

MERIDIAN

Winter 2022



The Quarterly Publication of the Mountain Rescue Association

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No Words, No Factor: Team Rescues Nonverbal Subject

**Lessons in Leadership
and Team Culture**

**MEDCOM: Treating
a Common Injury**





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ON THE COVER: Steve Goldsworthy, a member of Montrose Search and Rescue, waves to a helicopter during the search and rescue of a nonverbal teenager near Glendale, Calif. (LASD - Montrose Search and Rescue)



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President's Message

This year, my team, Rocky Mountain Rescue, celebrated our 75th year providing SAR services to the Boulder County, Colorado community and beyond. We had a weekend of festivities, and past members from all over the country came by. It was a great time, and I must have looked at more than 5,000 photos putting presentations together, but I learned a lot about my team and the development of SAR in the USA. I also looked to the future of SAR.

Search and rescue in our country is community based and mostly volunteer. I have heard many people voice concern about the unsustainability of volunteer SAR work in the USA. I am not so sure our future is grim. Of course, I believe that local, county, state, and federal agencies need to recognize us as professional volunteers and the important service to our communities we provide, mostly for free. Financial support is certainly helpful (and welcome). But I am not sure the same service could ever be provided with only paid professionals. The MRA mandates no charge for rescue, for all the reasons we know. But does the public now expect something different? Are our EMS, medical laws, federal aviation industries, insurance companies, hospitals and other involved parties going to adjust their business models to accommodate thousands of potential new employees? Probably not any time soon. In Colorado we are working on some hybrid models, and legislation is

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helping pick up some of the slack. but the volunteers are still doing the heavy lifting.

Volunteers do what they do because they want to. Sure, I would love to make a living doing this and envy those that do. But having a team of 50+ on call 24/7/365 to go search in the middle of the night would be very expensive

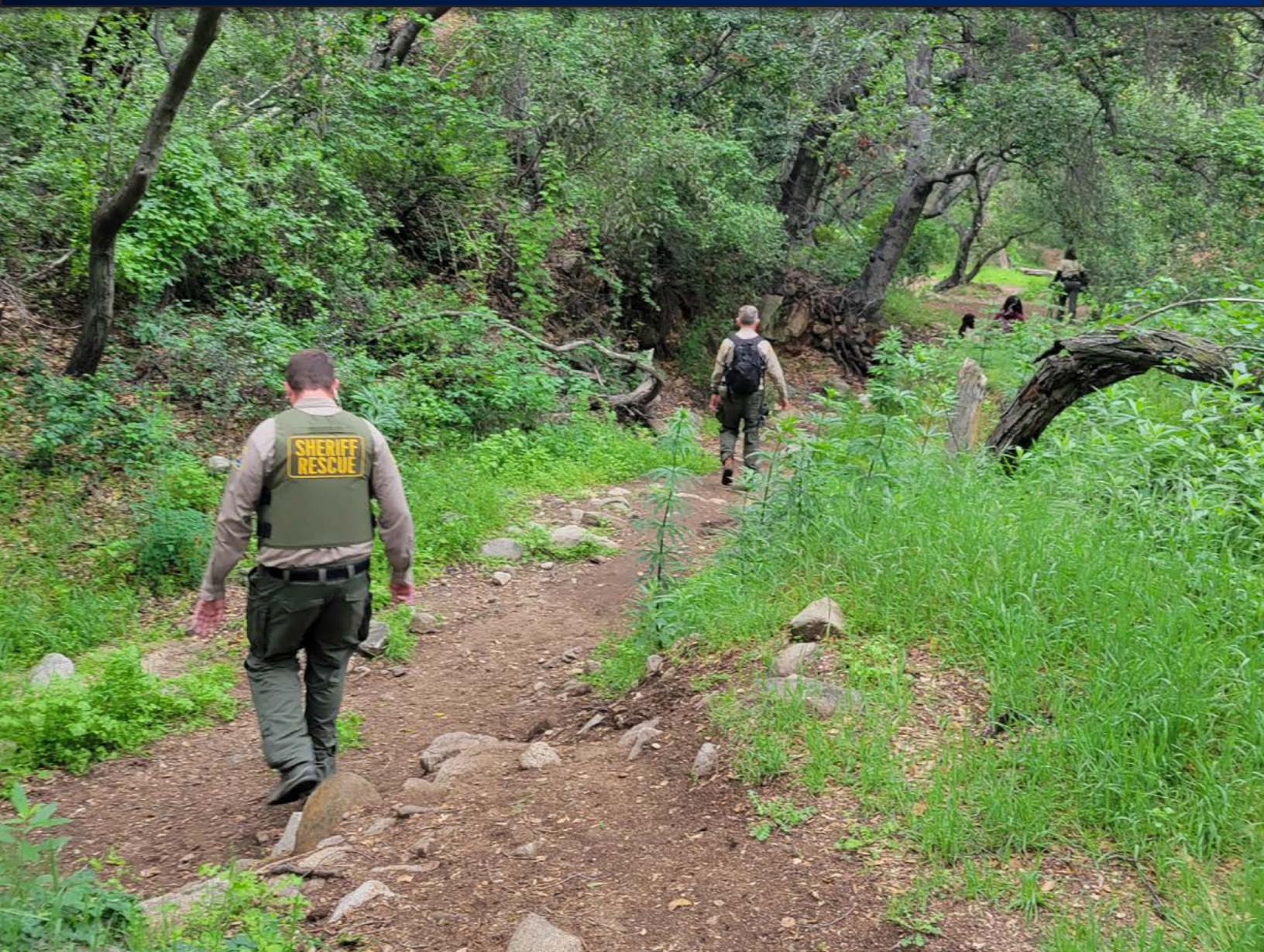
indeed. I admire our paid colleagues and am honored to work alongside them. They have much they can teach us, but we have much to offer them as well. There are no substitutes for the local knowledge and experience the MRA teams have to offer. As the demands on our time increase, we must work with our professional agencies in a collegial, non-competitive way. Our safety, the patient's safety, and getting us all home in one piece have always been the goal. Let's never lose sight of that. Be proud of being a volunteer. What greater gift to ourselves, and others is there? What a fine way to live one's life.

