

15th European Avalanche Warning Services (EAWS) Conference

16-17 June 2009, Austria Trend Hotel Congress, Innsbruck, Tyrol, Austria
(Patrick Nairz, Rudi Mair – LWD Tirol)

Report of results:

General:

Tyrol's Avalanche Warning Service was accorded the honor of organizing this year's European Avalanche Warning Services Conference. Because of the increased participation of overseas representatives in recent years, the conference has gratifyingly developed into a true international meeting.

On this particular occasion (10th anniversary of the "avalanche winter" of 1999), the conference was followed up by a conference put on in collaboration with the Forest Service for Flood and Avalanche Protection Barriers entitled "Avalanche Winter 1999 - Experiences and Consequences in the Alps" in Galtür. Also at this venue, the numerous and high ranking international public underscored the importance of such presentations.

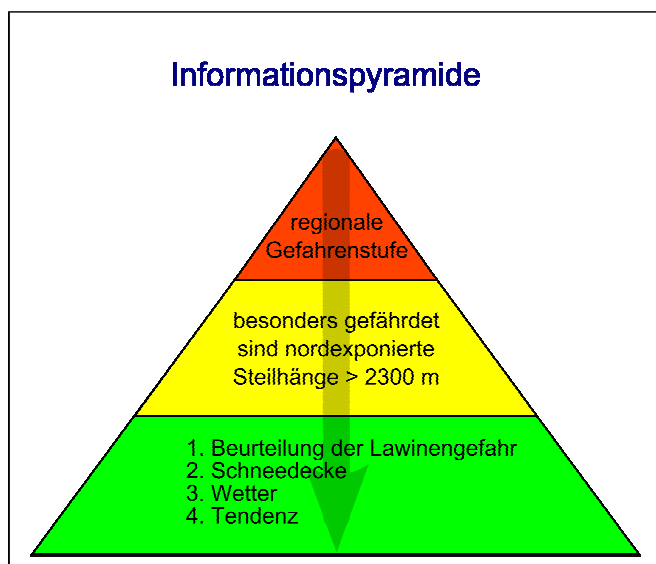
In this report, all the resolutions passed during the conference will be reviewed. The conference lectures, including supplementary contributions by Ramon Pascual, Maciej Karzynski and Gerald Spreitzhofer, together with the comprehensive minutes of the meeting, are contained on the enclosed CD. Furthermore, in the interests of complete coverage, the minutes of the meeting of the EAWS working group, which took place in Innsbruck prior to the conference, are also contained on the CD.

Harmonizing avalanche bulletins (structure, experiences, innovations)

Information Pyramid:

The structure of the avalanche bulletins should strictly adhere to the **Information Pyramid** as first introduced in Slovakia by Michael Staudinger.

Some Avalanche Warning Services have already implemented this improvement in recent winters and have had thoroughly positive experiences with it.



Information-pyramide

regional danger level

especially endangered: north-facing steep slopes >2300 m

1. avalanche-danger assessment
2. snowpack
3. weather
4. outlook

Our motto is: “**IMPORTANT INFO comes first!**”

The following structure for the avalanche bulletin is the result:

- Danger level(s)
- Headline
- Assessment of avalanche hazards
- Snow layering
- Weather information
- Outlook

Pictograms:

To make avalanche bulletins instantly clear and easily comprehensible, **uniform pictograms (at least for the diagrams)** should be used in future. The principle remains the same: a quick snapshot overview should be possible. Thereafter, detailed information can be conveyed, including with additional pictograms.

For purposes of **diagram depiction of danger levels**, agreement was reached to use the **Swiss icons**. (Immediately following the conference, the Avalanche Warning Service of Tyrol {LWD} contacted members of the working group to propose using one additional icon signifying “no information”. This aligns the icon range to the usages which will be valid in the United States as of the coming winter season, where an additional icon (“no rating”) will also be used. This suggestion still has to be approved by the working group, however.) All icons will be available in high resolution on the website www.lawinen.org in the “EAWS intern” menu.



