

NASAR

National Association For Search And Rescue



Search and Rescue Magazine



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SEARCH AND RESCUE**

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Welcome to the new SAR Magazine!

Mike Vorachek
NASAR President and Editor

We've finally been able to pull together a fairly significant project in bringing the SAR Magazine back to life. The last issue I was able to locate was the Winter 1984 edition, so this has been a project that has taken 34 years to bring to fruition.

There are several reasons why we have undertaken the project to bring back SAR Magazine. First, it provides us an opportunity to promote the camaraderie of our profession. All of public safety counterparts have magazines that address issues related to their profession. Admittedly, it will take us a long time to reach the levels of other magazines, but at least ours is free! Second, we are creating a publication that can be passed on to others – on your team or in the doctor's office lobby. People are interested in our profession and we have a lot to offer. The fact that most SAR folks are volunteer, the specialized work we perform, and the environment we operate in all tie together to make this one of the one of the most benevolent professions you can participate in.

I would like to take a moment and thank our advertisers. Many of you were contacted while we were trying to establish the content of the magazine and really did not know what you were going to get for your investment. We can only hope that your decision to support us is going to pay off. We want to say THANK YOU for your support.

For those history buffs out there, I went back to the Spring, 1978 edition of SAR Magazine and pulled out a couple of snippets for your enjoyment.



***Cover Photo: Marin County SAR (CA) doing a hot load
on a CH-46/47 from the CA National Guard above 10,000'
in the Sierra Nevada Mountains.***

The Leading Edge

By Mark Smith, Mission-Centered Solutions

Full disclosure, I'm no search and rescue expert. Before writing this, I didn't know the Mattson Method from Method Acting. Although, from my Army special operations career, I do know a lot about leading in high-risk environments. Mountains, desert, jungle, arctic, maritime, caves, tunnels... Rescued and rescuer; Lost and found.

So, I write this article based on my conviction that an incident is an incident and leadership is leadership. Chaos and synergy are universal. A team may be technically accomplished, yet real effectiveness depends on leaders at all levels with the right knowledge and tools, and a culture that encourages growth and confidence in their use.

Continued ▶



Cave Photo - Surface entrance transitioning to vertical drop to main cavern

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In my current career, my team trains and consults with emergency response agencies and incident management teams (IMTs) on leader development and Mission-Driven Culture across the United States, Canada, and Australasia.

In July 2015, in a limestone cave in a remote part of Victoria, Australia, a group of responders who, like me, didn't know much about SAR, exercised impressive leadership to successfully resolve a challenging SAR incident. Since so many SAR responders around the world are volunteer or seasonal, it's relevant that all the people who established command and ran the incident were volunteers. In this case, volunteer firefighters.

Our story really starts the night before the actual cave rescue during one of our leadership courses. This volunteer course was broken up over two weekends, at an isolated camp. On the first Saturday night, after a day in class, we go hands on and apply the core concepts during a night exercise.

| Leadership Principles |
|--|
| Be proficient, both technically and as a leader |
| Make sound and timely decisions |
| Ensure that tasks are understood, supervised and accomplished |
| Develop your people for the future |
| Know your people and look out for their well being |
| Keep your people informed |
| Build the team |
| Employ your people in accordance with their capabilities |
| Know yourself and seek improvement |
| Seek responsibility and accept responsibility for your actions |
| Set the example |

Teams are dispatched to calls and a series of events lead to incidents becoming more complex. Heavy rain, very dark - the perfect environment to put the leadership principles into practice.

The Fog of War, a 200-year-old metaphor for the friction, danger and uncertainty inherent in chaos, was thick that night. Pea soup thick. The group experienced (i.e. created) communication breakdowns, lack of situational awareness, poor organization, personnel accountability issues, a few overwhelmed leaders and a whole lot of

followers standing around in the dark. It's what my colleagues and I call "a rich learning experience".

At the after-action review, they were beating themselves up. "We know better than that!" They left with a little fire in the belly to "have another crack" and apply the lessons to the following weekend's exercises. We finished Sunday morning's training and after a meal everyone headed out on the only road back to civilization.

The group carpoled in their admin vehicles – a loose convoy with several minutes between cars. 6.5 miles south, still 23 miles to the nearest small town, the lead vehicle encountered a young girl waving her arms flagging them down. Pulling over, the 11-year old told them that a woman was hurt and trapped in a cave a half mile off the road. The cave was part of a large complex stretching several miles.

They had no equipment, other than their individual gear. Murphy's Law ensured there was no cell phone reception in the area and spotty radio comms.

What could they do? They were not SAR, confined space, rope rescue, or cave experts.

But the previous night had increased their expertise in leadership, teamwork, communications and decision-making exponentially.

The course centers on the values of a Mission-Driven Culture, and one of the key concepts is the difference between operators and followers. Followers wait to be told what to do. Operators always seek to influence their environment to accomplish the mission. Everyone is a leader.

| Values of a Mission-Driven Culture |
|---|
| Service for the common good |
| Pursuit of truth |
| High trust state |
| Form and function driven by the end state |
| Individual initiative |
| Continuous improvement |

So they went to work.

