

THE HEAT INDEX

Temperature (°C)	Relative humidity (%) - HUMIDEX index, Masterson & Richardson, 1979																			
	H=T + 5/9 * (e-10), H=T+0,5555 * (e-10)																			
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100			
21	21	21	21	21	22	22	23	24	24	25	26	26	27	28	28	29				
22	22	22	22	22	23	24	25	25	26	27	27	28	29	29	30	31				
23	23	23	23	24	24	25	26	27	28	28	29	30	31	31	32	33				
24	24	24	24	25	26	27	28	28	29	30	31	32	33	33	34	35				
25	25	25	25	26	27	28	29	30	31	32	33	34	35	35	36	37				
26	26	26	27	28	29	30	31	32	33	34	35	36	36	37	38	39				
27	27	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41				
28	28	28	30	31	32	33	34	35	36	37	38	39	40	42	43	44				
29	29	30	31	32	33	35	36	37	38	39	40	41	42	44	45	46				
30	30	30	31	32	34	35	36	37	39	40	41	42	43	45	46	47				
31	31	31	33	34	35	37	38	39	40	42	43	44	46	47	48	49				
32	32	33	34	35	37	38	40	41	42	44	45	46	48	49	50	51				
33	33	34	36	37	38	40	41	43	44	46	47	48	50	51	52	54				
34	34	35	37	39	40	42	43	45	46	47	49	50	52	53	55	56				
35	35	37	39	40	42	43	45	46	48	49	51	53	54	56	57	58				
36	37	38	40	42	43	45	47	48	50	51	53	55	56	58	59	62				
37	38	40	42	43	45	47	49	50	52	54	55	57	58	61	63	64				
38	40	42	43	45	47	49	50	52	54	56	57	59	62	63	65	67				
39	41	43	45	47	49	51	52	54	56	58	59	62	64	66	68	70				
40	43	45	47	49	51	52	54	56	58	61	63	65	67	69	71	73				
41	45	47	48	50	52	54	56	58	61	63	65	68	70	72	74	76				
42	46	48	50	52	54	56	58	61	64	66	68	70	73	75	77	79				

20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
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- A few people feel discomfort.
- More or less significant feeling of discomfort.
- Quite intense feeling of discomfort. Caution. Limit physical exertion.
- Serious risk. Suspend physical exertion.
- Heat stroke imminent (danger of death).

WIND CHILL EFFECT

Wind speed at 10 m (km/h)	Air temperature (°C) (from Osczevski & Bluestein, 2001)									
	5	0	-5	-10	-15	-20	-25	-30	-35	-40
5	4	-2	-7	-13	-19	-24	-30	-36	-41	-47
10	3	-3	-9	-15	-21	-27	-33	-39	-45	-51
15	2	-4	-11	-17	-23	-29	-35	-41	-48	-54
20	1	-5	-12	-18	-24	-30	-37	-43	-49	-56
25	1	-6	-12	-19	-25	-32	-38	-44	-51	-57
30	0	-6	-13	-20	-26	-33	-39	-46	-52	-59
35	0	-7	-14	-20	-27	-33	-40	-47	-53	-60
40	-1	-7	-14	-21	-27	-34	-41	-48	-54	-61
45	-1	-8	-15	-21	-28	-35	-42	-48	-55	-62
50	-1	-8	-15	-22	-29	-35	-42	-49	-56	-63
55	-2	-8	-15	-22	-29	-36	-43	-50	-57	-63
60	-2	-9	-16	-23	-30	-36	-43	-50	-57	-64
65	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65
70	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65
75	-3	-10	-17	-24	-31	-38	-45	-52	-59	-66
80	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67

- Risk of freezing with prolonged exposure
- Risk of freezing in 10 minutes (with recently exposed warm skin)
- Risk of freezing in 2 minutes (with recently exposed warm skin)

PRESENTATION

For those going walking in the mountains during the summer, the MontagnAmica e Sicura initiative proposes various basic themes, all aimed at preventing accidents. These themes provide information on correct behaviour for those going on excursions of various levels.

This leaflet gives further information on the weather, providing instructions on how to behave to avoid the consequences of the various dangers weather may reserve for everyone.

This valuable summary of information and suggestions, indispensable for all those wanting to go skiing or walking in the mountains in an aware and responsible fashion, was made possible through collaboration with the Regional Environmental Protection Agencies (ARPA) for the Veneto and Friuli Venezia Giulia.



