



**IKAR Kommission Lawinenrettung  
ICAR Avalanche Rescue Commission  
CISA Commission Sauvetage Avalanche**

**Minutes of the Commission Meeting  
held on October 8, 2008, during  
the ICAR Conference in Chamonix**

Conference host *J.L. Verdier* welcomes the participants and apologizes for the change of venue at short notice. Due to lacking space in the Conference Center, the Avalanche Rescue Commission convenes in the Maison de la Montagne. Prior to the commission meeting, the host presents a DVD on hazards in the mountains. The content is mainly geared toward recreating tourists. Complimentary copies of the DVD are provided. The meeting is called to order with almost a one-hour delay.

*President H.J. Etter* welcomes 61 participants from 19 countries (according to the list of participants) to this year's meeting of the Avalanche Rescue Commission.

**1. Minutes of the meeting in Pontresina in October 2007**

The minutes are accepted. The chairman points out that correct and updated email addresses are required in order to receive a copy of the minutes. He thanks C. Utzinger for taking the minutes.

**2. Course of the Meeting**

The participants agree to conduct business in German and English. M. Genswein serves as translator. Members eligible to vote receive a voting card reflecting their number of votes. S. Pivot und E. Bassetti will count votes.

**3. List of Participants, Introductions**

The President circulates the list of participants asking attendees to mark their presence and check their contact information. He also passes the list of email addresses around with the request to modify it, as needed. H.J. Etter initially introduces the Vice-President of the Avalanche Rescue Commission, D. Atkins. Subsequently, the participants briefly introduce themselves.

#### 4. Brief Summary of Avalanche Incidents of the Winter 07/08

**USA:** With 36 avalanche fatalities, the number of deaths has reached a level it hasn't been at for many years. It was an extraordinary winter. The accidents were concentrated to three months following a long dry period.

**Norway:** Winter 2007/2008 goes down in history as the third mildest winter on record. There were 32 avalanche rescue missions with 4 fatalities. A total of 52 people were saved by rescue units. There may be an estimated number of unreported cases due to successful companion rescue.

**France:** There have never been this few accidents since 1989, because the weather and snow conditions were good during the main season. There were 29 avalanche fatalities in 15 accidents. The accident causing 8 fatalities on the Mt. Blanc du Tacul during the summer of 2008 was the most remarkable. Among out-of-bounds skiers and riders, there was a decline from 12 to 3 fatalities, compared to the previous year.

**Italy:** The weather conditions were similar to those in France. There were 36 avalanche accidents in which 17 people lost their lives. Remarkable are the concentration in mid January, the increasing number of accidents involving snowmobiles, and 8 buried victims in the summer.

**Germany:** There were 3 avalanche accidents in the Allgäu, Mittenwald and Garmisch, (Zugspitz area) with 2 fatalities and 2 injuries.

**Catalonia:** Due to the shallow snowpack, there were only 2 accidents, in one of which 2 people died.

**Canada:** With 18 avalanche fatalities, the number is slightly above the 10-year average of 15. Special accidents include one fatality on a secured ski run as well as one in a closed portion of a ski area. In 2 instances, the shoveling technique presented at the Conference in Pontresina (Paper ISSW 08) was applied.

**Utah:** As in the rest of the USA, the accidents were concentrated during 3 months. In December alone, there were 3 fatalities. On 8 helicopter bases, helicopters were equipped with Barryvox VS 2000 Pro Ext and external antennas, to be able to pick up transceiver signals from the air and locate victims quicker.

**Spain:** There were 4 avalanche fatalities in 8 accidents (3 in the Pyrenees and 1 in the Sierra Nevada). In 4 instances, there were organized rescue missions.

**Switzerland:** There were 89 accidents with injuries or deaths and 27 with property damage. In January, there was a concentration of accidents. Among the 151 people caught in avalanches, there were 11 fatalities and 33 injuries. Overall, there are fewer avalanche victims, and among the above-average number of people caught, there are more reports of close-call accidents.

The President thanks for the reports and invites participants to send him accident reports, so he can publish them on the Internet in order to promote an exchange of experiences.

In light of the reported incidents, H.-J. Etter addresses the topic of *risk management*. He mentions a case in which the rescue mission had to be suspended due to bad weather, although the victim had not been located yet. It makes no sense for rescuers to risk their lives, if the risk is unreasonably high in relation to the possible success.

M. Wey, ARS, reports on an extraordinary situation, which occurred in Switzerland in January 2008. On January 12, there was 30 to 40 cm of new snow in certain areas. Within a short period, there were 8 calls for help on January 13. Five of the incidents were within 40 km of Davos. Most commercial helicopters were in Wengen, because of the international ski race on the Lauberhorn, which was taking place there in beautiful weather. Only Rega's helicopters were available. Three missions resulted from the calls. Despite turbulences, communications worked well.

Lessons learned:

- Risk management is critical in such situations.
- During major national events, it must be ensured that sufficient rescue resources remain available, despite the event.

## **5. Information about Activities during 2008**

### **Information on and Discussion of Workgroups and Results**

Detailed information on the individual topics is available from the presenters and on the ICAR website, respectively.

#### **5.1 D. Atkins, M. Genswein; Glossary and Standardization of Key Terms**

D. Atkins has completely revised the 15-year-old ICAR glossary (15 languages; programmed in Basic) and standardized key terms together with M. Genswein. Terms for search phases were consolidated and explained, so that all steps are commonly understood.

