



There are many more wonderful memories made in the mountains than miserable ones, but the fact remains: People get lost, get hurt, and die in the North Carolina mountains on hikes, rock climbs, paddling trips—even in plane crashes. And for each of these incidents—for the missing Boy Scout near Doughton Park last spring and many others—someone has to search for the lost and carry out the injured, or worse.

Core of Volunteers

Scores of park rangers, many of them experts in search and rescue, work in North Carolina's national parks and forests, as well as private and state parks.

Nevertheless, when hikers and climbers get lost or hurt, most responders are local volunteers. One of the places these public-spirited people congregate in North Carolina is the Linville Central Rescue Squad, between Linville and Pineola in Avery County, about 16 miles south of Boone.

It's a typical rural rescue squad in many ways. Founded in 1988, it has a few ambulances and a crash truck that respond to auto accidents and medical emergencies in a growing resort/retirement region. But of 20 active members on a roster of 30, eight embrace the squad's sub-specialty—mountain rescue.

Their headquarters has a rappelling wall and a ceiling rigged with rope anchor points for practice using jumars—hand-operated devices that permit a climber to ascend a single strand of rope. It's also why the big, boxy crash truck is stuffed with ropes and racks of rock-climbing gear and not just with the heavy hydraulic equipment for cutting into crashed cars. Bags of climbing harnesses hang in the truck, all with the "Misty Mountain Threadworks" logo of the nationally known Boone-area producer of climbing gear.

But oddly enough, despite the proximity of the Appalachian Trail, Linville Gorge wilderness, Grandfather Mountain, and the waterfalls of Wilson Creek, "mountain rescue" means more to these first responders than rescuing injured rock climbers or lost



Steep Grade: Often, in instances when a victim has fallen, the rescue squad must rappe down rock walls and cliffs. Above and right, squad member Robert Calloway trains on

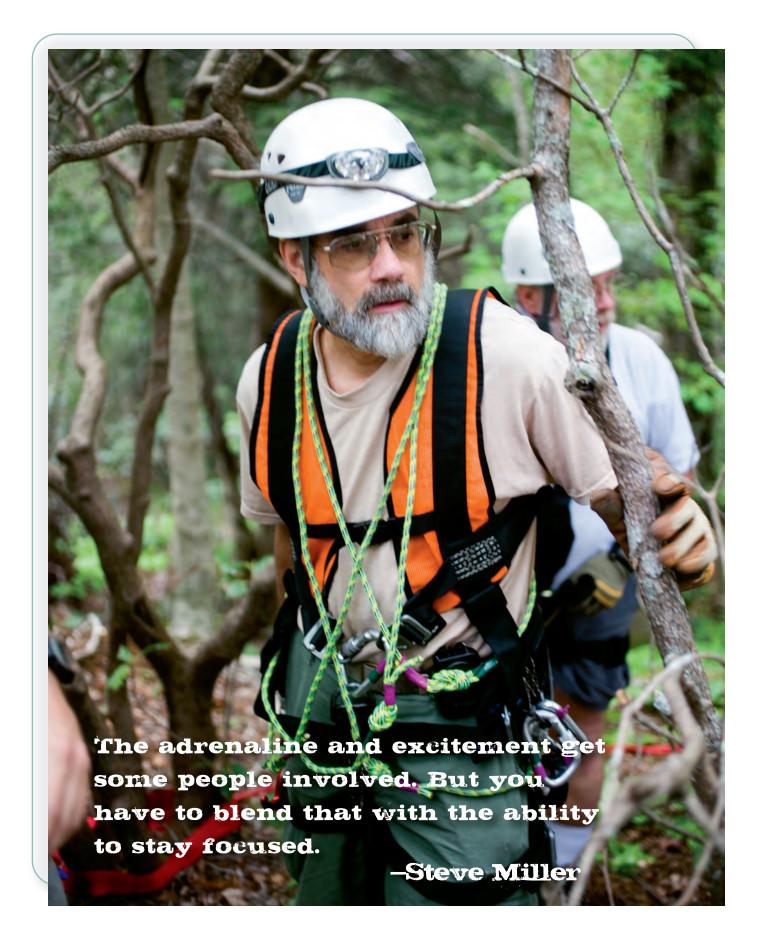
hikers. "Much of what we do doesn't involve people lost on trails," says Robert Calloway, squad member and statewide trainer of "high-angle" rescue techniques—situations that require ropes and suspended litters (specialized stretchers) to remove victims. "We may be looking for an Alzheimer's patient or a child who wanders away from their home," he says. "All parts of the surrounding counties have seen searches."

