

TERRESTRIAL RESCUE REPORT

International Commission for Alpine Rescue



IKAR-CISA



Are, Sweden 19-22 October, 2011

Prepared By:

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INTRODUCTION The International Committee for Alpine Rescue (IKAR-CISA) met for its annual congress in Are, Sweden 19-22 October 2011.

ARE [1] is a well-known **ski resort** in [Jämtland, Sweden](#), approximately 80 km from the city of [Östersund](#). The ski lift system is on the Åreskutan mountain with its highest peak at a height of 1420 meters, but the highest lift ends at 1260 meters, so the peak has to be reached by a snowmobile lift. The village and ski area are accessible by bus and train. The nearest airport is Åre Östersund Airport. (Wikipedia)



The Congress: The theme of this years IKAR Terrestrial Rescue meeting was “Preventative Safety in the Mountains” and 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 decision to address this theme was prompted by the desire to present an expanded sample of national perspectives and practices.

This year’s congress drew more than 340 rescuers from over 30 countries. Representing the MRA at Are were Ken Phillips (Air Rescue Commission), Dr. Ken Zafren (Alpine Medicine Commission), Dale Atkins (Avalanche Rescue Commission) and Dan Hourihan (Terrestrial Rescue Commission). Simultaneous translation was provided for all major sessions in English, French and German with the latest equipment and headphones, as well as sound proof booths for the translators. Attendance of the U.S. delegates was made possible by support from **CMC Rescue, Goodrich Corp., RECCO, 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.

Many delegates arrived in Are on the afternoon and evening of Tuesday, October 18. A day of field demonstrations and exercises was held on Wednesday, October 19 and regular sessions began with a grand opening and welcome on Wednesday evening. Delegates were housed and fed at the Are Holiday Club Resort and the general meetings were held in a first class conference hall at that location. There was a vendors exhibition with displays of outdoor and rescue equipment.

Wednesday Sessions: Practical demonstrations, organized by the Avalanche Rescue Commission, were held on the slopes of the main Are ski mountain. More than 200 rescuers took part in the day’s activities. At the venue, there were eight stations demonstrating a variety of avalanche and rescue equipment innovations. Groups were organized by language: German, French and English. These sessions are covered in greater detail in this year’s IKAR DVD produced by Rick Lorenz and his Topograph Media staff (go to

<http://vimeo.com/32415785>) . Additionally, twenty participants in the management track paid a day long visit to the regional public safety facility, titled the Center of Citizen Safety, in the town of Ostersund. This is the first facility of its kind in Sweden, with law enforcement, SAR, fire, EMS, emergency management and communications under one roof, with a response capability. Essentially, it is Sweden’s version of the Incident Command System (ICS) Unified Command structure utilized on a day to day basis.

Thursday Sessions: The Terrestrial Rescue Commission met for its opening session. Terrestrial Rescue Commission President Bruno Jelk made opening comments and thanked the Are organizers. After these general comments, the Commission proceeded with its established meeting agenda and scheduled presentations.

Terrestrial Rescue Commission Issues: The minutes from last year’s meeting in Stary Smocovec, Slovakia were read and approved.

All existing Terrestrial Rescue recommendations and standards were reviewed and reaffirmed (see below). This was a valuable exercise, as many of these recommendations have been on the books



for years and, in their reaffirming, validates the conservative approach undertaken by IKAR regarding their development.

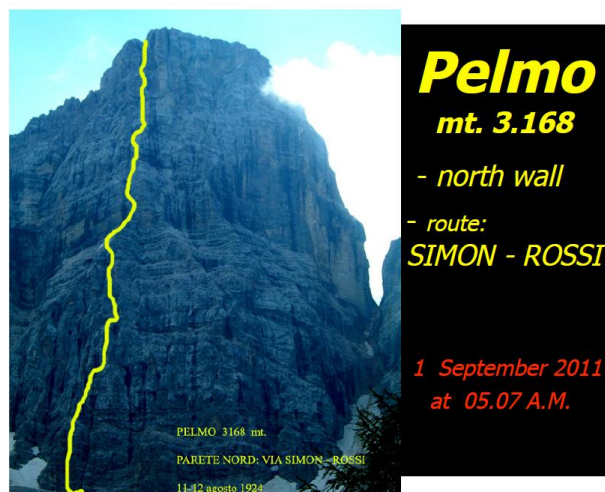
The Terrestrial Rescue Commission will organize next year's practical field day in Poland. Gorskie Ochotnicze Pogotowie Ratunkowe (GOPR) will coordinate the event, as next year's congress will be held in the Beskids Mountains of southern Poland hosted by the Polish Mountain Rescue Service.

Comment: You can find a list of existing IKAR Recommendations and Standards at the publicly accessible website at www.ikar-cisa.org. IKAR is facing some of the same issues as MRA in terms of standards and increased government regulation. Most IKAR countries rely primarily on volunteer teams, with the exception of the professional mountain police in France.

