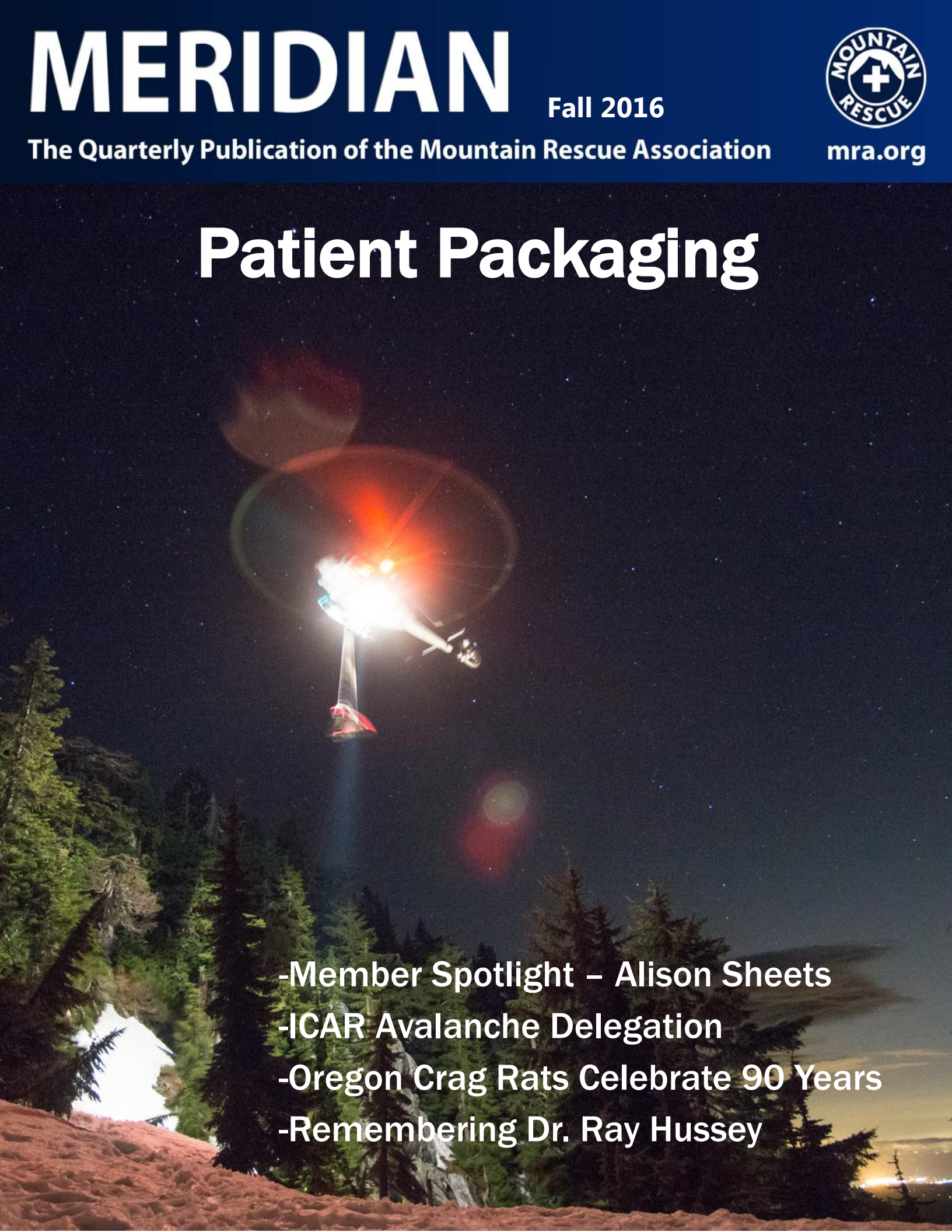


Patient Packaging

- 
- The background image is a night scene of a mountain rescue. A helicopter is suspended in the air, its rotors blurred from motion. A bright light emanates from the helicopter, illuminating the surrounding area. Below the helicopter, a person is visible, likely the patient being rescued. The foreground shows a snowy mountain slope with evergreen trees. The sky is dark with some stars visible.
- Member Spotlight – Alison Sheets
 - ICAR Avalanche Delegation
 - Oregon Crag Rats Celebrate 90 Years
 - Remembering Dr. Ray Hussey



MOUNTAIN
RESCUE
ASSOCIATION

Fall 2016

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Cover photo

Snohomish County Volunteer Search and Rescue's Helicopter Rescue Team hoists a hypothermic and severely injured hiker off a snowy Mt. Pilchuck in May, 2016. Beau Ramsey

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President's Message Fall 2016

By Bryan Enberg, MRA President and New Jersey Search and Rescue

Since our last edition, there has been a flurry of activity by the MRA, some planned, some unplanned, but each bringing new and more powerful tools into the hands of the talented and dedicated team that is the MRA.

Website and Lister Update

As with most web projects, there is always some unforeseen glitch waiting to spring on you. Well, we had a two-fer. Since the launch of the new website a few months ago, our members' area went offline and could not be recovered. Our web team has been working to get this section back up and available to the members. The store was the first to come back and is now location on its own tab on the site (reducing the amount of clicks and logins between you and that new MRA challenge coin you have always wanted). The remainder of the members' area will relaunch in the next few weeks and will host our archives of past meeting minutes, reports, pro-deal information, and any other MRA members'-only information of interest.

As for the rest of the web site, we hope this is now providing a much-improved visitor experience. We have streamlined and updated the organization and are now planning a modernization of the page theme to bring a little more sparkle to our outstanding content. The vast majority of this work was done by web genius and member of our Digital Team, Gary Farris. Thank you, Gary!

