



Internationale Kommission für Alpines Rettungswesen IKAR
Commission Internationale de Sauvetage Alpin CISA
International Commission for Alpine Rescue ICAR

**Commission for Terrestrial Rescue
Minutes of the Meeting in Kranjska Gora
from 12. to 14. October 2006**

**Minutes of the Terrestrial Rescue Commission Meeting, Kranjska Gora,
October 12, 2006, 9 a.m.**

File Agenda: 2006-KG-TR-02-Tagesordnung.pdf

1. Welcome

Jelk Bruno welcomes the participants to the ICAR congress in Slovenia. He thanks Andreas Luethi for his presentation as well as the interpreters for their work. He asks the participants with presentations to give them to the interpreters ahead of time so that they can prepare themselves.

2. Lists of Participants

Will be circulated.

3. Contact Person for the Countries

One person per organization is enough as contact person. In voting, each organization has only one vote. This will already be applied at the current meetings. Each country will be called and asked to communicate how many people per organization are in attendance.

4. Minutes of Cortina

The minutes were posted and accessible on the internet. It is approved without opposition.

5. ICAR Information

The executive committee is constantly trying to improve itself, but it is awkward to advance.

6. Internet Information

Barbisch Gebhard informs us that the home page system will be updated. The search for documents will be easier. The delegates will be able to update their data, such as addresses, by themselves which enables all members to have access to up-to-date contact information. If anybody does not have access to the home page yet, please get in touch with Gebhard sometime during the congress.

7. ICAR Recommendations

The executive committee is revising the problem of recommendations. At this time, no one has any propositions. Jelk Bruno questions if the recommendations are even useful. There are no ideas.

8. Requests to the Commission

There are no requests or suggestions for improvement. The executive committee would like to be informed if mistakes are made. Requests and suggestions can be submitted to the executive committee all year long.

9. Requests to the Executive Committee

Hunziker Dominik: He states that he has held many presentations. It has happened that pictures he had shown during the presentation, afterwards were used commercially. In specific, there is a picture of a child being dug out of an avalanche. He requests that ICAR issues an order so that something like that cannot happen again.

Barbisch Gebhard: The presentations need to be publicly accessible. The rescuers should profit from them and that isn't possible if they can't access them. Therefore, the presentations are public and are distributed all the way down to the rescue stations. It is possible to copyright the presentations, so that ICAR has to give permission to use them. Not to distribute the presentations is counterproductive and is not what the work of a delegate is all about.

Jelk Bruno: Presentations should be distributed in an adapted version so that pictures like those won't show up on the internet anymore.

Lüthi Andreas: Presentations on the internet are password protected. They can be copyrighted. ICAR should issue regulations so that pictures cannot be used commercially.

Barbisch Gebhard: The presentations can be copyrighted. At least for publications there should be an adapted version of the presentation where the pictures of the people involved in the accident are not visible.

Jelk Bruno: The request will be discussed within the executive committee. It will attempt to find a solution before the end of the congress.

Agresti Blaise: The separation of Terrestrial and Avalanche Rescue should be reconsidered. There is a lot of common ground.

Jelk Bruno: That was already discussed. It should all be done together since mostly the same rescuers are involved. There are combined meetings already.

No further requests.

10. Objective 2007

Next year the congress will be held in Pontresina (CH). There are no propositions for possible objectives.

Jelk Bruno: One objective will be to analyze the issues Luethi Andreas brought up and to improve the structures.

11. ICAR Work Meeting Terrestrial Rescue 2007

The work meetings need to be concurrent with the assembly of the delegates. The manufacturers are more and more integrated. Demonstrations alone don't yield much. It is better if the rescuers can test the new devices themselves.

12. Work Meeting Pontresina

Hunziker Dominik: The day before the official ICAR congress in Pontresina, a work meeting will be held. There is a rocky area just minutes from the congress area which is suitable for the work meeting. The manufacturers are already informed and they are interested. There will be workplaces where the devices will be at your disposal all day and can be tested. There will be no theoretical presentations. For all commissions there will be a 2nd work block held with the topic "Rescue at Night". The devices can be tested then as well.

Jelk Bruno urges the participants to comply with the deadline for the presentations.

Mauthner Kirk: During the work meeting it should also be explained what knowledge one needs in order to use the products appropriately. How do you decide which device is appropriate?

Barbisch Gebhard: It will not only be about the result but also about the process.