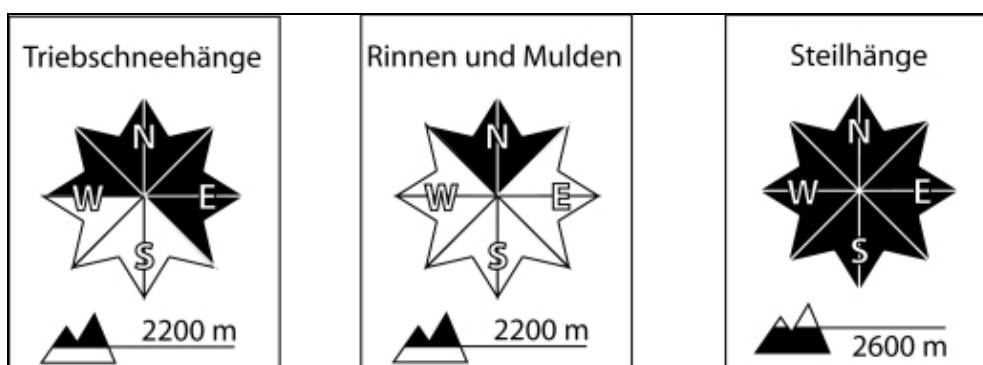
For details about the icons, please see:

http://www.slf.ch/lawineninfo/zusatzinfos/interpretationshilfe/zusatzprodukte/icons/index_EN

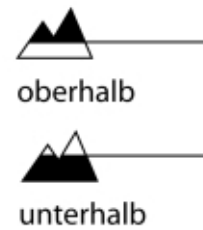
The **particularly endangered areas/aspects of exposure** are already depicted through slope roses by many avalanche warning services.

Our Swiss colleagues made an excellent suggestion for delineating the limits of these areas:

The text part serves as the initial orientation, followed by the black-marked aspects, followed by the altitudes (with mountain symbols, making them unmistakable).



Elemente:		
Tribschneehänge		
Rinnen und Mulden		
Steilhänge		
Kammlagen		
neige soufflée		
couloirs et cuvettes		
pentcs raides		
zones des crêtes		
neve soffiata		
canaloni e conce		
pendii ripidi		
creste		
wind-loaded-slopes		
gullies and bowls		
steep slopes		
ridge lines		



Harmonizing the danger levels

The case studies which were introduced were accepted by all representatives of the EAWS.

In the case of the example introduced by the Catalonians (“avalanches triggered by minimum additional loading on isolated and/or certain steep slopes are probable”), agreement was reached that such a situation is ordinarily assigned to Level 3 (in the case of very few and very small avalanches, perhaps to Level 2, but certainly not to Level 4). The **Bavarian Matrix (Version 2005)** should be adapted in this field.

The **avalanche patterns which were introduced** provide highly important orientation aids in the assessment of the current avalanche situation. Their primary purpose is to help the Avalanche Warning Services harmonize the danger levels and their assignment. The secondary purpose is to help users to better understand the danger level which has been declared.

Agreement was reached about **integrating** well documented and uniformly structured avalanche patterns in the Internet website www.lawinen.org. Their assignment and allocation to the current situation, including corresponding link, is viewed as desirable in future.

For structuring purposes our Swiss colleagues in collaboration with the Tyroleans will coordinate these efforts and make suitable proposals in the working group.

Kjetil Brattlien's lecture entitled "Is the Avalanche Danger Scale dangerous?" unleashed a stimulating debate on the **names/titles of danger levels** at the end of the session. The discussion was given additional fuel by Grant Stratham's remarks about the "North American Danger Level Project". Stratham, too, called general attention to the well known problems with regard to the name/title for Danger Level 3.

Kjetil's proposal:

Re-naming the danger levels for Levels 3 and above should underscore the peril in the perception of the average person. The definitions of the respective danger levels remain unchanged.