Mt. Pelmo Rescue: Fatal Rockfall Accident, Italy: Ennio Rizotti

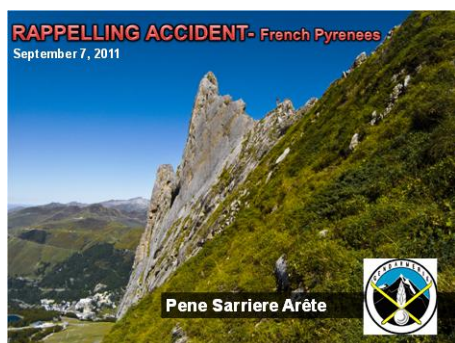
Mr. Rizotti detailed a tragic accident which occurred during the rescue of two German climbers on the north face of Mt. Pelmo, located in northeast Italy, in September, 2011. This route consisted of notoriously poor rock. Rockfall fractured the lower leg of one German climber 150 meters below the summit. Poor, rainy weather precluded a helicopter assisted rescue. Ten rescuers from the team located in San Vito di Cadore, near Cortina d'Ampezzo, climbed to the top of the summit ridge overlooking the German climbers' position. Two rescuers were lowered in an attempt to reach the injured party. Five minutes into the lower a section of rock estimated to be 2800-3300 sq. meters in size broke loose. The rescuers' ropes were cut by the rockfall and they plunged more than 700 meters to their death. The German climbers were later rescued by helicopter when the weather cleared.

Comment: The mountain rescue teams in this region and throughout the Italian Alps are highly skilled. It is likely that this massive rockfall was the direct or indirect result of the heavy rainfall experienced preceding and during the rescue attempt. Despite the unlikely and uncontrollable nature of this tragedy, it is a sobering reminder of the objective hazards inherent in mountain rescue and mountain travel, in general.

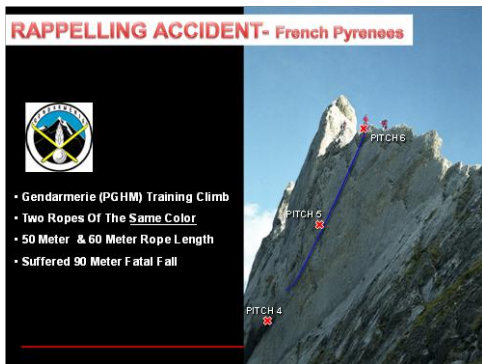


Rockfall section visible behind depicted rescuers.

Rappelling Fatality: Training Climb, France: PGHM



In early September 2011, the French Gendarmerie (PGHM) were conducting a training climb on the Pene Sarriere Arete in the Pyrenees. Upon completion of the climb, a rappel was set up using two ropes of the same color; one rope was 50 meters in length, the other was 60 meters. The intent was to rappel the face in stages from various anchor stations. Upon reaching the end of the 50

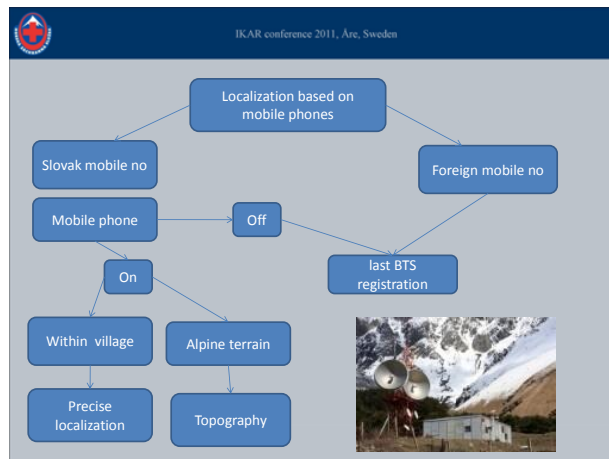


meter rope, the rappeller lost control of the rappel and fell 90 meters to his death.

Comment: Since the establishment of a mountain rescue mission for the French Gendarmerie (PGHM) in the 1950's, there have been 53 PGHM fatalities. Two-thirds of these occurred during training activities (Source:PGHM).

Mobile Technologies and Relevance for SAR Operations in Slovakia: Marek Biskupic

Mr. Biskupic described the localization of cell phone signals utilized in conjunction with SAR operations in Slovakia. He described some success stories, as well as some failures, and drew some conclusions from Slovakian experiences. As experienced in the U.S., the effectiveness of cell phone forensics is largely dependent on terrain and the density of base transceiver stations (BTS). Thus, effectiveness in rugged mountain terrain is seriously constrained. Also as in the U.S., the Slovaks are experimenting with airborne platforms to enhance capabilities where sufficient BTS coverage may not exist.