13. Miscellaneous

Jelk Bruno presents the analysis of the evaluation from last year regarding search operations and missing person reports:

All presentations showed that search operations and missing person reports are not easy to cope with. The missing person report has to be well analyzed before moving out. All organizations use computer programs; questionnaires are a good means. A good assessment of the missing person is necessary. The rescuers need good knowledge of the area in which they have to operate in. Sheep herders, hunters, and other natives should be asked or even used. Search dogs are too often used too late or not enough. There should only be rescuers assigned that can handle the search operation according to the area. The right means are to be applied and no unnecessary ones. There will be a paper drawn up by Friday for the exchange of ideas regarding this issue.

Nils Faarlund: During search operations conflicts between rescuers and management arise easily. The people out in the area can very well assess the situation. The management should not insist too hard on exercising its power.

File: 2006-KG-TR-03-Auswertung-Cortina.pdf

No further requests.

End of Meeting: 10:30 a.m.

The President:
Jelk Bruno

The Vicepresident:
Barbisch Gebhard

Presentations of October 12, 2006, Terrestrial Rescue Commission

10:30 AM: Light Faser for Difficult Operations, Andreas Dahlmeier, Mountain Rescue Garmisch

Explains why a steel rope substitute needs to be found and what this substitute needs to offer. Possible alternatives: Aramit rope (not suitable), Dyneema rope.

Questions: *Have there been problems with Tibloc?*
With *Tibloc* the best results were achieved.

Have tests been done regarding fall factor?
Falls with fully static ropes should be impossible.

Have tests been done regarding rubbing off?
In theory as well as in practice the rope was still like new after 40 operations. The wear and tear is minimal.

How does the rope move through the brakes?
A steel carabiner is used with the simplified HMS safety. The handling is the best possible.

Do certain rope brakes not have enough brake strength?
The steel carabiner with HMS safety is the most suitable means.

File: 2006-KG-TR-04-BWB-Dynema-Seile.pdf

11 AM: The Evolution of Mountain Rescue Techniques, Stephan Bozon, PGHM

Has analyzed different presentations from colleagues regarding the development of the techniques in rescue.

Questions: None.

File: 2006-KG-TR-05-PGHM-Intervention.pdf

11:30 AM: Utilization „GRILLON“, Rado Nadvesnik, GRS

Shows a film regarding this topic. It has been in use since 2004.

Questions: None.

2 PM: Air Rescue Mission to the Last Mountain Village in Bosnia, Tigran Elezovic M.D., GSS Sarajevo

Talks about an operation in March 2005 where the village at the highest point in Bosnia (Lukomir) was cut off from the outside world due to snow fall and had to be supplied with food and medication.

Questions: Were there animals as well?
Yes, there were a lot of sheep. They had also asked for medication for their sheep since the sheep are their main income.

File: 2006-KG-TR-06-Air-Rescue-Lukomir.pdf

2:30 PM: GPS-Based Personnel Tracking, Paul Horder, England, MRCE

Explains a project with GPS that has been going on since 1997.

Questions: None.

Files:

2006-KG-TR-07-GPS-Tracking.pdf

2006-KG-TR-07-GPS-Tracking-Abstract.pdf

3 PM: Mountain Rescuer Credentialing in the USA, Dan Hourihan, MRA

Talks about the standardization in rescue. In the USA there is an organization which draws up standards for rescue. This is an important trend in the US.

Questions: *At the beginning you said that this was a national decision to implement these standards?*

That is correct. The goal was national standards for national catastrophes such as Hurricane Katarina. On a national level there should be an adequate response. The work group takes the existing standards and develops them further.

Will you get ISO certified?

No, we don't want international standards.

File: 2006-KG-TR-08-MRA-Credentialing.pdf

3:30 PM: Rescue off Communication Towers, Dominik Hunziker, Alpine Rescue Switzerland

Shows risks regarding communication towers. There is a risk of falling. Rescuers need to be prepared for rescues like that.

Questions: None.

4:15 PM: Crevasse Rescue with KED, Evelyne Winterberger, Alpine Rescue Switzerland

In crevasse falls, head and spine injuries are frequent. The rescue corset is an alternative to the stretcher or the vacuum mattress which cannot be used well in crevasses.

Questions: None.

File: 2006-KG-TR-10-KWRO-KED.pdf

4 :30 PM: Rescue Operation in the Himalaya (Media), Blaise Agresti, CNISAG

Talks about the training of rescuers. Nepal serves as the example (Avalanche Kang Guru, October 20, 2005, 18 fatalities, 17 of which were French, 4 survivors).