Shortly after discovering our members' area issue, the MRA Lister went down. This was, of course, our primary method to communicate with the membership. Executive Secretary Kayley Bell and Michael Gregg determined that we would not be able to restore the aging hardware that ran this vital service to our members and that we would need to migrate to a new systems. Thankfully, Julie Vargo, another one of the MRA's web ninjas, has significant experience managing client communications for other non-profits. Julie worked to secure approval by Google for Nonprofits, who will now be hosting our Admin and Member Listers. Thank you, Julie! Kayley has already begun the process of catching up with you on the Admin lister, our channel for the officers to distribute critical information to all of our members. Soon you will be receiving opt-in information for the MRA Member Lister. This opt-in only service will be the channel for members to communicate with each other about MRA-related topics.

Our Google for Nonprofits access will be used for much more than just our Lister. We now have access to the entire suite of Google tools including Gmail, Google Hangouts, Google Calendar, Google+, Docs, Sheets, Forms and Slides. Once the Lister migrations are 100% complete and bug free, we will be looking at ways to use all of these tools to advance the MRA. Thank you, Kayley and Julie, for all of the hard work! Thanks also to Michael Gregg for your years of service keeping our lister running!

ICAR Update

The MRA had a delegation of some of our best and brightest attend the 2016 ICAR Conference in Borovets, Bulgaria in October. Delegates representing the organization were Charlie Shiman-ski (Air Rescue), James Marc Beverly (Avalanche Rescue), Tom Wood (Terrestrial Rescue), Ken Zafren, M.D. (Medical), and Oyvind Henningsen (Avalanche Rescue). ICAR is looking to grow its membership, both internationally and within our borders. It is also looking to revise its membership structure. The MRA, lead by our delegates, will need to discuss this growth and how this impacts our representatives at our upcoming meeting in Salt Lake.

2017 Winter Meeting

The 2017 Winter Meeting is fast approaching! We are looking forward to seeing you February 2-5, 2017, at a new location, the Holiday Inn, South Jordan, UT. This venue will give us some much-needed elbow room for our meetings. Please note that there is no hotel shuttle from the airport to this location so you will need to get a cab or Uber. The deadline for early-bird registration is December 31, 2016.

If you have items that you wish be discussed at this meeting, please send them to me so they can be added to the agenda. A rough agenda will be sent to the Admin Lister in early December.

The Face of the MRA

If you or your team is doing something, we want to share it! Post it to our Facebook or send us an article! Have a member of your team to be highlighted? Send us a name and we will do the interview! Using a cool new tactic or testing with a new piece of gear? Let us know! Have a cool mountain rescue photo? Send it our way! We want the Meridian to tell the story of the MRA!

Thank you!

Finally, I have always been impressed with the quality and dedication of the officers and the members of the MRA. The more I work with each one of you, the more this feeling grows. There are numerous people working hard every day to make the MRA what it is. Thank you all for your courage, commitment and compassion.

Yours in service,

Bryan Enberg

President, Mountain Rescue Association
president@mra.org; Phone/Text 973-459-0635



Announcements

Winter Business Meeting

Registration is now open for our 2017 Winter Business Meeting February 3-5, 2017. Please notice we are still in the Salt Lake City, UT area however we are in a new location. We listened to your feedback and found a place that could keep the costs similar but has a larger meeting room. Another important change is this hotel does not have an airport shuttle so taxi, Uber or hired shuttle will need to be used.

I hope at least one person from each team will be able to attend and I look forward to seeing you in February. Here is the link to the meeting registration Early Bird ends December 31st.

<https://www.eventbrite.com/e/2017-mra-winter-business-meeting-tickets-29333365887>

The 2016 ICAR Highlights Video, Borovets, Bulgaria, Part 1 is on-line.

This is the first of two videos from the International Congress for Alpine Rescue (ICAR) that took place Oct 19-22, 2016. This year the focus for the first day was avalanche rescue. Part 1 features 6 selected presentations: **Dr. Greg Zen-Ruffinen**, Air Glacier Helicopter Rescue Service, "Helicopter Long-Line Quick Extraction in times of high avalanche danger." **Klaus Wagenbichler**, Austrian Mountain Rescue, "Slalom Avalanche Probing Techniques," **Jan Hogen**, Norwegian Red Cross, "RECCO update," **Kuba Ho-**

ronwski, Tatra Mountain Rescue Service, Poland, "Avalanche Beacon Techniques," **Manuel Genswein**, Avalanche Expert, "Mountain Safety Knowledge Data Base," **Dr. Natalie Holtzl**, German Association of Mountain and Expedition Medicine and **Dr. Julia Fieler**, Norwegian Red Cross "Scoop and Run" scenarios for patient evacuation.

You can visit our Facebook Page <https://www.facebook.com/TopographMedia/> to watch the new video. In the next two weeks we will have the second part of the 2016 video posted on Vimeo and located on <http://topographmedia.com/> All our mountain rescue videos (ICAR highlights back to 2007) can be watched there.

Thanks to our 2016 sponsors, CMC Rescue <http://www.cmcrescue.com/> and PMI <http://www.pmirope.com/>, co-sponsors of the International Technical Rescue Symposium. <http://itrsonline.org/> Special thanks to Petzl, our sponsor every year since 2007. <http://www.petzl.com/> And finally TYROMONT, offering specialized alpine rescue equipment. <http://tyromont.com/> Their support allows us to help tell the ICAR story.

Interested in news from our member teams?

Check out <http://mra.org/all-teams/team-newsletters/>

To have your teams Newsletter featured on the MRA web page, send a PDF version to websupport@mra.org.



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Patient Handling & Litter Packaging for Cold Conditions

Cassie Lowry Edmark, OMS II, W-EMTm

Part 1: Patient Handling

The first step is to recognize cold stress and hypothermia. The second step is preventing further cooling. The ultimate goal is to prevent cardiac arrest. Rely on patient presentation to guide treatment. Focus on level of consciousness, and the presence or absence of shivering, arrange advanced life support (ALS) transport for a hypothermic patient with altered mental status.

The following is a guide for the staging and management of cold subjects, as well as some specific handling guidelines. Refer to Dr. Ken Zafren's guidelines in the Fall 2015 issue of the Meridian for more clinical details and updated CPR recommendations for hypothermic patients.

The priority is to prevent further heat loss in **all** cold subjects.

