#### LEGAL CONSEQUENCES OF FATAL AVALANCHE ACCIDENTS IN THE EUROPEAN ALPS

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ABSTRACT: If a fatal avalanche occurs in an Alpine country such as France, Italy, Austria, Germany or Switzerland the circumstances need to be investigated by law. This procedure is common in continental European countries where civil law applies (in opposite to Anglo-American common law). Any unusual death is officially investigated. An avalanche death might happen on a ski run, a highway, in a village or most commonly in the backcountry, e.g. involving a guided party. Avalanche professionals might therefore face criminal proceedings. Avalanche accident statistics for the Swiss Alps showed that legal consequences were relatively rare in the past ten years. This might result from high safety standards of the avalanche professionals and an overall reasonable application of the law. The legal practice in the various Alpine countries is similar but some differences exist. Whereas the situation is fairly similar in Switzerland, Austria and Germany, in France a new legislation on liability has caused some uncertainty. In Italy there is a law in force that puts any accidental triggering of an avalanche that even only potentially might cause damage or threaten the integrity of people, under severe charges. Overall, no trend of increasing prosecution was detected in recent years. For the avalanche professionals, it seems clear that they have to focus primarily on the safety and well-being of their clients rather than on adopting procedures solely aimed at reducing the legal consequences.

KEYWORDS: avalanche accident, law, litigation, criminal proceedings

#### 1. INTRODUCTION

Each year about 100 avalanche related fatalities occur in the European Alps (Etter et al., 2005). Avalanche accidents are sad events that certainly occur without the intention of the people involved. Why should there be legal consequences? Firstly, there is the point of financial compensation for damages caused by the avalanche release. Secondly, and this is specifically relevant in the continental European countries where civil law applies, there is the question of whether anyone involved has contributed to the unfavorable outcome by negligent action or omission. For example, a guide is held responsible - to a certain extent - for the integrity of his or her clients. If a serious injury or death occurs, there has to be an investigation according to the law in the continental European countries. The investigation is typically done by the police under the supervision of the public

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Avalanche fatalities are considered as unusual deaths. In case of death in the mountains, the crime under consideration is accidental homicide. After the police has investigated the circumstances, the public prosecutor has to decide whether to file an indictment. In the case of avalanche accidents that are rare events, this decision requires technical knowledge that the prosecutor usually does not have. Therefore, it is common practice – as in many other technical fields (medicine, aviation etc.) – that in the course of the investigation an expert is commissioned by the public prosecutor or judge (Bergamin, 2006).

If the prosecutor decides to file an indictment, the case goes to trial and a district court (lowest level) will decide on the innocence or guilt, and hence the penalty. There are typically two further levels of higher courts to which the defense as well as the prosecution can appeal if they are not satisfied with the judgment of the first instance.

The public expert has to advise the prosecutor and eventually the judge or court about the circumstances of the incident. A key element of his/her duties is usually to provide a sound opinion on whether best practice has been used by all people involved, in particular of course, in the case of a guided party, by the guide. The public expert has to collect evidence in favour of any of the involved parties and has to report objectively. As in the case of avalanche accidents the weather often destroys the evidence shortly after the avalanche has been released, it is crucial that the public expert inspects the site shortly after the rescue operation has been terminated. Close collaboration between the investigating authorities and the public expert is therefore essential. The expert has to base his opinion and in particular his evaluation on the behavior of the people involved on the facts that have been known prior to the avalanche release. Conclusions such as the fact that the avalanche release would demonstrate the avalanche danger are completely unprofessional. However, in most cases experienced and fair public experts are commissioned, who contribute to an outcome of the legal procedure that is fair and accepted by all parties involved (Schweizer, 2005).

The above described legal procedures are different from the ones in the Anglo-American common law system. In continental Europe, guides (professional mountain guides as well as voluntary leaders) or safety personnel of ski areas, highway departments and communities are concerned about potential legal consequences pertaining to their job. Whereas financial compensation is usually covered by individual or company liability insurance, they have to face the criminal charges personally.

In the following, we will analyze the legal consequences of avalanche accidents that occurred in the Swiss Alps during a ten year period in order to provide evidence about the outcomes of criminal proceedings in case of an avalanche accident. Finally, the legal practice in the surrounding Alpine countries will be compared and some key points that were discussed during a recent conference on legal aspects of avalanche accidents will be presented.

### 2. DATA

We considered the fatal avalanche accidents that occurred in the Swiss Alps during the winters 1994-1995 to 2003-2004 (see e.g., (Harvey and Signorell, 2002). During these 10 years, 158 avalanche incidents caused 216 avalanche fatalities. The number of fatalities per year is therefore slightly lower than the long-term average of about 26 fatalities (30-year average: 1975-1976 to 2004-2005). Although each unusual death has to be investigated by law, we only know about a criminal investigation in 47 out of the 158 accidents. In most of these 47 cases, a

guide, ski instructor, voluntary leader or a safety service was involved. We suspect that in most of the remaining 111 cases no formal investigation was called since it was very clear immediately after the accident that there was no criminal liability involved. In any case, it can be expected that these accidents had no legal consequences, otherwise we would most probably know about them.