Alison Sheets
MRA President



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Team Rescues Nonverbal Teen

Rick Lindfors - Meridian Editor in Chief

Sheriff's Deputies and SAR volunteers search for a missing nonverbal teen near Glendale, Calif. (Steve Goldsworthy)

GLENDALE, Calif. - Intelligence gathering and quick thinking enabled rescuers to safely bring home a teenager who had gone missing in a park in Los Angeles County. The teen, who was autistic and nonverbal, presented a challenge in communication that serves as a lesson for other SAR teams.

The teen disappeared just before noon on April 3 in Crescenta Valley Park. Members of Montrose Search and Rescue, Altadena Mountain Rescue and Sierra Madre Search and Rescue responded along with local police officers and aircraft. The use of aircraft sparked concern for MSAR member and operations leader John Camphouse.

"My immediate concern was [...] is the helicopter going to cause this kid to hide?" he said.

Local police briefed SAR team members, who then formed their search plans. MSAR team member Steve Goldsworthy's team started a hasty search following a set of tracks up a canyon that ended in a narrow segment. His team decided to return to the staging area to discuss their options. The subject's mother and sister were at the scene to meet with searchers. "[The mother] told us that her boy was nonverbal and that he loved rocks," said Camphouse. This detail would be key for Goldsworthy. "As we're walking, there's a rock in the trail and she mentions

to me 'he would go out of his way to kick that rock,'" said Goldsworthy. "That stuck in the back of my mind." About two years prior to the mission, a member of MSAR had given a talk on how to deal with autistic subjects. Goldsworthy says the training made him more sensitive on the mission. He was concerned that if found, the boy could run away.

Police put out a public safety alert for the immediate area. A mountain biker saw the alert and told police that he may have seen the subject in the area while riding a fire road. His description matched the basic details of who searchers were looking for. Goldsworthy's team then drove up the fire road to continue their search. They stopped where the road met the canyon to call out to the subject, and Goldsworthy then heard what he thought were rocks banging together. "That could be him because he's nonverbal, that could potentially be his way of communicating." Goldsworthy radioed the helicopter to check out the canyon, where the crew quickly spotted the boy. It turned out he walked over considerable terrain going up a trail out of the park, up the canyon and climbed up and around a dry waterfall. He was tossing rocks to signal his location.

Goldsworthy and his team walked about 100 yards to the location indicated by the helicopter crew, navigating their way down a steep slope in the canyon. "I come around the corner and there he is, sitting under a tree. Poison oak everywhere," said Goldsworthy.

A new challenge appeared now that he had made contact: how to build rapport with the subject. Goldsworthy and other SAR team members wore tan shirts and green pants, making them look similar to sheriff's deputies. The team wasn't sure how the boy would react to their appearance. The last thing they wanted was for him to take off. Goldsworthy decided a soft approach would be best given



A Montrose Search and Rescue member examines tracks while searching for a missing nonverbal teen. (Steve Goldsworthy)

what they knew and didn't know about the subject. "I just said hello, and I told him I was looking for him with his mom and sister," said Goldsworthy. "And then I just sat down about 10 feet away from him and I was just making small talk. And then I picked up a rock that was sitting there and just chucked it into the gully down below us." That action drew a smile from the boy, who then found a rock and tossed it down. "He put his hand out and I gave him a fist bump," said Goldsworthy, "at that point I thought 'okay, I have his confidence now, he's not going



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to take off on me.” But the boy decided that it was time to leave, and started scrambling up the mountain the way he came down. Goldsworthy was able to point out the way the rescue team came in, which the teenager followed.

