

# MERIDIAN

Summer 2021



The Quarterly Publication of the Mountain Rescue Association

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## The **Rainier Revival:** A Miraculous Save in the Snow



**Responding to and  
Preparing for Wildfires**

**MEDCOM: Treating Blisters**

**K-9 Companions: Dogs Helping  
Rescuers and Families**



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**ON THE COVER:** A U.S. Navy helicopter hovers over rescuers during the rescue of Michael Knapinski on Mt. Rainier. (Sergei Frolov/TMR)

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## President's Message

The first quarter of 2021 has been busy for the MRA and MRA teams. There have been so many accomplishments it is hard to pick which ones to talk about. We continue to be focused on our strategic direction and executing against those objectives. We are seeing some light at the end of the tunnel with COVID-19 and hoping we are able to get back to our normal routines soon. Finally, the MRA continues to grow and develop and I feel super lucky to be able to watch all of the great work you do and to be part of this organization.

In the first quarter of this year the MRA Education Committee has launched a few new programs and started a new initiative. In January, the General Backcountry Safety Program was launched on the MRA LMS system. This is a comprehensive course geared toward people wanting to learn about backcountry travel and will be a great for your teams to share in your community. The Third Thursday program continues to develop and deliver new and relevant content with the addition of a quarterly MRA Major Mission review (think of your team mission debriefs of major scenarios happening across the country).

Sadly as you know, this has also been a record setting season for avalanche fatalities. I've seen a lot of creative preventative SAR (PSAR) efforts around avalanche awareness and I think these have helped get the message out to the public very well. I am very excited to announce that the MRA has partnered with the Utah Avalanche Center to deliver the "Know Before You Go" (KBYG) program content through the MRA LMS system. You will be able to share this with your friends, family, and community to help share the KBYG message.

The MRA Diversity and Inclusion Committee hosted the MRA Community Resource Group focused on Age in Mountain Rescue. The Zoom call was filled with a wide range of MRA rescuers, and the conversation ranged from what it is like being on the younger end of your team and what it is like being on the older end of your team. This was a very supportive and thought-provoking session and I heard several positive comments from attendees.

At the time of writing this, the COVID cases across the United States are trending down. This is looking very good for an in-person Spring Conference. There are already over 100 people registered and Allegheny Mountain Rescue Group (conference host team) already has plans and back-up plans for following COVID protocols and putting on a great spring conference.

Speaking of COVID, I wanted to take a moment to recognize the historic efforts MRA teams have been making across the country helping to deliver COVID vaccines. Some teams have stood for hours in the cold, rain, sleet, and snow supporting drive thru vaccine clinics. While other teams have been giving vaccine shots. No matter the level of participation, seeing MRA teams on the front lines battling COVID head on while also doing our normal rescue and training work fills me with pride and humility to be part of this great organization of Mountain Rescuers.

Above are just a few photos of teams from their Facebook pages.

Thank you all for all of the great work you do every day!

*Doug McCall*  
President

## Saving Michael Knapinski

### A CASE OF TEAMWORK AND INNOVATION

*Rick Lindfors - Meridian Lead Editor, Anna Condino, MD, MPH, DiMM - Meridian Contributor, Cassie Lowry Edmark, DO, FAWM - Meridian Contributor, HMC (Sel) Ryan Mooney - Meridian Contributor*

MT. RAINIER, Wash. – Many harrowing stories of survival from mountain rescues make headlines, and the rescue from Rainier on November 8th, 2020 was no exception. But not only was this rescue and subsequent resuscitation exceptional, it proved a textbook example of teams and agencies working together; a total system success. In what rescuers describe as down-to-the-minute execution of search and rescue and medical treatment, a snowshoer rescued in the Mt. Rainier Wilderness became the subject of national attention after surviving near-fatal hypothermia.

On Nov. 7th, 45-year-old Michael Knapinski went missing in the Mt. Rainier Wilderness. He had been out with a family member when they became separated, with Knapinski recalling being caught in whiteout conditions. On Nov. 8th, 16 MRA team members assembled at the Emergency Operations Center in Longmire. The group of rescuers came from Seattle, Everett, Tacoma, Olympic and Volcano Mountain rescue teams. Another MRA team member stayed in the center to work alongside National Park Service staff in the rescue effort.

The presence of several MRA teams in the effort is something that has become more common, according to Tyler Severy, a rescue leader with Tacoma Mountain

Rescue Unit. “We’re sort of in an era where we’re working a lot harder to communicate missions to everybody [...] sort of building back-end systems,” he said, noting that in some cases he will send a heads-up notice to another team when TMRU gets a callout. “That’s been pretty successful in being able to involve a lot of other groups in in-park missions because they all take so many people.”

Searchers patrolled where Knapinski was last seen, which didn’t yield any results. The snowshoe trail they looked at was a dead end below Glacier Vista. Other teams attempted to move to 8,800 feet to the Camp Muir area and ski down in an attempt to find him in the snow field, according to Severy.

Around 10 a.m., the morning fog had cleared and NPS was able to fly a helicopter through the Nisqually Moraine. That area was part of the search plan, but was specifically designated for aircraft searches because of the rough terrain and river hazards. “Ankle-breaking, knee-deep rocks with a meandering river,” said Severy. The air crew quickly spotted a person on their back who appeared to be waving at the helicopter, which was found to be Knapinski. How he ended up in that location is unclear. “A lot of people who get into the moraine, they would have stayed on the



*Rescuers navigate the Nisqually Moraine after transferring Knapinski to the navy helicopter crew. (Sergei Frolov/TMR)*

east side of the river,” said Severy. “According to his story at this point, he had already blacked out so he was just walking.” Somehow, Knapinski was able to get down the glacier, cross the rocks and avoid falling into the river while suffering the impacts of stress and hypothermia.

At that time TMR was at the base camp parking lot after finishing their first assignment. It was clear to Severy from radio communications that a ground team would need to move in and reach the subject. Volcano Rescue Team already had two members at the Nisqually Bridge to meet anyone coming down the drainage. The VRT members were assigned to move towards Knapinski’s location and clear a path for the incoming teams, which brought rope, a litter and rigging equipment with them. Severy was prepared to treat an extremely hypothermic patient. It just so happened that TMR and other Washington MRA teams had gone through training for that exact scenario about a week beforehand.



