



TERRESTRIAL RESCUE REPORT

International Commission for Alpine Rescue

Kommission für Bodenrettung/Commission pour le Sauvetage Terrestre/Commission for Terrestrial Rescue



Killarney, Ireland, 6-11 October, 2015

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ICAR provides a platform for mountain rescue and related organizations to disseminate knowledge with the prime goal of improving mountain rescue services and their safety. It is an independent, worldwide organization that respects its members and promotes international cooperation.

INTRODUCTION The International Commission for Alpine Rescue (ICAR) met for its annual Congress in Killarney, Ireland, 6-11 October 2015.

Killarney ([Irish](#): *Cill Airne*, meaning "church of [sloes](#)"; pronounced [\[ˈkɪl ərni\]](#)) is a medium-sized town in [County Kerry](#), southwestern [Ireland](#). The town is on the northeastern shore of [Lough Leane](#), which is part of [Killarney National Park](#). The town and its hinterland is home to [St Mary's Cathedral](#), [Ross Castle](#), [Muckross House and Abbey](#), the [Lakes of Killarney](#), [MacGillycuddy's Reeks](#), [Purple Mountain](#), [Mangerton Mountain](#), the [Gap of Dunloe](#) and [Torc Waterfall](#). Its natural heritage, its history and its location on the [Ring of Kerry](#) make Killarney a popular tourist destination.



Gap of Dunloe

Killarney is, according to the online travel website Tripadvisor, Ireland's most popular travel destination for 2015, placing it 23rd in Europe. Killarney has been entertaining visitors and tourists for over two hundred and fifty years. Its beautiful peaks such as Crohane, Tomies, Torc, and Mangerton date way back to prehistoric times when the ice melted after the ice age. There are many tales and legends concerning the town which draw in tourists. It has charming architecture and style

reminiscent of the late nineteenth century. Since the council banned gaudy plastic shop signs in the 1980s, there has been a strong competitive streak among shop keepers to put on an attractive face, with old style signs, window boxes, and stained-glass doors. (Wikipedia)

The Congress: Presenters from around the world were required to submit proposals and papers in advance, with a standard 20 minute presentation period followed by 10 minutes of questions. The theme of this year's congress was **Human Factors and Decision Making**. This theme was reflected in the terrestrial rescue and medical care themes of the Practical Day workshop on 7 October.



This year's congress drew more than 400 rescuers from nearly 40 countries. Representing the MRA at Lake Tahoe were Dr. Ken Zafren (Medical), Casey Ping (Air Rescue), Dan Hourihan (Terrestrial Rescue), Tom Wood (Terrestrial Rescue), Dr. Skeet Glatterer (Medical) and Marc Beverly (Avalanche Rescue). Additionally, representing the MRA were, MRA President Dave Clarke, Portland Mountain Rescue, Rick Lorenz, John Myers and Tiffany Royal, Olympic Mountain Rescue,

Highline Courtesy MRI, Dunloe Gap (photo Tom Wood)

Oyvind Henningsen, Snohomish County Helicopter Rescue Team and Joe Flachman, Santa Barbara SAR. Simultaneous translation was not provided for the first time in many years, but will return with an increase in congress attendance fees in 2016.

Many delegates arrived in Killarney on the afternoon and evening of Tuesday, October 6. A briefing and preparatory session was held on Tuesday evening for the participants scheduled for the Wednesday Practical Day sessions, outlined below.

Attendance of the U.S. delegates was made possible by support from **CMC Rescue, Pigeon Mountain Industries**, the **MRA** and a significant private donor wishing to remain anonymous. The U.S. MRA delegates are grateful to our sponsors for the long term support of this important international exchange. (Hourihan)

ICAR Pre-Conference Practical Day: Held on October 7, the day preceding the Congress, the 2015 Terrestrial-themed practical day took place at the scenic Gap of Dunloe, which was a short bus ride from Killarney.

Organized by the 12 teams that make up Mountain Rescue Ireland (MRI), the stations were spread out amongst the rocky cliffs and hillsides dotted with the area's ubiquitous sheep. Used frequently by the nearby Kerry Mountain Rescue Team for training, the site was an ideal location for mountain rescuers to chat and network as they made their way to each of the five practical stations.