The first three people secured the roadside. One interviewed the young girl, treating her as a valuable source of situational awareness. One assumed responsibility as incident commander and established a control point. One started communicating back to dispatch and scribed for the IC.

A second vehicle pulled in with a paramedic. He and two other firefighters formed a search team to locate, evaluate and stabilize the victim, bringing blankets and water. They considered the danger/opportunity of allowing the young girl to guide them. Assessing she was level-headed and capable, they relied on her local knowledge, flagging the route as they went. It was a difficult path and they realized they would have struggled to find it without her.

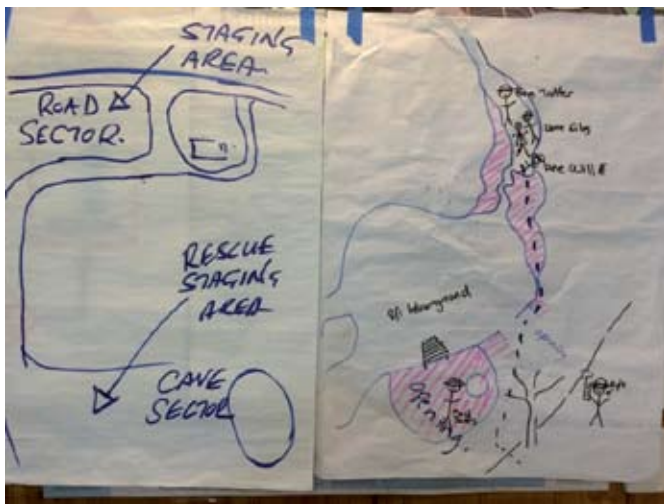
The search team navigated the vertical mouth of the cave and subsequent narrow passages to find a woman with a broken ankle and possible spinal injuries, trapped in a small chamber of stalagmites.

The remaining volunteers got the organizational structure in place. Within a few minutes, they ordered a High Angle Rescue Team that could arrive in 3.5 hours, and requested lighting for night operations.

Because radio coverage was unreliable, they implemented PACE (primary, alternate, contingency, emergency) communications by establishing runners and relays so there was always a link within visual and voice range.



Cave Entrance Photo – entrance camouflaged by foliage



Org chart & graphics used to brief the leadership class the next weekend

Everyone got briefings – eventually one person guided all incoming resources to the cave and briefed them along the way, checking that everyone had adequate equipment for the environment.

The paramedic stayed with the patient and the two accompanying then drove back to the camp where we did our course and organized catering. One eventually acted as a liaison with the assembling family, sharing and gathering new information.

A brand-new captain, a pixie in stature, took on the role of staging and check in manager and interposed herself in front of big, salty crew leaders of follow on units who wanted to go right into action. “You either check in, properly, or you pack up and go home!” They quickly complied with completed T-Cards.

As the far more experienced technical specialists eventually arrived from three different agencies – fire, police and rescue – along with higher-ranking chiefs, they all reached the same conclusion. “These people know what they’re doing.” And they went to work, fitting into the existing structure in operational or liaison roles but leaving the cohesive IMT of our students of leadership intact.



Technical Photo – Looking through a horizontal passage to interior chamber where patient was trapped

The rescue itself was challenging. Terminology I hazily recalled from my Army days - Norwegian Reeve, butterfly, double becket bends, triple stack prussiks.... As the night progressed, the patient was highlined into the main cavern, then re-rigged to cross the 30-90 degree slope up and out of the mouth of the cave. She recovered fully after treatment.

What led to success? Our students had no more knowledge of the incident command system on that Sunday than on Friday morning before the training. What was different?

To begin with, some very fresh lessons that ICS is just a system. Leadership drives the system. They had a whole new kit bag full of tools and techniques based on the concepts and principles of leadership and Mission-Driven Culture.

They chose to be operators, not followers, taking responsibility to lead and communicate, regardless of position. One later stated: “At the night exercise a lot of us stood around waiting to be told what to do. At the cave we made sure we all knew what was happening and had roles.”

They had the confidence to lead based on mutual trust and experience with what right and what wrong looked like from their weekend together. Younger volunteers later said the first half of the course “...gave me the confidence to take action.”, or to “...speak up when things didn’t look right and ask if things weren’t clear.”