INDEX

- WEATHER RELATED DANGERS**
- Poor visibility and fog
 - Summer precipitation and cold
 - Storms and lightning
 - Wind and wind chill effect
 - Solar radiation and the heat index

- MEANS OF PREVENTION**
- Self-prediction: warning signs
 - The weather bulletin
 - Other weather information

Weather in the mountains and associated risks

Second level information and training



www.ixelle.it



www.montagnamicaesicura.it
info@montagnamicaesicura.it



CLUB ALPINO ITALIANO



MONTAGNAMICA e SICURA
 PROGETTO PREVENZIONE E SICUREZZA
 CAI - SOCCORSO ALPINO - GUIDE

I - SELF-PREDICTION

In certain situations, the probable future (or immediate) evolution of the weather in the mountains may be indicated by a number of signs:

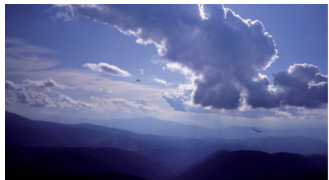
- Development of daytime cumulus clouds
- Veering of the synoptic wind
- Pressure variations

DEVELOPMENT OF DAYTIME CUMULUS CLOUDS (UNSTABLE WEATHER)

The development of daytime cumulus clouds during unstable weather conditions is often the prelude to formation of an afternoon heat storm with warning signs (towering altocumulus (castellanus) clouds) in the early morning at altitudes of between 3000-5000 m. These remain in the sky for only about 15-30 minutes before disappearing. The large cumulus clouds which may lead to a storm do not develop until later.



DEVELOPMENT OF DAYTIME CUMULUS CLOUDS (FINE STABLE WEATHER)



In stable conditions, cumulus clouds try to develop upwards, but the presence of **dry air and a strong wind at high altitudes** (coming from the right in the photograph) cause them to **dissolve** (the cloud is "stretched").

VEERING OF THE SYNOPTIC WIND

Particularly when the orography is complex, the direction the synoptic wind blows from (in the free atmosphere) often influences the weather in a given area. Veering of the wind at a high altitude, irrespective of daytime breezes, may therefore provide important information.

Veering of the wind in the **Eastern Alps** causes:

- Veering of winds from the **southern quadrants**: probable worsening, particularly when humidity is high;
- Veering of winds from the **northern quadrants**: probable worsening due to the arrival of Foehn winds and strong subsidence.

PRESSURE VARIATIONS

The pressure in an area may vary significantly and sometimes suddenly. Checking pressure can therefore provide useful information on evolution of the weather.

A **pressure increase** indicates the approach and establishment of an anticyclonic ridge which usually brings **fine weather**.

If the **pressure drops**, the weather will **probably worsen** due to the approach of a low pressure front.

USING AN ALTIMETER

In the mountains, an altimeter is often used to assess pressure variations. This works in much the same way as a barometer, but the values are expressed on an altitude scale.

The altimeter works on the principle that **pressure varies according to altitude**. Given that **pressure drops as altitude increases** (the atmosphere is thinner and therefore weighs less), a drop in pressure corresponds

to an **increase in altitude**.

To use an altimeter correctly, it must be calibrated frequently at a number of **points with a known altitude** (mountain refuges, peaks, passes).

- If the pressure drops, the barometer will indicate a higher altitude for the same point.
- If the pressure rises, the barometer will indicate a lower altitude for the same point.

Even in stable conditions, pressure varies according to a normal **daily cycle**. For example, a night-time increase of 10/20 m in the altitude indicated by the altimeter is normal and not a sign of worsening conditions. If however the altitude rises by about 50/100 m (strong pressure drop), bad weather is probably on the way.

2 - THE WEATHER BULLETIN

A weather bulletin issued by regional weather services contains information on the general weather situation and its future evolution, a 3-4 day forecast and other weather information. Below is an example of the Dolomiti Meteo weather bulletin issued by ARPAV, the Arabba Avalanche Centre.

