

User Manual – Snow profile

This User Manual was created by the Austrian Avalanche Warning Services. For inquiries and reactions, please write to us at lawis.cartography@univie.ac.at and lawine@tirol.gv.at.

Table of Contents

LAWIS ...	3
Data base of profiles	3
Here's how to reach LAWIS-Profile	3
1. Finding profiles	4
1.1. Locating profiles with a map	4
1.2. Locating profiles with a filter	5
1.3. Locating profiles with a list	7
1.4. Locating profiles with a search machine	8
2. Profile details	9
2.1. Explanation of stability tests	10
3. Generating a new profile	10
3.1. Explanation of entry spaces	11
3.2. Entering a snow profile	13
3.3. Explanations of entry parameters of snow profile	13
3.4. Entering snow temperature	14
3.5. Entering stability tests	15
3.6. Changing entered profiles	18
4. Often asked questions	19
5. Printing information – Partners	20



LAWIS ...

...is a tool to record and store meteorological measurements, avalanche events and snow profiles. It is made available by the Austrian Avalanche Warning Services in cooperation with the Institute of Geographical and Regional Research of the University of Vienna. The data which have been recorded are graphically presented and are freely accessible on LAWIS. The wide-ranging data network can be easily and intuitively used with various search and filter options, as well as topographical maps.

Data base of profiles

The data base of profiles serves as a collection of information and work of reference. It provides to a wide audience insights into the development of the snow cover as it unfolds over time. The category Profiles is a fundamental category of LAWIS. Thus, it is coordinated both visually and technically to the two other categories, Events and Stations. LAWIS offers the opportunity to sort and record snow profiles. If you have made a snow profile, you can enter the collected data in LAWIS as a contribution to the completeness of the profile data base. All data are additionally controlled by the authorised Avalanche Warning Service.

Here's how to reach LAWIS-Profile

LAWIS: <https://www.lawis.at/profile/>

EAWS: <https://www.lawis.at/profile/index.php>

Avalanche Warning Service Tirol: <https://lawine.tirol.gv.at/schnee-lawineninfo/schneeprofile/>

Avalanche Warning Service Styria: <http://www.lawine-steiermark.at/wetter/stationsdaten-lawis/>

Avalanche Warning Service Upper Austria: https://www.land-oberoesterreich.gv.at/was_inw_schneeprofile.htm

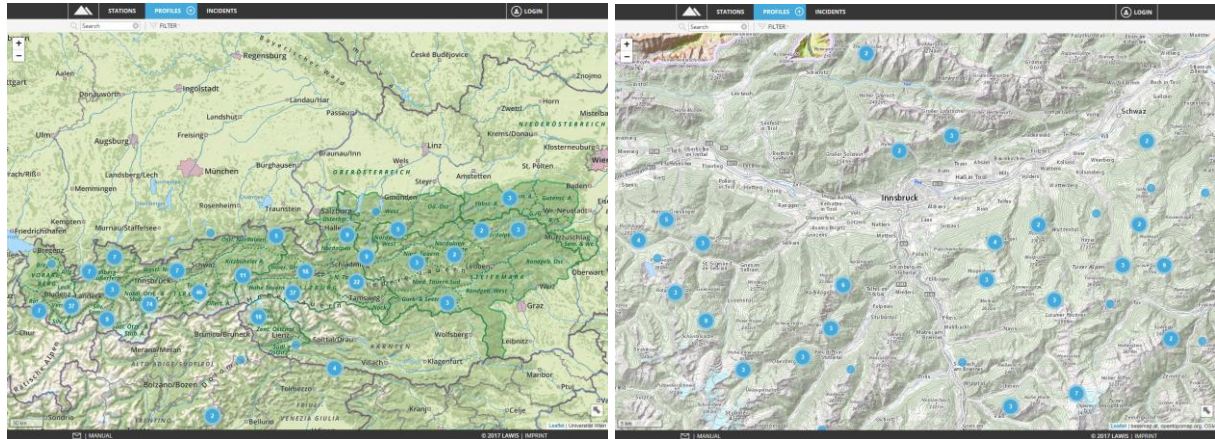
Avalanche Warning Service Carinthia:
http://www.lawine.ktn.gv.at/144600_DE%2dLawinenwarndienst%5fKaernten%2dSchneeprofil%5f%2d%5fArchiv

Avalanche Warning Service Salzburg: <http://www.lawine.salzburg.at/cmsnew/daten.php?daten=2>

Avalanche Warning Service Vorarlberg: <http://warndienste.cnv.at/dibos/lawine/>

1. Finding profiles

A profile can be located and pinpointed by scrolling or clicking the coloured circles which are numbered in the calendar depiction. To start with, any circle can be selected. The illustrations display various depictions of the search as it is being carried out.



In the view below, various tools are available for your use to make locating the desired profile easier and quicker. It is utterly up to you whether you use a list, map, search or filter to find what you seek. How the search functions with the various tools is explained on the following pages.

STATIONS

PROFILES

INCIDENTS

Search

FILTER

3 months

LOGIN

Name: Paul Dobesberger

e-mail: paul.dobesberger@gmail.com

Observation date: 29. Dec. 2017 15:00

Location: Glungzer Bereich Tulfen

Subregion: Tuxer Alpen

Region: Tirol

Country: Österreich

Lat/Long: 47.2272° / 11.5311°

Elevation: 2040 m

Incline: 30°

Aspect: NE

Wind speed: Calm (0 km/h)

Wind direction:

Air temperature: -2.7°C

Precipitation: Snow

Intensity: Light

Sky conditions: Overcast (8/8)

Profile-class: not classified

Prep. particles

Decomp. / Fragn.