When you build your team’s leadership abilities and encourage a culture for their use, you build a better team. Synergistically, they also become more effective in their regular jobs and other pursuits. Recruiting and retention of your program will grow as people see a valuable return on their time. Developing operators is essential to any team’s leading edge, no matter your brand of chaos. ▲



Photo-Briefing the Cave Rescue during 2nd weekend of course

Mark Smith is a partner in Mission-Centered Solutions, based in the Denver, Colorado area.

www.mcsolutions.com

SAR 40 YEARS AGO SNIPPETS FROM THE SPRING 1978 ISSUE OF SAR MAGAZINE



Defense Civil Preparedness Agency: VINCENT J. TUSCHER, DCPA Region One, Emergency Information Officer sz CB's will be useless in nuclear war because probably all CB's will be confiscated as were amateur radios in WWII . . . DONALD E. THOMAS, Editor of

**MEMORANDUM FOR THE
SECRETARY OF THE AIR FORCE
SUBJECT: Responsibility for Search and
Rescue (SAR) Operations in
CONUS DEC. 14, 1977**

With the recent revitalization of the Interagency Committee on Search and Rescue (ICSAR), I want to reemphasize and clarify the Air Force's mission, as DoD Executive Agent, for this humanitarian endeavor. Military search and rescue equipment and facilities should be employed to the maximum extent to enhance the effectiveness of national humanitarian search and rescue while ensuring that the component primary combat-related mission is not jeopardized.

The Air Force Military Airlift Command Aerospace Rescue and Recovery Service (ARRS) will continue to function as the DoD mission control center for the prosecution of inland military and civil SAR missions, drawing resources from the Navy, Army, Coast Guard and other federal and local agencies as required. Further, the Air Force will be responsible for programming and budgeting actions necessary to ensure the Department of Defense has adequate, efficient and compatible equipment required to interface with other federal and state SAR agencies. Congressional budget visibility for this mission should be provided via a shredout of Program Element 35113 entitled "DoD Civil SAR." Policy and procedural coordination with other federal agencies will continue to be through the ICSAR.

The above guidance will be reflected in the forthcoming rewrite of DoD Directive 5160.2, "Single Manager for Airlift Services."

C.W. Duncan
Deputy Secretary of Defense



Our **SAR Academy** curriculum has a number of education programs, some of which include a certification process. Our long standing SAR Tech programs were expanded this year with the addition of the on-line SAR Tech IV course and test. This program is designed to provide an overview of SAR for individuals who are not field responders, but may be called upon to assist in an Incident Command Post or a Base Camp.

Our revised SAR Tech III is designed for non-wilderness searchers who may provide searches in a park or urban-wilderness interface area but does not require some of the advanced skills of higher levels of certification.

The core of our wilderness SAR program uses the newly updated ***Fundamentals of Search and Rescue*** text followed by a written examination and a field practical skills assessment. *(Additional information is included in a separate article.)*

We have created an online Mounted SAR Tech III certification for the equine SAR community.

We also offer an 8-hour Urban Search Management Course that provides a great deal of information to those agencies, e.g. police departments, that conduct missing person searches in urban or urban-wilderness interface areas.

For law enforcement personnel we have an 8-hour Initial Actions course that provides non-SAR participants with instruction on how to initiate a missing person search with a focus on wilderness environments.

Our new ***Managing The Inland Search Function*** replaces our old Managing the Lost Person Incident. The 32 hour course is designed for SAR team leaders, SAR Managers, Incident Commanders, and Planning or Operations Section Chiefs.



In June we rolled out our new **Wilderness Emergency Care** program consisting of four courses. We offer a **Basic Wilderness First Aid** (8 hours); **Wilderness First Aid** (16 hours); **Wilderness First Responder** (40 hours); and a **Wilderness EMT** (80 hours) endorsement for licensed Emergency Medical Technicians and other medical professionals. We have a text for the WFA courses and another more advanced manuscript for the WFR and WEMT courses.

Survival In The Cold: Fact or Fiction?

Lance Taysom, RN, EMT-P, CFRN

When it comes to opinions about best practices for winter wilderness and hypothermia survival, there are many. The popular media and plethora of literature does little to sort out common, yet often false, beliefs from research-based principles. Here is a fun T or F (fact or fiction) test to challenge your thinking.

1. High ground is better than low for sleeping.
2. The human body's thermostat is located in the hypothalamus of the brain.
3. Moderate to severe hypothermia (90° - 82°F) should be treated as an emergency with rapid re-warming.
4. Humans acclimatize to heat, but there is little acclimatization to cold.
5. If stuck in the field with a frost bite injury, it's best to keep the frozen part frozen rather than letting it thaw and then risk re-freezing.
6. Drinking anything warm is good to help warm a cold, shivering person.