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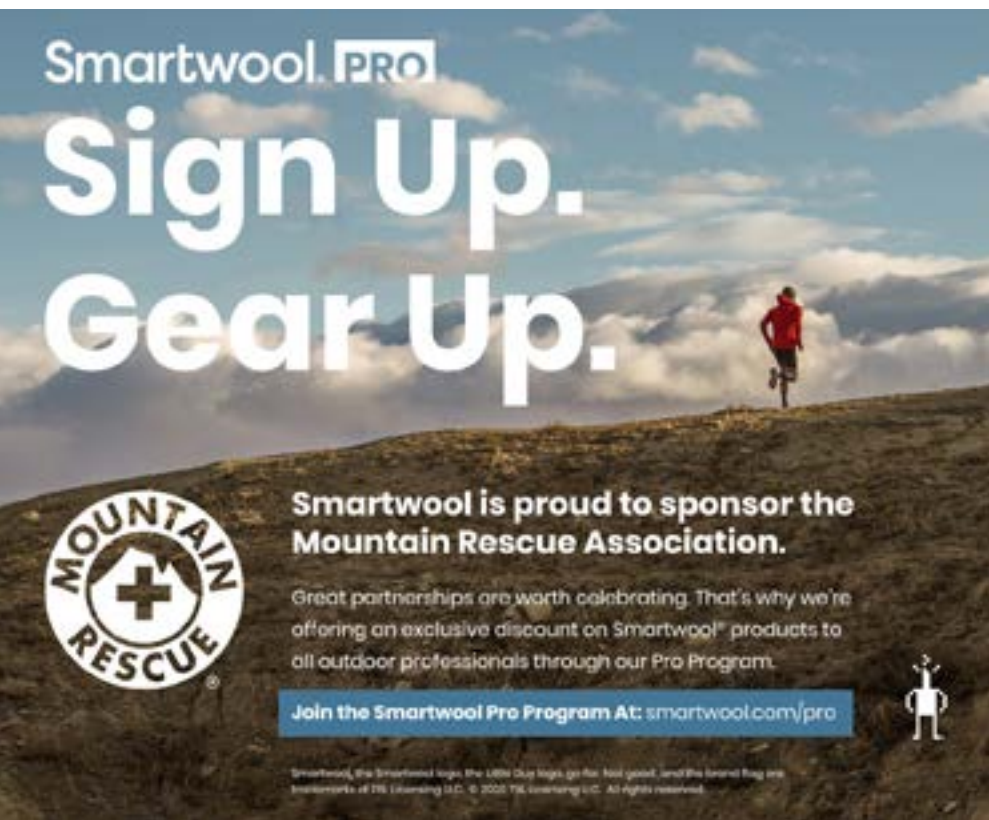
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After that training, Severy upgraded his team’s hypothermia rescue kit with new heating and insulating materials which were then carried into the field for this mission.

As rescuers moved in on Knapinski’s coordinates, they didn’t hear responses from vocal hails, and in that terrain, there was a risk of moving right past someone. Severy thought he had passed him at one point, but then saw footprints heading up the bank leading him to Knapinski.

Severy and another TMRU member first assessed Knapinski and were joined shortly after reaching him by a paramedic from OMR. Knapinski appeared frozen and lifeless in the snow and the team could not see him breathing or find a pulse. When they started handling him to protect him from the cold he occasionally let out low groans. For half an hour this was their only sign he was alive until they finally felt a pulse, which was very slow at a rate of only 36 BPM. Knapinski’s hands and lower forearms were stiff and cold, though he wasn’t wet. He also had a bruise on his head with some frozen blood, suggesting



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*Left - U.S. Navy medics and rescuers package Knapinski before hoisting him into the helicopter. (Sergei Frolov/TMR)*

*Above - A U.S. Navy helicopter departs after hoisting medics and Knapinski. Knapinski was taken to Harborview Medical Center in Seattle where he received advanced care. (Sergei Frolov/TMR)*

he had fallen at some point. For equipment, he was wearing a shell jacket, light insulated layer, long underwear, and thin trekking pants. He had microspikes on one foot and a snowshoe on the other. His daypack was empty, which the rescuers cut off to avoid excess movement.

Additional rescuers arrived on scene assisted with additional space blankets, sleeping bags, hot packs and padding. At that stage of hypothermia, the goal was to prevent further cooling and cardiac arrest; the teams knew they would need to get him to a hospital to effectively warm him. Movement was limited to avoid fatal cardiac arrhythmia. Severy knew that packing out his subject with such severe hypothermia would pose a very real risk of him dying during extraction: Severy estimated that the pack-out could take a very bumpy three to five hours, which was time his subject didn't have. He radioed for a helicopter, and the incident command requested military support to which Naval Air Station Whidbey Island responded.

U.S. Navy Search and Rescue Medical Technicians go through an initial 67-week training pipeline and provide aircrew and advanced life support (ALS) emergency medical care functions independent during Search and Rescue, combat search and rescue (CSAR), air ambulance, casualty evacuation (CASEVAC), en-route care and/or MEDEVAC missions from rotary and fixed wing aircraft. NAS Whidbey has been a staple for high altitude and technically difficult SAR missions in the region. The helicopter assigned to pick up Knapinski was piloted by SAR Mission Commander LT Kevin "KY" Young, SAR co-pilot LT Alex "Chubes" Castillo, and supported by Rescue Crewchief AWS1 Erik Potter,

AWS1 Justin Boyle, a Helicopter Inland Rescue Aircrewman and NREMT, and SAR Medical Technician (flight medic) HMC (Sel) Ryan Mooney. Mooney himself has 12 years of experience flying and working these kinds of missions. He is currently tasked with providing advanced life support and high-angle helicopter technical rescues.

Whidbey's helicopter flew over the initial datum at 7,000 feet mean sea level, observing a thick cloud layer below, between their aircraft and the patient at approximately 4,500 feet. They flew out to the valley where the river flows and worked their way underneath the cloud layer in snowy conditions and located Knapinski and his rescuers at approximately 4,200 feet MSL. They flew over and hovered a short distance away while Mooney and Boyle offloaded to assess and prepare Knapinski for extraction. They were briefed and assisted by the ground team to package Knapinski into the SAR MEDEVAC litter for hoist extraction. Once loaded, the Whidbey crew flew Knapinski to Harborview Medical Center in Seattle.

The Whidbey crew supported Knapinski during the flight with warmed IV fluids through an intraosseous (IO) catheter in his shin which would help further support his blood pressure, and gave him supplemental oxygen by bag valve mask (BVM) at a slow but steady rate. They kept him insulated and shielded from the cold air outside utilizing ready-heat warming blankets. While en route, Knapinski remained in sinus bradycardia with a heart rate around 40 BPM, not significantly changed since he was on the ground. As cold as he was, it's common to have bradycardia, a very slow but regular heart rate, which by itself is survivable

as long as the rest of the body can maintain adequate blood pressure to the vital organs, most importantly the brain and heart. Metabolism slows down so the tissues don't require as much circulation and oxygenation as they normally would, but the colder a person gets, the more their protective mechanisms are at risk of failing. None of this matters if the patient suffers a cardiac arrest and isn't resuscitated aggressively and appropriately. Fortunately, Knapinski was en route to the region's leading hospital for emergency care, resuscitation, and critical care.