Rounded grains

Faceted crystals

Depth hoar

Surface hoar

Melt forms

Ice formations

Faceted, rounded

Graupel

Melt freeze crust

1°C

-2

-10

-18

-16

-14

-12

-10

-8

-6

-4

-2

0

2

4

6

8

10

12

14

16

18

20

22

24

26

28

30

32

34

36

38

40

42

44

46

48

50

52

54

56

58

60

62

64

66

68

70

72

74

76

78

80

82

84

86

88

90

92

94

96

98

100

102

104

106

108

110

112

114

116

118

120

122

124

126

128

130

132

134

136

138

140

142

144

146

148

150

152

154

156

158

160

162

164

166

168

170

172

174

176

178

180

182

184

186

188

190

192

194

196

198

200

202

204

206

208

210

212

214

216

218

220

222

224

226

228

230

232

234

236

238

240

242

244

246

248

250

252

254

256

258

260

262

264

266

268

270

272

274

276

278

280

282

284

286

288

290

292

294

296

298

300

302

304

306

308

310

312

314

316

318

320

322

324

326

328

330

332

334

336

338

340

342

344

346

348

350

352

354

356

358

360

362

364

366

368

370

372

374

376

378

380

382

384

386

388

390

392

394

396

398

400

402

404

406

408

410

412

414

416

418

420

422

424

426

428

430

432

434

436

438

440

442

444

446

448

450

452

454

456

458

460

462

464

466

468

470

472

474

476

478

480

482

484

486

488

490

492

494

496

498

500

502

504

506

508

510

512

514

516

518

520

522

524

526

528

530

532

534

536

538

540

542

544

546

548

550

552

554

556

558

560

562

564

566

568

570

572

574

576

578

580

582

584

586

588

590

592

594

596

598

600

602

604

606

608

610

612

614

616

618

620

622

624

626

628

630

632

634

636

638

640

642

644

646

648

650

652

654

656

658

660

662

664

666

668

670

672

674

676

678

680

682

684

686

688

690

692

694

696

698

700

702

704

706

708

710

712

714

716

718

720

722

724

726

728

730

732

734

736

738

740

742

744

746

748

750

752

754

756

758

760

762

764

766

768

770

772

774

776

778

780

782

784

786

788

790

792

794

796

798

800

802

804

806

808

810

812

814

816

818

820

822

824

826

828

830

832

834

836

838

840

842

844

846

848

850

852

854

856

858

860

862

864

866

868

870

872

874

876

878

880

882

884

886

888

890

892

