Controlling conduction - eliminate the transfer of your body heat to heat sucking objects around you. Avoid sitting or sleeping on cold, wet ground unless you are on an insulating pad.

Heat production can be encouraged in the following ways

- Eat a mix of foods high in calories
- Drink warm beverages high in calories
- Keep moving if possible
- Change into dry clothing

Symptoms of hypothermia are not always apparent, even to the most experienced backpacker. Symptoms such as irritability, lack of concentration and clumsiness are inherent in all hikers, particularly late in the day. At this point, hypothermia can be treated with a handful of GORP, some warm, high-calorie fluids and an extra layer of clothing. Symptoms of moderate to severe hypothermia come quickly, sometimes in less than 30 minutes, and will include uncontrollable shivering, slurred speech, and loss of fine motor coordination eventually advancing to physical collapse, unresponsiveness, cessation of shivering, unconsciousness and decreased pulse and respiration.

First Aid for hypothermia means preventing hypothermia. If you and your group are dry, well hydrated, well fed, and physically active, you will not need to provide First Aid. However, hypothermia is insidious and is often referred to as the silent killer.

First Aid would include the following

- Eat a mix of foods high in calories
- Drink warm beverages high in calories
- Change into dry clothing
- Keep moving if possible

Physical activity involved in continued hiking will often generate enough heat to rewarm mild to moderate hypothermia. However, to engage in physical activity requires calories and hydration. Don't expect a hungry and dehydrated hiker to be willing to keep moving. Generally hypothermic victims oppose this suggestion, wanting to sit and rest a while. Resist this temptation and move the group forward. Even if the group is wet, at least they will be warm. Most who spend time in the backcountry will, at some point, personally experience hypothermia. Every backcountry leader needs to become familiar with its symptoms and basic treatments. Remember: well-fed, well-hydrated, well-dressed groups will not fall prey to hypothermia.

HYPERTHERMIA

Hyperthermia is the opposite of hypothermia. Next to oxygen, water is most important in sustaining life. We are approximately 30% fluid by weight. A loss of a small percent of body fluids, such as 2% to 3%, will decrease the working effectiveness of our musculo-skeletal system by 20% to 30%. The average backpacker needs to consume approximately four quarts of fluid each day for optimal performance. Four quarts is a minimum; some backpackers may require as much as eight. The suggested consumption regime is one quart with breakfast, two quarts during the day and one to two quarts in the evening. In the summer, the hot temperatures encourage us to drink and the risks of dehydration are much more apparent to us. However, dehydration is an equally serious problem during the cold winter months. Dehydration, along with the intense heat of the summer sun, leads to hyperthermia. Staying hydrated helps hikers maintain their regular body temperature during the physical exertion of a backpacking trip. A well-hydrated hiker also generates lucid thought, an important criteria for decision-making in the backcountry.

Three conditions, working in conjunction with dehydration, that lead to hyperthermia are:

- Heat Exposure - Internally from strenuous exercise and externally from air temperature
- Heat Loss ability - Perspiration and increased blood flow to the skin
- Environmental Conditions - Air temperatures greater than 90 degrees drastically reduces the body's ability to shed heat through radiation. Normally, 65% of heat loss occurs through radiation. Relative humidity above 75% drastically reduces the body's ability to release heat through perspiration. Normally 20% of heat loss occurs due to sweating.

Prevention

- Drinking water - The best prevention for dehydration is constantly drinking water throughout the day. Water is the recommended source of fluid. It is the easiest for the body to absorb.
- Rest - A short rest is advisable so that the body can absorb the water
- Shade - If shade is available, use it. This includes sun visors.

If preventive measures are not taken, then more serious problems can result. These can lead to death if not cared for immediately.