Upon arrival at Harborview Medical Center in Seattle, Knapinski's core temperature was incredibly low at 21°C (70°F). His heart was still beating, so he was technically in the "severe" stage of hypothermia, but just barely. He was on the edge of death; in a deep coma, not breathing effectively, with dangerously low blood pressure and toxins building up rapidly in his blood. Shortly after entering the ER, his heartbeat stopped. The medical team immediately began CPR with chest compressions, IV medications, heart shocks, and artificial respirations.

CPR brings some people back from cardiac arrest, but the ultimate therapy for *hypothermic* arrest, which is a special sub-category of cardiac arrest, is ExtraCorporeal Membrane Oxygenation (ECMO). Only very specialized hospitals have the ability to do it in an emergency, Harborview being one of them. ECMO, also sometimes referred to as ExtraCorporeal Life Support, is a therapy that routes most of the patient's circulation externally for oxygenation and carbon dioxide removal before putting it back in the body. The ECMO machine can also warm up the blood before returning it, which provides rapid, effective rewarming.

There are two basic types of ECMO. The first provides respiratory support only by diverting blood in and out of the venous side of the circulation. This relies on the heart pumping effectively on its own, so is often used in severe lung disease. This is the type that has been used in patients with severe Covid-19 and is called "VV (veno-venous)" ECMO.

The second type, which Knapinski received, provides both respiratory and circulatory support when both the heart and lungs aren't working. Before or even when the heart has stopped from hypothermia, a surgical team will insert large cannulas (tubes) to pull the cold blood out from the vena cavae, the large veins that return blood to the right side of the heart, run it through the ECMO pump, and put it back into the arterial side of the circulation just beyond the aorta's exit from the heart. Some of a patients' blood still flows in the natural route through the heart and lungs in this type of ECMO, so once they start to regain



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function, they can be weaned off the extra support. This is called "VA (veno-arterial)" ECMO.

VA-ECMO, either in or even outside the hospital, is a technology that has saved multiple hypothermic patients throughout the world, but has just recently been developed for widespread use in the US. Most patients who receive VA-ECMO have a cardiac arrest from another condition, such as a major heart attack or a large blood clot in the lung. The therapy originated in cardiothoracic surgery: in major heart or lung operations such as transplants or bypass surgery, the heart has to be stopped and blood flow completely rerouted during the surgery. In order to accomplish this, doctors figured out how to divert the entire circulation through "cardio-pulmonary bypass" machines during those operations. It is also often used in newborns with major congenital defects of the heart or lungs while they await or recover from surgery.

A key observation that led to the modern understanding of hypothermia is that in states of deep hypothermia,

the brain and other organs require much less oxygen (and therefore less blood flow) to maintain function, because the body isn't doing the normal amount of "work" that it does at normal temperature. This led to the idea of using cooling *deliberately* to help preserve the brain and other organs during major operations, which doctors began to employ in the early 1900s. That practice translated to the management of cardiac arrest in which, if done in the right amount of time, the patient is cooled to effectively give the brain (and other organs) a break. These medical applications are called "therapeutic" or "induced" hypothermia, as opposed to "accidental" hypothermia, which is what happened in Knapinski's case. Of course, his instance of hypothermia is much less controlled and therefore much more dangerous. In his case though, he cooled down naturally in such a way that his brain was already protected, and he didn't have a cardiac arrest until he was in an ECMO-capable ER.

For mountain rescue, care of very cold subjects is quite complex, but can be broken down to a simple mantra: as quickly and gently as possible, get them to an ECMO-capable hospital. The kind of life-threatening arrhythmia leading to cardiac arrest that Knapinski experienced is very common in severe stages of hypothermia, and it requires a team that can instantly provide high-quality CPR along with other advanced therapies up to and including ECMO. Speed is crucial because once a patient goes into cardiac arrest, every moment the heart isn't pumping worsens the chances of recovery, even in advanced stages of hypothermia where the brain and other organs may be relatively protected. Even just a few minutes of oxygen deprivation can cause irreversible brain damage under "normal" circumstances.

Knapinski was kept on ECMO long enough to protect his brain while rewarming his body and allowing his systems to start recovering. The biggest unknown in these patients' recovery is what type of brain function they will retain, since brain tissue is extremely sensitive and, unlike most other organs, cannot be "bypassed" or transplanted

- when neurons die, there can be some recovery, but large insults to the brain such as prolonged oxygen deprivation often lead to permanent disability. When Michael Knapinski was weaned off all life support, not only were his heart and lungs working, but so was his brain: three days after his heart stopped, he was talking, laughing, walking, and thanking, among others, the mountain rescuers who performed a miracle in saving his life.

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## Too Hot to Handle: A Case Report from the Rockies

Alison Sheets M.D. - Meridian Contributor

BOULDER COUNTY, Colo. - July of 2019 in the Front Range of Colorado was hot. Partly cloudy and little wind with the temperature peaking at 93 in the early afternoon made outdoor activity seem oppressive on this particular pre-pandemic day. Boulder Creek was crowded with locals and tourists looking for relief, the dry, sunbaked foothills, less so. It was just before 3:30 pm when the pager went off: "20 YOM suffering collapse, possible heat stress, Walker Ranch loop trail." Rocky Mountain Rescue Group volunteers dropped what they were doing and headed up.

Walker Ranch is a large county open space area west of the City of Boulder. Its main eight-mile loop trail is a favorite of mountain bikers, hikers and trail runners. There are several trailheads that are 30 to 45 minutes away from the City of Boulder. Boulder County has many areas where cell phone coverage is poor or non-existent, with Walker Ranch being one of them. Initial information put the patient about half-way between two trailheads but the precise location was unclear and which starting point would provide the fastest route. Either option would require a hot mile or two of hiking.

The patient had been hiking with a friend and began to have trouble after about four miles. He told his friend he was tired and really hot but was encouraged to keep going. Finally, he sat on the side of the trail and collapsed. His friend had to hike a mile to get cell phone reception to make a call for help, after which he went back to help his buddy. A pair of mountain bikers came upon the patient and poured water on him. One of them was an emergency physician and recognized the seriousness of the situation.

As RMRG rescuers began arriving, the first ranger on scene provided an update: "A and O times Zero, and having a hard time breathing." By the time RMRG arrived on scene, ice packs had been placed on the patient by the fire medics and water continued to be splashed on his now exposed skin. Although his eyes were open, he was only able to make grunting sounds and follow a few simple commands, such as wiggling his toes. Even the fastest ground evacuation would take another hour, then the 30 minutes or more back to town by ambulance. The patient didn't have that kind of time. The team asked for an air ambulance

response and sent a few rescuers to find a landing zone nearby.

Further evaluation on scene showed a heart rate in the 170's, rapid grunting respirations, low oxygen levels and significant mental status changes. Rescuers started an IV, initiated fluids and also applied an oxygen mask. The team checked blood pressure and glucose and found them to be normal. His EKG showed a sinus tachycardia. He was quickly packaged in a litter and carried 10 minutes to the landing zone. By 5:30 pm he was on his way to the emergency department.