894

896

898

900

902

904

906

908

910

912

914

916

918

920

922

924

926

928

930

932

934

936

938

940

942

944

946

948

950

952

954

956

958

960

962

964

966

968

970

972

974

976

978

980

982

984

986

988

990

992

994

996

998

1000

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

487

488

489

490

491

492

493

494

495

496

497

498

499

500

501

502

503

504

505

506

507

508

509

510

511

512

513

514

515

516

517

518

519

520

521

522

523

524

525

526

527

528

529

530

531

532

533

534

535

536

537

538

539

540

541

542

543

544

545

546

547

548

549

550

551

552

553

554

555

556

557

558

559

560

561

562

563

564

565

566

567

568

569

570

571

572

573

574

575

576

577

578

579

580

581

582

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

629

630

631

632

633

634

635

636

637

638

639

640

641

642

643

644

645

646

647

648

649

650

651

652

653

654

655

656

657

658

659

660

661

662

663

664

665

666

667

668

669

670

671

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

718

719

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

760

761

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

780

781

782

783

784

785

786

787

788

789

790

791

792

793

794

795

796

797

798

799

800

801

802

803

804

805

806

807

808

809

810

811

812

813

814

815

816

817

818

819

820

821

822

823

824

825

826

827

828

829

830

831

832

833

834

835

836

837

838

839

840

841

842

843

844

845

846

847

848

849

850

851

852

853

854

855

856

857

858

859

860

861

862

863

864

865

866

867

868

869

870

871

872

873

874

875

876

877

878

879

880

881

882

883

884

885

886

887

888

889

890

891

892

893

894

895

896

897

898

899

900

901

902

903

904

905

906

907

908

909

910

911

912

913

914

915

916

917

918

919

920

921

922

923

924

925

926

927

928

929

930

931

932

933

934

935

936

937

938

939

940

941

942

943

944

945

946

947

948

949

950

951

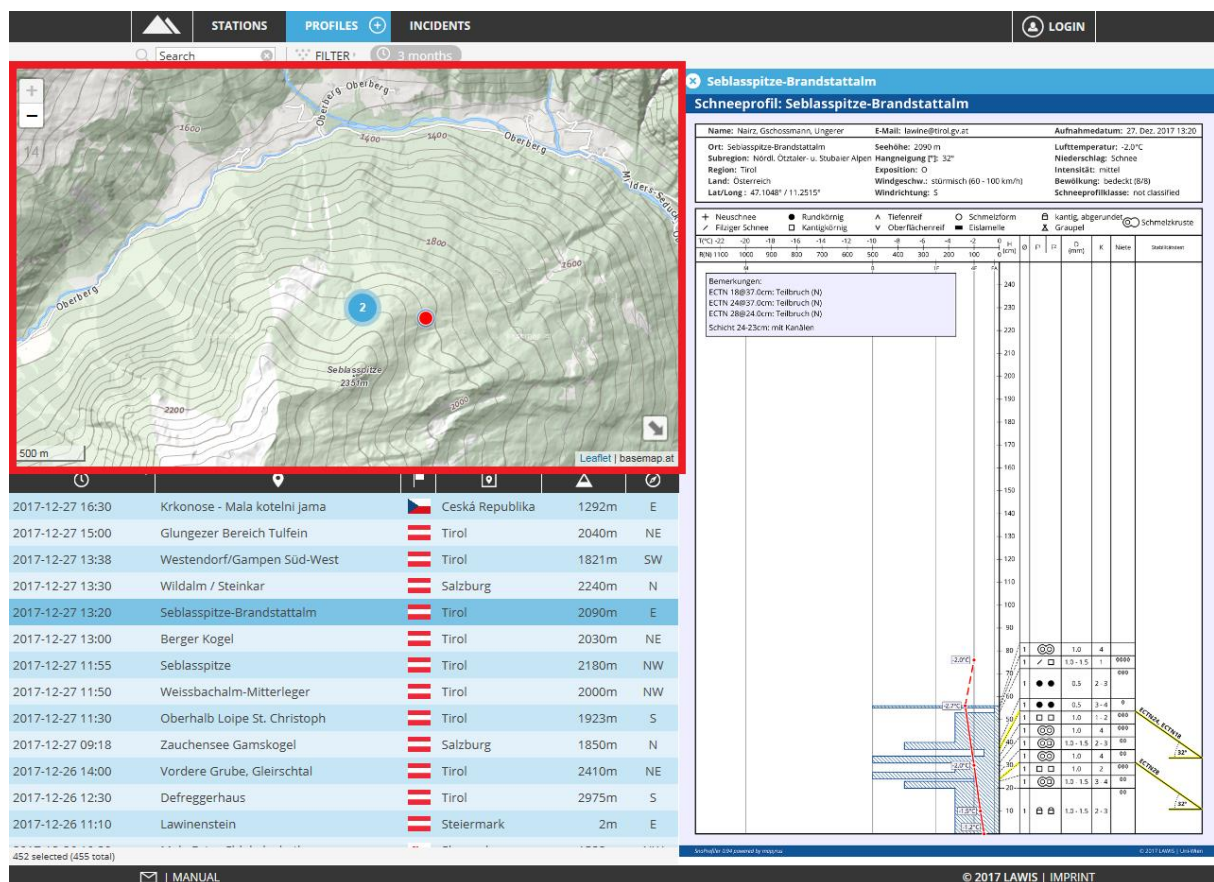
952

953

954

955

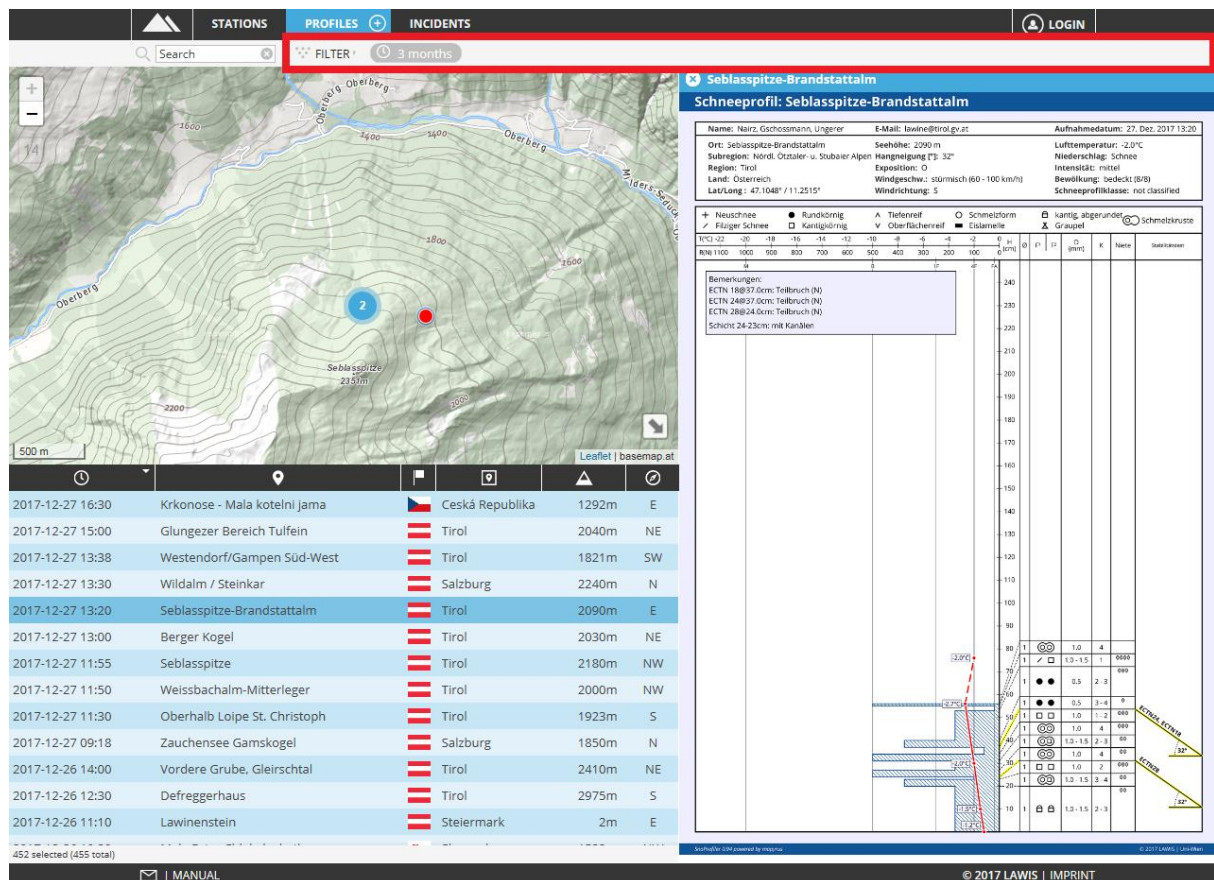
956



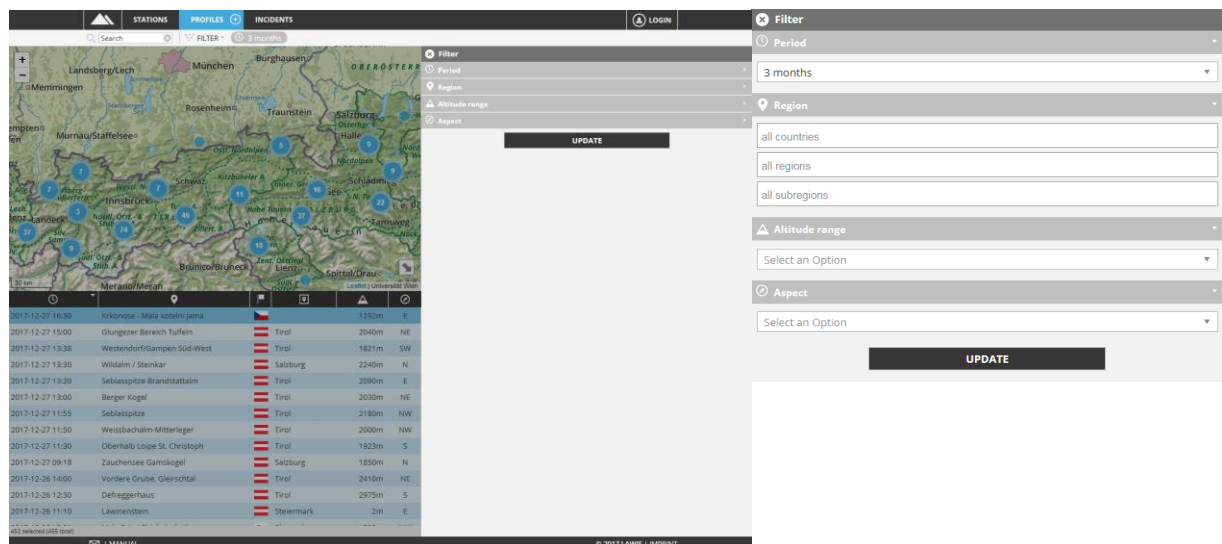