Advanced Dehydration/Heat Exhaustion – Symptoms

- Weak, thirsty, headache, nausea, vomiting, cramps, disorientation
- Excessive sweating
- Reddening of skin on face and extremities
- Skin is cool and clammy to the touch

First Aid

- Water - Start with small amounts, a mouthful at a time, and working up to larger amounts over a period of several hours. This is to prevent vomiting which often happens when a severely dehydrated individual takes large amounts of fluid in a short time
- Rest - A long rest is advisable; you will probably not cover much ground with an advanced dehydration condition
- Shade - If shade is available, use it; if not, construct some shade using a tent fly or other available material
- Radiation - The body cannot tolerate high temperatures for a long period of time; rapid cooling off of the severely dehydrated individual must be accomplished quickly. Often these victims are unconscious and are unable to take fluids orally. These victims should have water poured on their bodies or be placed in a stream if available. This will rapidly decrease the victim's body temperature. Once they are conscious, begin treating with small amounts of fluid. Be cautious not to bring the persons temperature to a hypothermic stage by over cooling.

Today many electrolyte replacement fluids are available. But before using these products on hikes, try them in a more controlled environment such as during a workout in the gym or a run in your neighborhood. Don't assume these products will decrease the amount of fluid you will need.

Severe Dehydration/Heat Stroke –

A life threatening situation that appears in two forms: Classic heat stroke (perspiration ceases due to dehydration) OR exertional heat stroke (air is too hot and humid for hiker's heat loss mechanisms to work effectively).

Symptoms

- Rapid pulse and ventilations, confusion, seizures
- Sweating profusely – exertional
- Reddening of skin on face and extremities
- Skin is hot and dry to the touch – classical
- Rapid loss of consciousness

First Aid

Same treatment as for Advanced Dehydration/Heat Exhaustion (see above)

Mosquitoes and Ticks

Although there are many insects that can bite, the two most common “enemies” of the insect world for the New England and mid-Atlantic states are mosquitoes and ticks. Our eastern United States mosquitoes can transmit West Nile Virus and Eastern Equine Encephalitis (EEE). The deer ticks in the east may transmit Lyme Disease. According to the Centers for Disease Control and Prevention, Northern New Jersey, Long Island, NYC area, Connecticut, Rhode Island and southern Massachusetts have the highest risk for Lyme Disease along the East Coast. As a trip leader, you may want to share some of these prevention tips with your participants during screening or at the trailhead:

- Mosquitoes are most active in the dawn and dusk hours and after dark. You will encounter fewer mosquitoes if you plan your activities for the middle of the day.
- Wear long pants, long shirts, and boots--not sandals--when traveling through tall grasses or tight forest.
- Tuck in your shirts and pull socks over pant legs to minimize the chances of ticks finding skin.
- Avoid fragrances in shampoos, body wash, and perfume as they attract mosquitoes.
- Consider using a repellent with a concentration of 50% or less DEET, Picaridin, or 2% soybean oil. These three substances seem to be the most effective. However, make sure to follow the directions, avoid the eyes, mouth, and children’s hands, and wash off the repellent as soon as possible.
- Avoid wearing bright colors or florals and opt for light colors like khaki, beige, and olive.
- Ticks need to be engorged in your skin for 24 hours before they transmit Lyme Disease—encourage your participants to do a tick check at the end of the trip or day to catch them sooner.

If a Tick is found:

- Remove the tick immediately.
- Using fine-pointed tweezers, grasp the tick firmly (but without crushing) as close to the head as possible. Then pull straight up away from the skin.
- Avoid crushing the body of the tick, using petroleum, or attempting to use a lit match to remove the tick. These methods traumatize the tick and its stomach contents are more likely to end up in your wound.
- After the tick is removed, wash the area with warm water and soap. Alcohol can also be used to clean the area around the bite.

Symptoms of Lyme Disease

As previously noted, a tick must be engorged in the skin for 24 hours before it is able to transmit the disease. After transmission, the first sign for many victims is the “bull’s eye” rash—a circular rash that can expand over the course of several days, sometimes to the width of 12”. This rash occurs in 70-80% of Lyme Disease victims—thus not every

victim will have a rash. The other symptoms of Lyme Disease are chills, fever, joint pain, headache, fatigue, and swollen lymph nodes. Lyme Disease is often successfully treated with antibiotics. Untreated victims can have more severe and systemic symptoms such as shooting pains, stiff muscles, and irregular heartbeats. As a leader, especially on multi-day trips, letting participants know about some of these symptoms can help catch the early signs.