On arrival in the emergency department his tenuous condition was immediately obvious.



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With an initial core temperature of 41.3°C (106.3°F) cooling measures were continued with the addition of a thermoguard central line. The patient was quickly intubated and given cool IV fluids. His lab results included a sodium of 149 (high, dehydrated), creatinine 3.0 (high, kidney damage), venous lactate 3.6 (high, abnormal pH), troponin 7.96 (high, heart damage), blood pH 7.25 (low, acidotic) and a WBC of 34,000 (high, inflammation or infection). Multisystem organ failure had already begun. He was admitted to the ICU critically ill with hypotension requiring two intravenous medications to support his blood pressure. He was given antibiotics for infectious concerns (eventually ruled out) as well as stress dose steroids and got total body CT scans to rule out trauma. It was determined that heat stroke was the diagnosis and the cause for all the abnormal findings.

Two days later he was extubated, off blood pressure support and generally doing much better. The patient did suffer from some lingering cognitive changes in memory and mood. The last note in the chart documented “he repeats his questions frequently. He says he feels like a truck hit him,” and that he had been having nightmares. Although he had a history of bipolar disorder, he had never had the nightmares before. While he was not able to be contacted for further follow up, he was expected to eventually make a full recovery.

## HEAT STROKE

There are a number of different types of heat illness that can happen with or without an exertional component. Heat cramps, heat edema, heat syncope and heat exhaustion are generally self-limiting and can be treated

with fairly simple measures like cooling, rehydration, rest, electrolyte replacement and removal from further heat exposure. Heat stroke is life-threatening. The hallmark sign of heat stroke is central nervous system dysfunction such as confusion, agitation, seizure or coma happening in the presence of an elevated core temperature, usually >40°C (104°F). Other considerations include exertional



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hyponatremia (low blood sodium) and rhabdomyolysis (muscle damage with kidney failure) which may occur in similar circumstances but are not necessarily associated with elevated core temperature. Heat stroke can be associated with exertion as was the case in the mentioned patient, or present as “classic” heat stroke appearing in an elderly or compromised individual who is unable to remove themselves from a hot environment. However, there can be overlap in the two types. The presence or absence of sweating does not determine the diagnosis.

The pathophysiology of heat stroke is complex, multifactorial and not completely understood. The increased core temperature itself and the body’s response to heat stress set off a cascade of physiologic changes. The very shape and structure of the proteins that make up our body’s tissues will change shape, or denature, when core temperatures get too high. This disrupts cellular function widely, sometimes irreversibly. One normal response to heat stress involves increased circulation to the skin surface, to produce sweat and for cooling, with decreased blood flow to the internal organs, especially the gut. As the process continues and the normal responses become

overwhelmed several things occur. Lack of blood flow to the gut lining can allow endotoxins into the blood stream, causing a significant inflammatory response similar to infection or sepsis. As the skin surface meets or exceeds the temperature of the surroundings, the hypothalamic and endocrine systems can reverse course reducing sweating, and impairing salt, and water balance. The degree and duration of the heat stress will determine the severity of the heat injury and many other factors like heat acclimatization, fitness, humidity, medications and co-morbidities will affect individual patient responses.

Treatment of a heat stroke patient in a SAR environment is the same as anywhere: ABC’s and rapid cooling measures. Remembering the ways that heat transfer occurs can help inform the best options to accomplish rapid cooling. Convection transfers heat from the body to the air or water moving over the skin surface and is 25 times more efficient than other methods of cooling. Immersion in moving water would be the best way to rapidly cool a heat stroke patient. Wetting the skin surface and fanning, while less effective, is an option in the absence of a stream. Conduction, the transfer of heat from direct

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contact from one surface to another, can be exploited by removing the patient from contact with any hot object, off a rock in the sun to a shady spot for example, or placing ice packs on to the skin. Radiation, the constant flow of heat from the body can be assisted with the removal or loosening of tight clothing. Evaporation, where heat loss occurs via the movement of water vapor as in sweating and breathing, is the least likely to be manipulated on a rescue.

As with so many other illnesses and injuries that mountain rescuers contend with, prevention and early recognition of heat illness can save lives. The patient in this case was not an athlete and had not previously spent much time in the heat. Similar to altitude acclimatization, gradually increased exposure to exertion in hot environments can increase heat tolerance and sweat production. Better fitness and heat acclimatization may have been protective. He was also on a medication, aripiprazole, a mood stabilizer for his bipolar disorder, which can increase susceptibility to heat stress as it can have an anticholinergic effect that reduces sweating and other normal responses to heat stress. Knowledge of your partners' and your own medications and health issues can be crucial. This patient was out in the heat of the day with little forest cover on the trail. When he first began to complain of not feeling

well, he was encouraged to keep going. These choices likely contributed to his progression from heat exhaustion to heat stroke. Fortunately, through the decisive action of his friend to get cell service when he collapsed, the lucky encounter with an emergency physician on the trail, and the well-coordinated action of the local SAR agencies, he survived and recovered to hike another day.

## New Pro Deal: Outdoor Tech

There are plenty of times when the MRA pro deals give us easier access that makes our missions or training for missions easier, whether that's a better pair of boots, heavy-duty rigging hardware or alpine tools. Then, there's the gear that makes our other experiences a bit more enjoyable. Outdoor Tech makes that gear, with rugged bluetooth speakers, headphones and audio for ski helmets. So whether you're looking to play some relaxing music for your campsite or some high-tempo shredding for your next big line on the mountain, browse Outdoor Tech for the gear to play your soundtrack. Head to the MRA website's "Members Only" section for this and other pro deals that we have exclusive access to.



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The Mountain Rescue Association is proud to announce the launch of its premier public education program – General Backcountry Safety. This introductory certificate program in outdoor fundamentals enables backcountry users to learn key how to travel in primitive and potentially arduous environments while remaining comfortable and staying safe.

## MEDCOM: Treating Blisters in the Field

Blisters on the hands and feet are a common and potentially disabling injury for SAR responders. Repetitive use of our hands, or even sometimes unintentional ropework can cause some hand blisters. We often subject our feet to long approaches with heavy loads and possibly wet footwear. While blisters are not likely to be life or limb threatening, they can be temporarily disabling or cause us or the team to slow down, not to mention being painful.

Blisters are caused by shear forces across tissue layers in the skin. Friction forces between the skin and overlying layers (e.g. glove, sock or boot) cause shear forces and micro trauma between layers of the skin. Eventually, this leads to separation between skin layers and fluid fills this area of separation, forming a blister. Typically, blisters are filled with clear fluid, but if the injury is deep and extensive enough, the blister fluid may be bloody.