DOLOMITI METEO
Dolomiti e Prealpi Venete / Mercoledì 1 Giugno 2011
Capofila: Montebelluna - Frequenza: giornaliera - Periodicità: Annuale

Description of the general situation and evolution

SITUAZIONE GENERALE: In occasione alluviana si è già isolata in depressione chiusa, interessando solo marginalmente le Alpi orientali, prima di spostarsi verso la Spagna. L'attesa ricambio d'aria in per mezzo orologia da Est permetterà al tempo di migliorare, ma solo parzialmente. Giovedì e venerdì le giornate saranno piuttosto disincante, ma il riscaldamento diurno e la notte un'altezza mai del tutto scabbie potranno generare in calda lave insedia convegniva con qualche rovescio pomeridiano o serale. La notte un'altezza mai del tutto scabbie potranno generare in calda lave insedia convegniva con qualche rovescio pomeridiano o serale. La notte un'altezza mai del tutto scabbie potranno generare in calda lave insedia convegniva con qualche rovescio pomeridiano o serale.

AVVISI DI FENOMENI PARTICOLARI: Nessun avviso.

Detailed forecast for the current day and for the first and second day of the forecast

PREVISIONE PER IL POMERIGGIO-SERA DI MERCOLEDÌ
Inizialmente nuvolosità prevalente a qualche rovescio rovescio (20/30%), con il passare delle ore il tempo tende a migliorare con progressivo diradamento della nuvolosità e rasserenamenti, più ampi alla sera. Clima fresco ma non troppo caldo rispetto a ieri.

TEMPO PREVISTO

Località	ORA	TEMPERATURE
MER	020	12°C
VEN	1400	15°C
SAB	1600	18°C
DOM	1800	20°C

GIOVEDÌ 2 Il tempo sarà solo in parte migliorato per una certa attività turbolenta, più presente durante la ore più calde del giorno, quando il tempo diventerà incerto variabile nel andamento rilevante localmente nei settori più interessati dalla convezione, dove non si potrà scartare dal tutto il rischio di qualche isolato rovescio (40/50%). In trattata di fenomeni di breve durata che non avranno un forte impatto sul tempo complessivo del giorno. L'ora diurno sarà di nuovo relativamente calda, specie nelle valli maggiormente soleggiate.

Temperature: minime in lieve diminuzione e massime in rialzo.
A 2000 m: min 6°C max 12°C; a 3000 m: min 2°C max 3°C.
Venti: nelle valli deboli con rinforzi per brezze, in quota da deboli a moderati da Nord-Est. A 5-15 km/h a 2000 m, 10-20 km/h a 3000 m.

VENERDÌ 3 Il tempo da basso è lievemente instabile con lunghi tratti serotegati, specie al mattino, e nuvolosità irregolare, più presente al pomeriggio, quando potranno verificarsi brevi rovesci di origine convegniva. Rispetto a giovedì il rischio sarà maggiore ed i fenomeni potranno occasionalmente essere temporaleschi (10/20%). Clima relativamente caldo, specie nei settori maggiormente interessati dal sole.

Temperature: senza variazioni di rilievo.
A 2000 m: min 7°C max 13°C; a 3000 m: min 2°C max 3°C.
Venti: nelle valli da deboli a moderati, a regime di brezza, in quota da deboli a moderati da Est Nord-Est. A 5-10 km/h a 2000 m, 10-15 km/h a 3000 m.

TENDENZA
SABATO 4 al mattino tempo in parte instabile con deboli rovesci, associato a rovesci o temporali sparsi. In seguito maggiore probabilità di brevi soleggiate ed attenuazione del rischio di fenomeni. Temperature massime in lieve flessione.
DOMENICA 5 il tempo in per più soleggiato con minore attività cumuliforme e minore rischio di rovesci o eventuali temporali. Temperature in lieve lieve.
Previsione: B e T.

Trend for the third (and fourth or fifth) day of the forecast

PREVISIONI LOCALI PER GIOVEDÌ 2 (ORE 06-24) - versione sperimentale

Località	Tempo	Tendenza	Stato del cielo		Probabilità di precipitazione (%)	Pieggi	Rivoli
			Giorno	Notte			
Montebelluna	12-18	Stabile	Stabile	Stabile	0-10	0	0
Arabba	12-18	Stabile	Stabile	Stabile	0-10	0	0
Corvara	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Cassiano	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Lazzaro	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Pietro	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Valentino	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Zeno	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Felice	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Giacomo	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Giovanni	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Martino	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Michele	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Rocco	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Sebastiano	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Simeone	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Vito	12-18	Stabile	Stabile	Stabile	0-10	0	0
San Zenone	12-18	Stabile	Stabile	Stabile	0-10	0	0

Other information:

DOLOMITI METEO - info: 0431 780007, mailto: info@dolomiti-meteo.it o a: polling@431.780000 www.arpa.veneto.it/doi

SOME HINTS ON HOW TO READ AND INTERPRET A WEATHER BULLETIN CORRECTLY

- A weather bulletin provides **brief indications** and often does not go into detail.
- The bulletin **does not provide information on possible dangers** or give indications on accessibility, but it indicates the possibility that a given weather event may or may not occur.
- The **figures** usually give **just the prevalent weather**.
- You must know the **precise location** in order to place the forecast correctly.
- The further you are from the area covered by the forecast, the less precise the forecast will be, particularly if it is a detailed forecast.

3 - OTHER WEATHER INFORMATION

OBTAINING THE INFORMATION

Today, the main source of weather information is without doubt the **Internet**.

On the Internet, you can find at least three types of information:

- Weather forecast models and maps
- Various types of weather forecast: official bulletins, general bulletins, bulletins for specific events or users
- Real time information and data

USEFUL LINKS FOR BULLETINS DAILY:

VENETO: www.arpa.veneto.it/bollettini/htm/meteo.asp

FRIULI VENEZIA GIULIA: www.meteo.fvg.it/

Other contacts - VENETO:

"Dolomiti meteo"; "Dolomiti meteo": tel. +39-043678007, fax polling +39-0436780009, text message on request, subscription to mailing-list (www.arpa.veneto.it/bollettini/htm/mailling_list.asp)

"Meteo Veneto": Registration and fax on demand: +39-0499925409, subscription to mailing-list (www.arpa.veneto.it/bollettini/htm/mailling_list.asp)

Other contacts - FRIULI VENEZIA GIULIA:

"Meteo FVG": tel. +39-0432934189, subscription mailing-list (<http://www.meteo.fvg.it/IT/SERVIZI/StrutturaServiziInternet.php>)

OTHER INFORMATION: WEATHER FORECAST MODELS AND MAPS

prof.wetteronline.de/

www.westwind.ch/

www.ecmwf.int/products/forecasts/d/charts

www.meteociel.fr/modeles/index.php

www.wetter3.de/

www.meteoliguria.it/level1/model.html

www.lamma.rete.toscana.it/wrf-web/index.html

1 - POOR VISIBILITY AND FOG

The elements which most reduce visibility in the mountains are fog, low cloud and snowfall, in particular with wind.

EFFECTS:

- Orientation becomes difficult
- The perception of objective dangers is reduced

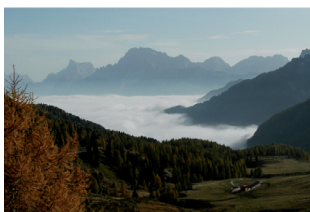
Orientation in the mountains is helped by light-absorbing objects (rocks, trees, pylons etc.) which become points of reference; it is hindered on the other hand by objects which reflect light such as snow (whiteout effect).

ASSOCIATED WEATHER PHENOMENA

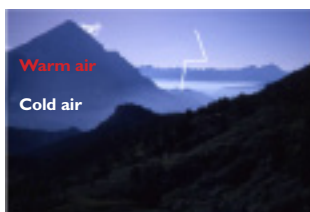
Bad weather: clouds due to a passing low.

Temperature inversion layer at a low altitude (mist, fog, low cloud).

A temperature inversion layer at a low altitude during fine weather may lead fog, mist or low cloud to form.



Temperature inversion in the winter with clouds in the lowest layers



Night-time temperature inversion during the summer with mist clearly visible in the lowest layers

IMPORTANT! If you are inside, a simple large cumulus cloud is enough to jeopardise visibility.



2 - SUMMER PRECIPITATION AND COLD

Low summer temperatures can be caused by precipitation (rain, snow) or strong night-time radiation.

EFFECTS:

- Hypothermia from exposure to low temperatures
- Indirect effects in the case of wet ground (ice)

Precipitation in the mountains (rain or snow) is usually accompanied by a drop in temperature due to reduced radiation or cold air advection. The phenomenon is aggravated by wind (wind chill effect).

IMPORTANT! As you go higher, the temperature in any case drops by an average of about 0.65°C/100 m.