The Medical Commission ran a station that demonstrated delayed /intermittent CPR techniques when attempting to evacuate a hypothermic patient in cardiac arrest with no trauma. When long or technically difficult carry-outs are a consideration when rescuers are faced with a subject in cardiac



One of the many Celtic crosses that are so prevalent in Ireland. (photo Tom Wood)

arrest, they suggested that rescuers might want to stop at least every five minutes to give five minutes of GOOD CPR, repeating this process until the subject reaches advanced medical care. This was treated as more of an awareness-type process, and was not an official recommendation from the MedComm.

Dog handlers from the Avalanche Commission demonstrated the skills of their handlers and search dogs at their station, much to the dismay of the farm dogs working the sheep nearby.

On the terrestrial side of things, MRA President Dave Clarke, Olympic Mountain Rescue members John Myers and Tiffany Royal, ran a lowering/raising station that demonstrated a two-tensioned rope rescue system. With help from Joe Flachman (Santa Barbara SAR), Marc Beverly (Albuquerque Mountain Rescue), Tom Wood (Alpine Rescue Team) and Oyvind Henningsen (Snohomish County Helicopter Rescue Team), the station offered attendees the opportunity to work up a sweat by participating in the lowering, changeover and then finally the raising of two rescuers on a vertical cliff face. Terrestrial Rescue Commission Vice President Kirk Mauthner from Canada was on hand to answer questions regarding the two tensioned rope system, since he had recently presenting some test data on that subject.

Members of Mountain Rescue Ireland ran an anchor station that demonstrated various techniques for ground anchors. Using various tools and techniques that ranged from simple ground stakes arranged and tensioned in series to interesting devices called hedgehogs, the Irish rescuers took full of advantage of the area's abundant peat and loamy soil to demonstrate that with the proper placement, ground anchors can be capable of supporting rescue loads.

Members of TOPR, from Poland, ran a lightweight, high angle system using Dyneema ropes with shock absorbers built into the system instead of the lowering systems using traditional nylon or polyester kernmantle ropes. This allows them to accomplish the long lowers (some longer than 700 meters) in remote locations with much less weight and rope stretch.

As with previous ICAR conferences, Rick Lorenz (Olympic Mountain Rescue) and his son Matt Lorenz from Topograph Media were on hand to capture the pre-conference practical day on video. The entire three-part video capturing the 2015 ICAR Congress can be viewed and downloaded from the Topograph Media Vimeo web page at <https://vimeo.com/topographmedia>

Also on the Practical Day, 7 October, a day-long meeting of the Prevention Workgroup was held at the Brehon Hotel. The meeting was attended by 16 delegates representing 13 organizations and 9 countries. The presentations and discussions focused on the prevention of accidents during mountain rescue operations, as well as general mountain safety. It was agreed that the topic of safety in the mountains for travelers was addressed in many worldwide forums and that the further development of such by ICAR was both not necessary and outside of the ICAR mission. However, the collection of worldwide mountain rescue statistics was something the ICAR could lead. A significant prevention website, created and maintained by Iceland SAR (ICESAR) is:

<http://www.safetravel.is/around-the-world/>. The site is new and ICESAR is seeking link input from countries and regions throughout the world. Additionally, there was discussion regarding the establishment of an ICAR Mountain Safety Foundation (IMSF) and agreed to continue this work in cooperation with the board of ICAR. This would be an important step to take in order to support the development of mountain safety projects and prevention of accidents in the mountain environment. The foundation will focus upon supporting projects that have a practical relevance for practitioners, as well as support research needs and identified knowledge and needs. The IMSF will not finance ordinary research, but can be part of cooperation in research projects.

ICAR Presentations, October 8-10th: There were several presentations of note given over the course of two days at the Killarney Convention Center. This report will summarize the presentations that primarily address Terrestrial Rescue topics.

One of the most anticipated presentations was the one that detailed the initial SAR response to the German Wing tragedy in France, which was presented by J.Loriette GSM, M.Alemonte GSM , L.Legoff GSM, F.Petitjean GSM. On march 24th, 2015 at 10:43 am, German Wing Flight 1186, enroute from Barcelona to Dusseldorf, disappeared from radar over the French mountains. A panel comprised of SAR personnel, French Gendarmerie, pilots and emergency management officials discussed everything from the first few moments of their search for the aircraft to the eventual recovery of the plane and its deceased crew and passengers from the steep and dangerous mountainside over the next several weeks. More than 350 winching operations occurred during the more than 100 hours of flight time with the support of nearly 500 SAR personnel and firefighters. Mountaineering tools and techniques were needed to access the site and remove debris and bodies from the precarious location. Amazingly, there was not a single injury during the operation.