The map expanse serves as an overview and orientation of where snow profiles have been taken. The interactive design of the map makes it possible for users to slide the map or zoom in and out. By clicking onto a profile, the corresponding point on the map is marked in red. Making this selection also leads to opening the data base at the right.





1.2. Locating profiles with a filter

Cutoff date: December 2017



After selecting the filter, a gray-marked area opens in the right margin. Here you can specify the time window, region, altitude and aspect. By selecting the "update" space, the selected filter criteria are carried out. Only those events are shown which fulfil the selected criteria.



As soon as you have selected your filter criteria, you can see the selected filter criteria above the graph. They are marked in gray.  FILTER  3 months   > 3000m...

If the event you are seeking is not found among the selected criteria, you can remove the individual filter criteria with one click on x (to the left of each criterium).

1.3. Locating profiles with a list

By clicking the icons between the depiction and the list, you can sort the searched-for results according to date, town, province, region, altitude, aspect, danger level in either ascending or descending sequence.



By scrolling up or down it is possible to view the overall contents of the list. In the pale gray-marked space beneath the list you can see whether the entire data base is contained in the list or only a reduced amount of data was selected. **9 selected (455 total)**

The profile is selected by clicking on it. The corresponding profile then appears to the right of the map and list.

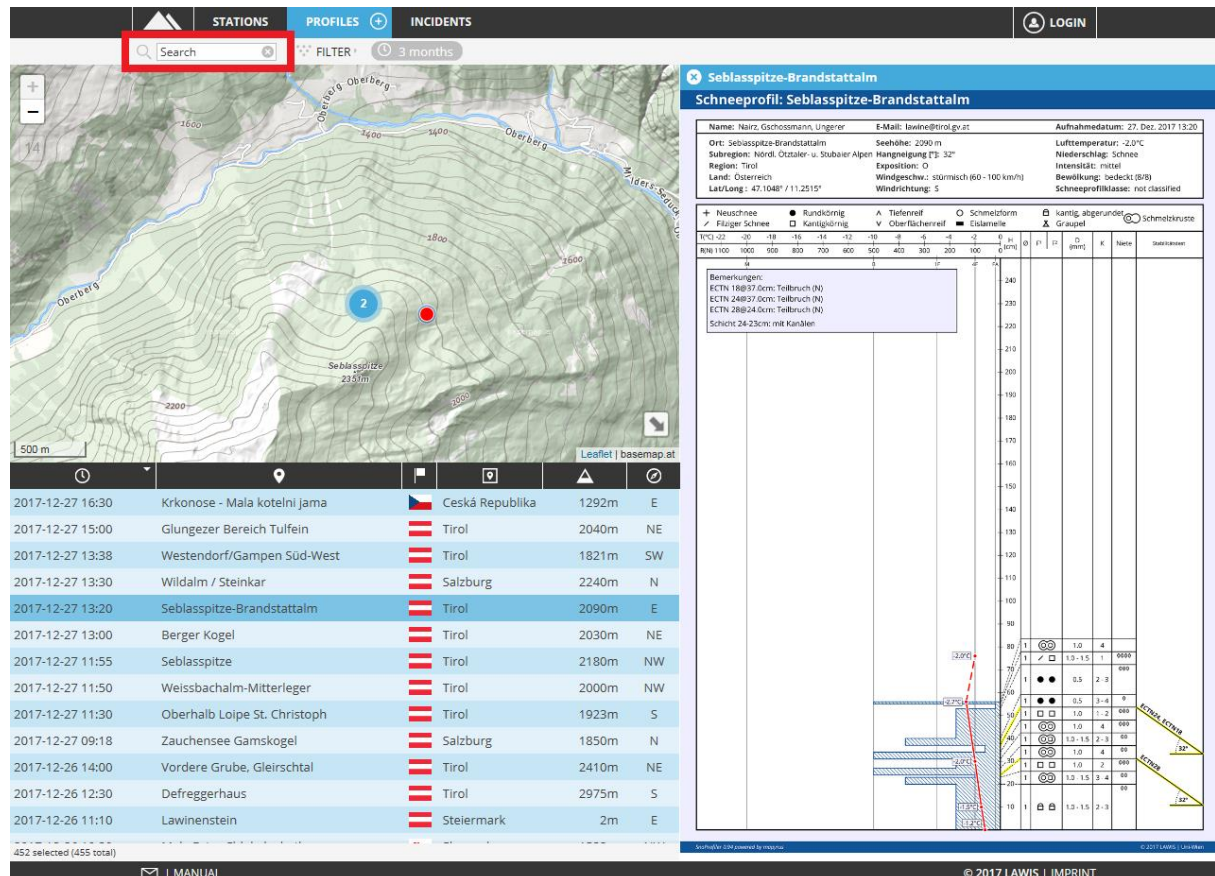
Time	Location	Region	Altitude	Aspect
2017-12-27 16:30	Krkonoše - Mala kotelní jama	Ceská Republika	1292m	E
2017-12-27 15:00	Glungezer Bereich Tulfen	Tirol	2040m	NE
2017-12-27 13:38	Westendorf/Gampen Süd-West	Tirol	1821m	SW
2017-12-27 13:30	Wildalm / Steinkar	Salzburg	2240m	N
2017-12-27 13:20	Seblaspitze-Brandstättalm	Tirol	2090m	E
2017-12-27 13:00	Berger Kogel	Tirol	2030m	NE
2017-12-27 11:55	Seblaspitze	Tirol	2180m	NW
2017-12-27 11:50	Weissbachalm-Mitterleger	Tirol	2000m	NW
2017-12-27 11:30	Oberhalb Loipe St. Christoph	Tirol	1923m	S
2017-12-27 09:18	Zauchensee Gamskogel	Salzburg	1850m	N
2017-12-26 14:00	Vordere Grube, Gleirschtal	Tirol	2410m	NE
2017-12-26 12:30	Defreggerhaus	Tirol	2975m	S
2017-12-26 11:10	Lawenstein	Steiermark	2m	E