### 3. RESULTS

Considering who was held liable in the 47 cases (Figure 1), in 20 cases a professional quide (mountain quide or ski instructor), voluntary leader or youth leader was involved. In 15 cases, an avalanche had reached a ski area, road or village and hence one or more members of a safety service were involved in the investigation. In 8 out of the remaining 12 cases the avalanche was triggered by a formally unguided group, and in four cases the victims were not part of the group that had triggered the avalanche. These cases are fairly extraordinary: a person or group had triggered an avalanche that caused the death of other people somewhere below in the avalanche path who had no relation to the triggering group or person. Sometimes, at the beginning, more than one party was under investigation. For example, if an avalanche was triggered by off-piste skiers that run into the ski area, the liability of the safety service as well as that of the skiers was investigated.

About three quarters of the fatalities occurred while ski touring or off-piste skiing. The remaining victims were skiers in ski areas, people driving on roads or inhabitants of villages.

In most of the 47 cases, and in all that went to trial, a public expert was commissioned.

In the following, the legal consequences are presented separately for the four categories: guided groups, safety personnel, unguided groups and several groups.

#### 3.1 Guided groups

In 6 out of the 20 cases the guide was among the victims so that nobody could be held liable anymore. In one case, the legal consequences were unknown, since the investigation was transferred to the country of origin of the persons involved. In the majority (9) of the remaining 13 cases, the criminal investigation was classified without further consequences, i.e. criminal liability was waived and nobody was

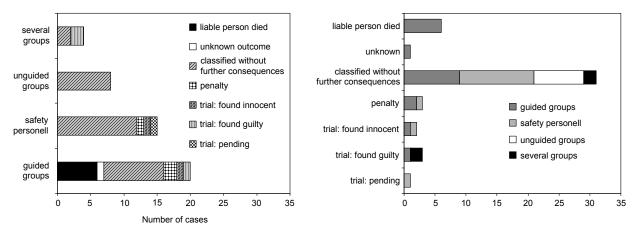


Figure 1: Legal consequences of avalanche accidents shown on the left in relation to category of liable person, on the right in relation to the various outcomes (N = 47).

formally accused. In two cases, the guide recognized his fault so that a lower instance issued a verdict, and he was not formally accused. The other two cases went to trial, with the outcome that in one case the guide was found innocent, and in the other the accused was found guilty of accidental homicide.

The level of avalanche danger forecasted by the public bulletin is of particular interest in the case of avalanche accidents. It has been claimed in the past that in case of Considerable danger, guides would almost automatically face criminal charges in case of a fatal accident (Schweizer, 2003). In the above mentioned 14 cases with guided groups, the public bulletin forecasted Considerable danger in 9 cases, and Moderate danger in 5 cases. The actual avalanche danger that locally prevailed at the time of the accident may have been different (lower or higher). It is the duty of the public expert to verify the in situ danger level and to report the actual danger. As the verified danger level is not known for all cases, the forecasted level was considered as given above. In all the five accidents that occurred when Moderate danger was forecasted the investigation was closed. One third of the cases when Considerable danger was forecasted ended with a verdict against the defendant. In the other 6 cases, the investigation was either classified without any accusation, the accused was found innocent, or the outcome was unknown.

#### 3.2 Safety personnel

In 12 out of the 15 cases where the liability of safety personnel was investigated, nobody was accused and the investigation was classified. In one case, a ski patroller recognized his liability and a penalty by a lower instance magistrate was issued without a trial. The ski patrol had triggered an avalanche by explosives and failed to warn the driver of a grooming machine who was buried in his machine and died. In the other two cases, one trial ended with the accused found innocent, in the other case the accused were found guilty. The latter trial was about the disastrous avalanche that occurred during the avalanche winter of 1999 (Evolène, 12 fatalities). The defendants appealed twice and the case is now pending at the highest court of Switzerland, the Federal court in Lausanne.

### 3.3 Unguided groups

All these cases were classified and nobody was accused. In most cases the party members declared that they had taken their decisions jointly and that there was no formal leader. Consequently, no one could be held liable. However, joint or no formal leadership does not mean that the party members are not obliged to help each other or even point out improper potentially hazardous behavior or omissions.

### 3.4 Several groups

From the four interesting cases where two groups were involved, two were classified (i.e. the investigation was formally closed without further consequences), the other two went to trial with the outcome that the accused were found guilty of accidental homicide. In both these cases off-piste skiers or snow boarders had triggered a dry-snow slab avalanche that involved another group. In each case one person from the lower group got buried and died. In the first case (Grand Saint-Bernard, 1999) the two off-piste skiers were sentenced to 40 and 30 days of imprisonment with suspension of sentence with a probation period of two years. In the other case (Parsenn, Davos, 2000), the off-piste skier had to pay a fine of 1000 Swiss francs.