- Replace wet with dry clothing.
- Add insulation and a vapor barrier.
- Support mental activity by engaging conscious subjects. An active brain helps maintain the body's protective mechanisms, plus it allows the rescuer to track the subject's mental status in case of decline during the rescue.

Cold stressed (> 35°C)	Fully alert but may complain of being cold; occasional shivering.
Encourage heat production; patient may walk. Provide calories.	
Mild Hypothermia (35-32°C)	Alert but not able to function normally; <i>shivering</i> .
Avoid dangerous drops in core temperature and blood pressure by handling gently and keeping the patient horizontal. <ul style="list-style-type: none"> • Replace calories with warm calorie-rich drinks as tolerated to support shivering. • <i>Delay exertion for at least 30 min</i>, then carefully allow the patient to stand. If he/she can stand without difficulty, start with low-intensity exercise and increase gradually as tolerated. 	
Moderate Hypothermia (32-28°C)	Impaired consciousness; shivering may have ceased.
A decline in consciousness and cessation of shivering are red flags. <i>Handle these patients very carefully.</i> <ul style="list-style-type: none"> • Keep the patient calm and horizontal. • DO NOT encourage movement or physical activity. • Be prepared for CPR. 	
Severe Hypothermia (28-24°C)	Unconscious (not shivering); vital signs are present.
Risk of cardiac arrest is <u>extremely</u> high. Same considerations as for Moderate Hypothermia plus: <ul style="list-style-type: none"> • Airway management. 	
Profound Hypothermia (< 28°C)	Unconscious (not shivering); usually <i>no vital signs</i> detectable.
Take up to <u>1 minute</u> to confirm the absence of vital signs (pulse, breathing, or movement). <ul style="list-style-type: none"> • <i>Immediate</i> CPR: use the same technique for rate and rescue breaths as a warm patient. • AED use: take care not to unnecessarily expose a patient to the elements. Do not compromise effective CPR and transportation to definitive care in order to continue shocking a hypothermic patient in the field. There is no evidence of improved outcomes in hypothermic patients who receive more than one shock before the core temperature increases. • Administer intermittent CPR if necessary and use a mechanical compression device, if available, to expedite extrication and transport. 	
Death	
There is currently no lower limit known for survivable core temperatures. The usual indicators of death such as fixed, dilated pupils, and apparent rigor mortis are not reliable in cases of hypothermia. <ul style="list-style-type: none"> • Do not administer CPR if the patient has injuries that are incompatible with life. 	

Part 2: Patient Packaging

Chemical, electrical, and forced-air heating packs/blankets are currently the only non-invasive methods that provide a substantial amount of heat transfer. Active external rewarming will help prevent further cooling in all patients.

Cold stress and mild hypothermia can be corrected in the field by increases in core body temperature that are aided by active external rewarming. Body-to-body rewarming may be used in mild hypothermia to decrease the severity of shivering and bring the patient comfort, but should not be used if it will delay evacuation. Moderate, severe, and profound hypothermia cannot be corrected in the field; the goal of active external rewarming in these patients is to prevent further heat loss.

Use insulating materials that are light, compressible, and thermally efficient. Leaving a piece of essential gear at the trailhead because it is bulky is poor patient care. Also storage and pack gear in waterproof stuff sacks for storing and packing gear to avoid getting it wet on the way to the patient.

Layer 1	Insulated pad
Prevent heat loss to the bottom of the litter.	
Layer 2	Insulation
Concentrate on patient's trunk, head, and neck.	
<ul style="list-style-type: none"> • Dry clothing: bottom, top, hat, gloves, and socks. Replace wet clothing <i>as soon as possible</i>. • 2 blankets or sleeping bags: one above and one below the patient to avoid interfering with litter tie-ins. 	
Layer 3	Heat sources
Use in conjunction with vapor barriers and insulation.	
<ul style="list-style-type: none"> • Focus on chest, then back. Do not apply heat sources directly to extremities, but extremities should be contained within the insulating layers. • Do not apply heat directly to skin or use small heat packs. • Use heated humidified supplemental O₂ only in conjunction with other rewarming methods. • If you use a HeatPac, make sure it is properly ventilated and carefully monitored due to the risk of producing toxic levels of carbon monoxide. • After evacuation, do not use warm showers or baths to rewarm a patient who is still hypothermic. 	
Layer 4	Waterproof vapor barrier
Placed outside all other layers. Choose a barrier that is able to protect the patient and insulation from the environment and rotor wash. Choices include bubble wrap, or a premade two-piece wrap with side closures (details below).	



When packaging the patient, the bottom piece is placed across the inside of the litter, followed by an insulating pad then sleeping bag. Insert and secure the patient to the litter (image A above). To reduce dead air space between the insulating layers, concentrate the tie-ins to the head and foot ends of the litter if possible. Cover the patient with a second sleeping bag, followed by the top piece of the wrap. Match up and secure the side closures over the tie-ins, and tuck the loose bits in to the litter. If your litter comes with straps, cross and secure those over the top of the wrap (image B above).

Hypothermia Prevention Management Kits (HPMKs), designed by US military, are available commercially. They come vacuum-packaged and include a Heat Reflective Shell (HRS™) with built-in hood and a self-heating shell liner in which chemical heat packs provide 6-10 hours of continuous heat. They are convenient, effective and light, at 3 lb 8 oz. They are not designed for placement of additional insulation within the wrap. Additional insulation can be added outside the HPMK. The liner is single-use only.

Alternatively, consider making a reusable custom waterproof lightweight vapor barrier that may be mocked to be compatible with your litter, allowing enough room to fit a well-insulated patient. The following example and photos are courtesy of Everett Mountain Rescue Unit from Snohomish County, WA. The materials and construction cost under \$200.