Sources:

US EPA, www.epa.gov/pesticides/health/mosquitoes/insectrp

U.S. FDA, www.fda.gov/cder/emergency/repellants

Centers for Disease Control and Prevention

http://www.cdc.gov/ncidod/dvbid/lyme/ld_humandisease_symptoms.htm

http://www.cdc.gov/ncidod/dvbid/lyme/ld_tickremoval.htm



Liability and Insurance

As an AMC leader, you are helping people to learn about and to enjoy the great outdoors. What your “liability” might be is a legal question, because only the courts can decide liability issues. The AMC is not able to set limits or determine your potential liability. Leading a group of people in any outdoor activity carries the possibility of injury to someone and the potential for liability suits against the leader, other individuals associated with that activity, and the Club. Volunteer activity leaders for AMC have several ways to help protect them from these possibilities.

The absolute best protection is experience and training. By leading a well-planned trip and having the knowledge to make good decisions, a leader will minimize the chances that a participant will have the opportunity or reason to make a claim against the leader or the Club. However, even excellent leadership cannot always prevent accidents and/or injuries. In the unfortunate case where an activity participant is injured, or dies, and they, or their heirs, blames the leader or Club for it, a lawsuit may result. AMC leaders have additional protection in those cases in the form of the Federal Volunteer Protection Act, the Volunteer Release Agreement, and AMC Liability Insurance.

Ways to Limit Your Exposure and AMC’s Liability:

- 1. Experience and Training**
- 2. Federal Volunteer Protection Act**
 - **What is the Volunteer Protection Act?**
 - **Who does the Volunteer Protection Act protect?**
 - **Are there limitations to the Volunteer Protection Act?**
- 3. AMC Volunteer Release Agreement**
 - **Some guidelines for use of the Volunteer Release Agreement**
 - **Some limitations of the Volunteer Release Agreement**
- 4. AMC Liability Insurance**

1. Experience and Training

- 1) Leaders should have a technical skill level that comfortably exceeds the difficulty of the activity that they are leading such that they can participate easily as well as help others along. In addition, they should be familiar with good leadership techniques such as trip planning and group management. The Club, most chapters, and many activity committees offer excellent courses designed to improve both your technical and leadership skills. These training programs offer potential leaders the opportunity to gain experience and try out new techniques in a safe, controlled environment. While leaders cannot always avoid difficult situations, they can learn to anticipate them, attempt to avoid them, and deal with them effectively should they arise so that the only result is a “thank you” for doing a great job under challenging conditions. Basic safety practices can also go a long way towards avoiding accidents or injuries. Leaders must check to ensure that all participants are equipped with activity-appropriate safety equipment and

- that it is used at all appropriate times. On all rock climbing, ice climbing, bicycling and in-line skating activities, helmets appropriate to the activity must be worn during participation by all leaders and participants.
- 2) A paddling activity leader may require helmets on any activity. Helmets must be worn by leaders and participants while open boating on Class III or higher rapids, while closed boating on Class II or higher rapids, and while rafting in all rapids.
 - 3) Personal floatation devices (PFDs) must be worn at all times when paddling activity leaders or participants are on the water with the exception of flatwater boating activities. On flatwater boating activities, PFDs must be present for all leaders and participants in their boats at all times.
- Leaders must refuse participation to individuals not equipped with the safety equipment listed above or any other equipment deemed necessary for the safe participation in the activity by either the leader or the sponsoring Club unit.

2. Federal Volunteer Protection Act

What is the Volunteer Protection Act?

The federal Volunteer Protection Act went into effect on September 18, 1997. The opening language of the act focuses on the enormous value of volunteers and nonprofit organizations in our society and the Federal Government's obligation to protect those volunteers from rising insurance costs and potential frivolous, arbitrary, or capricious lawsuits.