Answers

1. **It depends.** We certainly do not want to make our camp in a creek bed or a place where runoff would flood us out. Low-lying areas, draws or valleys, tend to be colder as the night air settles. However, ridge tops and exposed high places tend to be windy and less sheltered. Often the best campsites are found, not made. In the ideal world, you could choose a level spot on a south facing (N. America) slope, out of the wind, protected from flooding, and with plenty of fuel and insulation.
2. **True.** The hypothalamus is like the computer processor that collects data from the thermal receptors located in the skin, spinal cord, and core organs. Temperature changes are sensed by receptors and passed on through nerves to the hypothalamus. The hypothalamus controls an integrated signal (too hot or too cold) which regulates physiological responses. The stronger the signal, the greater the response (sweating and shivering are good examples).
3. **False.** Yes, it's an emergency in the sense that this patient is at risk, and without help they could die. However, steady is more important than fast. Gordon Giesbrecht, MD teaches: "It took along time for them (hypothermic person) to get this cold. It will take time to warm them up. We do not need to do it fast, just do it right."
4. **Partly true.** With the quality of our clothing, temperature regulated homes, cars and offices, the micro environment at our skin or other internal temperature receptors, rarely "see" cold for any significant length of time. However, for those who count winter outdoor time in days (rather than hours) you will notice adaptation to cold as a decreased shivering response, decreased perception of cold, decreased vasoconstriction (increased blood flow to critical areas like hands and feet) and more.
5. **This is a complex decision making matrix.** At any given moment, frostbite is ether continuing to freeze deeper or thawing. Ideally, all frost bite should be rapidly re-warmed in a 104°F hot water bath as soon as possible. As with most things medical it's the details that get tricky: Do we need to travel to save our lives? Can we make a good camp? How long until we are rescued? Will the injury thaw anyway as we warm the person? Do we have the means to rapid re-warm in a hot water bath? Can we ensure there will not be re-freezing? Can we keep the person warm? Can we keep ourselves warm? So, **it depends.**
6. **Not quite.** Warm drinks are nice but they don't resolve hypothermia. The key is sweet & warm. Humans are 70% water (that's over 10 gallons for a 170lb person). 8oz of warm liquid added to 10 gallons of cold, will not change much - it's the calories packed into that warm drink that will provide the fuel and produce the heat.

The Meaning of Search and Rescue

Shaun Roundy

You're comfy and warm and sound asleep at 3:00 a.m. when the search and rescue alert drags you abruptly out of dreamland...

You have three hours left in your workday when the notification arrives that a child has gone missing from a local campsite...

*You just sat down to Thanksgiving dinner with extended family when you learn that a truck has slid off the road and into the river, or some kids went hiking and got stuck on a cliff, or a backcountry skier broke her leg and may bleed or freeze to death if you don't get up **right now** and find her...*

So you get up and go. You get in your car and drive, paying for your own gas and most of the gear you need to bring today's patient home safely. You do this day after night after day, month after month, year after year. Then you go back to your life and act as if nothing extraordinary happened today, as if you're no hero and any decent human being would have done the same.

But why? What drives you to continue volunteering your time, money, comfort, and - sometimes - risking your safety to rescue strangers who you've never met and will probably never see again? In my experience and observation, only one thing has the power to motivate such ongoing selfless action, and that is a *Sense of Meaning*.

"Meaning" simply means that you find something important enough to prove rewarding and satisfying; regardless of how pleasant or unpleasant you find the task itself. It's wired deeply into our brains as one of its most potent motivators. It can transcend pleasure and pain, outlast threats and duty, and shape lives and destinies.

My question for you is whether you're extracting the maximum amount of meaning, and thus, motivation, from your SAR service? Test yourself with the following questions to find out whether you're missing any opportunities to multiply your meaning:

1. Is your gear ready to go for the next mission?
2. Are your skills practiced and sharp?
3. When the call comes, do you eagerly respond?
4. Do you look forward to seeing your SAR friends at meetings and trainings?
5. Do you feel like your participation makes a difference in mission outcomes?

If you answered no - or hesitated - to any questions, then the following stories are designed to point out opportunities for extracting more meaning from SAR service and allowing that to motivate you to greater enthusiasm, dedication, and intrinsic, personal reward:

Contribution: Just In Time!

It's easy to observe the difference you make in the world when, as my team did earlier this year, you pluck a woman from a high cliff moments before exhaustion causes her to fall to her death.

One of my all-time favorite missions involved a climber who fell fifty feet and landed on his face, who we spent all night lowering over half a dozen waterfalls and down a rocky mountain trail to a waiting ambulance. It was a favorite mission because it was difficult, and because it mattered - the boy may not have survived without us.

I got into my car as the eastern, pre-dawn sky began to glow with a hint of approaching daylight, and turned on the radio to a public service announcement about donating blood. "Today, I read a book," said one voice. "I mowed my lawn," said another. "Oh, and I saved a life," they added. "So did I," I thought to myself, and it felt pretty darn good.

It's more difficult to glean the satisfaction from making a difference when you respond to a lost child, as my team did two weeks ago, only to turn around after driving for twenty minutes because the child returned to camp on his own. Even so, it's useful to remember that even the mere act of being ready and willing to respond to emergencies is significant. 80% of life is just showing up, they say, and if you make it that far, you're sure to go much farther.

My favorite rescue story from recent years prevented tragedy in a rather unusual and entertaining way. A couple on a date went hiking and got ledged out between cliff bands. For them, it must have been an intense and perhaps traumatic experience, while for my team, it was about as simple and commonplace as they come, not the sort of situation where I expected to find much meaning.

I made my way to the couple and lowered first the girl, then the boy, to safety. When the girl reached my teammate below, waiting to lead her back to the trail, she exclaimed, "You guys got here *just in time!* I was about to tell him I love him!"