Questions: None.

4 :55 PM : Certification of Rescuers, Cyril Anceau, CNEAS

The presentation talks about the certification of the rescuers and the national recognition of this occupation.

Questions: *How many rescuers fulfill the required level at this point?*
From 2003 until 2005 three rescuers were certified. There are about 50 with precollege degrees plus 2 years.

Who pays the education and the wages?

In France, rescuers are police officers. There are training academies. The rescuers get their regular wages during the training.

File: 2006-KG-TR-12-diapo-certif.pdf

5:15 PM: U.S. National Management System (NIMS), Dan Hourihan, MRA

This is a continuation from the morning presentation about the standards and certification through MRA in rescue. More information can be obtained through the MRA home page www.mra.org or through Dan Hourihan (e-mail: dfhourihan@yahoo.com).

Questions: None.

File: 2006-KG-TR-13-NIMS.pdf

End: 5:45 PM

Presentations of October 13. 2006, Terrestrial Rescue and Avalanche Commissions

8:15 AM: Long-Line Training and Long-Line Technique, Patrick Fauchère, Gerold Biner, KWRO

Explains the guidelines which the BAZL developed for pilots who fly with Long-Line. He also shows the maximum length which is used as well as criteria when choosing, why Long-Line is used and the materials used.

Questions: None.

The 2nd part is in regards to communication during Long-Line operations. He shows a movie with 3 examples:

- Operation Obergabelhorn with 30 m
- Rescue from Gorge with 100 m
- Depositing Pipes in a Ditch

Questions: *Aren't you afraid of big problems with Long-Line operations in difficult areas, i.e. steep rock, when only 1 rescuer can be deposited and the radio contact breaks off?*

We added another safety to our system. Once the pilot has a vertical reference, he receives additional information. His eyes are used to that. The information from the rescuer gives additional safety. The helicopter first closes in on the area, looks for a good place to deposit the rescuer. It is important that you can visually see the ground well and not through the mirror.

Jelk: If radio contact breaks off and the rescuer cannot communicate with the pilot anymore, you wait until the pilot comes back.

In France there were problems within the 10 to 20 seconds when the rescuer unhooks the Long-Line and gets a hold on the rock. One helicopter even crashed. How do you proceed at this critical moment?

Good communication is a must. Certain points, if and how I can unhook, are discussed beforehand. There is this critical time which needs to be kept as short as possible.

In France it involved 3 rescuers. Have you had other critical situations as well?

Yes during strong winds for example, you wait 1 to 2 minutes until you deposit the rescuer, until the turbulences have calmed down. Sometimes you have to leave and come back. The critical point is the last 2 meters. The pilots sees what the rescuer does. With help of the vertical reference the pilot also sees what happens on the ground.

Fauchère Patrick: A Safety-Check was issued, establishing criteria when the rescuer can hook or unhook himself. The pilot decides when that happens; the pilot decides when you do what.

Jelk Bruno: You never hook yourself without the okay of the pilot. We tell the pilot first what kind of problems we have on the ground. Nothing is done without the okay of the pilot.

File: 2006-KG-TR-14-Very-long-line.pdf

9:15 AM: Data Analysis ABS + LVS, Markus Falk

Talks about the possibilities to evaluate the effectiveness of rescue means with retrospective data, specifically in regards to avalanche incidents. How big is the probability to survive an avalanche with a certain rescue device?

Questions: *What's going to happen next? Will we get the results on paper or on the internet?*

A number of different things are planned. The analyzed data needs to be interpreted and there will be a paper about that.

What would a prospective study look like?

You would need 2 groups. For example 100 ski tourers, 50 with one and 50 with another rescue device. These groups would have to be observed. Such studies are difficult to do. People would have to be forced to not use any device or to use LVS. That is almost impossible. Therefore, we will always depend on retrospective data.

The data is based on operations but there is a difference between operation and accident numbers. How do you include this difference in your analysis?

The data used are the registered avalanche accidents. Despite the number of unreported cases, we can still judge the rescue device if we separate a certain group.

Supplement to Dyneema Rope, Andreas Dahlmeier, Mountain Rescue Garmisch

There is a manual regarding the Dyneema rope. It is currently being edited and will have to be approved by the device commission. The manual should be available on the internet starting January. It will also be available for ICAR.