The goal of caring for blisters in the field is preventing further injury, preserving function, limiting pain and preventing infection. Endurance athletes are often supported with medical teams that have extensive capabilities for foot care, but SAR teams are much more limited in what they can carry. In the field, each team member individually should have the capability to care for a simple blister. Basic supplies include alcohol wipes, safety pins, gloves, antibiotic ointment, tincture of benzoin and tape. The tape you carry should be useful for more than blister care and

should be durable enough to last inside your glove or boot. In general, it seems that lower friction (smoother) surface tapes are less likely to add undesirable friction inside the glove or sock. It may be worthwhile to have a small strip of a wider, more durable tape for dressing larger areas. It is often useful to have a few blister dressing pads (spenco second skin or similar). Moleskin, a popular traditional blister dressing, has not proven to be useful in the wilderness setting as it does not stay on well, has a relatively high friction surface and is thicker than many other options which can cause problems in snug fitting boots.

Prevention is far better than treatment of already formed blisters. Basic prevention starts with footwear that fits well, socks that are dry and possibly liner socks; both of these decrease shear force applied to the foot surface. A hotspot may appear when there is friction or pressure that is causing irritation of the skin. Blister formation may be prevented by protective taping, typically with a low-friction tape, or padding the area. A commercial blister product may be used for this. Take care to clean and dry the area you are applying tape so it will stick well and not have sand or dirt that may abrade the skin under the tape. Tincture of benzoin, applied to the area to be taped and then allowed to dry until tacky will improve adhesion. Some people find that it is better to tape areas that form hot spots frequently before starting to hike. If the



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edges of the tape or adhesive are getting caught, taking a small amount of baby powder on your finger and rubbing around the edges, can negate the adhesive from catching around the edges.

For superficial blisters that contain clear fluid, it is best to use an 18-gauge sterile needle or a sharp safety pin cleaned well with alcohol to make a few small puncture wounds to drain the fluid. The punctures should be near the margin of the blister. Gently express as much fluid out of the blister as possible, observing appropriate body substance exposure precautions and taking care to dispose of or re-package sharps safely. Clean the area over the blister with an alcohol swab. In a resource-limited setting it may be appropriate to clean the needle/pin with alcohol and preserve it for use again if the same individual requires more drainage. Once you have drained as much fluid as possible from the blister, it should be covered with a protective dressing. One good option is to use spenco blister dressing or a similar commercial adhesive and occlusive dressing. Alternatively the drained blister can be covered with a low friction tape such as kinesthesiology tape, commercial waterproof medical tape (micropore) or even duct tape. If using a commercial blister dressing, this should be covered with tape to ensure it will remain in place. Applying tincture of benzoin, which is available


in small single use vials to the skin where the tape will be applied will greatly improve adhesion of the tape. Other tricks to help keep the dressing on include rounding off the corners of the tape, rolling socks on over the dressing instead of sliding it over the dressing, and of course, keeping your socks and feet dry. It is important to minimize wrinkles or folds in tape dressings to prevent pressure or friction on the foot. If using a thin tape it may be possible to drain re-accumulated fluid through the tape by puncturing the tape. An intact blister dressing may be left on for multiple days while in the field.

If the skin over the blister has torn, it is generally best to gently clip off the loose skin using a clean pair of scissors or nail clippers. The blister base can then be dressed as above, taking care to keep this area

clean and avoid adhesion of the dressing to the exposed blister base.

Bloody fluid in the blister suggests a deeper injury and opening these presents a higher risk for infection. If possible, these should be left closed and padded, though if large and tense, it may be necessary to open it and treat it as described above. If this is done, the blister should be watched closely for redness, increasing pain or warmth in the tissue surrounding the blister, all of these can be signs of infection. Any of these signs or cloudy fluid/pus in the blister indicate infection. Initial treatment for an infected blister is unroofing, cleansing and irrigation with clean water and re-dressing with antibiotic ointment. This is probably best done by a medical professional and it would be wise to plan on leaving the field. Spreading warmth/redness, fevers or red streaks in the leg above the blister are all signs of a developing serious infection and warrant immediate removal from the field to trained medical care.

You don't want to have blisters in the field, so start with gloves and footwear that fits and consider liner socks. If you notice a hot spot, try to tape it before you blister. Once a blister is present, drainage and dressing have shown to be the best course. Each team member should carry basic supplies for blister care, including a change of socks.



*The Holiday Farm Fire burned more than 170,000 acres in Oregon's Willamette National Forest*

## Through The Fire:

### A SAR COORDINATOR'S EFFORTS TO SAVE PEOPLE IN THE PATH OF A WILDFIRE, AND LESSONS FOR THE FUTURE FIRE SEASONS.

*Rick Lindfors - Meridian Lead Editor*

VIDA, Ore. - The night of Labor Day 2020 was one that Jason Bowman spent speeding through the McKenzie valley, telling people to flee their homes as firefighters battled the newly started and quickly spreading Holiday Farm Fire. The chief of Upper McKenzie Rural Fire Protection District called for the Lane County Sheriff's office and Search and Rescue as soon as she was on scene. Bowman, the SAR coordinator, responded from home in his county truck, speeding up highway 126 with three other deputies to get people out of their homes as the situation grew more hazardous. "Heavy smoke and pretty constant falling debris from the ongoing windstorm," he said. The original assignment was to evacuate a mobile home park and nearby residences, but shortly after, the fire started spreading rapidly, and a second fire had started a few miles west, moving towards the community of Blue River.

The fire took out radio and cell towers shortly after reaching the town, cutting off fire and law enforcement communications. The radio system that went down was a multi-site trunked system. An analog backup radio system went into use, but according to Bowman, it wasn't effective because it was limited by terrain. As the flames raged, people evacuating other wildfires in central Oregon were

heading to Eugene, driving west on highway 126, unaware that they were heading towards the Holiday Farm Fire.

Before the phones went down, LCSO got several 911 calls that people were trapped and surrounded by fire. Bowman coordinated the rescues with fire commanders, using patrol deputies and firefighters to rescue those residents. A SAR volunteer who lived in the affected area was contacted and went into action. "She was able to go door to door and assist in evacuating several of her elderly neighbors, and their houses did burn," said Bowman. Three members of Lane County Search and Rescue lost their homes, and a SAR K9 was killed in an accident while evacuating.

The Holiday Farm Fire was one of several devastating blazes that started in western Oregon the week of labor day in 2020. Driven by unusually high winds, it destroyed more than 400 dwellings, and 1,100 total structures. One person was found deceased inside the perimeter. Much of the community of Blue River was destroyed, with heavy damage to the town of Vida. Along with the three LCSO SAR volunteers whose houses burned down, many members of the Upper McKenzie Rural Fire Protection District lost their homes.

The 2020 fire season was one for the record books. The wildfires in Oregon killed nine people and destroyed

thousands of homes, described as the most destructive on record. Several fires started the week of Labor Day, while existing fires found new force with the wind storm. California set a grim record in the year 2020, with a record 4.2 million acres burned, the most in the state's modern history. The August Complex turned into the first recorded "gigafire" with more than one million acres burned. SAR teams across the state supported firefighters in evacuating residents and helping them return. All these disasters came during the COVID-19 pandemic, meaning teams had to work around existing health guidelines, and the agencies and nonprofits that helped people with emergency needs faced increased challenges with handling evacuees.