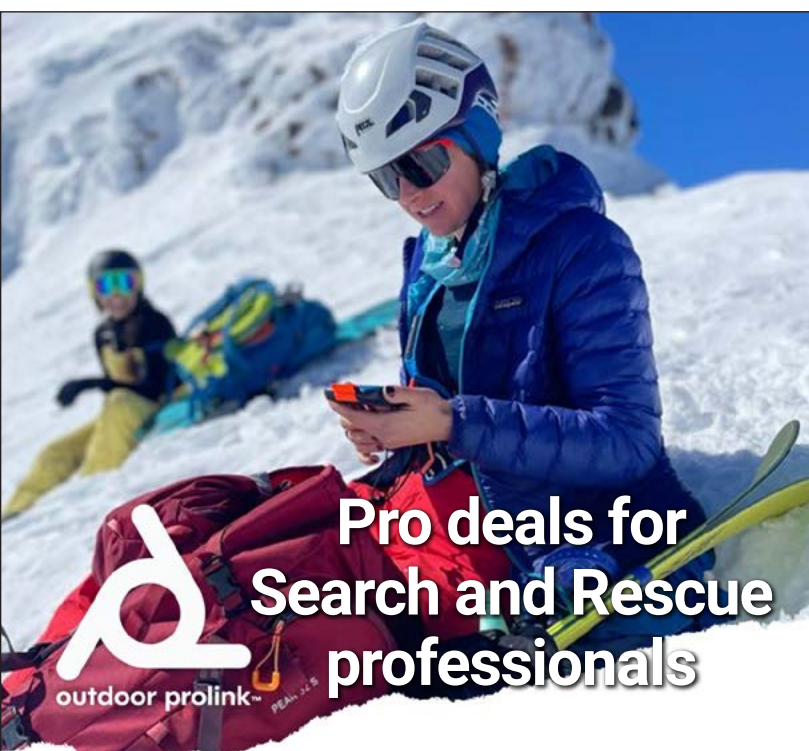
The team decided that walking out was the best option. While a rescue helicopter was available, Camphouse says a hoist was ruled out due to the overhead tree coverage hazards and the teen showing nervousness towards the chopper. “His reaction was not favorable,” said Goldsworthy. The other option was to use a truck with a winch cable to help the teen up in a harness or litter. But according to Goldsworthy, the subject didn’t want to be in a harness nor hold onto the rope offered to him. He decided to walk up on his own, which rescuers tried to make as easy as possible for him. “Three or four people [...] basically just trample[d] the brush the best they could and the poison oak the best they could back up the hill,” said Goldsworthy. The teen followed behind them up the 400 foot slope. Despite being missing for close to seven hours, he wasn’t injured. He got into a vehicle with SAR team members and returned to his waiting family members. SAR Team members gathered afterwards to debrief

and go over lessons learned. “[The teams] reiterated what autistic subjects will do and how to handle them,” said Camphouse.

Communication issues with autistic subjects present a major challenge according to Bonnie Nuttall, a member of Albuquerque Mountain Rescue Council and occupational therapist. Nuttall works with students with autism and other disabilities. She says building relations and getting information from reporting parties or family members are key to making connections with subjects. “A lot of times we get into the field and we want to do, we want to go, we want to be there,” she says, “finding out that information can make a huge difference.”

Sensory issues present another challenge. Searchers should be aware of what may cause additional stress to patients whether it’s noise or touch. This can be learned from reporting parties, family members or caretakers. “Don’t assume and really observe. Slow it down a notch as long as safety isn’t an issue,” said Nuttall.

Nuttall says SAR teams can train for situations where communications will be strained whether it’s with someone who is nonverbal or doesn’t speak English as their



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primary language. "If your team has the ability to do a scenario where you train and practice that kind of stuff, it will make it less stressful when you do have a callout." The likelihood of encountering a subject with autism is becoming more likely. According to the Centers for Disease Control and Prevention, autism prevalence in the United States is steadily increasing. The agency estimates 1 in 44 children have autism spectrum disorder. In 2000, the ratio was 1 in 150 children. The National Autism Association has a [Big Red Toolkit](#) that contains information specifically tailored to first responders and includes picture-based methods of communication. Temple University also maintains a [webpage](#) containing communications tips and resources.



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The challenge of the rescue professional is the need to adapt, especially when facing unexpected situations. In order to be ready for the unexpected, members of the Davis County Search and Rescue team train often in places like Farmington Canyon, Utah.