1. Measure out the dimensions needed for 2 separate pieces – one below the patient and insulation, and one above.
2. Purchase a washable laminated rip-stop fabric such as the Tent X-Pac™ Dimension-Polyant (TX07).
3. Add closure material such as Velcro® around the full perimeter of each piece, so that the bottom piece attaches to the top piece.
 - Easy access to any part of the patient at any time.
 - The sides seal around tie-ins so the patient is secured directly to the litter.
 - Monitoring injuries, vitals, or making adjustments does not require full dismantling of the packaging.
4. Allow ventilation and access at the head by adding an opening in the top piece.
 - Build in a bungee or other form of closure around the outside of the port so it can be closed for protection or opened for ventilation and access.



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WHERE'S ANDY?
HE WAS RIGHT BEHIND ME.

I FLATTED AND MY FRIENDS
DON'T KNOW TO WAIT UP.

ICAR Annual Meeting Summary

James Marc Beverly, PhD, PA-C, IFGMA

INTRODUCTION:

The International Committee for Alpine Rescue (ICAR) annual meeting was held in Borovets, Bulgaria the week of 19-22 October 2016. Intermittent showers over the Balkan Mountains made for some good hiking, and excellent rock climbing. The Bulgarian Red Cross and the Mountain Rescue Service hosted the event at the Samokov Hotel. Bulgarian Mountain Rescue was inaugurated in 1933 after the Rila and Vitosha Mountains were bustling with new shelters and refugios, as ascents to the highest peaks began to become more popular. Borovets is nestled in the Rila Mountains, and the Borovets ski area is located a mere hour outside of Sofia. Bulgaria Mountain Rescue celebrates its 83rd year in Mountain Rescue this year. Bulgaria is also home to world-class fantastic ranges, farms, cliff, crags, and caves to explore and sport climb in. So it should also be said in this report, Bulgaria is a wonderful place to visit.

Many nations and regions send their members to participate, attend the meetings, and to share informative techniques, thoughts, and to propose theories that generate research and development of Mountain Rescue. More than 30 countries were represented to take part in this year's Congress. The theme of this year's congress was "search function – improving the search before the rescue." This is always the case in avalanche rescue, and good case reports were presented from multiple entities.

English has become the ubiquitous language adopted by ICAR, but it was decided that translators were going to be used once again this year. This was helpful for those who did not speak 4 or more languages, and allowed for those presenters who spoke only their native tongue to be able to present. Translators worked long hours and did a wonderful job as accuracy in translation is important.

Delegates representing the United States of America's National Mountain Rescue Association (MRA) in Borovets were Charlie Shimanski (Air Rescue), James Marc Beverly (Avalanche Rescue), Tom Wood (Terrestrial Rescue), Ken Zafren, M.D. (Medical), and Oyvind Henningsen (Avalanche Rescue). The U.S. MRA delegates are grateful to our sponsors for the long-term support of this important international exchange.

Notes on Presentations Prepared for the Avalanche Commission

Excavation

The UIAA continues to work on a safety label for shovels. Although this may seem trivial, a shovel that cannot stand up to the rigors of avalanche rescue are of no use.



Prohadna (rock climbing) Cave, Northern Bulgaria. Marc Beverly

A safety label works to assure that the shovels that are sold as avalanche shovels are indeed capable to handle to workload.

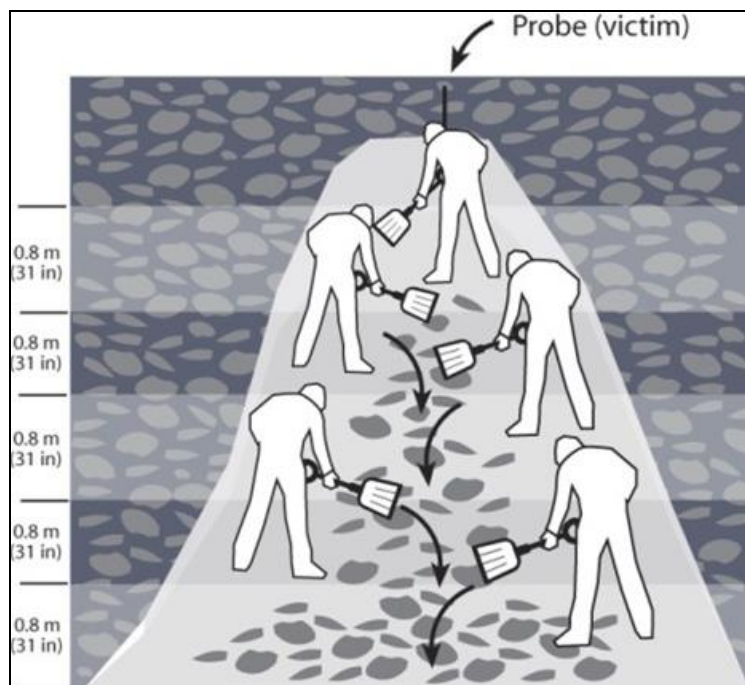
The conveyor belt technique has been established as the standard for avalanche excavations as it is the most efficient. The image on the following page, taken from Manuel Genswein's paper, should be standard and applied knowledge for all avalanche rescuers.

Probing strategies

Several probing strategies continue to be used. Choosing the appropriate style of probing is important in order for it to be effective given the terrain and resources that are present and available. For example, slalom probing should be used by trained professionals and in unhindered terrain. While it may be faster than all other types of probing, it is difficult to train bystanders. Two-hole-per-step method is more likely to be used by Mountain Rescue teams in the USA, and one-hole-per-step also has its place. Knowing the different techniques and when to use them should be part of all of avalanche training.

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Excavation strategy. Manuel Genswein

The presenter Manuel Genswein contends that there should be no hasty search. Instead, any type of hasty search should be combined with the signal search. Perhaps we call this a "clue search" in order to differentiate it from the previous styles of search.

Mountain Safety Knowledgebase

The Mountain Safety Knowledgebase is a new concept that a working group has been diligently contributing to over the past year, including the Avalanche Commission of ICAR. Currently there is a 40-page document that attempts to exhaustively cover topics relating to avalanche rescue. Although the idea is currently limited to avalanche rescue, it is hoped to expand the scale of the concept to something similar to Wikipedia or UpToDate, only for mountaineering.