### 3.5 Other cases

Occasionally, non-fatal avalanche accidents were investigated, when a person was seriously injured or major damage to property resulted. Four cases were reported that all occurred during the disastrous avalanche winter of 1998-1999. In three cases, avalanche control work by explosives unexpectedly caused substantial damage (Sörenberg, Leukerbad, Lukmanier). Two of these cases were classified, the other one ended with a verdict against two members of the local safety service of the community. They were sentenced to 14 days of imprisonment (on probation) for accidentally harming the public with explosives and to a fine of 500 Swiss francs, respectively. In the fourth case, a ski instructor was punished since he went off-piste skiing with an inexperienced friend when the danger level 4 (High) prevailed. The avalanche they triggered severely injured his friend.

# 4. DISCUSSION

The above results are based on a fairly small data base and reflect the situation in Switzerland only. A survey on the legal situation in case of avalanche accidents in the other major Alpine countries (Austria, Germany, France and Italy) showed that substantial differences exist between the different countries (Schweizer, 2006). In Austria, Germany and Switzerland the legal practice is fairly similar, with the difference that in Germany standards (normal behavior, best practice) are perhaps considered more generally than in Austria and Switzerland. In these countries standards are more closely related to the specific situation to be judged. In France, a new law about liability was issued in 2000. One of the aims was to transfer some of the large responsibility previously held by the mayor of the community to the people who really take the actions. However, the new law seems difficult to interpret in regard to indirect liability and even experienced judges claim that it has caused guite a bit of uncertainty about who is liable in a specific situation. In Italy, severe sentences (1 - 5 years imprisonment) are foreseen in the Italian criminal code for triggering a snow avalanche (or a landslide or a rock fall) - even

accidentally and without causing any damage. Occasionally, skiers have been arrested after triggering an avalanche. However, if no one has been harmed, most public prosecutors tend not to file a complaint.

A matter of debate at the recent international seminar held in 2005 in Davos was the definition of best practice. What is the standard (normal) behavior to be expected from a guide? Legal experts pointed out that a procedure or method has to be - among other things - taught in avalanche courses for many years, widely accepted in practice and described consistently in the literature. In other words, until something becomes a standard the hurdle is fairly high. Of course, the prime purpose of a standard is to reduce the risk. Obviously, wearing an avalanche rescue transceiver is considered today as a standard, whereas the new decision support frameworks, for example, the reduction method (Munter, 2003) cannot (yet) be considered as standard.

The relevance of the public avalanche bulletin for avalanche professionals was also debated. It was made clear that the public avalanche bulletin is a regional forecast that needs to be verified by guides or local safety personnel. A guide can – based on sound personal observations - come to the conclusion that the avalanche danger is different from the forecast and is hence allowed (if the danger is lower) or forced (if it is higher) to act accordingly, e.g. to modify the originally planed route. The public bulletin is just one of many factors to be considered when planning a route. Consequently, as long as the avalanche conditions are seriously assessed, the consultation of the bulletin by avalanche professionals cannot be considered as an absolutely necessary standard procedure. This conclusion is supported by the results of the statistical analysis presented above, where a danger level of Considerable does not anticipate the verdict.

For services of safety highway departments or communities the above mentioned conditional relevance of the public bulletin is of course important as well. For example, in the case of avalanche safety in a community it means that a danger level of Very High does not automatically imply that inhabitants in houses located in the high risk red zone need to be evacuated. Certainly, evacuation needs to be considered by the safety service, but it cannot be strictly linked to the public bulletin (a regional forecast), but needs to be assessed based on the local conditions.

A particular request for safety personnel is the documentation, i.e. the evaluation and decision making process needs to be recorded. This has proven very helpful in case of an incident. A lack of documentation on the other hand is rather seen by the magistrates as lack of professionalism, but it is not crucial for the verdict since there is presently no agreed procedure for documentation (Schweizer et al., 2005).

In general, even for backcountry operations or outdoor schools, it is recommended to establish a risk management plan. This clearly demonstrates that the operation is taking risk mitigation measures. Of course, such a risk management plan is not done for the prosecutor or judge in case of an incident, but really should help to improve procedures within an operation.

## 5. CONCLUSIONS

Based on avalanche accident statistics we assessed the legal consequences of avalanche accidents. These consequences are first of all criminal in the continental European countries where the civil law applies and an avalanche fatality is by law investigated. This procedure is different from the Anglo-American common law procedure which is rather adversarial (vs. inquisitorial). In about 15-20% of the fatal avalanche accidents that occurred in the last ten years in the European Alps the outcome of the criminal procedure was a verdict against the avalanche professional. The sentences are fairly moderate and hardly ever exceed 1 or 2 month of imprisonment that almost never have to be served. The financial compensation is usually covered by the liability insurance.

Although, the disastrous avalanche winter of 1998-1999 had caused many incidents, no trend was detected suggesting an increase in prosecution. This result might be due to the high safety standards maintained by avalanche professionals and a reasonable approach by the courts to the risky and uncertain business of avalanche danger assessment. Accordingly, if best practice is followed, avalanche professionals do not need to be afraid of the consequences of the criminal procedure. However, it is unfortunately a potential part of their professional life. It is crucial to understand the principles of the procedures, but the criminal avalanche professionals attending the International Seminar (November 2005, Davos, Switzerland) agreed that their main goal was the safety and well-being of their clients and not legal concerns.

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