Identity: I Am SAR

A man joined my team many years ago and brought with him a very nice jeep. He gave me a ride up a steep hillside one evening, and proudly pointed out its various special features. His attendance at trainings, missions, and meetings didn't add up to the requirements for a first-year member, however, and he was eventually cut from the team. For years afterward, we would spot his jeep around town now and then, its back window still adorned with "Search & Rescue" in large, reflective letters. A deputy eventually caught up with him and made him at least remove the sheriff star.

This appears to be an example of someone who joined SAR for the wrong reasons - or at least what we might consider less-noble reasons - for status and prestige. Ego alone rarely provides enough meaning to motivate ongoing commitment and dedication when calls come at such inconvenient hours and new members discover what an expensive hobby SAR can be. They tend to cull themselves from the team long before they get let go.

Why, then, am I sharing this story as an example of meaning and motivation? Because it clearly illustrates a point where many SAR volunteers veer in the opposite direction and fall short. Rather than taking pride in what they do, they humbly assume they're nothing special, but they are!

YOU are! You are a rescuer, and like it or not, that makes you a hero. You need not assume you're better than anyone else, but you ought to at least accept the truth, that your selfless devotion makes the world a better place by saving lives and inspiring those who witness your actions, whether that's a lone lost

hiker in the dark of night, or millions watching a news story from the comfort of their living rooms. By acknowledging that you're a valuable part of the team, you open the door to more fully experience the satisfaction of a job well done.

Connection: Training Hours

My team's Singletrack Special Team was born when my teammate Chris and I bought motorcycles one summer. Dirt bikes let us access endless miles of dirt trail in a fraction of the time they would take to hike. Others soon joined the ranks, and the SST has proven extremely useful dozens of times since then.

When a pair of disoriented hikers called from the Ridge Trail one summer night, we strode over to the command post and pointed at their map. "They're either right here or right here," we assured them. "Those are the only two places you can feel lost on the Ridge Trail."

After riding seven miles in the dark, we found our lost hikers huddled around a campfire exactly where we predicted. "I'm Shaun and this is Chris," we introduced ourselves. "We'll be your rescuers this evening."

"Your knowledge of these trails is invaluable!" our commander confided when we returned to CP. That depth of knowledge never would have happened without the bond of friendship which kept us "training" together almost every week from spring to fall for several years.

Summary: Vitamin M

Contribution, Identity, and Connection are not the only sources of meaning and motivation - you could also add duty, adventure, spending time in nature, getting off work (if your boss recognizes the importance of what you do and supports your participation), and more. Furthermore, others may not find meaning from the same sources as you - but as long as they're motivated to show up and contribute to the team's success, there's no point in judging them for any differences. The point is to take care of number one by making sure you're getting enough Vitamin M to keep you going strong and happy for many years to come. ▲

Shaun Roundy is an 18-year volunteer on the Utah County Sheriff Search and Rescue team, where he has served as vice president, secretary, mountain rescue team sergeant, webmaster, and more. He has chaired the Mountain Rescue Association's Intermountain Region for ten years, founded the MRA Webinar Committee, and wrote the book 75 Search and Rescue Stories, an insider's view of survival, death, and volunteer heroes who tip the balance when things fall apart, available on Amazon.com and UofLIFE.com/books.

Texas Civil Air Patrol Members Complete SARTECH Course



Four members of the Texas CAP completed the SAR Tech-II course and 6 completed ST-III program during the Lone Star Emergency Services Academy held June 25 through July 1st in Nacogdoches. Lead Instructor was NASAR Board Member Don Stephens. SAR Tech Evaluator Kim Stephens and Search Dog Olivia also in photo. Photo by Joel Smith.

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Introduction to using K9 Teams

David Ferguson

Why would a SAR team want to use a SAR K9 team on a search mission? What can they bring to the mission? For the purpose of this article a K9 team is the dog and the handler. Sometimes they are joined by a support person or flanker. The K9 team is trained to help find

missing people using human odor either alive or deceased. The dog is trained to “tell” its handler that it has detected odor of the missing person or any person in general. Because the dog doesn’t speak in words the handler is trained to understand the dog’s behavior (body language) and the dog is trained to perform a specific indication behavior, usually both learn to interact with the other. In other words, the dog is a target odor detector or sensor and the handler is a body language interpreter. Because a dog is more efficient at smelling the trained odor than a person, the team can be more effective. Most human searchers look for visual clues where as a K9 team compliments that with an odor search for higher POD.

What should you expect when dealing with a K9 team? There are a couple of ways to look at this question. First, a K9 team is more effective if there aren’t lots of other people in the search area – conflict odor sources. The team works better when it is not too hot or not raining too hard. This means a number of teams prefer to work out front of other teams or at night when there aren’t so many people searching. Second, the K9 team should be part of the whole search – not the center of attention. They should follow the ICS, preform their assignment to the best of their ability given the conditions, be prepared for the conditions, report the results of their efforts honestly including the areas not covered, they should not undermine the overall team, and be an asset and not a liability.