Nik Klever, Vice Chairman of Bavarian Mountain Rescue, presented a discussion on his team's preparations for the massive logistical concerns around the G7 Summit that was held at the Elman Castle in June 2015. Using color-coded Situation Cards to track Communications, Personnel, Resources, Ground Transportation and Air Resources on a large magnetic board, they were able to

accommodate the 50,000-80,000 law enforcement personal, 200 mountain rescuers, 500 summit participants and the 1,000 protesters who flocked to this internationally recognized event.

John Myers (Olympic Mountain Rescue) and MRA President Dave Clarke (Portland Mountain Rescue) discussed the trials and tribulations for their respective teams when they switched from a main and belay type lowering system to one where both ropes are tensioned. Acknowledging that safety, cultural history, additional training and potential added financial burdens were all considerations that needed addressed while making the switch, they stressed that consensus building within their teams were crucial to the success of their efforts. "The most critical component of making this switch was the Human Factor, NOT the technical or equipment concerns," said Clarke. This presentation was followed by Terrestrial Commission Vice President Kirk Mauthner's presentation on the merits of systems that utilize the two tensioned rope approach to lowering and raising. Mauthner presented compelling evidence that supported the use of lowering and raising systems that shared the load between two systems as opposed to systems that utilized a single tensioned mainline and a single slightly tensioned belay line.

Taking a systems approach to long lowers at altitude, Polish mountain rescuers Marcin J. and Witold Citowski (TOPR) explained how they now use 8mm Dyneema ropes in TATRAS for rescues. Touting the benefits of lightweight Dyneema (high strength, low weight, good abrasion resistance, little elongation), they felt that when used within a system that addressed the weaknesses of Dyneema (low tolerance for higher temps and zero shock-absorption), a rope rescue system of this construction would be of great benefit to the mountain rescuer. The use of this system required some innovation in that they had to fashion their own metal connection points when joining ropes together using specialized rope splicing techniques. This also avoided tying knots in the Dyneema, which can weaken the rope by as much as 80%. Lowering was accomplished by the use of Italian (Munter) hitches, since there are no Descent Control Devices (DCDs) compatible with 8mm Dyneema. Their first rescue with this system took place in 2010, and their longest lowering (760m) took place in 2012 on Mt. Giewont.

Swedish National Police Mountain Rescuer Mikael Amlert discussed Strategies of Small Team Leadership and Decision Making in Remote Areas. Stressing the importance of gathering quality information before responding to a call in a remote area, Amlert noted that in Sweden, nearly 90% of the calls for accidents in remote areas are dispatched via helicopter or snowmobile to an incorrect area. He attributed this inconsistency to both poor or inadequate info from RPs and Dispatcher error. This misinformation often complicates matters from the get-go for their small team (one leader, 2 rescuers and 3 medics) responses. Citing the ever-present danger of team leaders becoming enmeshed in the "fog of war" during stressful missions, he stressed the importance team morale to a successful outcome. This esprit de corps cannot, he said, be accomplished without additional social interaction of team members outside confines of trainings and missions.

In an effort to better educate mountain rescuers about suicide and PTSD, Alpine Rescue Team member Tom Wood presented information on ways that SAR team managers can best help SAR personnel who might be in need of psychological first aid. Stressing the importance of peer support and recognition of the early warning signs of someone exhibiting suicidal thoughts or tendencies, Wood also outlined coping strategies for those rescuers who are struggling to deal with the aftermath of suicide recoveries in the backcountry.

Continuing the theme of Human Factors in Mountain Rescue, Australian rescuer Rick Head provided information on the Bush Search and Rescue (BSAR) Peer Support Model in Victoria. This volunteer

program is designed to help mitigate the psychological effects of Post-Traumatic Stress Disorders that are so often associated with SAR work. Once a call is completed and rescuers have a chance to recover physically, a Peer Support Activation Report is generated. SAR members who were NOT a part of the call are then tasked with contacting (via phone call or personal meeting) each person who has been involved in a potentially stressful mission to be sure that they are coping well, or to help that person determine if they need professional counseling. These confidential conversations take into account the normal psychological responses to tragedy, and are structured so that each PS Task Force member does not call more than 8 people per mission. Head noted that it was not uncommon for members to “relive” tragic outcomes of calls that happened nearly two decades earlier.