Emergency Fact

Response time is critical because every search is an emergency situation. Most cases of hypothermia happen in the 50 to 60 degree temperature range, especially in the rain, so multiple nights in the open can kill, especially if a person is injured.

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Compounding a Problem

Even the most standard auto accident can have decidedly "mountain" elements for the Linville-Central crew. Recently, the squad went out to rescue a motorist whose Jeep had plummeted off one of the dozens of meandering dirt roads below the Blue Ridge Parkway near Grandfather Mountain.

The driver had careened down a drop-off so

Tools of the Trade: Harnesses and ropes are standard mountain rescue subset of that gear used by these rescuers, many of whom are agroup, Miller says, "takes a perexperienced climbers. Left, Steve Miller, squadsomenwihordoesn't seek the limeand Grandfather Mountain trail manager, negotialight." aThese rescuers know it takes a team to carry a victim

steep that only a massive, clinging rhododendron thicket had interrupted the vehicle's plunge. Steve Miller, a member of the mountain rescue unit and the trail manager for Grandfather Mountain, says, "Of course, it was the middle of the night, and the Jeep was upside down." Imagine the maelstrom of headlamp beams, bobbing every which way, as rescuers descend through the vertical, cliffside world of what early mountaineers called a

"rhododendron hell." The victim was lifted out using a compound pulley system.

That technique can be needed in the Linville Gorge where climbers occasionally fall or become stranded on the South's toughest climbs. Whether the victim is injured or worse, lowered down or hoisted up, working on rock is tricky. Burke County has its own mountain rescue unit that focus-

> es on the Gorge and cooperates with the Linville group. "As a general rule," Calloway says, "climbers take care of themselves. At least the experienced climbers do-or they do not become experienced."

> Big incidents like plane crashes-four occurred on Grandfather Mountain during the 1980s—pose major search and recovery efforts. But even modest hiker injuries prompt arduous efforts, because carrying a litter over miles of rough terrain is the most difficult hike you'll ever take, especially if it lasts all night.

> Under mundane or simply terrifying circumstances, it takes a rare person willing to put his safety, even his life, on the line for others. WNC would be in sad shape without professional and volunteer first responders of all kinds, but the

So what kind of person gravitates to mountain rescue, beyond the strong and physically fit? "For many outdoors people," Miller says, "there's an element of fascination and satisfaction working with the gear side of things, the ropes and equipment. The adrenaline and excitement get some people involved, but you have to blend that with the

to safety or find a child in thousands of square

acres of animal paths crisscrossing the forest.

ability to stay focused and in control in a crisis. We try to make what we do as safe as possible, but working on cliffs, doing what we do, can be dangerous."

Miller and the others realize that they're "working in a rough outdoor situation where the rescuer can get hurt. So if we can't do something safely, we don't do it. No one needs another victim that has to be rescued."

A "Usual" Search

A common trailhead quandary is the most prevalent way that a lost hiker sparks a search. It's late in the day, and an abandoned vehicle is parked for what appears to be an overnighter in defiance of no-camping policies. This happens occasionally near the parking areas at Grandfather Mountain where the Grandfather Trail heads up the mountain's highest peaks into thousands of

Be Smart in the Woods

Inform a responsible individual about your plans. E-mail a few friends and family and put it in writing.

Get the required wilderness, trail, or camping permit. Consult with rangers for the latest regulations, weather, and other warnings.

Always take a map and know your route in advance.

Stay on trails, unless you are an expert outfitted with a GPS, map, and compass.

Never hike alone.

Carry a first-aid kit, a whistle, rainresistant clothing, and food to last to the next day. One big, plastic trash bag makes a great shelter.

If you find yourself off the trail, stop immediately and retrace your steps.

If you are lost, find a shelter a rock ledge, perhaps—and wait for help. You will be more easily found if you're not wandering around.

acres of cliff-capped backcountry. The area is well-signed that no camping is allowed, but occasionally, "people don't see or just ignore the signs," Miller says.

A similar situation occurs in the national forest when a car has been unattended for days at a trailhead or on a roadside. The vehicle may raise a red flag for rangers—or a family member may have called to report a missing person. In all of these situations, rescue crews never just race into the woods. Such incidents could involve foul play and "be an active crime scene," Miller says. Thus law enforcement is often on hand when a search starts.

If the search-and-rescue dogs appear to be needed, "then they're on the scene early," says Miller, "before the search area becomes so populated with new scents that smell overload becomes a factor."