How to make best use of a team? The overly simple answer is to apply them so that they can be the most effective (this is also true of all teams). “Most effective” means that their POD is the highest for the situation and conditions and at the lowest ‘cost’. Cost being time, money, or risk. This is done by matching their skills and experience against the target odor and situation. But, how does a search planner do this? The best answer is experience with that particular K9 team or, secondarily, an acceptance of the certifying agency for that team. It helps to go watch them practice. Please understand that there are a number of national certifying agencies, regional certifications, and some agencies preform internal certification. The key point here is that the search agency or manager be comfortable with the certification.

A lot of the time a K9 team won’t directly find the object of the search but instead the K9 may find scent clues or lead the K9 team to physical clues. Most SAR management knows that clues are the key to solving the mystery. And the key is tracking, plotting the clues on the SAR map, and using all the clues to focus the search effort. There are a couple of ways that these scent clues are found. The first and foremost is that the handler recognizes behavior changes in the dog. The classic is “my dog has never done that before – I wonder what is going on.” These events should be added as a waypoint to their GPS and the wind direction and variability noted. Then these events should be reported as part of the debriefing process.

In closing, a K9 team is part of the whole SAR team – treat them that way. It is through the whole team that any given mission is accomplished. K9 teams are not magic or superhero’s – just trying to help.

“Improvise, Adapt and Overcome!” Clint Eastwood, Heartbreak Ridge

David has 33 years in SAR and is pictured with his third K-9, Lily. He is a member of Snake River Search in Idaho

FEATURED TEAM

Red Rock Search and Rescue



Red Rock Search and Rescue was formed in January of 2012 after a hiker named Ron Kirk went missing in Red Rock Canyon near Las Vegas. At the time, the only SAR team was the Sheriff's heli-borne technical rescue team. The Sheriff's team was made up of a handful of volunteers and deputy officers. They did not have the resources to search massive land areas, especially when the probability of detection was a low. Las Vegas Metro Police Department Search and Rescue launched multiple operations but were unable to locate Ron. Eventually they had to call off the search due to lack of resources, but Ron's friends and members of local hiking and running clubs kept the search going, gathering more than 200 volunteers to comb the area searching for Ron. David Cummings, a veteran SAR member from California, who then lived in Las Vegas, realized Las Vegas did not have a ground pounding SAR team.

David began to organize people who were showing up to help search for Ron. It was one of the most amazing things this author has ever seen someone do in a real crisis. Within a few days, David had organized several search teams, had maps, and had almost every hill, peak, and valley checked off as being searched. He taught people grid searching techniques, map, and compass usage. Searches continued for weeks and finally, on March 10, 2012, Ron's body was found in one of the most treacherous areas of Calico Basin.

In the weeks to come, David began to organize. He was supported by a generous donation from Ron Kirk's family and Red Rock Search and Rescue was founded by David Cummings, Dana Richardson, and JD Laguana with the goal of building a team who could continue searching for lost and missing loved ones when resources had run out. Additional founders Rachel Rice, Robin Kashar, Jennifer McCarthy, Brian

Foster, and Larry Simon helped shape the team into a non-profit corporation. At the core of their efforts was NASAR training for all members joining the team.

Shortly after Ron's funeral, a call came in to the team from Jodi Goldberg, sister of a man reported missing and presumed murdered. Red Rock SAR personnel were immediately deployed to search for Keith Goldberg. When everyone else had given up on ever finding Keith, Red Rock SAR doggedly searched more than a hundred square miles of desert. On April 14, 2013, exactly one year to the day the search began, Red Rock SAR found Keith's remains. Red Rock Search and Rescue was formally honored by the Mayor of Las Vegas on April 17, 2013 for their efforts, just after finding Keith in the Lake Mead Recreational Area a few days prior.

Since conception of the team, Red Rock SAR has grown into a highly trained, skilled group of 200 volunteer Search and Rescue technicians who go out on various missions. Red Rock dose P-SAR, a prevention strategy where the team places Rescue Techs at the base of a canyon, trail, or high-risk area to check gear, deter novice people, or assist anyone in need before an incident occurs. The team has a group of "call takers". This dedicated group works 24/7 taking calls from anyone needing help, guidance, or has someone missing when Law Enforcement is not able to assist them. Red Rock responds to urban searches for people that are missing. Red Rock does the traditional rural search for a missing person in back country areas. The team has volunteer committees to help manage each function of SAR. There is a command post group, fund raising group, training group, medical group, and admin group. People of all ages and backgrounds participate to ensure the team can operate. Anything from filing to taking pictures, to cooking, to cleaning, there is a job waiting for a volunteer on this team.

The team is funded by generous donations and fundraisers. Many members go out of their way to fund raise for the team. Everyone on the team contributes in some capacity, but without funds, the team would cease to exist. The team at current time receives no financial backing from any government or state resource, however the team provides over 200,000 hours annually to the local and nearby areas with assistance free of charge. Subaru and the Engelstad Family Foundation have been two of the team's major supporting entities.