Comment: Although many teams in the U.S. are familiar with the process of initiating a request for cell phone localization in their area of responsibility, many may not be aware of the capabilities of the Air Force Rescue Coordination Center (AFRCC). The AFRCC has a robust capability through the Civil Air Patrol (CAP), which has a contract with all U.S. mobile phone carriers to provide immediate response to requests for localization on non-criminal events. These requests must be directed through the AFRCC by the state agency tasked with requesting federal support, i.e. AFRCC assets.

Mirrored Systems, Canada: Kirk Mauthner

Mr. Mauthner gave a detailed presentation on the “Mirrored Systems” technique of technical systems rigging. This system shares the load between the main and back-up ropes equally, with the exception being during edge transitions on lowers and raises. During those transitions, the back-up rope is maintained “hand tight”. After the transition, the rope shares the load with the main line directly off the anchor and the applicable lower or raise system. The systems on the raise or lower are truly “mirrored”; identical systems are in place on both ropes. An excellent excerpt of Kirk’s presentation is contained in the Topograph Media video linked at <http://vimeo.com/32415785>.

Dire Consequences on the Grossglockner, Austria: Peter Veider, Tirol Mountain Rescue

In late October and early November, 2010, 5 Polish climbers and 8 Czechs began separate climbs on the Grossglockner, at 3,798 meters Austria’s highest mountain. The Poles then split into two rope teams after deciding to take different routes to the summit. The weather deteriorated significantly with very high winds and sub-zero temperatures. The Polish rope team of three then split up again,



leaving one climber behind due to fatigue and the desire to take a more direct route. The remaining two Poles from that team of three then joined up with the Czechs and, contrary to the plan established earlier with the remaining Poles, spent the night at a different location. The weather continued to deteriorate and the lone Pole failed to appear. No alert was sounded that night. The following day, The Poles and Czechs continued to the summit and then to the prearranged meeting location with the other Polish team that was not reached the prior night. No one was at that location. The alert was sounded at that time and an extended SAR mission was undertaken by Tirol Mountain Rescue. The effort continued for three days hampered by extremely poor weather. Ultimately, the three missing Poles were found deceased.

Comment: The presenter attributed the tragic results to several contributing factors: The Poles split up not only once but twice, poor route selection which was beyond team members capabilities, and the failure to sound the alarm when it was clear that team members were in trouble.

Rescall Smart Phone Application, Austria: Peter Veider, Tirol Mountain Rescue

Mr. Veider described a smart phone application utilized in conjunction with a service provided by the German firm, Rescall, which enables a user to send an emergency alert via their phone. The call automatically transmits the location of the sender in Lat/Long. Additionally, the call identifies the registered owner with contact information. Mobile coverage in Austria is between 90% and 95%. The service has enhanced rescue response due to providing precise positioning and eliminating any possible language barriers or translation problems. Mr. Veider encouraged IKAR leadership to take a lead role in establishing an international standard for smart phone based emergency messaging.



Traction Pulley Pick-off, France: PGHM, Gendarmerie

The PGHM provided a presentation, with an associated video, demonstrating the use of a Petzl Pro Traxion device to effect a helicopter/hoist assisted pick-off in vertical or near vertical terrain. The technique is extremely fast and requires little or no rescuer contact with the terrain, but demands close radio coordination between the rescuer on the hoist and the helicopter. Upon approach to the subject, the rescuer carefully coordinates his/her positioning with the helicopter so that they arrive alongside and slightly higher than the subject. The subject is then clipped into the line running through the traction pulley and the slack is





Note cutters on lanyard

tightened with the traction device. At this point, the rescuer cuts the subject's line, if one exists, and the subject is secured entirely to the rescuer through the traction system and hoist line. In addition to the yoke system depicted, the only other equipment needed is a pair of line cutters sufficient for cutting the subject's line either under tension or not. The PGHM reports successful utilization of this technique in a variety of circumstances including: cliff face pick-offs, crevasse extrications and situations where rescuer access to the terrain is either impractical or unsafe. (see video at: <http://vimeo.com/34740340>)



Cross Border Mountain Rescue, Sweden: Anders Eriksson, Swedish National Police

Project area



The presenter gave an overview of the cooperative SAR relationship between the Helgeland District of Nordland County, Norway and Vasterbotten County, Sweden. The cooperative agreement covers an area of more than 27,000 square kilometers. This mutual aid agreement includes all disciplines of non-urban SAR including: mountain rescue, cave rescue, glacier rescue, avalanche, search, canine search, and swiftwater rescue. The involved entities train together and maintain interoperable communications systems. Additionally, they coordinate preventative SAR (PSAR) efforts. This region contains some of the most challenging environmental conditions found in anywhere

coupled with a large annual tourism rate. Sitting immediately below the Arctic Circle and comprised of vast, unpopulated wilderness, the benefits of this cooperation are of significant value to the public.