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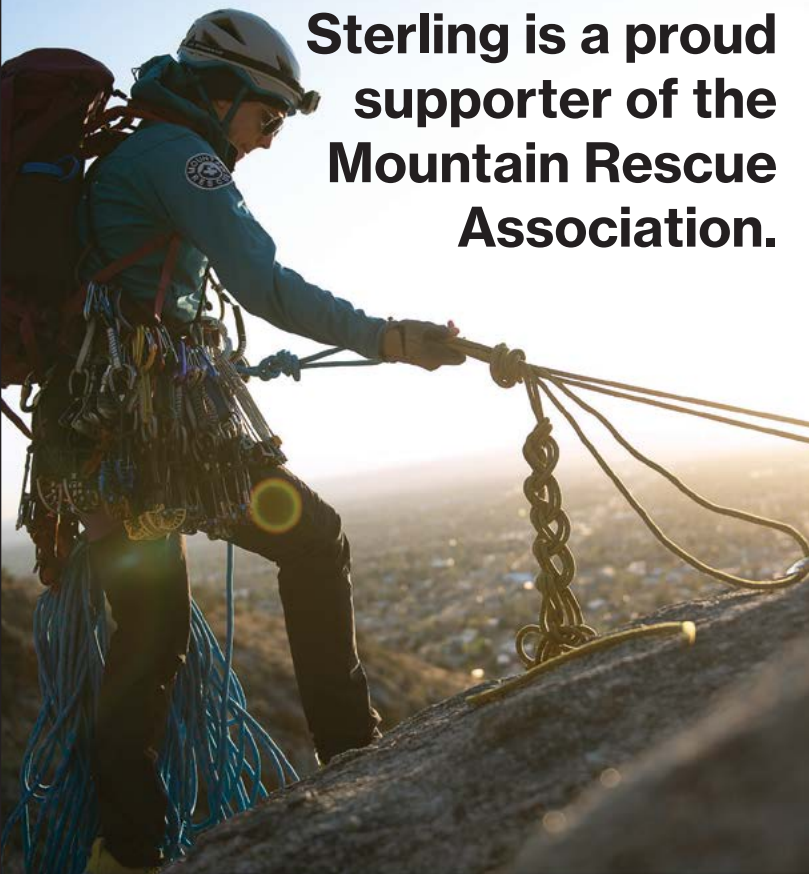


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P	L	Q	H	H	R	F	Q	O	B	S	C	Y	R
E	I	G	E	S	E	Y	C	L	P	Y	E	S	E
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Winter Word Search

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Lessons in Leadership

Rick Lindfors - Meridian Editor in Chief

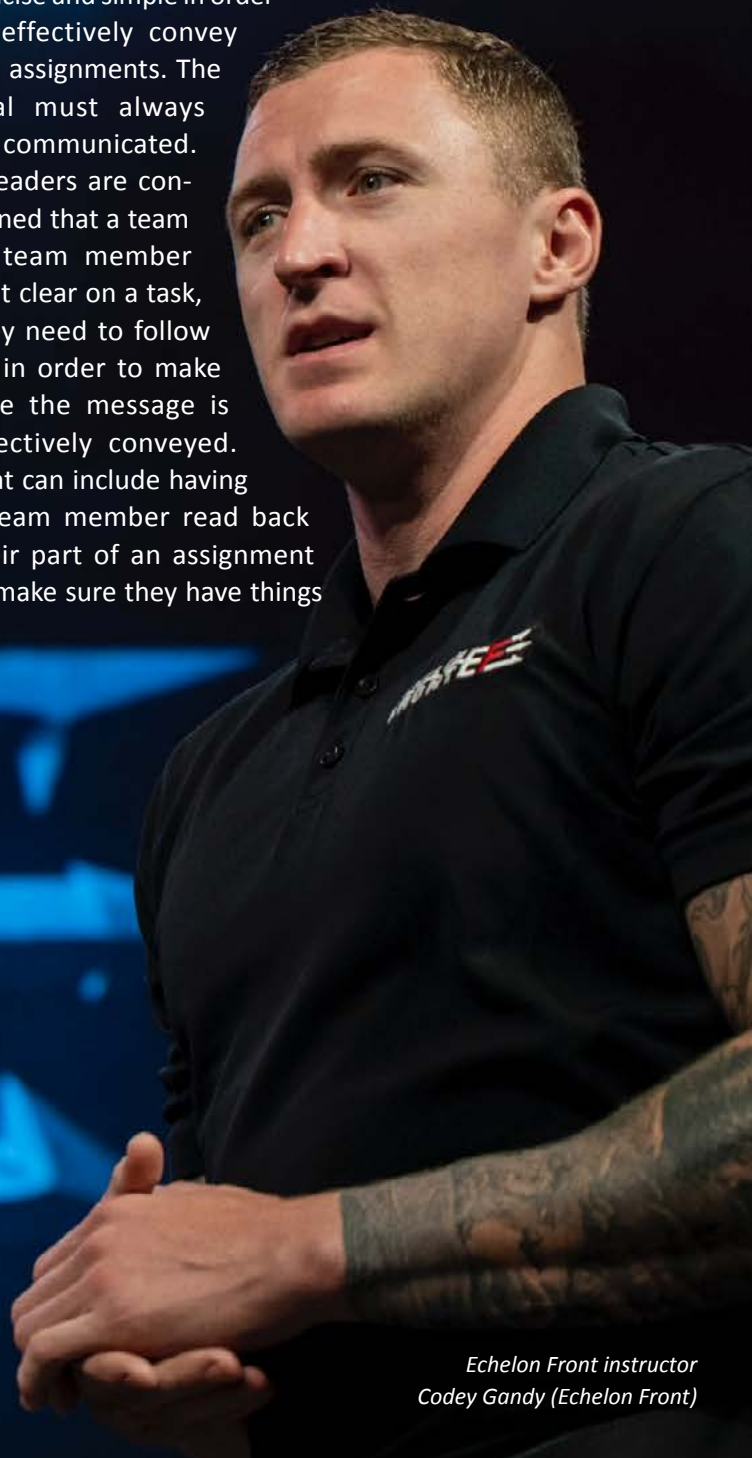
The March 2022 Fourth Thursday session brought in Codey Gandy, an instructor with Echelon Front. Former Navy SEALs Jocko Willink and Leif Babin started Echelon Front to bring their lessons learned from combat and apply them to the private sector. Willink and Babin were commanders in Task Unit Bruiser, a highly decorated special operations team in Ramadi, Iraq. The leadership philosophy centers around the concept of Extreme Ownership, where leaders are responsible for all things that affect the outcome of their mission.

