IKAR Kommission Lawinenrettung
ICAR Avalanche Rescue Commission
CISA Commission Sauvetage Avalanche

Minutes of the Commission Meeting held on September 24, 2009,
at the ICAR Conference in Zermatt

Commission President H.J. Etter welcomes 73 participants from approximately 20 countries. He briefly reviews the successful practical workshop conducted in fair weather conditions on September 23, 2009, and thanks the organizers, the safety personnel, the presenters, and the participants. Prior to the commission's work session, ICAR President briefly addresses the participants and requests that they give thought to two proposals in the course of the conference (Mountain Rescue Day, reorganization of K-9 rescue within ICAR), both of which will be discussed during the following Delegate Assembly on Saturday. He briefly explains the Board's depreciative position on the Mountain Rescue Day and offers an alternative for the organization of K-9 rescue.

1. **Minutes of the October 2008 Meeting in Chamonix**
   The minutes are accepted.

2. **Meeting Order**
   The participants agree that discussions will occur in German and English. Members eligible to vote receive voting cards according to their number of votes.

3. **List of Participants, Introductions**
   The President circulates the list of participants including email addresses and request that those in attendance sign in and verify their information. First-time ICAR ARC Meeting participants are: Ian Tomm with Parks Canada, Jahn Petter Berentsen with Norges Rode Kors, and Johansson Frederik with Swedish National Police Mountain Rescue.
   H.J. Etter welcomes them and introduces Vice-President Dale Atkins and Manuel Genswein, who once again graciously volunteers to translate.

4. **Avalanche Incidents of the Winter 08/09; Brief Summary**
   (For PowerPoint presentations, see ICAR website)

   Bergwacht Bayern: The winter was characterized by numerous missions with a concentration between February 14 and 18, 2009. A total of 11 people were caught in avalanches, of which 8 were killed and 3 injured. In one instance, the ABS backpack (1. generation) was found separated from the victim by several hundred meters. On this mission, risk management was a major concern.

France: Despite overall favorable snow conditions, there were periods with many accidents, such as during the first week of December or on January 24 and 25, so that this season is considered one of the worst on record since 1989/90. There were 69 avalanche accidents. 35 people died and 24 were injured. For the first time, there were more accidents involving backcountry skiers than out-of-bounds skiers. Additionally, there was a relatively high number of accidents involving professional guides.

Austria: In Austria there were 161 avalanche incidents with 32 fatalities, which exceeds the average of the past few years by 3. From the detailed description of the most serious avalanche accident in years in Austria on the Schalfkogel with 6 fatalities, the following can be taken away: poor weather conditions, deviation from the normal ascent route, accident observed, but terrestrial rescue not possible until the following day (risk management), well-equipped victims, media event with favorable coverage of rescue operations.

Italy: During the winter 08/09 there were 68 avalanche accidents. The number of fatalities of 31 is the highest since 1930. Most accidents occurred during the months of December and February with a concentration on specific dates. 41% involved backcountry skiers, 23% in- and out-of-bounds skiers, and 17% occurred on access roads. To secure roads, Daisy Bell was also used.

Alpine Rettung Schweiz (ARS): Mission levels were average for ARS. Due to overlapping statistics, no reliable numbers are available. The early onset of winter resulted in rescue missions. Noteworthy is the largest search operation with up to 80 rescuers over 3 days for a snowboarder in the region of Les Diablerets.
The ARS points out that companions often wait too long before notifying professional rescuers in an attempt to avoid "criminalization", and that successful companion rescue is often not reported either for the same reasons.
During the discussion, the importance of proper media communication is emphasized (correct reporting of events, reasoning for decisions). Using the case study of "Les Diablerets“, ARS raises the question of cost/benefit analysis.

Canada: It was a difficult winter with little snow until January and then several heavy snowstorms toward the end of the season. There were 26 fatalities, 19 of which were snowmobilers. In one accident alone, there were 8 fatalities. A special avalanche incident occurred on December 28 with a group of 11 snowmobilers. Secondary and tertiary avalanches posed considerable problems for rescuers. Ultimately, there were over 50 rescuers involved in this mission. The mission wasn't completed until December 30.
There was a lot of controversy over this accident in the media. In Canada, the number of snowmobile accidents has increased rapidly, while the number of incidents involving backcountry skiers has dropped, due largely to the successful public outreach on avalanche safety. In one third of the accidents, airbags were used.
In this regard, the President mentions a court case in France, in which a tram operator was convicted, because an accident occurred and the area maintenance personnel were not equipped with airbags.

Catalonia: 30 people were involved in avalanche accidents. One person was killed and 3 were rescued alive. Most accidents occurred in February (40%) and March (30%).

USA: The number of accidents is comparable to previous years. There were 27 fatalities; 16 of them snowmobilers. Presenting an avalanche accident on the Half Dome, D. Atkins emphasizes the importance of risk management and how it was handled perfectly in this case. It exemplifies that rescue organizations must practice risk management in addition to actual rescue techniques.

SLF Switzerland: H.J. Etter has summarized avalanche accident casualties from 1936/37 until 2008/09 in a chart.
During the last winter, 150 people were involved in avalanche accidents; among them, 28 fatalities and 33 injured. 10 were backcountry skiers, and another 10 were out-of-bounds skiers. Central Switzerland and the Ticino had no accidents. The increase in snowshoers is noteworthy; there were 6 fatalities.
In two instances, the search missions had to be suspended after the first day for safety reasons and control work had to be conducted on adjacent avalanche slopes. In both cases, the search was suspended after 3 days and limited to periodical checks in the runout zone. Both victims were located and recovered several months later in the spring. In both cases, risk management played an important role.
H.J. Etter also mentions the importance of recording snow profiles in connection with the analysis of avalanche accidents.