Proposal:

Level 3: "considerable" -> "high" / ...

Level 4: "high" -> "very high" / ...

Level 5: "very high" -> "extreme"

There was a very high level of approval of this change, but a few remained doubtful. **General agreement was found for the proposal to re-name/change the title "very high" to "extreme"**, in accordance with the American name for this danger level. Agreement was finally reached to first **inquire of the various interest groups**, then come to a final conclusion with the **working group**, before subsequently **implementing the re-naming project as of winter 2010/11** (changing Levels 3-5 or only Level 5).

Collective Internet Websites: www.lawinen.org and www.avalanches.org

The initiative of the Tyrolean Avalanche Warning Service to re-design the collective **Internet website** met with a high level of agreement.



A debt of thanks is extended to our Swiss colleagues, and Beni Zweifel in particular, for his/their accomplishments along the way.

Principle: “Zoom in: from snapshot overview to detail”

Goal: All EAWS information in all the required languages should be managed from one central office.

Sub-divisions: 5 major areas: Home, Basics, Organisations, Info, EAWS internal

The **glossary** will be **adapted to the new layout**. In case further significant terms become available under **SnowTerm** and/or in the **International Snow Classifications**, these will also be added to the glossary. A link to Snowterm is planned.

A **central address management** will soon make communications easier. All representatives of the European Avalanche Warning Services will receive a password for internal areas in plenty of time before the winter season begins.

Future Projects: Integration of avalanche patterns; Central statistical management of avalanche fatalities; Instruction for winter sports fans; Uniform program of snow profiles

Avalanche information

Introduction by the Swiss colleagues of the **Mobile Avalanche Information System** known as “mavalanche”. For anyone interested, a device will be happily sent on loan for testing purposes.

Telephone Recording 116: All avalanche warning services have registered declining numbers of callers to the telephone recording service; this service has reached very low response levels. Following initial inquiries by the Avalanche Warning Service of Tyrol and the WSL-SLF, the Tyroleans will now tackle the issue of **estimating its costs**. If it proves that the costs are acceptable and an additional **5 countries** are willing to participate in this project, the LWD Tirol will take care of the further steps.

XML Standards / Shared Software and Infrastructure Usage

Conference participants agreed in principle on the **increased use of various data standards**. This should **facilitate the exchange of data with greater ease** in future.

Since **CAAML** has now evolved into an accepted standard in Canada and its early defects have been eliminated, the CAAML standard is the **perfect candidate for the needs of the EAWS**.

Thus, the newly re-designed **international snow classification** can be used as the **standard for snow profiles**. Pascal Haegeli and Charles Fierz have taken on the responsibility of **adapting this standard to CAAML**. Due to the flexible structure of xml files, **CAAML** is also perfectly suited for the **integration of additional information, e.g. accident data**, already triggered avalanches, etc.

A group of technical experts has been asked to begin to think about implementing a **snow profile program accessible to the general population**, at very least for avalanche warning services and avalanche commissions.

Other

Conference participants agreed on the expansion of the **4-part avalanche size classification into a 5-part system (sluff, small-sized avalanche, medium-sized avalanche, large-sized avalanche, very large-sized avalanche)**. This measure also augments our ongoing international standardization, particularly with the U.S. and Canada. **The changes will be introduced as of the winter season 2010/11, together with possible name/title changes of avalanche sizes.**

Austria now takes the chair of the working group of the EAWS under the direction of Patrick Nairz, thereby receiving the reins from Switzerland under the direction of Jakob Rhyner. A great debt of gratitude is extended to Jakob for all his efforts to date. Patrick accepts this new responsibility and suggests the modus of a 4-year cycle for this responsibility in future.

The **next European Conference** will take place, in accord with the agreement on conference sequence (2 conferences in Alpine founding countries, followed by one conference in another participating country) **in Spring 2011 in France.**

Details about the next conference will be discussed at the next meeting of the working group of the EAWS.