Lorenz Rick – International Partnership:

In the US there are 90 teams with 3000 rescuers. The MRA has a program called Partnership, in order to connect the teams with each other. If anybody wants to be in partnership with a team from the US, it is possible. The conditions can be looked up on the internet or you can directly contact Rick Lorenz.

10:25 AM: Analysis of Signals (Beacon), Eck Markus and Schober Michael, PIEPS

A study was performed last summer about the transmission behavior of different LVS devices to each other and the influence in case of several people buried.

Questions: *Meier Felix: the signals from the two devices do not overlap. From time to time you have to adjust. In my opinion it is risky in case of several people buried. It shows up as an additional transmitter.*

This relocating happens in the first minutes after the avalanche accident. After that there is a consistency of 15 minutes.

We are able to keep it constant long enough so that there are no leaps. The one time relocation is the least evil. Even with analog devices isolated signals are better to find.

Shouldn't all the manufacturers sit together and find a solution?

It is important that all manufacturers are present which is not that easy.

Genswein: Transmitters that change the time axis after the avalanche was released are a big problem. A rescue is not completed within 10 to 15 minutes.

It is true that you have to be careful. The one time relocation has not a big influence.

File: 2006-KG-TR-15-PIEPS-Analysis-signal-beacons.pdf

10:50 AM: Ortovox S1, Kröll Franz, Ortovox

Presents the new Ortovox S1.

Questions: *How's the availability in the US and Europe?*

The development of the device took more than 4 years. We didn't want to get it on the market before it worked flawlessly. This year we probably won't be able to fulfill all wishes.

File: 2006-KG-TR-16-Ortovox-S1.pdf

10:15 AM: PULSE Barryfox, Weber Jürg, Mammut

Presents the new device from Mammut as well as the operation of it.

Questions: *How's the availability in the US and Europe?*

The device will be delivered this week and will be available within the next few weeks.

Hunziker Dominik: It is decisive if people actually carry and operate devices. Only every 3rd person is equipped with a beacon. The biggest challenge for the manufacturers would be to get the other 2/3 to carry one and not only develop the technology.

A simple to operate device is also very important.

Etter Hans-Jürg: Does the device have to be carried on the chest for the transfer of vital signs or doesn't it matter?

On the chest is the best for the transfer of vital signs. We recommend carrying the device in the specific carry system.

Barbisch Gebhard: What's Mammut's position in the ethical discussion? It is already decided under the avalanche if I still have vital signs or not.

Mammut wants mainly an improvement of the general rescue end result. This function can be turned off, especially in mixed groups, when different devices are carried

11:30 AM: Calculable Chance of Survival for Avalanche Victims, Aschauer Peter, ABS GmbH

Questions: *Do people risk more and more as the technology gets better and better?*

The avalanche victim only wants to survive. When you are buried, you depend on others always. The topic is the prevention of a burial. The preconditions have to be changed. It doesn't help to find somebody after 2 minutes when it takes 15 minutes to dig him out.

Nils Faarlund: The question wasn't answered. The mentality of the modern human being is that it is not interesting to be safe. That is the risk.

Lots of mistakes were made for many years. Safety is to prevent avalanches. All devices that are available are nothing but emergency equipment.

Difference between safety and emergency equipment?

It's an important difference. Safety means prevention of avalanches. The fact is that I cannot survive being buried if my airways are blocked and I am buried for too long. Now we have the possibility to lessen the burial depth.

12.00 PM: Information About New Technologies, Yan Berchten, Snowpulse

Questions: *Can the system only be used once?*

It can be folded back together. There are people in the stores that are trained on this product and can fold it back together. The cylinder can be returned.

Fleury Bruno: is there a risk of collateral damage? The distance between head and backpack, won't that injure the spine when inflated?

Over the thorax there is a metal cylinder. Won't that inflict injuries even in a regular fall?

Even when the backpack moves above the head there is still a gap of 15 cm. in addition, you rarely wear a backpack of over 50 liters.

The cylinder is shockproof and there is no risk of explosion. Of course one can fall on the cylinder directly, but you are wearing the tire around yourself. Of course there are disadvantage as with all safety devices.

What kind of gas is in the cylinder?

You have to be able to breathe the gas. Twenty percent oxygen and 80 percent nitrogen.

End: 12:30 PM

**Minutes of the Terrestrial Rescue Commission Meeting
In Kranjska Gora / Slovenia
14.10.2006**

Chairman : Bruno Jelk, President Terrestrial Rescue Commission
Start of the Meeting: Saturday, October 14, 2006, 8:15 a.m.
Agenda : according to the program

After a short welcome by the president, the word is passed to the first speaker.