Who does the Volunteer Protection Act protect?

This law shields volunteers acting within the scope of their responsibilities to a nonprofit organization. As this applies to the AMC, anyone acting in an official capacity for the Club (activity leaders or co-leaders, activity committee chairs, chapter executive committee members, etc.) is protected while they are acting in that official capacity.

Are there limitations to the Volunteer Protection Act?

Yes, there are several limitations:

- It does not protect volunteers guilty of willful or criminal misconduct, gross negligence, reckless misconduct, or a conscious, flagrant indifference to the rights or safety of others.
- It does not protect volunteers from acts caused while operating a motor vehicle or any other craft requiring an operator's license.
- It does not protect volunteers from liability for misconduct committed while under the influence of drugs or alcohol or from liability for any illegal actions.
- It does not protect volunteers who receive compensation (other than reasonable reimbursement or allowance for expenses actually incurred) or any other thing of value in lieu of compensation, in excess of \$500 per year.

Some of these limitations are clear cut and others are more difficult to demonstrate. In all probability, any lawyer preparing a suit against a volunteer known to be acting on behalf of a nonprofit would charge the volunteer with acts that would be excluded by the

Volunteer Protection Act, specifically willful, reckless or criminal misconduct, and/or gross negligence. Then, the court would have to decide if the act applied to this specific case. At the AMC, activity leaders should be aware that getting a free trip is likely considered “in kind” compensation. If the value of free trips a leader accumulates in a year is over \$500, they are no longer protected by the Volunteer Protection Act.

3. AMC Volunteer Release Agreement

In any AMC activity, it is a leader’s responsibility to disclose any risks associated with an activity and it is a participant’s responsibility to acknowledge these risks and be prepared for an activity. This is important for the well being of all participants as well as for the protection of the leader and the Club. For this reason, the AMC’s Outdoor Leadership Development Committee (OLDC) has developed the “Acknowledgement of Risks, Assumption of Risks, and Release Agreement for AMC Volunteer-Led Activities.” This document was developed with input from many AMC volunteers as well as AMC staff and several lawyers expert in the fields of risk management, recreational law and legal liability. For your and the AMC’s protection, use of the Release Agreement document by leaders is required.

Some guidelines for use of the Release Agreement:

- The Release Agreement must be used for any volunteer-led outdoor activity – a day hike, a backpack, a canoe trip, a work day, etc. The Release is designed to be signed at the start of the trip but you may also send it to participants in advance to give them a chance to read it.
- The Release Agreement will be most effective when accompanied by a verbal explanation from the leader. Keep in mind the three functions of the document – to have the participant acknowledge and understand the risks associated with the activity they are about to take part in, to assume those risks and responsibility for their own safety, and to release the leaders and the AMC from liability for an accident that might occur on the activity.
- The Release Agreement should be used only in its original form. It is a legal document and should not be altered. It has been written and revised carefully and any changes may affect its legal value.
- The leader has the right and responsibility to ask someone who will not sign the Release Agreement to not participate in the activity.
- To participate in chapter activities, individuals under 18 years of age must be accompanied by a parent or legal guardian. In some cases, the leader may allow a minor to participate with a responsible adult other than a parent or legal guardian, but the leader must approve this arrangement prior to the activity. A parent or legal guardian is required to sign AMC’s Acknowledgement and Assumptions of Risk and Release Agreement prior to the activity regardless of their attendance on the excursion.

Some limitations of the Release Agreement:

As with the Volunteer Protection Act, there are limitations to the AMC Volunteer Release Agreement. Having a participant sign a release will not prevent them from bringing a lawsuit. A lawsuit would most likely attempt to charge a volunteer with gross negligence or intentional or reckless misconduct, not covered by the release. There are also additional arguments regarding the language of a document and the conditions under which it is signed that lawyers might use to try to negate the release. However, activity leaders should be aware that the Release Agreement was indeed carefully crafted and, used properly, has a strong chance of deterring someone from filing a lawsuit or preventing them from winning one.