Synopsis


Mountain terrain is used for recreational and occupational activities, residential areas, work sites and traffic systems. The mountain terrain adds hazards to the environment which are different from hazard in flat terrain and thus require specific accident prevention strategies as well as safety and rescue procedures. Their goal is to prevent accidents in the first place and provide efficient rescue if required. Although there are some locally specific circumstances, the hazards imposed by the mountain environment and the characteristics of the human beings interacting with it are worldwide extremely similar. Thus, the techniques, methods, strategies and systems in accident prevention and rescue should be standardized and therefore equally taught and applied by all members of international organizations such as UIAA, ICAR or UIAGM.

Mission of the Mountain Safety Knowledgebase

Standardized systems, teaching materials, and terminology ensure equal effectiveness and cost efficiency. The prime goals of the "Mountain Safety Knowledgebase" are:

- 1) To document "best practice in mountain safety" in a database;
- 2) To describe strategies, techniques, methods, systems in a standardized format, using standardized illustrations and terminology;
- 3) To lead the "best practice" consensus workgroups on a world-wide level in collaboration with expert groups of its partner organizations;
- 4) To standardize terminology in mountain safety across different disciplines of mountain safety;
- 5) To define and ensure standardized terminology across different languages and countries in collaboration with expert groups of its partner organizations;
- 6) To organize, lead and promote projects to evaluate "best practice" in mountain safety on a world-wide level in collaboration with expert groups of its partner organizations;
- 7) To efficiently distribute the content of the knowledgebase to all those in need of mountain safety know-how;
- 8) To ensure a sustainable future development of mountain safety know-how by an institutional representation of IPR providers towards the various users groups of mountain safety know-how.

Knowledgebase items are non-exhaustive, but it would be a sys-




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tem that would decrease reproduction of many techniques, and would aim to standardize much of what techniques exist, but with a peer review process.

Concerns

- The size and scale of the project Possible to achieve the goals?
- Setting Standards
- Uncertainty of how people/organizations can be a part of the project - making experience available "free of charge"

An electronic copy of the proposed Knowledgebase can be obtained by contacting Manuel Genswein.

Overview of US Avalanche Fatalities

Avalanche fatalities due to snowmobilers now exceed that of any other in the USA. There was also a large trend in the 2015-16 season in which a weak layer in the midpack was responsible for more avalanches than any other, including storm slab or depth hoar together. However, there were no correlations between number of days of snow on the ground, or depth of snow in relation to avalanche deaths over a 10-year period in Colorado (data from AAA & CAIC, statistical evaluation by the author). The data for Colorado are not sufficient alone to draw conclusions from.

Reporting of avalanches triggered, injuries, and near misses were also not included in this report as there are still much missing data.

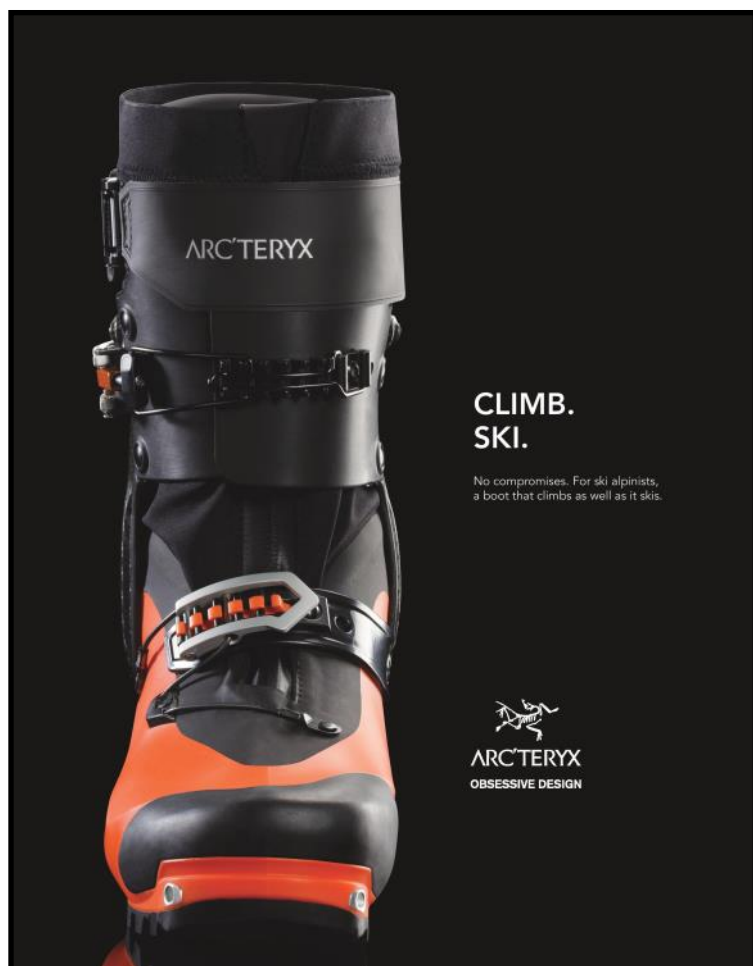
**US Avalanche Fatality Percent by Activity
2015-2016**



For example, two snowboarders were caught and partially buried in Taos, New Mexico, but the event was unrecorded from any national database. Again, until there is better reporting of avalanches in general, the data will continue to not support the actual occurrences. Reports should be submitted for any avalanche occurrence to the National or Regional database.

In Closing

There were many topics covered at the ICAR conference not presented here, including discussions of accident reports for various countries, triage and medical care for multiple burial situations, rescue dogs, checklists, and various other approaches and theories regarding avalanches and the search and rescue community. Further information about presentations can be obtained by contacting the author.