ASSOCIATED WEATHER PHENOMENA

• Passage of a cold front • Snowfall at low altitudes • Night freezing

COLD FRONTS

During the summer, when preceded by a long hot and humid period, the passage of a cold front may cause severe storms, strong gusts of wind, hail and even whirlwinds (in particular in the foothills and on plains). In the Alps, cold fronts are not always recognisable. They may sometimes come as a surprise and be partly hidden by mist (consult the weather bulletin!).

IMPORTANT! The violence of the associated phenomena makes the passage of a cold front one of the most dangerous conditions in the mountains!

SNOWFALL AT LOW ALTITUDES

The snow limit is associated with the altitude of the "freezing level", intensity of the precipitation and other mainly orographic factors:

- intensity of the precipitation (the lower the limit the greater the intensity);
- local topographic configuration (the limit is lower in narrow valleys);
- geographical position (the limit is lower in internal areas of the Alps).

IMPORTANT! In the case of heavy precipitation, the snow limit may descend as low as 600/700 m below the freezing level, even as much as 1000 m if the precipitation persists.

NIGHT FREEZING

The heat loss during the night through radiation may lead to an appreciable drop in temperature.

IMPORTANT! Particularly during fine weather, the level at which ground freezing occurs does not correspond to the freezing level in a free atmosphere as indicated in bulletins, but may descend as much as 1200-1600 m lower!



3 - STORMS AND LIGHTNING

Storms and lightning (possibly with hail) may be caused by the passage of a cold front or strong daytime convection (summer heat storms).

EFFECTS:

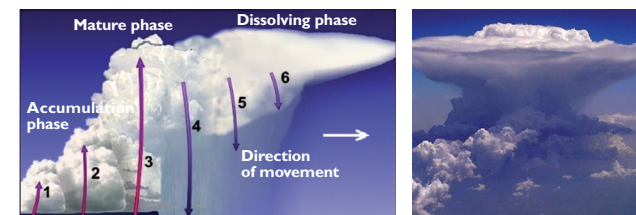
- Hypothermia from exposure to low temperatures
- Risk of lightning strike
- Slippery ground (hail)

ASSOCIATED WEATHER PHENOMENA

• Heat storms • Lightning

HEAT STORMS

Heat storms are caused by convective uplift. When the sun heats the ground, the layer of air nearest the ground heats up. As it is lighter than the surrounding air, the warm air rises upwards, expanding and condensing to form clouds. The quicker and stronger the uplift, the more severe the precipitation and associated phenomena such as storms and lightning, sometimes accompanied by strong gusts of wind.



LIGHTNING

Lightning is an electrical discharge caused by differences in potential inside a cloud. In an ascending wind, the drops begin to freeze, becoming positively charged and breaking away from the larger drops which are negatively charged. The electrical discharges which cause lightning generally occur in the atmosphere. Those occurring between the clouds and the ground are estimated to be just 20% of the total.

CLOUD-GROUND LIGHTNING

The danger of lightning comes from the **great heat generated in the lightning channel.** This produces an explosion (thunder), accompanied by very high temperatures (greater than 30,000°C) which may cause inflammable materials (such as a tree) to burst into flame. To determine how far away a stroke of lightning is from where you are, divide the number of seconds between the lightning and thunder by three to obtain the distance in kilometres (or multiply the number of seconds by 340 m).

For example, if six seconds pass between the lightning and thunder, this means you are 2 km from the point of origin of the lightning.



4 - WIND AND WIND CHILL EFFECT

In the mountains, the wind is influenced by the morphology of the land and does not correspond to that measured in the free atmosphere. Wind is caused by temperature differences generated by differences in the sun's heating. These cause pressure variations:

- + heat = lighter air = low pressure
- + cold = heavier air = high pressure

The difference in pressure (pressure gradient) causes the air to move to fill areas of low pressure. The wind will blow from the area of high pressure to the area of low pressure.

- EFFECTS:**
- Mechanical effect (risk of falling)
 - Chill effect (wind chill)

ASSESSING THE WIND

From weather bulletins:	From observation on site:
Light wind: 0-10 km/h	Observing cloud movement provides information on the direction of the wind at high altitudes.
Moderate wind: 10-30 km/h	"Wind streamers" near peaks indicate a strong wind at high altitudes and provide an indication of its direction of origin
Strong wind: 30-60 km/h	
Very strong wind: 60-90 km/h	
Gale: >90 km/h	

ASSOCIATED WEATHER PHENOMENA: • Foehn wind • Wind chill effect • Stormy gusts (see storms and lightning)

THE FOEHN (FÖHN) WIND

When a mass of moist air is forced up the upwind slope of a mountain chain, it causes a "Stau" effect (from the German for barrier). In the mountains, this occurs with a cloudy sky and widespread precipitation. When the same mass of air crosses the mountain and begins to drop down the downwind slope, without the water content which has largely precipitated as rain or snow, the sky is clear with lenticular clouds, the air is dry and a warm wind known as the Foehn often blows in the valleys.