52 selected (455 total)

1.4. Locating profiles with a search machine

The Search space is at the upper left.

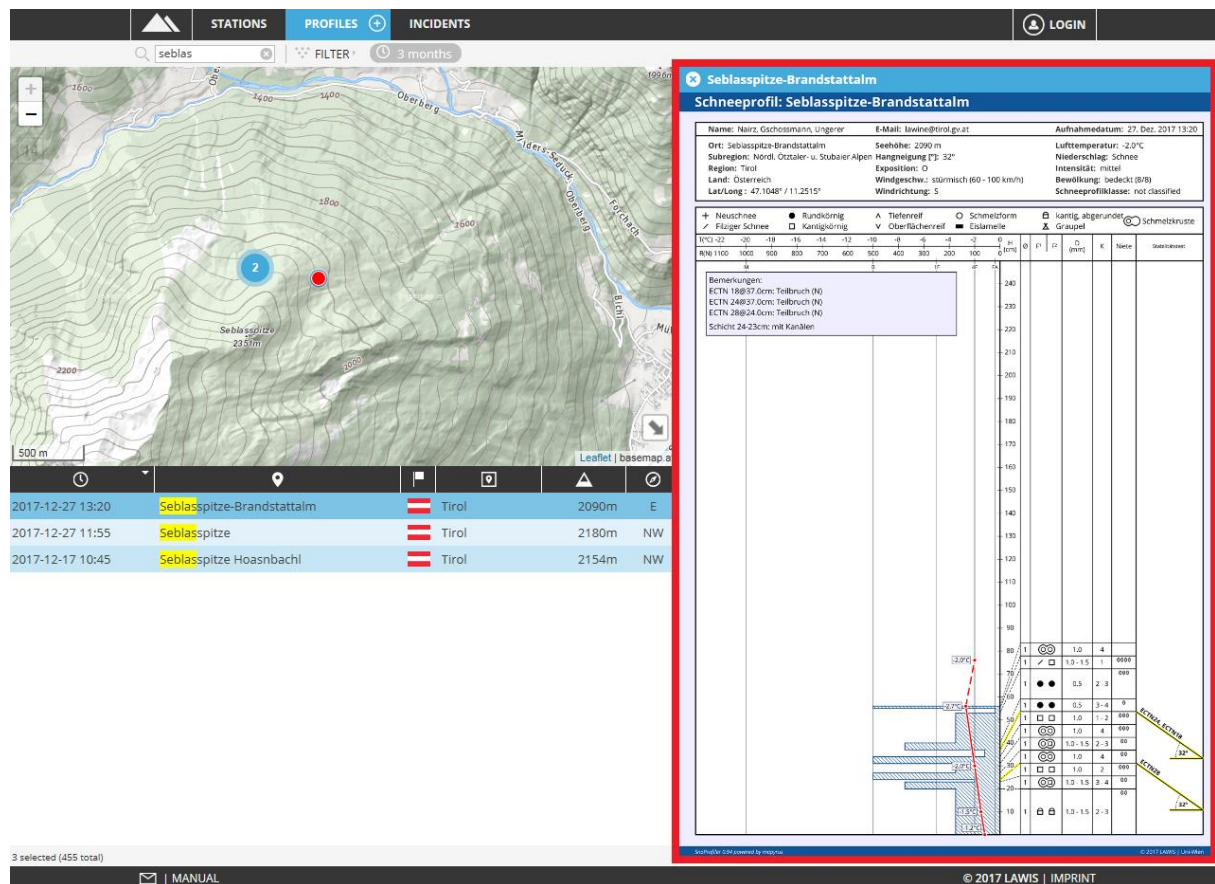
If name, region or subregion of the searched-for event are known, the appropriate search word can be entered here. LAWIS filters all results and displays the list of objects found beneath the graph. The filters are automatically adapted.