Planning Safety in Non-urban Terrain, Croatia: Hrvoje Dujmić, Croatian Mountain Rescue

The Croatian Mountain Rescue Service (CMRS) is comprised of 20 individual stations staffed by 700 volunteer members and 10 paid staff. Country-wide they average 800 missions per year. The resident population of Croatia is approximately 4,300,000, yet they host some 10,000,000 visitors per year. Due to the magnitude of the tourism industry, there exists a large transient population of foreign workers to support it. Many of those visitors and foreign workers venture away from urban areas in search of recreation in the wealth of outdoor opportunities that Croatia offers. As a result, there has been a rapid increase in the number of SAR missions focusing on this user group, involving numerous fatalities. In response to this, CMRS embarked upon a preventative SAR (PSAR) program entitled "Planning Safety in Nonurban Terrain". The program is partially funded by





“Business Cooperation and Skills Improvement for the Development of Outdoor Tourism”, an EU project (IPA Cross-border Cooperation Programme) worth 390 thousand Euros.

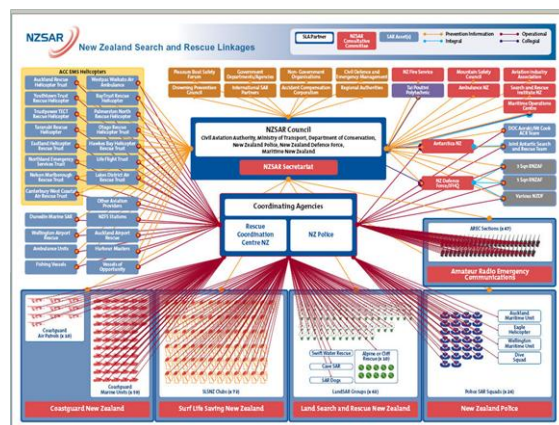
This ambitious program consists of several components: cartography (maps, trails), mountain shelters, and tourism and resident education. To date, in a self-funded manner, 12 maps and 5 associated trail guides have been published of a needed total of 40 and the development of a GIS database locating all trails, shelters and associated significant landmarks is underway. Seven of eleven planned mountain

shelters have been built with funding from the Ministry of Tourism. With funding support from the Ministry of Education, some 500 tourism workers have voluntarily taken a 2-day primer on survival and basic outdoor safety and hundreds of local residents have received training to enable them to augment and assist CMRS personnel during the conduct of SAR missions.

Comment: This program represents a significant and admirable PSAR effort and can be a great example of what can be done, creatively, to enhance visitor safety in the mountains and backcountry areas.

SAR in New Zealand, New Zealand: Land SAR New Zealand, Department of Conservation

A presentation was given providing an overview of SAR operations and responsibilities in New Zealand. All SAR contributing entities are represented on the New Zealand SAR Council, which acts as a forum for the coordination of all information and SAR ancillary activities. That Council is chaired by the New Zealand SAR Secretariat. There are two agencies authorized to initiate SAR mission: the New Zealand Police (a national organization), which is responsible for all inland and near shore response and the Rescue Coordination Centre New Zealand (RCCNZ), which is responsible for maritime and all emergency beacons.



NZ SAR Organization



In addition to the above referenced national overview, a comprehensive description of SAR operations within the Aoraki/Mt. Cook National Park was provided. It described a program very similar to that which exists in U. S. national parks where extreme mountain terrain and recreational use occur (e.g. Denali, Rainier, Rocky Mountain, etc.). The staff is well trained to provide response in a wide range of mountain terrain and conditions.

Delegates' Meeting

IKAR President Gerold Biner invited each of the Commission Chairs to summarize the activities of their commission during the Are congress (see individual Commission reports on the MRA website at

<http://www.mra.org/index.php/training/ikar-reports>. He summarized the 2011 theme of “Preventative Safety in the Mountains” by reiterating the value of mountain safety education and PSAR. He lauded the creation of a new “Safety” forum on the IKAR website to be spearheaded by the Swedish IKAR delegation for the next two years. Additionally, he cited the various accomplishments of the individual commissions, as reported in the MRA delegate commission reports. Dan Halvorsen, Norway, was elected as the new IKAR Vice-President and Dominique Letang, France, was elected as the new President of the Avalanche Rescue Commission.

The 2012 IKAR Congress will be held in the autumn in Krynica, Poland. There will be a day of field presentations coordinated by the Terrestrial Rescue Commission. The themes of the Congress will be left to the individual commissions and will be announced. Additionally, President Biner announced that the 2013 Congress was scheduled for Croatia and the 2014 Congress was tentatively scheduled for the U.S. at Lake Tahoe in Nevada.

Respectfully Submitted,

Dan Hourihan, MRA
U.S. IKAR Terrestrial Commission Delegate