Bowman and SAR Manager Tim Chase were engaged at the command post for several weeks. At the start of the fire, more than 200 people were reported missing, but all were accounted for safe over the next several weeks, with the exception of the person found dead within the fire perimeter.

Lane County SAR volunteers, including members of Eugene Mountain Rescue, helped support evacuation operations near the fire lines. Volunteers also staffed a

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resource center in Eugene to help evacuees find needed services and also catalogue their information for state and federal use. As residents returned to their homes, SAR volunteers also went door to door to check on people and keep them informed of dangers within the burn zone.

The evacuations from the Holiday Farm Fire were a massive and rapid undertaking for Bowman and the fire department. LCSO and Upper McKenzie Fire already had a good working relationship from working on wildfires and numerous technical rescue incidents in previous years, and already had evacuation plans in place for the communities. Bowman said that was one of the most important parts of the success in the operation. "But those plans were based on the assumption that fires that started in the forest would burn more slowly and be more terrain driven as they approached those communities," Bowman said. With the wind driving the fires, the plans were almost entirely useless. But one important element remained:

command structure. "The identification of who would be in charge of what and the working relationships between individuals was still super valuable," Bowman said.

Bowman, fire departments, Lane County Emergency Management and other agencies are working with the University of Oregon to develop county-wide evacuation plans. That includes identifying critical infrastructure and areas that could be cut off and residents that could have only one way of escape from their community. Once that has been identified, pre-planning evacuations will start, along with how notifications will be sent and where residents will be told to go when leaving their home. "We've found here that search and rescue plays a large role in any disaster due to the sheer number of volunteers that are already trained, already background checked and are used to working in austere environments." That can allow for pre-planning the initial incident command structure in a major disaster.

With the intensifying nature of fire seasons in recent years, Bowman predicts that SAR teams will likely continue to play a role, but as bigger, faster fires appear, the

tactics will change. The fires seen in 2020 were moving so quickly, only emergency vehicles went in, and even that was incredibly risky. "Search and Rescue will probably start having more and more involvement with recovery after fire and potentially setting up evacuation centers during a fire and still continue to have a role in door-to-door notifications," Bowman said, indicating that door-to-door work would be done in lower-level evacuation zones.

When it comes to the action of searching itself, Urban

Search and Rescue teams from FEMA inspected burned-out structures with ground teams and K9's. There are 28 FEMA USAR task forces in the US. The teams are specially-equipped and trained for the mission including having the necessary personal protective equipment as well as the ability to assess compromised structures. Those USAR teams also have their own stockpile of personal protective equipment, which became an even bigger consideration amid the coronavirus pandemic. Bowman believes more wilderness SAR teams will need to train and equip parts of their teams to do missions within burn zones as the demand for wildfire response increases.

*The Riverside fire burned more than 130,000 acres in Clackamas County, Ore.*





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## Meet the Rescuer: John Sohl

Lynda Wacht - Meridian Contributor

*Editor's Note: 'Meet the Rescuer' is a quarterly story that is written by the MRA committee on Justice, Equity, Diversity and Inclusion. The focus is to highlight the members of mountain rescue teams across the U.S, as well as the mission of the MRA to be a welcoming and inclusive body of first responders.*

John Sohl is on the Weber County Search and Rescue team in Ogden, UT. It differs from many teams in the MRA due to its size and structure. "There are about eighty members, each of which are extremely skilled in small areas instead of somewhat skilled in all areas," said Sohl. While he does not participate in mechanized travel such as snowmobiles and ATVs, he is an airboat and licensed drone pilot and is on the swift water team.

He is also on the mounted horse team, with his scent trained horse. He is the team lead for white water and high angle rescues, as well as a backcountry skier. "There are about 25 members per team, and while I may not specialize in every area, I can always help out, at least with humping gear."



John Sohl mechanically tensioning a highline in 2019

John has officially been in search and rescue for 31 years. But like many, his first rescue happened many years prior, in 1973 in a quarry in Florida.

His father passed away when John was 6 months and he and his mother moved to Florida. Each year, on the last day of school, she would pick him up and they would spend the summer camping. "By 14 years old, I'd spent a third of my life in a tent," he says, never recalling a time in his life when he was not outdoors. Whether it was climbing, sailboating, canoeing, caving—even under-water caving—it just never occurred to him to not be outside.

As he grew older, his adventures grew bigger. Trips the Amazon river, the Gulf of Alaska with his son, trekking Mt. Everest and hiking the Appalachian trail. Occasionally, his adventures would get sidetracked by a rescue, such as the one that occurred on Orizaba in Mexico a couple of years ago, when scrubbed a summit attempt to rescue two fellow climbers suffering from high-altitude pulmonary edema high-altitude cerebral edema.

"It was far more rewarding really," he said.

As a teenager, John began to realize his responsibility as even the unofficial trip leader. Not everyone is comfortable in the backcountry. If something went wrong, everyone looked to him. He needed to be able to provide assistance, and to never be close to his limit. He developed his rescue skills, which came in handy again when he was invited to join the search and rescue team. The invitation came while climbing a route in Ogden from a fellow belayer on a nearby



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*Left- John Sohl while ice climbing in Ogden, UT in 2006, Center - John Sohl near Mt. Everest in 2017, Right- John Sohl rides a horse during rescue training in 2014*



climb. It was a Saturday in 1990 and the following Tuesday was the first meeting.

"There were no women on the team at the time," he said.

One of his most impactful missions came just a few weeks later. Above Ogden was a family of three who loved to go hiking. The son, six or seven years old, decided one evening to strike out on his own. Having experienced parents, he knew to pack a candy bar and fruit juice in his backpack before marching off into the canyon solo.

His mom searched the neighborhood until it was obvious he had wandered farther and it was getting dark. John was on one of the later teams in. Most likely, the first teams did not find the child because he had crawled under a rock and fallen asleep. John heard a whimper, and found his subject.

Some hot cocoa warmed the child and reduced his fear of the strangers with headlamps.

"Watching him run to his mom and dad is something I'll never forget."

His other memorable rescue was a woman named Sheila Maven, who was skiing Snow Basin with her family from out of town, just after the winter solstice. As more of a cross country than downhill skier, she had chosen a beautiful area not far from Snow Basin called Maples. It was a very reasonable choice for an inexperienced skier.

She met her family for lunch, went back out and did not return. The callout came at 5pm.

As these stories go, a big storm came in, limiting visibility to a few hundred feet. In the Maples area there is a small crown. If you ski to the right, you end up on a road.

Go to the left and you end up in the appropriately named Hell's Canyon.

The tracks were found to the left.