Codey Gandy spent five years in the Marine Corps serving in various enlisted leadership positions. Part of his job at Echelon Front is being the training lead for first responders. Gandy's presentation hammered home the idea that improving leadership at all levels of an organization can improve the outcomes of your mission. He also took time for a question and answer session that brought up valid points for MRA teams.

OVERVIEW

Echelon Front's leadership teachings involve what they call the four laws of combat. Those are Cover and Move, Simple, Prioritize and Execute, and Decentralized Command. Cover

and Move is another way of emphasizing teamwork. Teams need to work together and provide resources to each other in order to accomplish a mission. Teams also need to make sure they have relationships that allow them to effectively communicate and operate together. Simple means just that - your plans and assignments need to be easily understood by your team. Communication needs to be clear, concise and simple in order to effectively convey the assignments. The goal must always be communicated. If leaders are concerned that a team or team member isn't clear on a task, they need to follow up in order to make sure the message is effectively conveyed. That can include having a team member read back their part of an assignment to make sure they have things



*Echelon Front instructor
Codey Gandy (Echelon Front)*

nailed down. Prioritize and Execute translates to leaders needing to arrange tasks in the order of importance during an assignment and designate resources to accomplish them. Leaders also need to make sure they are in a position where they can take a bird's eye view of the situation they're in to analyze what's happening around them and make decisions. Decentralized Command means that every person on a team is a leader for the task that they are meant to accomplish. In an MRA team on assignment, a rescue team can be viewed as team members who are in charge of certain responsibilities (rigging, patient care etc.) and have the autonomy to accomplish those tasks. Understanding the 'why' behind an assignment is crucial to a team's accomplishment of a task and working their way around any challenges.

Question: How do we break down silos within our team that existed for a long time? Example: We have cliques on our team that have existed for a long time and it makes it challenging for new members of different backgrounds and genders to feel like they're part of the team.

Gandy: There's a couple of different avenues here. One, it's on the leadership to identify [these issues]. If I have cliques on my team and I have new members that aren't getting onboarded properly, that aren't getting the attention that they need, it's not what you preach it's what you tolerate. If I have team members that are ignoring, blasting new people, that's not okay. You have to let them know that's not okay. That makes for a cancerous environment where people aren't going to want to work together in a dangerous setting. That's the leadership's problem. Two, if I'm a new member on my team, I have the opportunity to build relationships with these new people; I want that to be a priority. And all that takes is taking the time, understanding that "look I'm new, I know there's a right or passage

to make it into this team," or whatever the case may be, but you have to be humble, you have to remove the ego. That is typically why we don't want to build relationships. It's because of our ego. Humility is the number one characteristic of a great leader, and when we lack humility, when we have a big ego, it can be easy for us to say "I don't need to build a relationship, it doesn't make sense for me to build a relationship [...] If something is already existing when it comes to those cliques, that's [the responsibility of] the leadership. You have to create the culture where "hey, that's not okay, that's not what we do here." You have to set the standard, you have to hold the line. There are some things you have to hold the line on, some we can almost let slide in terms of "is this mission critical or is it not?" Something like [cliques] is mission-critical because when you have an environment where people don't feel safe because of the relationships they do or don't have, that can be detrimental when you're out doing your job.