2. Profile details

Cutoff date: December 2017

If the searched-for profile is located with map, filter, list or search machen, a graph of the profile opens in the space to the right.



All data compiled are reflected in the description. By clicking  in the upper left corner, the information about the profile can be closed again.

By clicking on the profile, a new tab opens in which the profile is depicted over the entire monitor screen and can be downloaded as a PDF file.

2.1. Explanation of stability tests

Code	Name	horizontal measurement	No. of strikes/force level
CT	Column Test	30cm x 30cm	0-30
ECT	Extended Column Test	90cm x 30cm	0-30
RB	Rutschblock	150cm x 200cm	1-7

N = partial fracture, P = entire fracture, @ = "at an altitude of"

3. Generating a new profile

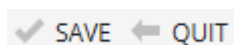
If you have dug and cut a snow profile, you can enter your collected data in LAWIS as a contribution to the completeness of the profile data base. The basis of this data base is a so-called crowdsourcing principle. All data is additionally controlled by the authorised Avalanche Warning Service.

In the top line next to the Profile space is an plus-sign in a circle. Select this by clicking on it to be transferred to Entry Modus.



Please fill out all spaces truthfully and accurately.


Once you have completed entering details of the profile, please click on the SAVE space above right to save the data. If you wish to interrupt the process and return to the general collection of events, please click on the space BACK.



3.1. Explanation of entry spaces

Name/ E-Mail: These are mandatory spaces, so that Avalanche Warning Services can contact observers if necessary.

Date of profile: The current date is displayed. Correct this if the profile was taken on another date.

Time of profile: The current time is displayed. By clicking on  the time is updated.

Location: This can be scree, a gully, a valley or a town name.

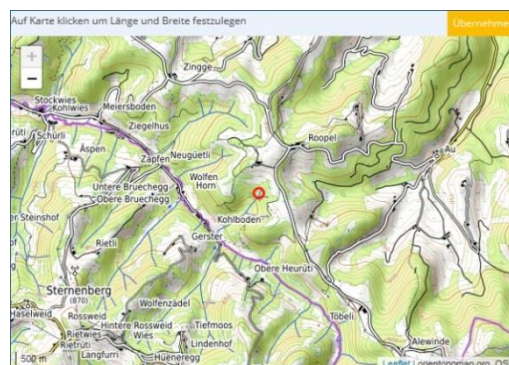
Air temperature: This is the measured air temperature. Try to measure the temperature at approximately 2 meters above the ground and at least 2 meters distant from warm objects, e.g. persons, tea, cigarettes.



Cloud cover: Please select from among the possible options. The cloud cover is displayed in eighths. Take into consideration the entire visible dome of the sky. For your observation please select a location which is without visual impediments. To determine the correct eighth, cloud cover density is irrelevant. Thus, it is possible for it to be a sunny day, yet with a completely closed (8/8) cloud cover (when cirrostratus clouds cover the sky).

0/8	no clouds visible
1/8	e.g. only isolated jet stream vapour trails of airplanes, from the vantage point of the observer one eighth of the sky is covered
5/8	more than 50% of the sky is covered with cloud
8/8	the entire sky is covered with cloud

Precipitation: Please select from among the possible options.

Land & Region & Subregion: Please select from among the possible options.



Lat/Long: If you do not know the coordinates of the event, a coordinate-calculator and interactive map are available in order to pinpoint the exact spot of the event.. Click on “Accept” above right to accept the spot you have selected as the location of the event.  

Altitude: Meters above sea level

Slope gradient: Slope gradient (angle) in degrees, at the fracture point of the avalanche

Aspect: Please select from among the possible options.

Wind strength:

Please select from among the possible options.




Comments:


Do you have other information for us which is not addressed in the regular questions? If so, please enter your comments here or write us an email.

3.2. Entering a snow profile

Profile			Snow Temperature				Stability Tests	
H_{\max} [cm]	H_{\min} [cm]	Θ	F^1	F^2	D_{\min} [mm]	D_{\max} [mm]	K [N]	
50.0	40.0	1	•	•	0.50	0.50	2	

If you glide the mouse over the icon or abbreviation without clicking it, a space appears with a precise designation / explanation.

With    you can change your entry, delete it or begin a new line.

By clicking  you confirm your entry.

Please enter the individual snow layers from above-to-below.

Profile			Snow Temperature				Stability Tests	
H_{\max} [cm]	H_{\min} [cm]	Θ	F^1	F^2	D_{\min} [mm]	D_{\max} [mm]	K [N]	
<input type="text" value="50.0"/>	<input type="text" value="40.0"/>	<input type="text" value="1"/>	<input type="text" value="•"/>	<input type="text" value="•"/>	<input type="text" value="0.50"/>	<input type="text" value="0.50"/>	<input type="text" value="2"/>	

After entering the upper/lower limits of the snowpack layers, the moisture, grain shape, diameter and hardness, by clicking on the green-highlighted check each individual layer is confirmed and saved. In order to ensure that

each snowpack layer is saved it is advisable to click on

Show Profile

above the profile graph. The profile is then updated and drawn anew.