“Yes we can!” was the mantra for the 641 mountain and cave rescuers who joined forces to rescue experienced caver Johann Westhauser after he suffered a massive head injury from a fall that took place in Germany’s deepest cave in early June of 2014. This presentation focused on the historic rescue in the Resending (translated: massive thing) Cave near Berchtesgaden in Germany that involved rescuers from 5 different countries and took just under 12 days to complete. Since the entrance to the 1,000m deep cave was high on a mountainside, simply accessing the cave to provide support for the cave rescuers was a logistical nightmare. With 24-hour international media coverage, rescuers were forced to hire professional mountaineers and cavers to handle the filming of the rescue in order to minimize risk to the media while providing the world with the information they craved. The successful rescue was accomplished with no rescuer injuries, and the subject subsequently made a full recovery.

The September 27th, 2014 eruption of Mt Ontake (3067m) in Japan pushed rescuers to their limits, as was explained in K. Oshiro’s (JSMM) presentation on the massive rescue effort that took place in the days following the eruption. Ultimately, the surprise eruption on the sacred mountain left 56 tourists dead and hundreds more injured when they were engulfed by the volcanic cloud and pyroclastic gases. When an approaching typhoon’s torrential rains let loose on the deep volcanic ash, turning it to clay, rescue and recovery efforts were further complicated. Though no survivors were found after Day 3, the recovery efforts of the more than 20,000 rescuers continued for another 17 days. Rescuers who were unaccustomed to the altitude and the challenges associated with mountain rescue struggled in this challenging environment, but Ms. Oshiro was proud to report that there were no reported rescuer injuries.

Lastly, MRI’s own Chris England and Mary M. (Mayo Mountain Rescue Team) detailed the challenges associated with supporting Reek Sunday, an annual pilgrimage that takes place on the rocky slopes of Ireland’s Croagh Patrick (764m) each year. This religious event draws roughly 100,000 people who climb the slopes over the course of a weekend (many barefoot, under-dressed and physically challenged) in celebration of St Patrick banishing the snakes from Ireland. At least 13 agencies, including mountain rescuers, cave rescuers, the Coast Guard and the Air Corps, must coordinate their efforts to ensure that those needing medical attention or evacuation from the mountain get the help and support they need. (Wood)

Assembly of Delegates, Saturday, October 10

ICAR President Franz Stampfli invited each of the Commission Chairs to summarize the activities of their commission during the 2015 congress (see individual Commission reports on the MRA website at <http://www.mra.org/index.php/training/ikar-reports>). A complete copy of the minutes of the Assembly of Delegates is available at:

<http://www.alpine-rescue.org/xCMS5/WebObjects/nexus5.woa/wa/icar?menuid=1069&rubricid=257&articleid=11764>

The new ICAR website is: <http://www.alpine-rescue.org/>

New organizations were voted on and approved for ICAR membership. These new member organizations include:

Bulgarian Mountain Rescue Service (A member)
Chinese Mountaineering Association (A member)
GSSUBiH, Bosnia-Herzegovina (A member)
Japan Mountain Guides Association (A member)
BEX Med, German Association of Expedition Medicine (B member)
CHUV, Switzerland (B member)
FiPS, Federation Internationale de Ski Patrouilles de Ski (B member)
Norwegian People's Aid (B member)
Norwegian Society of Mountain Medicine (B member)
UIAA Medical Commission (C member)
Avalanche Canada (C member)
Alpine SAR, Victoria (C member)
The Snow and Avalanche Association, Spain (C member)

Membership categories reflect the number of votes allotted in the General Assembly. "A" member organizations have two votes, "B" member organizations receive one vote and "C" member organizations do not vote but can participate in ICAR activities, see: <http://www.alpine-rescue.org/xCMS5/WebObjects/nexus5.woa/wa/icar?menuid=1049&rubricid=238&articleid=10978>

The MRA is an "A" member organization. Additionally, the ICAR Board of Directors approved a new category of sponsor partnership for "Manufacturers and Retail/Service Providers".

The 2016 ICAR Congress will be held October 19-22 in Borovets, Bulgaria. There will be a Practical Day of field presentations coordinated by the Avalanche Rescue Commission. The overall theme of the Practical Day and Congress will be "The Search Function: Improving the Search Before the Rescue". The ICAR flag was officially transferred from the Mountain Rescue Ireland hosts to the Bulgarian delegation. (Hourihan)

Respectfully Submitted,

Dan Hourihan, MRA
Tom Wood, MRA
U.S. ICAR Terrestrial Commission Delegates