For further information regarding the Acknowledgement of Risks, Assumption of Risks, and Release Agreement for AMC Volunteer-Led Activities, and a downloadable PDF of the document, please visit <http://www.outdoors.org/volunteerforms>

4. AMC Liability Insurance

The Appalachian Mountain Club maintains a general liability insurance policy insuring the Club and its volunteers against damages arising out of acts of authorized persons in furtherance of official Club activities. The liability policy includes coverage for defense costs. Below are some details on who and what are covered by this insurance policy.

If you lead and are particularly concerned about your personal liability protection and/or want to be absolutely certain of your own protection, you can obtain additional personal liability coverage through a rider on your homeowner's or tenant's insurance policy. These riders cover your volunteer activities and are usually available at reasonable cost, as long as you are a volunteer leader for the activity, and you therefore not charging for your services.

- To be personally covered by AMC's liability insurance policy, **designated activity leaders** must be **acting in accordance with AMC Leadership Requirements and Guidelines**, and they must be leading an approved AMC activity. Basic requirements include: leaders must be eighteen years of age or older, leaders must maintain current AMC membership, and leaders must be approved and recognized as leaders by an AMC chapter or activity committee.
- **Other persons** who are appointed by the designated leader to perform co-leader or assistant leader functions (lead, sweep, first aid care provider, rescuer) are also covered. Whether these leaders are AMC members or not, they are considered AMC leaders acting under the authority of the AMC member-leader, who is ultimately responsible for the event.
- Persons or businesses that an AMC member-leader contracts with or hires as a **third party**, to provide expertise, facilities, services or equipment for an activity, are **NOT COVERED** by the AMC liability insurance. Anyone hired as a third party should have adequate insurance. In addition, leaders who hire a third party should obtain a certificate of insurance from the third party with the AMC listed as a named insured,

although it is recognized that in some instances this may not be feasible for overseas activities.

- **Official Club activities** are those that have been approved by some committee or unit of the club and are led by an approved leader for that activity. The activity must be advertised or publicized to the membership in some type of official AMC publication such as *AMC Outdoors*, chapter or committee newsletters or schedules, camp or facility postings, chapter or committee maintained telephone answering machines or voice services, or read-only computer files. The Club recognizes that it is not appropriate to advertise certain approved outings and that some outings cannot be advertised by any of the methods above because of time restraints. For these outings to be considered official AMC activities, the sponsoring Club unit must keep a log consisting of the dates of approval, the date of the activity, the leader, and the kind and general location of the event. The Club liability insurance does not protect you as a leader of a pick-up or private trip.

For more details on AMC liability insurance coverage and requirements of leaders and activities to be covered, please read the AMC Leadership Requirements and Guidelines. This documents is also available online at <http://www.outdoors.org/volunteerforms>

Liability and Insurance Questions and Answers

NOTE: The answers below refer to coverage, as it exists in March of 2008. It is anticipated that the coverage will remain the same although this may change from time to time depending on the Club's ability to maintain coverage at this level and of this kind. If you have any question on coverage, please call the AMC Controller, James Tague, at Joy Street at 617-523-0636.

Q. Is a non-publicized event covered?

A. This depends on the nature of the non-publicized event. If it is an approved Club trip that does not appear in a Club publication for some reason, it will still be covered as long as the sponsoring Club unit keeps a log consisting of the dates of approval, the date of the activity, the leader, the kind and general location of the event. However, a group of AMC friends who go out on their own on a "bootleg trip" that is not officially approved or sponsored by any Club unit is not covered by the Club's insurance.

Q. Under what circumstances are trip leaders covered for negligence or gross negligence?

A. The insurance policy covers negligence in general, and does not make a distinction between negligence and gross negligence. A court will review any suit and make a determination if there was any form of negligence, and, if so, will award damages accordingly. The policy will cover negligence up to the policy limits. This does not mean that a leader can go out and intentionally hurt someone. Intentional acts are not covered.