Member Spotlight —Alison Sheets

11 October 2016

Interviewer – Todd Lemein

Alison Sheets has been a member of the Rocky Mountain Rescue Group since 2006. She is a board certified emergency physician and has volunteered for the Himalayan Rescue Association. She is also currently the Mountain Rescue Association's Rock Mountain Region Chair. At times she has been a professional mountain guide as well as a professional ski patroller. In addition to her numerous professional and volunteer accomplishments she has a climbing and skiing background that could make anyone jealous with first ascents on rock in Utah, Nevada, Wyoming, and Colorado and ski descents from Colorado to Chamonix.



Alison climbing "Birdland" in Red Rocks Nevada.

[This transcript was made from notes taken during a phone interview which was not recorded. Questions and responses have been edited for clarity and length.]

Could you tell us a bit about how long you have been involved with mountain search and rescue and what you're doing professionally?

I've been involved with Rocky Mountain Rescue (RMR) since 2006 when I became their Assistant Medical Director. At that time I was working on my emergency medicine training which I finished in 2008. Since then I have been working at Longmont United Hospital in Colorado.

Were you primarily interested in the medical component of RMR?

Not entirely. I came to RMR through my medical training and was introduced to the idea by the previous medical director, and a mentor of mine, but have a long history of climbing, guiding and skiing in Colorado.

When did you move to Colorado?

I moved to Colorado in 1985 primarily for climbing but quickly rekindled my interest in skiing. For about a decade I was a mountain guide with the International Alpine School in Eldorado Springs, which basically was and is my backyard.

As a guide did you have any experience with RMR prior to your affiliation?

Probably, but back then they didn't have uniforms or it wasn't as clear who you were dealing with. I knew of RMR and think I may have helped on a few of their missions. Generally, if there was an accident in Eldorado Canyon State Park the rangers, climbing community and guides would respond if they could to help out.

In setting up the interview you mentioned that you were attending the International Snow Science Workshop (ISSW) – how was that?

It was a great time. It's truly an international conference with snow science professionals from all over the world attending. It may be somewhat North American or Euro – centric but it really is a diverse group of people. It's a great place to nerd out on snow science.

What were the prominent topics?

Avalanches is the dominant topic but that covers so much ground - you have people presenting on snowpack characteristics, avalanche propagation, forecasting techniques, educational aspects, human factors, as well as risk assessment and management. There's just a lot of really good, useful information and it's a great experience.

Any significant changes in avalanche assessment we should be aware of?

There has been lots of advancement with in the field of decision making and providing new and improved "check lists" and flow charts to back country users. Snow and avalanche science still has much uncertainty such as "what is the best stability test?" or "what factors are most important in determining risk?" What is really important is that people get good training and gain experience know where to get information about the snow pack history and weather.

I'm a pretty average backcountry skier and coming from Oregon we don't often see the dangerous conditions you get in the inter-mountain region.

There are definitely advantages to learning snowpack assessment in Colorado. It's notoriously tricky and it forces you to pay attention to the snowpack history and recent weather. Anyone with a high level of training and experience should be able to make sound decisions in a new location given access to snowpack and weather history. I've skied in British Columbia, which is a maritime snowpack similar to Oregon, where I skied things that I never would have considered under most circumstances in Colorado. It could be a good idea for you, or for anyone who is interested in improving their avalanche assessment skills, to take a class outside of their local snowpack just to get exposure to different snow conditions.

Last thoughts on avalanche awareness?

Ultimately, it's all about terrain choice and if in doubt, go conservative.

Are there any important or interesting missions, past or present that you'd be willing to share?

We (RMR) respond to a lot of calls but there are two that demonstrated things that I like about the outdoor recreation community

and the search and rescue community. The first occurred during a recent training in Boulder Canyon, which is basically still in town here in Boulder. It was a training so we had lots of people including both seasoned members of RMR as well as prospective members. A call comes in that there is an injured mountain biker not far from where we were training. Very quickly emergency services arrive and we take an ATV to get to the subject in order to assess the situation. It wasn't technical but it was clear that there was a severe medical issue and that full medical support and prompt evacuation were needed. A useful thing about being the medical director and being on scene fast is that you can make decisive decisions. As an Emergency Physician I get a lot of practice recognizing "sick" vs "not sick". In this case we were able to identify the severity of the situation, get the person immobilized and into a litter and transported to a hospital very quickly. The communication and the teamwork are what I want to point out. This was a very (medically) complicated situation and it was dealt with in a very fast and efficient manner. I wouldn't say it was flawless but it was extremely efficient. All the various agencies and the individuals performed well. Communication was succinct and to the point, non-verbal in some cases, and the prospective members handled themselves well despite it possibly being their first exposure to a complicated mission moving at mission speed. We were able to give that person their best possible chance of recovery.

The second mission that comes to mind is a testament to public interaction with RMR and the Boulder community. A world class trail runner was running on a local non-technical peak, it was somewhat of a wet weather day, and a large rock was kicked loose and crushed the runner's leg. It was one of the more terrible leg injuries I have ever seen. Severely crushed. So it was cold and wet weather, a very severe injury, and the runner is located several miles in from a trailhead. By the time RMR got on the scene it seemed like the entire running community had reached the runner and had tried to make him comfortable by trying to keep him warm and dry, and they held him, perched precariously on an unstable slope. I'm not sure how the community got the word out but they were there and the interaction with RMR was great. I think it was just a wonderful example of how the Boulder community looks out for one another. It also reminded me of why we do this work which I think is to help people who are like ourselves. I think there are times when we realize that we could be these people that we are trying to help.

Thanks for sharing those and being willing to be interviewed. What's coming up next for you?

I'm headed to the ICAR conference in Bulgaria as an alternate delegate for the terrestrial delegation. It will be my first time attending the ICAR conference as a delegate and I'm looking forward to it. I have been to two previous conferences and they are a great way to mix with like minded folks from around the world.



A nice day in the backcountry.

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Crag Rats Celebrate 90 Years of Service

Christopher Van Tilburg

In August 1926, a band of Hood River, Oregon, ski mountaineers were called upon to search the north flank of Mount Hood for lost seven-year-old Jacky Strong. The crew found Strong and when a news reporter asked leader Andy Anderson what the group called themselves, they had no formal name. Anderson recalled his wife's statement about the men shucking household duties and being "rats for climbing crags every weekend," Anderson replied simply, "We are Crag Rats," and the name stuck.