Red Rock Search and Rescue has grown from a group of people working on maps at picnic tables with t-shirts to a professionally trained team complete with uniforms, a training center donated by the City of Las Vegas, rappel and rope station training, mobile command post, K9, Equestrian Team, ATV team, 4x4 team, Medical, Bike Team, and Hug a Tree Team. NASAR training is at the forefront of all training for Red Rock Search and Rescue. The team uses all NASAR training platforms to educate membership and to establish standards. There are four NASAR SAR Tech academies per year ran by the team's NASAR Instructor and Lead Evaluator cadre. All new members are asked to complete NASAR Tech III and IV online.

The team's future seems robust with missions and training. While funding remains unseen, the team works daily to raise funds. Any support will be greatly appreciated. Supporting of this team means funds towards saving a life or helping someone in need. For more information, photographs, and events, please go to www.redrocksar.org. ▲

By John Peterson RR11, Deputy Commander, Red Rock SAR

LOVING OUR PUBLIC LANDS TO DEATH

*Brianne Johnson
Utah Public Radio
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Utah's public lands welcome tourists from around the globe to play, explore and adventure - sometimes to a fault. In the last four years, Utah has seen a 68 percent increase in search and rescue missions in our national parks. Just last year, there were 324 rescues statewide, costing Utah nearly \$300,000 in equipment, training and manpower.

So who foots the bill for these large-scale operations?

Generally, it depends on the state legislature. In 1977 Utah implemented the search and rescue, or SAR, card program to reimburse local sheriff's departments for search and rescue missions on public lands. Participants spend anywhere from \$35- 140 for the card, which opts them into the national search and rescue fund.

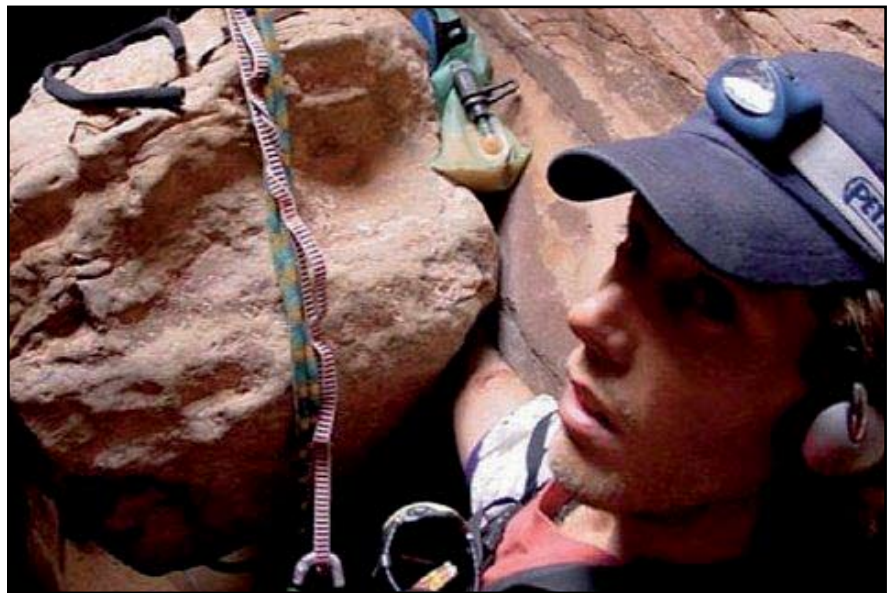
"It's like a seatbelt. It's something you want to have and you never want to use," said Mike Coranella, a member of Grand County Search and Rescue since 2009, which has the highest rate of search and rescue missions in the state.

Your entrance fee covers the cost of your search and rescue within national parks. Search and rescue teams often don't charge the rescued individual, even if they are being negligent, because it delays reporting.

Of the better-known search and rescue missions is the story of Aron Ralston from 2013. Avid outdoorsmen Ralston was pinned by his arm just outside of Canyonlands National Park by a massive boulder. After nearly five days of being trapped, Ralston would amputate his arm with a dull pocketknife and scramble to safety.

Ralston's story was unique because although he technically rescued himself, the parks department initiated a mission to retrieve his hand. Bill Foreman has worked with the National Parks Service Search and Rescue since 1964, and was one of thirteen team members who rigged the 800-pound rock from the narrow rock slit where Ralston was held captive.

"A helicopter was on our frequency so we could all talk to each other," he said. "Somebody in the helicopter,



Aron Ralston pinned in Blue John Canyon, outside of Canyonlands National Park, for five days
The Telegraph

they were out searching for Aron Ralston and said, 'We have some people in the canyon trying to flag us down', and the guy got on the radio again and he said, 'We found him. Looks like he's in pretty good shape. We think we'll fly him up to his truck at the parking area.'

"So at that point, that's all we know. We knew he'd been found and our search was over. So I got back at the trailhead and as I was standing there in my parks service uniform, a family of three from Amsterdam came walking out. It was mom, dad and their son - who was nine, 10, 11 years old - says, 'We found him! And he cut off his hand!', and that was the first we'd heard of it."

Ralston's hand was later cremated. Some remains spread in the retrieval spot in Blue John Canyon, and the rest was given to his mother.