Question: How do you balance confidence and ego? We want to develop confident rescuers on our teams but sometimes we develop egos because we have been able to deliver on rescues. We want to maintain our confidence but check our ego.

Gandy: Ego isn't necessarily a bad thing, it's when ego gets out of control is when we start to make the wrong decision. Ego actually puts us on the path of having confidence in terms of being proud and doing the right thing. When ego gets out of control, that is when we start to plateau. If my ego is so big to where I know everything that there is to know, that is when we lack humility. When that happens, complacency happens and as you know complacency kills. When things go wrong, when people make mistakes, what it stems back to is a lack of leadership, lack of training and complacency. So to balance confidence and



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ego, understand that if you're to a point where you're not striving to get better every single day in some capacity, then you're wrong. We're at war with complacency every single day, especially for what you guys do. You have to do a self assessment, and that's hard. Self assessment is just the ability to look in the mirror and be like "Did I do everything in my power to get better today? Did I set up my team for success?" I think self accountability is the hardest thing in the world. Why? Because we justify our actions with excuses. And typically they're actually good excuses. I almost have four kids, I have a lot of good excuses but they're still excuses. So you have to have the ability to come up with accountability and how it looks within an organization [...] Accountability will help you combat ego. Confidence is good, over-inflated ego is bad.

Question: We are all volunteers [...] how do we encourage people to perform at their highest level when sometimes they say "we're just volunteers, if you go hard on us, we'll quit." Some people are not highly motivated and driven, so how do you get your organization culture to shift into a more professional SAR volunteer mode.

Gandy: What does every single person in the world want? They want control over their own destiny. And traditionally why people push back, why they don't want to be part of the program, [is because] they don't have any buy-in. So what do you do? You give them buy-in, give them ownership, let them be in charge of things. Now, don't let them be in charge of crappy tasks. Let them be in charge of the planning, let them be in charge of the debriefs. It is really hard to complain when you are in charge of the program. That's how you encourage people to be part of the program - you make them part of the program. Now that can be tough because it's volunteers and you have full-time people and you're trying to balance that, so you have to balance in terms of giving everyone that equal opportunity to have some buy-in. The more buy-in, the more ownership that you have in terms of your people, the better off they're going to be.

Final note from Gandy: It's actually all on you, but it's not *about* you. It is actually about the team. And that can be tough. Because if you take these principles, you take extreme ownership and you use it to better your position,

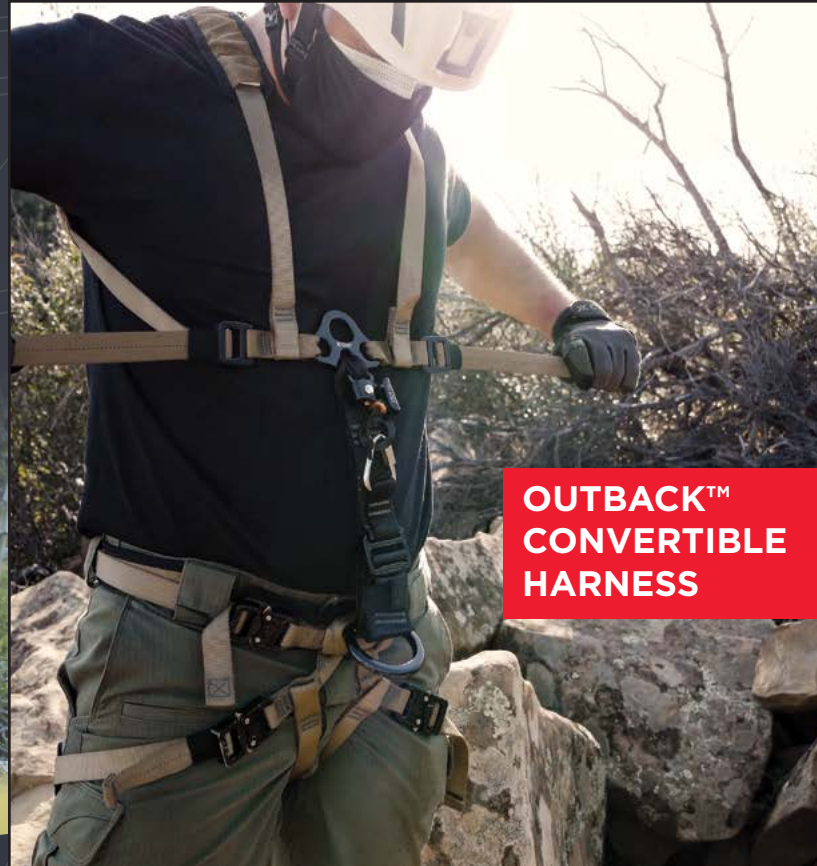
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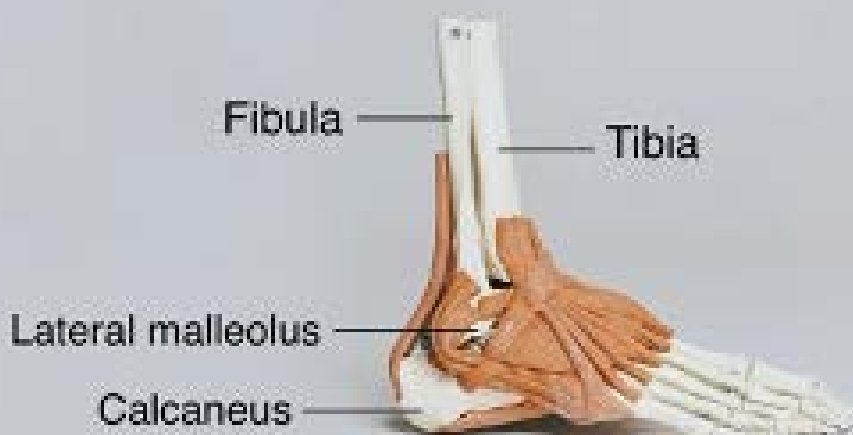
then I have failed as an instructor. The unique thing about this is these principles, they are for your team. They are for your organization to be successful. Is there some benefit to you using them as a person? Yes, but that's not the primary. The primary component of this is for your team to be successful. It can be hard, because a lot of these things are simple, not easy [...] You're fighting against human nature. It is in our DNA as humans to blame other people [...] It is uncomfortable to take ownership of the mistakes we make; it hurts our pride, it hurts our ego. Simple, not easy, but are they worth it in the end? Absolutely. Because if we want change in our organization [...] the answer is the laws of combat and extreme ownership.