Mountain rescue missions soon followed in January 1927 with Crag Rats rescuing 16-year-old Calvin White and searching for 20-year-old Leslie Brownlee, who was never found. By 1932, Crag Rats were deploying on six missions a year, all the way to Mount Rainier. Stewart Holbrook, in a 1932 story for American Forests, dubbed the group "The St Bernards of North America. In addition to rescues, the Crag Rats provided community service by guiding the American Legion climbs of Mount Hood and completing snow surveys for the US Soil Conservation Service. The Crag Rats were charter members of Mountain Rescue Association in 1959, with Dick Pooley serving as first president.

Although modern technology has infiltrated nearly every aspect of our group, the Crag Rats can still be seen at social functions wearing black-and-white buffalo plaid wool shirt.

Currently, Crag Rats respond to 30 missions a year on Mount Hood and in the Columbia Gorge National Scenic Area on behalf of Hood River County Sheriff Office and provide community service for US Forest Service by clearing trails and campgrounds for access to the north side of Mount Hood.

The Lighter Side of SAR

Neil VanDyke

Command Post Food – Be careful what you ask for.

While many SAR folks are very happy to spend their entire career in the field as 'ground pounders', doing the nitty gritty work of finding and/or rescuing people who have gotten themselves into a pickle in the backcountry, others may aspire to a management role. I know I have seen more than a few responders cast a longing eye at the warm confines of the IC's truck or command post as they head out on their mission, and I also know that disparaging remarks are made out of earshot about the cushy job of those staying behind to do whatever managers do. So it's time to set the record straight – life at the command post is not as easy as it looks. Beyond the more mundane things like having ultimate responsibility for the safety and success of the operation, dealing with distraught family members and the press, is the issue of CPF – Command Post Food.

This is rather fresh in my mind having just come off two consecutive searches totaling 5 straight 12-14 hour days. Here's the routine. In this particular case it was the 'day shift', so out the door at 5am. No time to cook a nice breakfast at home, so stop at the gas station for coffee and a breakfast sandwich. A well organized search (at least in Vermont) will always have coffee and donuts at the ICP, so another fueling on arrival. After several hours of chaos in getting teams into the field there is often a bit of a lull, which allows time for somebody to think about perhaps ordering in some lunch. How about pizza? Sounds good. Around noon somebody will show up with a selection of pizzas (mostly pepperoni), some chips and a couple of gallons of Coke and Mountain Dew. Scarf it down, and on to the afternoon's work. Next thing you know it's time to think about taking care of the searchers as they come back from the field, so time to order some more food. How about pizza? Sounds good. Day 2 – repeat. Day 3 – suggestion of "how about something other than pizza?" so we are able to scrounge up some Subway sandwiches for a change of pace. Day 4 – repeat (back to pizza). Day 5 – repeat. I just tallied up what I ate over that 5 day period. 15-20 cups of coffee, 6 breakfast sandwiches, 10 donuts (including several nice glazed ones for 'snacks' at 9pm), more pieces of pizza than I can remember, a couple of mystery meat Subway sandwiches, several large bags of chips (warning – once you start it's hard to stop), and about 64oz of Mountain Dew (more caffeine of course). That's it. I'm serious, it's tough in there. The folks out in the field need to bring their food with them, so while you're munching down on hummus sandwiches with sprouts on multi-grain bread and getting some exercise in the fresh air, we're sitting down forcing another piece of cold greasy pizza in. So enjoy your time in the field – working in the command post is no picnic.



The author in-between meals on a recent search in northern Vermont. uncredited.

Remembering Dr. Ray Hussey 1934 – 2016

Riverside Mountain Rescue Unit

Dr. Ray Hussey joined RMRU in 1984 and already had a great deal of experience in Backpacking, Camping, and a general outdoor knowledge. He was a useful field member right away and did not need much training. Ray was in good physical shape and could hike with a full pack all day. Over the years Ray went on over 100 missions and over 100 trainings and everyone remembers how he always had a smile on his face and a joke ready for every situation.

His ability to keep things light and easy going in hard times was a great help to keeping everyone in a good mood when things got hard. He was serious when needed and had a level head for seeing what needed to be done and then making sure it did get done correctly.

Ray has been on many missions involving getting in and out of helicopters in hazardous conditions. He has gotten out on top of Mt. San Jacinto in the winter when the peak was covered in over 10 feet of hard packed snow. It is very icy and you exit the helicopter with ice axe ready in case you start to slide. He has been let off on top of cliffs with over a hundred foot drop on one side. He has been on many technical rock missions and been lowered or rappelled over the side to give medical aid to injured persons, sometimes in the middle of the night with the only light being headlamps. He does all of this with expert skill that he has passed on to newer team members over the years. One such rescue was on July 13, 1985 when a young male hiker took a fall and fractured an ankle and suffered head injuries at the base of Tahquitz Rock. Due to loss of fluids from injuries, Dr. Hussey hooked up an IV solution of Ringers lactate to help get fluids back into his system. He was carried down to Humber Park and transported to Idyllwild Ball Field, where a helicopter took him to Loma Linda Medical Center.

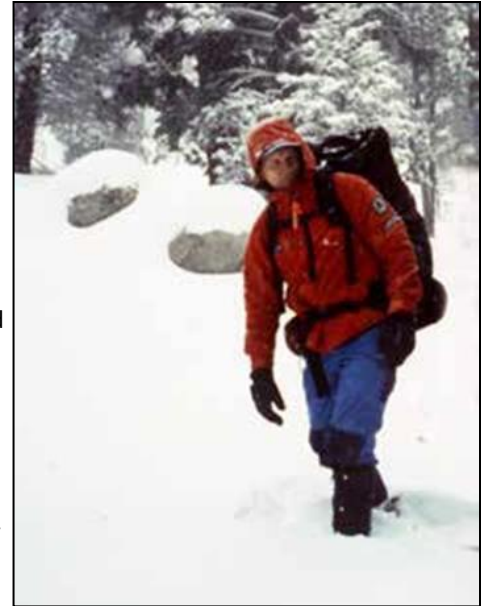
On March 11, 1986 on a search for a hiker missing on Mt. San Jacinto with over 12 feet of snow on the summit. Ray was flown to the summit in powerful wind gusts 30 to 40 mph where only one person at a time could safely be in the helicopter. He and another team member then found tracks leading down from the summit. These tracks eventually lead to the rescue of the missing hiker.