3.3. Explanations of entry parameters of snow profile

Value	Possible entry	Explanation
H_{\max} [cm] and H_{\min} [cm]	0 to 1000	H_{\max} → perpendicular distance from upper layer border to ground in cm H_{\min} → perpendicular distance from lower layer border to ground in cm
θ	1 - 2 - 3 - 4 - 5	1 → dry snow below 0°C 2 → weak moist snow 0°C; sticky 3 → moist water can be seen ; no drain-off 4 → wet saturated; water drain-off 5 → very wet saturated with water
F^1 and F^2	<div> <div> Precip. particles </div> <div> Decomp. / fragm. </div> <div> Rounded grains </div> <div> Faceted crystals </div> <div> Depth hoar </div> <div> Surface hoar </div> <div> Melt forms </div> <div> Ice formations </div> <div> Faceted, rounded </div> <div> Graupel </div> <div> Melt-freeze crust </div> </div>	Grain shapes: F^1 – predominant grain shape F^2 – subordinate grain shape <i>Comment 1:</i> if only one grain shape is present → $F^1 = F^2$ <i>Comment 2:</i> when entering a melt-freeze crust, F^1 is always the melt-freeze form. Beyond F^2 another grain shape can be entered.
D_{\min} [mm] and D_{\max} [mm]	0,25 - 0,5 - 1,0 - 1,5 - 2,0 2,5 etc.	Grain size: D_{\min} → size of the smallest grains D_{\max} → size of the largest grains Normal sizes: fresh snow: 1-3 mm fuzzy snow: 1-2 mm round grains: 0.25-0.5 mm faceted grains: 1-3 mm depth hoar: 2-5 mm surface hoar: 2-5+ mm melt-freeze shape: 1-5 mm faceted, rounded: 0,5-3 mm graupel: 0.5-3 mm
$K_{[N]}$	1 to 6	Snowpack hardness 1 → fist [FA] very soft 2 → 4 fingers [4F] soft 3 → 1 finger [1F] medium-hard 4 → pencil [B] hard 5 → knife [M] very hard 6 → ice [-] compacted

Please note: the rivets generated for each layer of snow (shown in the column on the right next to hardness K) serve to evaluate the borderline to each layer. The more rivets the borderline to a layer has, the more unfavourable is the assessment of this layer.

3.4. Entering snow temperature

Please enter here the measured snow temperatures (ideally, 10 cm apart). The air temperature has already been isolated and entered in the general data. You can omit the minus sign when entering the temperatures, since this is automatically generated.

Profile	Snow Temperature	Stability Tests
H [cm]	T [°C]	
50	-4	✓

3.5. Entering stability tests

Please select the type of test which has been conducted: CT, ECT or RB. A brief description of the stability tests can be found in section 2.1 - Explanation of Stability Tests.

Profile	Snow Temperature	Stability Tests
Class	Step	H [cm] Result
ECT	13	40 no propagation (N)
		✓

Compression Test (CT)

The CT serves primarily to diagnose a weak layer. It is one of the quickest tests to carry out. However, it is less "reliable" than the rutschblock test or the ECT, since it supplies no information about *fracture propagation*. Nevertheless, it enables us to determine whether there are weak layers inside the snowpack which additional loading could cause to collapse. For a CT, a 30 x 30-cm large cube or pillar of snow is removed. Weight/force is placed on it by a snow shovel (flat spade) in increasing degrees. The thrust from the wrist and the elbow comes when the hand is held flat, from the shoulder joint, then with the fist. The steepness of the relevant spot should be about 35°.

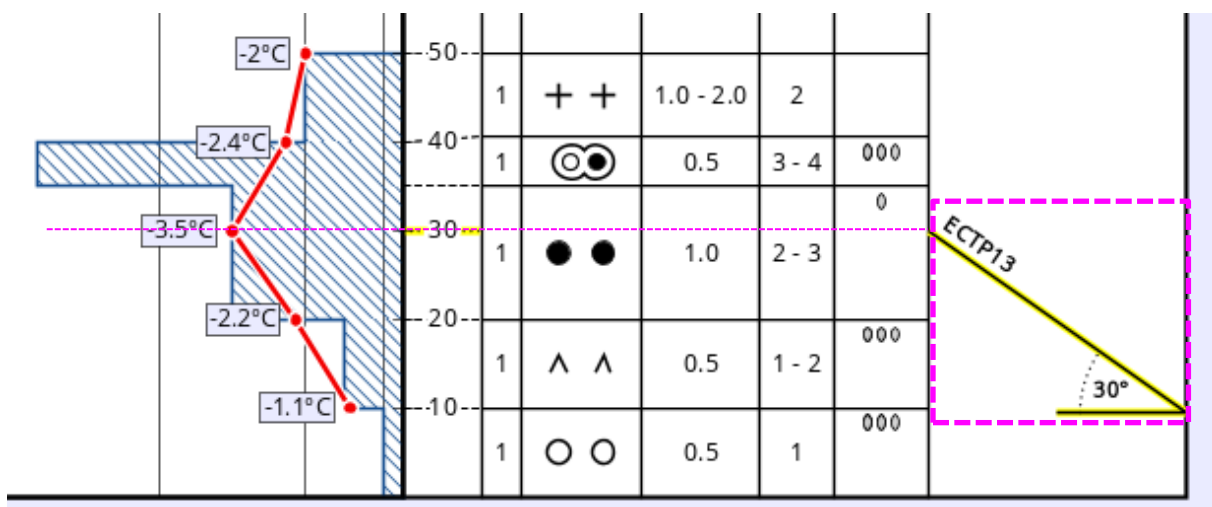
CT0@...	pillar fractures through digging or sawing
CT1-10@...	fracture at 1.-10. weight (from wrist)
CT11-20@...	fracture at 11.-20. weight (from elbow)
CT21-30@...	fracture at 21.-30. weight (from shoulder)
CT31...	no fracture, pillar remains stable

The number after the CT (=class) designates the level of weight/force (=level). The value after the @ designates at what height (=H_[cm]) inside the snowpack the fracture was initiated. In addition, please also record the type of fracture (=result), namely, whether it was a fracture with varying types of resistance (RP, RC, B), a sudden fracture with a smooth surface (SP) or a collapse (SC).

As before, the entry is confirmed by clicking the  icon.

Profile	Snow Temperature	Stability Tests
Class	Step	H [cm]
CT		
Result		
<div> <div>resistant break non-planar (B)</div> <div>resistant break planar (RP)</div> <div>resistant break prog. compression (</div> <div>sudden break collapse (SC)</div> <div>sudden break planar (SP)</div> </div>		

Example: CT23@81 means a fracture which was located 81 cm above the ground was triggered at the 23rd level of weight inside a weak layer.