"When you care more about your team winning than you winning yourself, that is when you start to become a true leader." - Jocko Willink

I often get the question "what makes a great Navy SEAL, what makes a good marine, what makes a good police

[officer], firefighter, rescue operator?" What makes the best teammate is putting the mission first. Putting the mission first, putting the team first, putting the other individual first and putting yourself last. But that can be hard. But it can be done with the tools you have learned.

Editor's note: Gandy's presentation was recorded and sent as a private link to MRA members in a March 29 email. It is highly recommended viewing. All MRA teams and members should take time to see where they can improve leadership within their organization and at their personal operating level. Willink and Babin's first book, "Extreme Ownership," is immensely popular. The follow-up book "The Dichotomy of Leadership" is one of my favorite books on the topic. There are a variety of other resources and experts on leadership that can be reviewed and consulted. Any step towards better leadership within yourself and your organization is the right step.



The Most Common Wilderness Injury: A Case Report

Will Petitt PA-C, MRA MedCOM

The subject was a 60-year-old female hiking down from the summit of Pikes Peak (14,109 ft) on a sunny, September day. She stepped on a rock and twisted her left ankle, resulting in lateral (outside) left ankle pain only and no other injuries. El Paso SAR (Colorado Springs) and Douglas County SAR (South of Denver) responded to the subject at 13,500 ft.

The physical exam was significant for tenderness over the lateral malleolus (fibula, as pictured below) and the lateral ankle ligaments. She did not have tenderness over the medial malleolus (inside, tibia) and had no deformities. Circulatory, sensory and motor (CSM) function was intact.

Field Management

SAR applied a SAM splint by cutting the splint in half, placing one side on each side of the ankle, wrapping top with ace wrap, and taping one figure 8 around the shoe as demonstrated in the images *below*. This technique allows for more support and maintains shoe traction.

After splinting and re-evaluating for intact CSM, she was asked to walk five steps and she felt she could continue. SAR gave her the options of 1) waiting for a litter pack-out or 2) trying to ambulate up the 600 feet to the top of Pikes Peak. The subject started to walk with the splint in place and two hiking poles. SAR assisted her on some sections but she made it to the summit without incident.



Rescue Decision Making

SAR took into account the following several points prior to allowing her to hike out on a potential ankle fracture:

1. The subject had on low-cut trail running shoes.
 - a) It is also easier to identify a deformity with this type of footwear, but if in the field consider the subject's footwear (motorcycle, ski, snowboard or other type of large stiff boot).
 - b) Her shoes allowed for a detailed exam to be performed without removal, including points of tenderness and CSM.