Of the many team members involved in the Aron Ralston story, Bego Garehart is notorious for his skills in search and rescue developed over 23 years of working for Grand County search and rescue and the national parks service.

"My search and rescue stuff started out at Boy Scout camp," he said. "You know, if a scout got lost, we had to go look for him. Well, turned out to be very interesting to me even back then. How do you find somebody who's lost? I didn't know back then, but there are certain formulas and ways to think nowadays that have been developed over these decades to look for lost people."

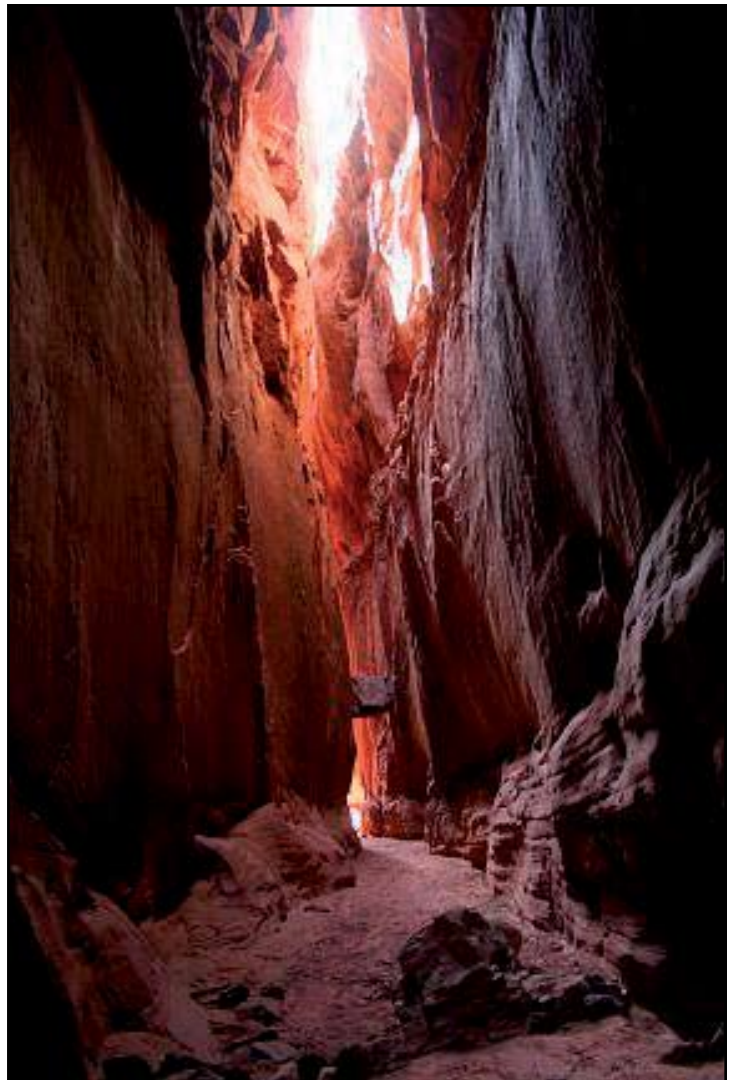
Chris Boyer is the executive director for the National Association for Search and Rescue. "I ran a search and rescue team for almost ten years in California and we had everyone from the local butcher at Safeway Store to a lawyer," he said. "So it's a little bit of everything. It's quite the melting pot."

Boyer has trained hundreds of rescue volunteers, like Garehart, to take action in life-threatening conditions.

"There's a general set of core skills that you need that we teach in what we call a fundamentals search and rescue course," he said. "That takes about 40 hours to learn. That includes things like land navigation, grid searching, interviewing techniques to do trail interviews or missing person interviews, ropes and knots, personal survival, basic first aid."

Boyer tells us in addition to intensive training and experience, search and rescue team members almost always continue their work out of altruism or love for the outdoors.

"Some of these folks have an outdoor interest," he said. "They hike, they play in the outdoors, they've seen



Blue John Corridor - Credit Wikipedia

this sort of thing happen around them and they want to be ready for it if it does. Other people have an interest in helping out in their community. Maybe they've had a family member or they know someone or they know someone that knows someone that's been lost before and they want to help and they don't have any experience outdoors. They've never backpacked, they've never camped and we have to train them up from scratch to do that."

Though the story of Aron Ralston was unique for most search and rescue missions, it stands as an example of the risk you take when you indulge in Utah's beautiful landscapes.

"We probably do a lot of search and rescues because people are out of their element, they're in over their head," Boyer said. "They believe that perhaps they buy the right equipment, and they've not used it and they've not been outdoors with it, and the equipment can save them. Really it's outdoor knowledge and outdoor experience that keeps you safe. So buying the best hiking shoes doesn't tell you how to deal with a freak snowstorm in June, up in the Wasatch."

Support for Loving Our Lands To Death is made possible in part by the USU Quinney College of Natural Resources, where students and faculty promote the sustainability of ecosystems and the communities that depend on them. ▲



Ralston now speaks motivationally
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