Both for CT and for ECT, a fracture was initiated at the 23rd impulse (3rd degree of force from the shoulder joint). ECTP23 (P for propagating, expanding) shows us that the fracture could spread at the 23rd or 24th impulse.

Expanded Compression Test (ECT)

The ECT makes it possible to estimate the degree of fracture propagation inside the snowpack and thus, provides somewhat more information than the CT. For this, one removes a 90 x 30-cm large snow pillar. One places the blade of the shovel at its edge and in successive degrees, corresponding to the successive levels of weight/force of the CT, burdens it with a thrust. The entry of the ECT is much like that of the CT:

- ECTP#@...** (Expanded Compression Test with propagation)
Fracture spreads throughout the entire block upon strike no. # or the following strike; the strike # designated is the one at which the fracture occurs.
- ECTN#@...** (Expanded Compression Test without propagation)
Fracture occurs at strike no. # but does not spread even at the following strike. Fracture propagation could, yet need not necessarily, occur with additional strikes.
- ECT31...** Until the completion of the test, no fracture occurs.

In order to define whether it is an ECTP or an ECTN test, an appropriate selection must be entered in *Result*: either “sudden fracture” (P) or “partial fracture” (N).

Profile			Snow Temperature		Stability Tests	
Class	Step	H [cm]	Result			
ECT	13	40	<div>no propagation (N)</div> <div>no propagation (N)</div> <div>propagation (P) (whole block)</div>			



Rutschblocktest (RB)

The Rutschblock test is the best, but also the most elaborate method to determine the stability of the snowpack. It is relatively easy to perform in practice, since it uses the body weight of the testing person to test the stability. For this, one removes a block 2 meters wide and 1.5 meters long (measured up the slope) from a slope which is relevant (about 35° gradient). Then the snow block is weighed upon in successive steps until it breaks:

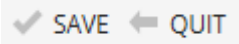
- RB 1@... Fracture while digging or sawing (naturally)
- RB 2@... Fracture while gently bearing down on it with skis
- RB 3@... Fracture from 3 teeterings on it, standing on skis
- RB 4@... Fracture of upper third at first jump on it
- RB 5@... Fracture of upper third at 2nd or 3rd jump
- RB 6@... Fracture of upper third at jump without skis
- RB 7 No fracture. Block remains stable.

if a fracture can be initiated, the snow profiler must record whether the entire block or only part of the block fractured.

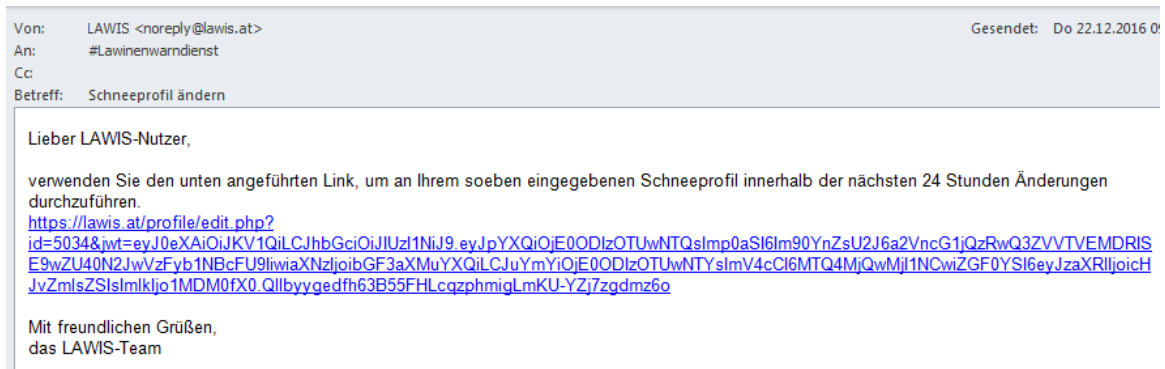
Profile			Snow Temperature		Stability Tests	
Class	Step	H [cm]	Result			
RB			<div>partial break</div> <div>whole block</div>			

3.6. Changing entered profiles

The SAVE space is located at the upper right.



By clicking on this space, your entire entry is uploaded and made visible and available to everyone. At the same time, you are sent an automatic email in which the link to making corrections to your entry is given to you. If you discover an error later, you can use this link to correct it within 24 hours of your entry. If you cannot or do not wish to make the correction yourself, please contact the LAWIS team by email or telephone.



4. Often asked questions

?◀ When I was entering the coordinates and confirming them by pressing the ENTER key, the SnoProfiler crashed and all the data was lost. Why?

We are aware of this problem, which occurs in Internet Explorer 9. We recommend using a new browser version or installing / using a different web browser, e.g. Firefox, Chrome, Opera.

?◀ When I was entering the temperature, the value I entered was not accepted. Why?

The problem lies in temperatures with commas: unfortunately only dots are supported. If a comma occurs in the number, the value is not accepted.

?◀ I made an error when making an entry and only realized it later. Can I later correct my own profile?

No. Changing or deleting profiles can only be done by the administrator. If necessary, please send a message via email to lawine@tirol.gv.at.

?◀ When I was entering the snowpack hardness, my entry was not accepted. What am I doing wrong?

For entering snowpack hardness, certain rules were built into the system in order to circumvent errors. Thus, for layers with only round-shaped grains, a hardness of 1 or 1-2 is not possible. Another example: layers with only fresh fallen snow and/or fuzzy snow can only have a hardness of 1 or 2.

5. Printing information – Partners



LAWIS - Lawinenwarndienst Informationssystem

Created in collaboration with the Avalanche Warning Services of Tirol, Styria, Salzburg, Upper Austria and Vorarlberg, together with the University of Vienna, Institute for Geography and Regional Research.