IMPORTANT! When the Foehn is blowing, the winds may reach up to 100-120 km/h

THE WIND CHILL EFFECT

Wind chill is the chilling power of the wind and therefore its ability to subtract heat from the human body (see table on the first inside flap).

If the ambient temperature is below body temperature, the body transfers heat outwards and must therefore produce new heat by burning energy reserves. When there is also ventilation, the heat cuticle generated in the epidermis is constantly removed and the human body therefore feels cold. **IMPORTANT!** In the mountains, the perceived temperature may be much lower than the actual measured and indicated temperature.

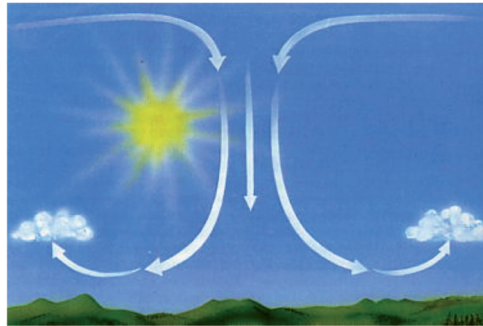
5 - SOLAR RADIATION AND HEAT INDEX

In the mountains, stable fine weather may lead to a significant rise in temperature, possibly aggravated by high humidity. Intense heat in the mountains is favoured by anticyclones.

- EFFECTS:**
- Cramps
 - Sun and heat stroke
 - Orientation becomes difficult
 - Ophthalmia caused by exposure to UV rays

ASSOCIATED WEATHER PHENOMENA:

- Anticyclonic conditions with strong radiation
- Heat index



ANTICYCLONIC CONDITIONS

During an anticyclone, the air tends to drop downwards, losing moisture and becoming compressed. These downward movements lead to high atmospheric stability and a hot air mass. Even with fog, the UV rays can penetrate deeply and you therefore need to protect yourself. Strong radiation associated with a rise in temperature (e.g. south-facing wall) may cause sun or heat stroke.

IMPORTANT! The most critical moments are the last days of a phase of fine stable weather about to break with rising humidity and no wind.

HEAT INDEX

When high temperatures cause the human body to produce more heat than is needed to maintain a constant temperature, the body tends to overheat and must therefore eliminate heat through perspiration. When combined with high temperatures, humid air causes discomfort as it limits loss of body heat through evaporation of perspiration from the skin. Low humidity allows for greater chilling through evaporation, while high humidity hinders skin evaporation. This is why with high temperatures and high relative humidity, the human body perceives a sensation of heat. In this case the term **perceived temperature** is used.

Tables are used to indicate the perceived temperature in relation to actual air temperature and the level of relative humidity (HUMIDEX index - see table on the first inside flap).

IMPORTANT! The perceived temperature may be much higher than the actual measured and indicated temperature.

WHAT TO DO IF YOU ARE CAUGHT IN A STORM

move quickly away from all high areas such as exposed peaks or crests and from "spikes" of any sort (crosses, antennas or similar)		
do not shelter under trees, particularly if isolated; move as far away as possible from them		
move away from watercourses, lakes or reservoirs and from vertical rock walls		
move away (at least 50 m) from all metal conductors and avoid via ferratas. Put all metal equipment in your backpack, do not leave your ice axe attached to the backpack with the tip facing upwards		
avoid using your mobile phone		
crouch down with your head between your knees and feet together (do not lie down on the ground), ideally in a hollow		
if possible shelter in a recess or cave (but not near crests or needles), but do not touch the rock; do not remain near the entrance, move as far inwards as possible		

SAFE PLACES: the car, inside mountain huts and bivouacs

OUTDOORS: in a wood, providing you are under a tree which is shorter than the others and not isolated, crouched down sitting on your backpack, in a hollow and not near peaks and pinnacles. Free yourself of metal object (crampons, ice-axe, nails, via ferrata equipment) and keep away from metal structures (crosses on summits and via ferratas).