Q. Under what circumstances may a trip leader not be covered?

A. In general, a person has to be a member, and is covered only with respect to their liability for AMC's activities or activities they perform on AMC's behalf. Non-member volunteers are covered only if they are performing or conducting activities in an official capacity for or on behalf of the AMC. This is more narrowly focused since it defines the capacity as official. The policies cover bodily injury and property damage, personnel and advertising injury. They do not cover breach of contract. For instance, if a trip leader signed a contract to do something without being authorized to sign the contract on behalf of the AMC by an officer of the AMC, then the leader would be responsible if he or she breaches the contract.

The policies also exclude coverage in some instances. Some of these instances are: sale of liquor, or furnishing of liquor without charge if a license is required for the activity, obligations insured under worker's compensation laws, pollution, disability or unemployment compensation laws, bodily injury to an employee, war, property damage to property you or the Club owns or has custody of, use of automobile or aircraft. (see later Q&A on automobile coverage)

Q. Will a volunteer leader have to pay any out of pocket expenses at any time for any thing if a law suit is brought against them? If so, what would these circumstance be?

A. The policy states that the insurance company will pay all expenses they incur in the defense of any suit. In general, they will pay for all costs with the exception of a \$250 limit on bail bond costs. They generally will not pay if you decide you want a different attorney to oversee the case for you or to provide separate opinions to you, or if you wish to hire additional outside experts without concurrence by the company. Based on our policies, the insurance company has the right to manage the case, select the attorneys, and do whatever else is necessary to defend and settle any suit.

Q. Are trip leaders covered under AMC's insurance policies for drive time, i.e. shuttling participants to and from trip sites while using personal vehicles or borrowed ones?

A. This question is a little complicated to answer. Primarily, your own automobile policy and any umbrella policy that you may have on top of this will cover any accident while you or someone else is driving your vehicle. However, if your trip is an AMC sponsored trip, in all likelihood an attorney would also sue the AMC under our automobile liability policy. We have coverage under the Club's automobile policy for non-owned vehicle coverage that would cover personal vehicles (owned or borrowed) used for official AMC activities.

Q. What if I rent a car from a rental company?

A. For a rental car to be covered, you must rent the car in the name of the AMC and it must be used for an AMC sponsored event. If you rent the car in your own name, there is no coverage. The AMC has hired vehicle coverage insurance which covers bodily injury and property damage as well as physical damage to the vehicle you are renting. To avoid any confusion in this regard, it may be advisable for you to accept the various insurance coverage's offered by the rental agency.

Q. Are trip leaders covered for injuries to themselves and which require medical care?

A. No. Trip leaders should carry or be covered by their own personal insurance.

Q. I'm also a member of another organization. Can I lead a joint outdoor activity as an AMC leader along with a member of that organization?

Yes. However, there are some additional steps to take. A co-sponsored activity is an activity that is jointly run with shared leadership and responsibilities between an AMC Unit and another organization. These requirements are not applicable when a third party organization lists an AMC activity or event but has no role in the leadership of the event. The following are exceptions in which approval is not necessary. If you are in doubt as to

whether or not your activity is excluded from the approval process please contact AMC Staff Aaron Gorban at agorban@outdoors.org

1. Any social events that do not include an outing or excursion such as: potlucks, slide shows, picnics, meetings, etc.
2. You are co-sponsoring an activity with a government organization
3. AMC led programs that are simply listed or advertised by other organizations

Club units sponsoring activities with outside organizations must confirm that activities are being offered in conjunction with an organization that has been approved by the AMC's Risk Management Department. To receive approval for a non-listed organization, please e-mail the name of the proposed organization along with some contact information to: leadership@outdoors.org AMC staff will work to add requested organization to the list of approved organizations as quickly as possible

AMC Outdoor Leader Handbook Credits and Sources

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Trip Planning and Management – Mark Yerkes, November 1996; Joe Kuzneski, OLDC Past Chair, April 2001; Katherine Byers, March 2003

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