Rope Break; Albert Wenk

A short video sequence, done on a cell phone, introduces us to this presentation. Through an analysis of this incident it is explained how this fall happened. Result: Even modern ropes can tear and break under various circumstances. Everybody that works with ropes needs to be able to see the risks.

File: 2006-KG-TR-19-Seilriss-Bungeejumping.pdf

Innovation and Evolution; Dr. Iztok Tomazin

This interesting presentation gives us useful information regarding equipment and professional abilities as well as procedures of mountain rescue physicians. The alpine physician should be a good practitioner as well as an experienced mountain climber.

International Diploma for Mountain Rescue Physicians, Medcom ICAR-UIAA, ISMM; Dr. H. Brugger

This has already existed for several years on international level and is briefly explained to us.

In November 2005 for the first time such a course was held for mountain rescue physicians of ICAR in Patagonia. For the first time today ICAR is giving a diploma to a physician who fulfilled all the criteria for such an award. This diploma from ICAR Medcom Specialty Course for Mountain Emergency Medicine is presented to Dr. Guenther Suman. Congratulations!

Dr. Fidel Endelsohn presents a more detailed picture of that first course in Patagonia.

Safety Equipment for Crevasse Accidents; Hermann Brugger

ICAR Medcom has not been able to establish an international comparison of the currently available products. He did present some comparison numbers from European countries (A/CH).

Files:

2006-KG-TR-20-MEDCOM-Joint-Presentation-Part-1.pdf

2006-KG-TR-20-MEDCOM-Joint-Presentation-Part-2.pdf

Exchange of Information between Avalanche Rescue Commission and Terrestrial Rescue Commission; Hans-Jürg Etter

Statement regarding emergency equipment for avalanche accidents (worked up during work meeting in Kransjka Gora); this will be available in English and German. Since there are no objections, this topic will be passed on to the executive committee.

A statement is less binding than a recommendation.

Hans-Juerg explains the work the avalanche commission has done in the different work groups. He also announces the new work topics of the commission. Clair Isrealson explains them briefly (see Minutes of Avalanche Commission Meeting). The question is posed if the commission meetings will be held separately from now on and if the exchange of information through the work shop should be dropped.

Gebhard Barbisch explains the work the Terrestrial Rescue Commission has done on 10/12/06 (see Minutes of the Terrestrial Rescue Meeting).

The legal issues are addressed which arise through publication of pictures and diagnoses from speakers through the ICAR. In the future, this has to be taken into consideration without the speaker withholding the written presentation from ICAR.

These topics show that on all sides increasing requirement specifications are worked up and many countries are already heavily involved.

Ideas and topics for the coming year: *Unanimously it is chosen that until next year such requirement specifications need to be worked out in detail by ICAR and presented at the next congress.*

Tragic Helicopter Accident During Rescue Training in France

The circumstances are explained that led to this tragedy. We take a minute to honor the victims.

Time is Life; Hermann Brugger

Hermann presents us with data and information regarding the CD which is already available on the market and is selling pretty well. He thanks everybody who helped make the CD possible. Order address: www.trickhouse.com or through the ICAR home page.

Avalanche Intervention Verbier; Christophe Berclaz

Christophe shows us an avalanche accident with one person buried who was able to call for help with his cell phone.

Filei: 2006-KG-TR-21-Berclaz-Verbier-Lawine.pdf

Victim Recovery from Avalanche with Unusual Means;; Ion Sanduloiu

This presentation shows that sometimes very special means need to be utilized in order to get the result. Water hoses were used to make holes in the snow.

Filei: 2006-KG-TR-22-Avalancs-CAPRA-Romania-Abstract.pdf

History, Crisis, and Drafts; Nils Farlund

Nils „cautions“ with his remarks for better prevention by staying close, or getting close again, to nature as well as to apply those unwritten natural laws. Our bored society of today has to find new ways to assert itself and that also happens in the mountains. Our identity is not something stable anymore; it has to be asserted anew. He hopes that the constant new does not contain too much self description but continues to serve the purpose.

No logical path leads to the great mysteries of nature,
Only intuition based on empathy in experience.
(Albert Einstein)

File: 2006-KG-TR-23-Faarlund-Vorbeugung.pdf

At 4:30 p.m. the meeting is closed by the president. He thanks all participants.

The President:

Bruno Jelk

For the Minutes:

Nathalie Werlen

For the English Translation:

Olivia Chandler