5. Information about Ongoing Projects during 2009

5.1 Status of Recommendations

The recommendations REC L 0007, REC L 0008 and REC L 0009 are approved by the commission: 0007 and 0008 with minor changes and 0009 in point 3 with an expansion of the signal reception options (Phase A), because the search for a signal is not limited to transceivers. The term "transceiver" is removed from the title.

5.2 Status of the Avalanche Dog Handler Workgroup

During last year's committee meeting in Chamonix, Albert Lunde accepted the task to lead a workgroup in the investigation of success factors in the use of avalanche dogs. He provides an overview of his work accomplished so far with the objective to create an online questionnaire. The following variables impacting the efficiency of avalanche dogs have been identified so far: handler (knowledge and experience), weather conditions during the mission, topography, briefing of the handler on the incident. During the discussion, the following were added: psychological factors impacting the handler, seasonal influences.
Next steps: The workgroup will develop a draft questionnaire and distribute it to all organizations for review. The questionnaire will subsequently be finalized. A. Lunde can rely on technical support for the online survey. The project shall ultimately produce a recommendation.

5.3 ICAR Dog Handler Workshop 2009 in Kroatien
Andrea Pintar reports on the event. There were 63 participants from 15 countries with 30 dog teams. The main topic was area search in the summer. The Commission President thanks Mrs. Andrea Pintar for the excellent organization of the event.

5.4 Dog Handler Meeting
After meeting separately as planned to discuss technical issues, the Chairman H. Malue reports on the results (see also separate notes). In particular, with regard to the Alpine Rettung Schweiz (ARS) proposal to reorganize the dog handler group within ICAR, the avalanche dog handlers agree with the Board's alternative proposal to create sub-commissions to the Avalanche Rescue Commission and to the Terrestrial Rescue Commission, respectively, instead of creating a separate Dog Handler Commission (see minutes of Delegate Assembly).

6. **New Topics: Avalanche Rescue in Urban Areas**
Arni Jonsson cites an avalanche incident in Iceland's Sudavik in 1995, to raise the issue of avalanche rescue in urban areas. Compared to traditional mountain rescue, there are significant environmental and procedural differences in this setting. Victims include children, elderly people, and populations with special needs. The event occurs without warning and the impact is, most of the times, considerable. Responsibilities are different than in the backcountry. A rescue mission differs in many respects from mountain rescue. Multiple organizations are involved (civil defense, police, fire departments, public works, etc.) and different equipment is used (heavy machinery). Further issues evolve from the political jurisdiction, the time of the incident, the coordination of the responders (incident command post), logistics, infrastructure (electricity, gas, infrastructure), etc. A. Jonsson has summarized the challenges of such an accident in a comprehensive presentation and has established a search matrix.
The INSAR guidelines of the United Nations provide a good foundational tool and there is no need at this time to describe further details. However, it is deemed reasonable to provide a link to the INSAR guidelines on the ICAR website.

7. **Avalanche Accident Data; Statistics 2008/2009**
D. Atkins asks the delegates, who have not received and completed the electronic form, to enter their data in the form provided prior to the end of the conference. The summarized data will be made available on ICAR's website.
H.J. Etter emphasizes the importance of reliable statistical data, for example in connection with investment proposals and justifications.

8. **Proposals before the Commission**
No proposals are presented, and the agenda item is therefore dropped.

9. **Miscellaneous**

Ski area boundary policy in the USA: D. Cardinale presents a ski area safety and rescue organization system used in the States of Utah, Wyoming, and California. The organizations deal with hazard reduction, safety, and rescue issues. With the purchase

of a lift ticket or pass, a skier in the United States accepts certain rules that apply within and immediately adjacent to controlled ski areas. On the one hand, these rules limit the guests activities both in and outside of the controlled areas (accessibility determined by ski patrol). On the other hand, they also offer safety guaranties both on ski runs and outside in the controlled areas, which may be problematic in their practical application. If something happens (even outside of the ski runs in the controlled areas), the ski patrol and/or area management is responsible and liable. In recent years, 3 fatal accidents have occurred inside controlled areas. D. Cardinale presents the hazard control and rescue organization of an accident which happened in Utah in December of 2008 in a comprehensible and impressive manner.

Based on a discussion, Albert Lunde briefly presents the decision matrix of Krister Kristensen (First presented at the ICAR Conference in 2007, during which risk management was presented in a matrix format and the individual elements were assessed with respect to risk/benefit.

Alessandro Sterpini points to a law that was introduced in Italy in 2003 (Law 363). Among other things, it obligates backcountry skiers to equip themselves with the ordinary safety equipment. The Province of Piemont also has a new law with regard to skiing out-of-bounds, which requires the skier to carry a transceiver, a probe pole, and a shovel. The problem with both laws is the inprecise language, which allows for broad interpretation.
During the discussion it becomes evident that other countries do not have such laws. However, there are regulations for certain areas (e.g. safety equipment, national parks). Switzerland has standards that are considered legally binding.

The Commission Meeting is adjourned at 1800 hours.

For the minutes: R. Bissig

Translation: C. Utzinger

Approved: H.J. Etter

Enclosure**:** List of participants