One such trailhead dilemma involved the dogs near the Swinging Bridge on Grandfather. The missing hikers' vehicle contained some children's clothing, so when no other information was available, law enforcement officers opened the car to find scent articles. "One item was cut into pieces and saved in separate Ziplock bags," says Richard Schaffer, an independent search-and-rescue dog handler. "That way, when the other teams of backup dogs arrive—and we work with five to seven teams—fresh scent would still be available."

In this case, a few dogs, handlers, and squad members found the family snuggled safely in a tent atop Attic Window Peak (5,949 feet). All's well that ends well, but rescuers realize that any of the dogs or searchers who climbed rocks and cliff-face ladders to find the couple could have been hurt.

Best- & Worst-Case Scenarios

The irony of wilderness search and rescue is that it often ends before it starts. Modern technology can eliminate the danger and even the effort. The best-case scenario for law enforcement officials or rangers—say, on Mount Mitchell, where you can backpack camp if you register first—is to hit the information jackpot. It can be as easy as "run-



Tested Techniques: Rescuers Robert (left) and Wesley Calloway (right) use a compound pulley system to practice their method for lifting victims out of high-angle situati

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ning" the license plate of the car, looking up the owner's phone number, and calling home. A friend, parent, or spouse can have all the answers, as in, "Oh yeah, he'll be backpacking there all week."

The increasing number of cell phones—many with GPS capability—are making it easier to call, and be located by, rescuers. But searches are challenging with or without technology. At the start, a trail-to-target assessment makes a search easier. You have a likely route to examine for signs of passage. But what happens when a child was last seen at a campsite in the middle of the backcountry? Or when there's a car on a roadside and no obvious direction of travel.

"Think about it this way," says Schaffer. "If a frightened, lost person can walk two miles in an hour, in 10 hours, that could be 20 miles—in any of 360 directions."

Odds like that—and the fact that lost people often meander and circle—are why multiple dog teams and backup crews are always called in from nearby. "This isn't the movies, where one dog finds the lost child," says Schaffer. "A successful search is to everyone's credit."

"In the truly worst case, when you don't know which way someone has gone, the grid search of a large area is the last resort," says Miller. "It's a nightmare in the mountains. It takes a lot of people, especially if you're looking for a child."

After phone calls and interviews, the incident commander needs to forge an action plan. Local insight is critical. The searchers need to be acquainted with the area. Lacking concrete information, "At best, we're making educated guesses," says Calloway. "We're just trying to narrow the search down with any information we can get."

For that, dogs are critical, and "each is different, with different strengths," Schaffer says. "All dogs can track, but 'air scent' dogs can often establish the direction of a search, and then take off, to lead the slower track-

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ing dogs, such as bloodhounds, that follow on leash."

"The handler needs to be able to read their dogs," says Schaffer. "If a dog has no interest in the trail, the handler should be able to interpret that behavior. Then the incident commander puts all the search clues together in the search management pot to cook up theories on how to proceed. It isn't easy."

Looking For Help

How to proceed? That's a question that also affects another search: Linville-Central Rescue Squad's quest for funds and new manpower. "What we do is a young person's work," says Calloway. "We need a new generation of outdoor people to help with this."

Miller agrees. "Our ambulances need to be replaced," he says, nodding at an older model. "This equipment costs, and we need new, dependable gear. It takes hours and hours of training, and younger people don't seem to be joining as others age out."

That predicament animates the squad's largest annual fundraising effort in mid-July during the Grandfather Mountain Highland Games and Gathering of Scottish Clans. As paid responders are few in rural areas, times are tough.

The best that can be said is that a dedicated and broad-based, albeit small, contingent of motivated mountain residents continues to tackle the challenge of finding and rescuing a growing number of visitors and part-time residents on the East's highest mountains.

Their plight reflects the appeal of the great experiences to be had in the mountains, and the fact that there are accidents and tragedies, too. Even for the most experienced outdoorsperson, the mountains are the wild card. In Western North Carolina, the mountain rescue units know just how wild that card can be.



Sniffing Around: Special canine teams like Richard Schaffer and Rocky are cr establishing the direction of a search when a clear trail is not obvious.

A Civil Duty

very year, rescue squads like Linville-Central are looking for volunteers. "Time, commitment, and physical ability are the essential components necessary to volunteer," says Steve Miller. There is at least one fire and rescue squad per county in North Carolina. Basic requirements vary from squad to squad, but all require medical or rescue certifications, or both. Anyone interested in volunteering should contact their local fire or rescue squad to check on the required certifications. Individuals go through the North Carolina Department of Insurance's Office of State Fire Marshal to become certified, and the training and classes are held at most community colleges.

For more information on training and certification, visit www.ncdoi.com/OSFM or call Robert Swiger, the fire and rescue training field service supervisor, at (800) 634-7854, ext. 317.