The snowmobile team found a lone set of ski tracks—in the trees where the snowmobiles could not follow. As the visibility fell to 30 to 50 feet and the snow covered the tracks, a small ski team that John was part of attempted to follow.

The tracks became interesting in themselves. One ski track, a post hole, one ski pole being used and one dragged. The team followed them to the bottom of the canyon where the tracks disappeared but the skis and poles were neatly set by the creek, but without their person. After some difficulty with the radios, the skis were determined to be Sheila's. But there weren't any prints, tracks or disturbed snow. The team split up. John went downstream where his team found a single handprint in the snow.

The going was slow in the creek with downed logs and steep sides. Another team was sent in from the bottom.

A short time later, finally, a cry was heard. "I'm by the river." Except that she wasn't. Looking up, sixty or seventy feet up, they saw a hand.

While skiing, Sheila hit a tree, hurting her knee. She was hypothermic and exhausted by the time she got to the creek, knowing going downhill would lead to the road, but making a wrong turn on the crown. She went into (and under!) the water, avoiding disturbing the snow. She lost her balance once, leaving the handprint.

She got out of the creek where it intersected with Wheeler's creek, grabbing tree branches to pull herself up the steep hillside, finally collapsing on a ledge.

The evacuation involved a scree-style lowering and two creek crossings. When they handed Sheila off to the Life Flight helicopter, her core temperature was 82 degrees.

When Sheila later died of cancer, it was her wish that all donations be made to search and rescue teams "for giving her another twenty years of life."

When it comes to diversity and inclusion, John believes that having different points of view and opinions is needed to come up with the most robust solution to any problem. He offers an example from mountain rescue: "In a vertical rescue, there's the team at the top and the team at the bottom. They see different things in different ways. Both perspectives are required or something will get missed and someone could get hurt.

"Why is it even a question?"

John brings up the example of the orchestra. "When auditions started being held behind curtains, the number of women and people of color being selected exploded." He works in his other job, as a professor, to accomplish the same by hiding the author of the papers and tests he grades. "Intelligence is not connected in any way with what people look like."

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In a more personal aspect of diversity and inclusion, John has spent the last ten years working to make himself irrelevant on his team. When new people join the team, he teaches them that there are fifty ways to do anything. "Everyone has to be able to speak up and offer their opinion, but then a decision has to be made." He steps back and has others make that decision. "The leader needs to listen with respect and take into account all opinions." Once the decision is made, though, others need to support that decision and not feel slighted if theirs was not the chosen direction. "You can't let ego get in the way."

"When it comes to all the problems facing Earth—politics, climate, everything—we need all brains on deck. This is true for SAR as well—discard those who don't look like us, then you're discarding valid points of view for non-sensical reasons."

John summarizes with this quote: If we are all the same, then one of us isn't needed.

*Bungee the brown lab and Pickles the black lab are members of Seattle Mountain Rescue's resiliency team.*



## Caring and Canines: A SAR Team's Resilience Specialists

*Krista Driscoll - Meridian Editor*

SEATTLE - Water bounces and skips across rocks as it roars over the 270 Snoqualmie falls, drenching the search and rescue team working the scene. Nearby, a father stands with some friends and watches as the crew works to recover the body of his son, who has jumped off the waterfalls and taken his own life.

Two English Labradors, one black, one brown, lay a few feet from the father, respectfully keeping their distance, their backs turned to the group as if to guard them from any further harm. The dogs are Pickles and Bungee, canine members of Seattle Mountain Rescue's Resilience Team, and in the midst of the melancholy of a recovery mission, they exude the kind of unconditional empathy that can only come from a dog.


Resilience Team member Raquel Lackey chose Pickles and Bungee for this work due to their calm demeanors

and sense of confidence and their desire to interact with people, potentially on their worst days, dealing with their worst fears.

"When someone is going through any type of stress, they know the smell our bodies emit," Lackey said. "They are able to sense that, and when they do that, they've been trained and conditioned to go toward that."

"We can't change anybody's feelings, we can't take the hurt away. But we can and do have the skill set to sit with someone as they are processing it."

Seattle Mountain Rescue is one of nine search and rescue units that form the King County Search and Rescue Association. Ranging in disciplines from ski patrol rescue to 4x4 rescue to urban and mountain search and rescue, the teams work in tandem to respond to 200-plus missions per year in the King County, Washington, area.



*Rescuers from Seattle Mountain rescue, barely visible in their red jackets, work on a body recovery at Snoqualmie Falls. During the mission, Pickles and Bungie were stationed next to family members.*

King County has an established Care Team to address elements of resiliency, initiate critical incident debriefings and provide peer support across all of the county's SAR teams. But a few years ago, Seattle Mountain Rescue began researching additional ways to help prepare its own members to cope with traumatic stress.

"We wanted to be more proactive with training for our members, education for our team, incorporating the Stress Continuum with our training for our team and how we handle the reactive elements of what happens when someone experiences a critical mission and shows the beginnings of stress injuries," said Nick Constantine, a rescue leader and member of the board of trustees for Seattle Mountain Rescue.

Constantine reached out to Responder Alliance founder Laura McGladrey for help in creating this new Resilience Team. Through workshops and conversations, McGladrey connected Constantine with other teams that were already on their journey of resilience, and after getting their fledgling peer-support team off the ground, Seattle Mountain Rescue set out to pay it forward by hosting an educational workshop with other teams in the Pacific Northwest.

It was at this workshop that Lackey, Bungee and Pickles walked into their lives.

"Raquel came and asked if she could bring one of her dogs," Constantine said. "It was a big eye opener. I didn't realize the impact these dogs would have on the rescuers, seeing the interaction with the different rescuers who were there for the workshop."

People came with their own stories, stress they had unknowingly carried across years of being search and rescue volunteers, and Constantine said it was fascinating to see SAR team members from around the region engage with the dogs and talk with Lackey.

"Every single break, those dogs were working, doing their job with our rescuers," he said. "That was the first moment we realized they could be an asset to our Resilience Team."

Bungee and Pickles have a twofold role, working with team members of Seattle Mountain Rescue as well as the reporting parties and subjects they meet in the field.

"On deployments, the team is frequently out in the field already," Lackey said. "We're not first on scene for that usually, so they spend time with the deputy, as well as with family, waiting and trying to fulfill any need that we can."

On the recent waterfall recovery, Lackey and her dogs were there from the beginning to support the rescuers, as well as the family and friends of the deceased.

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"Before we were called to go, the dogs and I walked around and asked for a read from everyone, using the Stress Continuum," she said.

"Some said green, some answered a little yellow here — the nerves before you take a litter over a cliff — but as we worked the whole crowd and each and every one of the rescuers commented on their color, huge smiles came across their faces; you could see their shoulders drop a little bit."

Lackey is trained in Critical Incident Stress Management, and it's her job to recognize those shifts in body language and communicate in words while Bungee and Pickles are "working their magic."