- c) High-top boots don't allow for a detailed exam but do provide more stability.
 - d) Whether to remove the boot or shoe is a long topic but briefly, the boot/shoe itself provides insulation and support and once you take it off, it will be difficult to impossible to put back on.
2. SAR was less concerned about lateral ankle pain because the fibula, that is located laterally, is not a weight-bearing bone.
 - a) The tibia, however, is weight bearing and located medially, so localized pain on the medial (inside) aspect of the ankle may not appropriate for hiking.
 3. Evacuation was not easy but was attainable with a van waiting at the summit.
 - a) The terrain was a mountainous trail but there was a vehicle at the top for transport.
 - b) If this was a longer evacuation or terrain was more challenging, then having the subject walk may not have been feasible.
 4. Having the correct supplies and a subject with a good attitude makes all the difference. The subject was able to walk 5 steps with a well-placed splint, poles and motivation.

5. Weather was good.

- a) Extreme weather and unstable footing will complicate evacuation plans.
- b) With deep snow, ice or more uneven terrain, a walk out would not be possible.

Discussion

Ankle injuries are the most common wilderness injuries that SAR encounters. While ankle injuries do not require a diagnosis in the field, simple principles can be used to make a decision about whether the subject can hike out on their own - which is safer for both the subject and the rescuer. Location of pain, degree of tenderness, an obvious deformity, subject reliability, and ability of the subject to stably bear weight and ambulate are factors when making a decision in the field. Generally a good exam and shared decision making between the subject and team with frequent re-evaluations are keys to a successful rescue.

While no specific clinical decision making tools exist to judge the risk of hiking out on an ankle injury, the Ottawa Ankle Rules (OARs) provide a 5-component evaluative tool that assesses likelihood of severity or complication of an ankle injury and can potentially be used as a guide to making this judgement call in the field. These components include bony tenderness along the posterior aspects of the malleoli, the base of the 5th metatarsal, navicular bone, and inability to bear weight both immediately after injury

and for 4 steps during initial evaluation, with 2 or more positive findings correlating to increased likelihood of fracture that will be significant enough to be detectable on X-ray.

The OARs were designed to determine the need for X-ray in acute ankle injuries in order to screen out unnecessary imaging e.g. if sprained and not fractured, an X-ray will not provide useful information. They have been well validated with high degree of reliability and accuracy in detecting specific types of fractures. They do not exclude all ankle fractures or significant ligamentous injuries but the argument can be made that if the exam is reassuring without positive findings using the OAR components

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then it may be reasonable for the subject to ambulate on their injury. They do not preclude the risk of worsened injury with ambulation. Regardless, the decision should be made using clinical judgement and experience of the rescuers and or their medical leadership.

Will Petitt is a Physician Assistant at a level one trauma center in Denver, working in Orthopedics for the last 20 years. He is also medical chair for Douglas County Search and Rescue. He is a regular, longstanding member of the MRA MedCOM, a committee of medical professionals that writes a quarterly contribution to the Meridian. For questions about anything related to medical issues, contact medcom@mra.org. Thank you.



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Besides making high-end technical wear, Patagonia was the center of one of the most positive pieces of corporate news in 2022. Founder Yvon Chouinard and his family donated their stakes in the company to two foundations focused on ensuring Patagonia meets its climate goals and that the money brought into the company goes towards tackling climate change. Chouinard effectively gave the company to the earth. One of Patagonia's hallmarks as a company is recycled materials, eco-friendly facilities and repairing customer equipment so it doesn't end up in a landfill. So if that Gore-Tex jacket hasn't been completely annihilated by that litter carry through the blackberries, they can get it back into working order.



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Letter from the Editor

Situational awareness. Head on a swivel. There are plenty of phrases or keeping an eye out and pointing out anything out of the ordinary. As SAR people we're pretty good at this; clue awareness, rigging inspection and kit preparation all require attention to detail and are things we train and maintain our skills in.

It can truly be a life-saving practice even outside of the SAR space. In October, a train passenger in Colorado [noticed a woman](#) on the side of the Animas River. It turns out the woman had broken her leg and had survived alone in the wilderness for two days before being spotted. That passenger's awareness initiated a successful search and rescue mission that saved the woman's life. The incident made headlines across the country with millions reading the storyline about how someone on a seemingly routine ride ended up making a life-saving call.

That "spot" is not unlike what's required of SAR teams on missions: being aware and analyzing something we think isn't right whether it's a track print in the dirt or noticing a change in the snow around your picket anchor. Noticing and acting on even small deviations can be essential to mission success. Each assignment we take requires our focus and an understanding of what to look for or accomplish. But even within the parameters of an assignment, there could still be standout features that raise our eyebrows and suggest a pause for consideration. So as we enter the winter rescue cycle and prepare for the spring climbing season, remember to stay frosty.

Cheers,

Rick Lindfors
Meridian Editor in Chief



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