The 15-language glossary will be posted on the Web and will include easy-to-use search functions to quickly find the appropriate terms in all languages. The objective is to keep the dictionary and glossary up to date and to link them with other avalanche-related dictionaries and glossaries. Additional languages may be added in the future.

The delegates agree unanimously with the proposal to draft a *recommendation* to standardize key terms used in avalanche rescue.

The text in question will be published on ICAR's website.

Special thanks go to the two main contributors D. Atkins and M. Genswein for their great effort.

#### **5.2 C. Israelson; Avalanche Prevention, Status**

The topic *avalanche prevention* has been discussed within ICAR for the past three years. Two years ago, a team under the direction of C. Israelson, started

investigating the most important success factors in avalanche prevention. Objective of the project was to identify procedures used in the different countries and to come up with best practices. In 2007/2008, a survey was conducted to gather and analyze data. A total of 13 countries participated. C. Israelson points out that it is not a scientific study, that data was provided voluntarily, and that the information is possibly incomplete. The results of the survey are categorized in five sections:

- Public avalanche / weather forecasts
- Avalanche education for recreationists
- Safety of public and private infrastructure
- Safety precautions for rescue units
- Organization of avalanche rescue

The President thanks C. Israelson and requests that the following five key statements corresponding with the five sections above be declared as an official *ICAR recommendation*:

1. A credible professional organization issues scheduled avalanche forecasts for popular winter mountain recreation areas.
2. Avalanche training courses for non-professionals are readily available.
3. Comprehensive programs protect highly used public places from avalanches.
4. Avalanche professionals require specialized training / credentials / certifications.
5. Organized avalanche rescue services exist for all avalanche prone areas of the country.

The delegates agree unanimously.

The details of the survey analysis are distributed as a handout and can be viewed at "[www.avalanche.ca](http://www.avalanche.ca)".

### **5.3 J. Schweizer; Search Strip Width, Status**

Defining a search strip width means finding an optimal balance between chances of survival and probability of detection. J. Schweizer provides a review of previous studies. Subsequent to the discussion of the topic in Pontresina, M. Genswein has developed a simulation to determine a search strip width that provides optimal chances of survival. J. Schweizer expands on technical aspects and describes 4 different methods/variations of determining a search strip width.

In the discussion, method/variation 3 (incl. the simulation) finds acceptance. This method has the specific advantage of allowing to take adjustments due to technical innovation into consideration, without having to modify the system.

Franz Kröll (Ortovox) mentions that he will verify the method with his own data.

J. Schweizer's preferred method is the following:

1. All manufacturers of avalanche rescue beacons shall determine the so-called "realistic maximum range" as specified in the appendix.

(The appendix will be added to the recommendation.)

2. The signal search strip width to be marked on the transceiver is then
  - (a) about equal to  $1.25 (\pm 0.1)$  times the realistic maximum range for beacons without digital signal processing (DSP),
  - (b) about equal to  $1.35 (\pm 0.1)$  times the realistic maximum range for beacons with 1 receiving antenna and with DSP, and
  - (c) about equal to  $1.45 (\pm 0.1)$  times the realistic maximum range for beacons with 2 receiving antenna and with DSP.
3. In the user manual the manufacturer shall specify the type of cooperation required by the rescuer (for example, the need to slowly rotate the transceiver during signal search).

J. Schweizer's proposal for the determination of the optimal search strip width (useful range) is accepted unanimously as an ICAR recommendation.

H.J. Etter thanks the main contributors J. Schweizer and M. Genswein for their hard work.

## **6. Information for Dog Handlers**

Albert Lunde is investigating success factors in the deployment of avalanche dogs.

This topic had already been broached earlier by D. Atkins.

Today dog handlers usually acquire their expertise on their own. There are no studies on what the optimal prerequisites for a successful deployment of dogs are. In Norway, for example, behavioral differences between training and missions are being observed. The dogs should be provided with a favorable environment and optimal working conditions. A. Lunde would like to identify qualitative and quantitative key factors for the efficient deployment of avalanche dogs and derive recommendations there from. A successful outcome will, however, depend on the active collaboration of member organizations. The idea is supported without a dissenting vote and the formation of a workgroup is approved.

As a next step, A. Lunde will draft a working document with the purpose of the project and send it to the member organizations.

Subsequently, the avalanche dog handlers retreat, as planned, to discuss a new formation of the group. H. Malue takes separate minutes of that meeting.

## **7. Avalanche Accident Statistics**

D. Atkins asks the delegates to provide him with the avalanche accident data promptly. For 2007/2008, the data from Andorra, Great Britain, Ireland, Austria, Rumania, and Sweden is still missing.

## **8. Motions to the Commission**

No motions are made.

## **9. Miscellaneous**

- The President H.J. Etter remarks that no nominations have been made so far for the position of President of the Avalanche Rescue Commission. If requested, he will vacate his position for a successor.
- The "Alpine Rettung Schweiz" (ARS) would like to standardize terminology used in avalanche accident reports. D. Atkins supports the idea. The President asks that ARS submit a written proposal; otherwise, a discussion would not be deemed promising.

Meeting adjourned at 1730 hours

Minutes: R. Bissig

Translation: C. Utzinger

Approval:

**Enclosure:** List of participants