"Bungee is a chocolate Lab — brown boy Bungee — and he is a complete goofball," said Lackey. "He's very comedic. You can frequently find him hanging out upside down. His favorite thing to do in base camp is to chase empty water bottles, or steal water bottles from people to get attention."

"Pickles is the reserved princess, much more quiet. I call her our demo dog. I can take her anywhere and put her on a stage and she'll behave. She'll be mellow, work with people, get petted. She's a beautiful black Lab, easily approachable, quiet."

Stress and grief are like a pop bottle that's been violently shaken, says Lackey; if you don't let little bits of pressure out, it can lead to an explosion down the road. Every mission is different, and each one can require a different approach.

On a recent deployment, Lackey was able to hand a grieving mother a dog leash, letting her do something as common as walk a dog without having to deal with the pressure of other grieving family members or well-meaning friends.

"As I walked with her, it allowed her to feel comfortable and express her greatest fear that she wasn't able to express to anybody else she was being strong for in the family: 'I know he's not coming back, I felt it — I can't say that with my family, I need to be strong — but I need to say that to someone,'" Lackey said.

"It's that sense of control that people strive for after something horrible has gone by, and having a well-trained dog that can read our emotions and just be there — they can come back to the present moment and take a deep breath and say, OK, what's happening next."

After the mission, the work isn't done. Pickles and Bungee join in debriefings, helping rescuers process what they've just experienced.

"It's quite interesting," Lackey said. "Pickles picks someone who needs her and sits with that person, stays loyal, doesn't move. Bungee will work the entire room, check in with everybody and work with each and every person."

Not all dogs are cut out for this kind of work. Lackey says Pickles and Bungee are just like humans in that they can wake up and not feel like working that day. And just like us, working in stressful environments can take a toll on the dogs, so it's Lackey's job to make sure they aren't emitting signs of stress or overwork.

"The impact of working with somebody in that heightened level of stress, even the secondary trauma of it, while we don't see it on the human side as much, it's a huge energy drain on the dogs," she said. "If they aren't properly cared for or I don't watch them that closely, they can get overworked and not want to do the work anymore."

Constantine said Pickles and Bungee represent what Seattle Mountain Rescue is trying to do with its Resilience Team. Rescuers know the dogs by name, and mission leaders now seek out Lackey and her canines as critical elements in the overall mission process.

"Resilience has become one of those elements that isn't a dedicated topic once in a while or a dedicated phone call once in a while," he said. "We do focus on it in all phases of mission management, through recovery, preparation and training. The dogs help personify that, give it that uniqueness, and help build and facilitate other elements of the Resilience Team that we have taken in other directions."

In the past, the approach to search and rescue was buckle up buttercup, this is what you signed up for, Lackey said, but slowly teams are learning that compounded stress can take out even the strongest of us.

"Trauma is little nuggets that build up, it's these little things that add up over time," Lackey said. "If you think of life as different buckets — home, family, passions like search and rescue — if any one of those buckets is overflowing, then we aren't going to be as optimal in the other buckets in our life."

"To be able to have a set of skills and a variety of tools in our golf bag to help us deal with that, whether it's meditation, having connections with people, drinking enough water or a specially trained dog, I think it's important for all of us."



## Dear MRA colleagues:

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The **General Backcountry Safety** program was developed by Dave Groff, an MRA technician with Coconino County Sheriff Search & Rescue in Flagstaff AZ. Dave developed this introductory course of outdoor fundamentals to help backcountry users focus on what is necessary to travel in primitive and potentially arduous environments while remaining comfortable and staying safe. The MRA is offering the general public free access to our public-facing online education material about backcountry awareness geared for beginner and intermediate backcountry enthusiasts.

### AVALANCHE SAFETY – KNOW BEFORE YOU GO.

The second public education course, **Avalanche Safety – Know Before You Go** was developed by MRA Education Director Charley Shimanski using the strong curriculum from the Utah Avalanche Center (UAC). The MRA is indebted to the UAC, and its eLearning expert Paul Diegel, for this collaboration. While the program is intended for the general public, we anticipate some SAR teams may require this training of their members.

These welcoming, comprehensive courses are designed to cover the fundamental ideas that will help equip backcountry users to travel safely and be able to deal with emergency situations that can occur in the wilderness, and in avalanche terrain. Knowing what could go wrong and understanding how to properly prepare for it in advance can often mean the difference between an enjoyable trip into the backcountry and disaster.

Please have a look at our newest offering by going to the MRA [EDUCATION BASECAMP](#) and contact Dave Groff with any thoughts you have. Dave can be reached at [backcountry.hikes@gmail.com](mailto:backcountry.hikes@gmail.com)



Avalanche Safety:  
Know Before You Go

An Introductory certificate program in basic avalanche safety. Available on the MRA Education Basecamp at [www.training.mra.org](http://www.training.mra.org)

The Mountain Rescue Association is proud to announce the launch of "Avalanche Safety: Know Before You Go," the latest addition to its Public Education Program. This introductory certificate program, a collaboration with the Utah Avalanche Center's renowned "Know Before You Go" program, enables backcountry users to learn basic avalanche and winter backcountry safety as a precursor to an outdoor avalanche safety program.

Photo: Walt Wissman

## Letter from the Editor

Callouts. We know what they sound like, we know when there's likely to be a high volume, and sometimes we can predict them by the hair standing on the back of our necks. But the callout system as we know it has gone through many evolutions.

During his interview for the Michael Knapinski story, Tyler Severy of Tacoma Mountain Rescue elaborated on the various ways that receiving mission callouts have evolved over his many years in the team. Long before the age of pagers and smartphones (I think dinosaurs still roamed the earth back then) there was the callout tree. The chief of TMR would get a callout from dispatch. That person would call a certain number of members, and those people would make a certain number of calls until all people at least had a voicemail about the rescue mission they were needed for.

As technology improved, dispatches evolved and eventually came to the callout system that we have today. Many MRA teams send pages to smartphones with voice calls, text and email all happening simultaneously. It's a very efficient system and allows for people to select custom ringtones to tell them that an important mission is coming their way, instead of assuming their boss is calling them on their days off. I'm a big fan of getting a text, allowing me to copy the general area of operations into a map search to see the weather conditions and make a decision about if or how to modify my kit or clothing before jumping out the door.

That select pinging from my phone is something that I'll never dread. It's a chance to get outside, see people I like and do something worthwhile and if the conditions are right, epic. Even if it results in bushwhacking on a cold night just to return to my truck and get home at 3 in the morning without making contact with our subject, it's never a sound that I'll never come to resent. One day I hope my dogs, once certified for SAR, will recognize the tone as a sign to get out and work, which they love. Since they're border collies, I'm sure they'll learn that association in no time, along with how to drive my car and work our rope systems without thumbs.

Cheers,

Rick Lindfors  
Eugene Mountain Rescue  
Pacific Northwest Search Dogs



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