Another mission was on Tahquitz Rock, but this time in the dark on Jan 1, 1987. Ray was flown into Lunch Rock at the base of Tahquitz around 7pm, where the pilot placed one skid down on the 100 foot tall boulder and Ray stepped out into the dark. He then hiked around the base of the rock to the route the injured climber was on and then ascended up 130 feet to ascertain the injuries. It was de-

termined he had some sort of fracture to the hip and his ribs. After a litter was brought up, Ray became the attendant and was lowered down with the subject in the litter. He then helped taking the litter down the long and steep slope out to Humber Park. He was put into an ambulance and taken to the hospital.

In the past 30 years Ray has served on the Board of Directors for 15 years as (Board Member, Secretary, Vice President, and

President). He has also served for 5 years on the Rescue Committee and gone to National Conferences on Technical Standards where he has brought back many new and good ideas for Technical Rescue. He has been on the Medical Committee for almost all 30 years and brought many new medical ideas to RMRU for use in the field. Some members have come on the team for several years or more and then leave and hardly anyone remembers them or what they did. Ray with his long term of service, high skill levels, and ability to pass on what he knows makes him a member of RMRU who will not be forgotten for many years in the future. Ray no longer went in the field on missions but still attended meetings and keeps RMRU updated on new medical ideas. Ray is a perfect example of what we look for and want in a member for RMRU.



Dr. Ray Hussey during a 1987 winter mission. RMRU



Ray leaving helicopter on summit of Mt. San Jacinto (10,385 ft) 1986. RMRU

ITRS

International Technical Rescue Symposium



Call for papers

The International Technical Rescue Symposium (ITRS) is soliciting presentation proposals for the Program. Gathering persons from across the spectrum of rescue disciplines to share news and views on advances in equipment and techniques, technical problems and issues of moral concern. This event is of interest to technical rigging and rescue professionals from all walks.

The Symposium

The Technical Rescue Symposium brings together a wide variety of people involved in rescue, including those in mountain rescue, law enforcement, military, park service, water rescue, outdoor recreation, fire service and rescue squads, along with equipment manufacturers and distributors.

ITRS is jointly sponsored by the Mountain Rescue Association, Fire-Rescue Magazine, National Association for Search & Rescue, Society of Professional Rope Access Technicians and the National Cave Rescue Commission of the National Speleogocial Society.

From Theoretical Presentations....to those with Practical Applications

- Controversial Issues
- New Equipment
- New Developments in Gear Technology
- Research and Testing Results
- Technique and Systems Discussions
- Medical Considerations in Rescue
- Analysis of High Angle Accidents
- Development in Helicopter Rescue
- Equipment Standards

ITRS Presentations Proposals

Presentation proposals may be made by submitting a one-page abstract and a one-paragraph presenter bio by August 17th to:

ITRS Program Coordinator
c/o PMI Denver
3850 York Street
Denver CO 80205
303-800-1708 ext 41
Email: itrsprogram@pmirope.com

A presenter agreement will be provided on request. Final Proceedings papers (2-8 pages) will be due by October 5th.

ITRS Presentation Awards

To encourage and reward excellence in presentation, the co-hosts have inaugurated a "presenter award" program. The program is looking to award and acknowledge presentations which reflect experience in: facts and data (rather than opinion or conclusion); choice of topic (applicable to field work); and state of the art technical rescue. After the final presentation, the attendees will vote on the presentations based on seven categories; one award going to each category. Each winner will receive a \$200 honorarium.

Limited Enrollment:

In order to encourage the informal free flow of information involving all participants, enrollment has been limited to 150 persons. If necessary, a waiting list will be constructed.

For more information on ITRS, visit www.itrsonline.org

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Photo Gallery



Star gazing following patient care on Mt. Pilchuck. Beau Ramsey

Editor's Note—

Happy holidays all. In Oregon the winter has begun and it has been cold. A perfect time to think about winter patient packaging. Thank you to all the ICAR delegates who represented the MRA at the conference in Bulgaria. We have a nice overview of just a touch of presentations from the avalanche delegation. Let us all stay safe in the snow this winter and make sure we are prepared for the snow conditions that may be present and stay safe.

Todd Lemein

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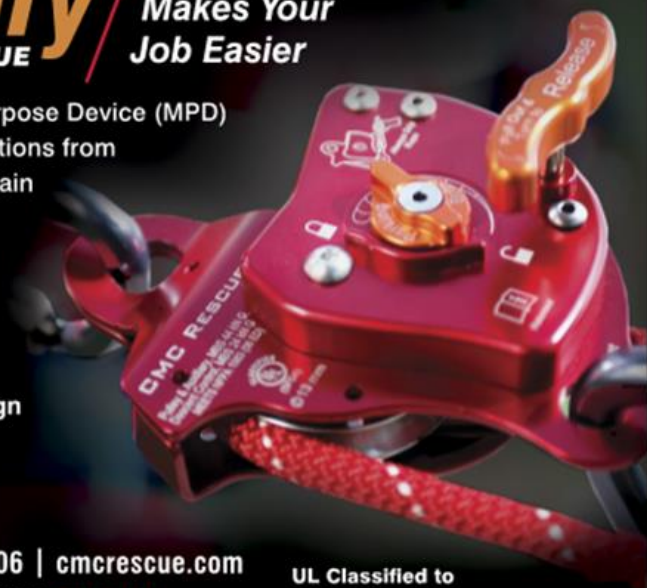
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