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Base Jumping

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I. General information about base jumping in Switzerland

A. Introduction

[1] Base jumping is understood to mean various forms of parachuting from solid objects. The jump is made from a building (*building*), an antenna (*antenna*), a bridge (*span*) or a ledge (*earth*). The acronym BASE is formed from the initial letters of these four jump locations. When BASE jumping off rock, a suit (tracking suit or wingsuit) is often used, which gives the jumper buoyancy and steering abilities.

[2] Base jumping is considered one of the most dangerous sports in the world. Since 1981, 458 base jumpers have died (as of July 23, 2023) (*Base Fatality List*). So far, 108 base jumpers have died in Switzerland. Around a quarter of all fatal base accidents took place in Switzerland. In the last 20 years, 5 base jumpers died in Switzerland every year (Ellenberger et al., p. 2). According to a study from 2007, a base jump involves about 430 micromorts (1 micromort = chance of dying is one in a million) (Soreide/Ellingsen/Knutson). For comparison: a 17-mile walk (Spiegelhalter/Pearson) or drinking a pint of wine (Howard) corresponds to one micromort, a natural birth approx. 120 micromorts (mirror holder/blastland) and an ascent to the Matterhorn approx. 2'840 micromorts (Bram/Bachmann).

[3] In the early 2000s, base jumping became a source of increased controversy due to accidents and conflicts of use with other airspace users. Since the formation of association structures and the educational work with local partners, however, the conflicts have noticeably decreased. There is currently no legal regulation of base jumping.

The scene sometimes regulates itself and is in exchange with the Federal Office of Civil Aviation (FOCA) to ensure the future of sport in Switzerland in a sustainable way.

[4] The following article places base jumping in the Swiss legal landscape and sheds light on aviation, civil, criminal and insurance law aspects in particular. It is primarily aimed at lawyers who are confronted with the sport, as well as base jumpers who want to practice the sport in Switzerland. Since the sport is still relatively young and cannot be attributed to mass sport, its legal incorporation has not yet been established.

B. The beginning of base jumping in Switzerland

[5] The first documented base jump in Switzerland was completed in 1990 by Frenchman Dominique Gleizes. Back then, Gleizes jumped from a ledge in the immediate vicinity of the Staubbach stream in the Lauterbrunnen valley. In 1991, the famous Swiss climber Xaver Bongard started jumping in the Lauterbrunnen valley. Two years earlier he had met the American Will Oxx in Yosemite Valley and learned to base jump from him. In April 1994, Bongard died while jumping from the "Staubbach" jump point, after colliding with the rock on the parachute. He was the first to lose his life base jumping in Switzerland.

[6] From 1990 to 2000, base jumping was a relatively unknown sport practiced by only a few people. From 2000, the sport grew significantly, and the Lauterbrunnen Valley, with its steep rock faces, had a magical attraction for base jumpers from all over the world. In the meantime, an estimated 20,000 jumps per year are recorded in the Lauterbrunnen Valley (Brodmann Maeder et al., p. 2). With the beginning of "base tourism", however, the problems with property owners, the community and other airspace users (helicopter and paraglider pilots, speed flyers) also began.

C. The Swiss Base Association (SBA)

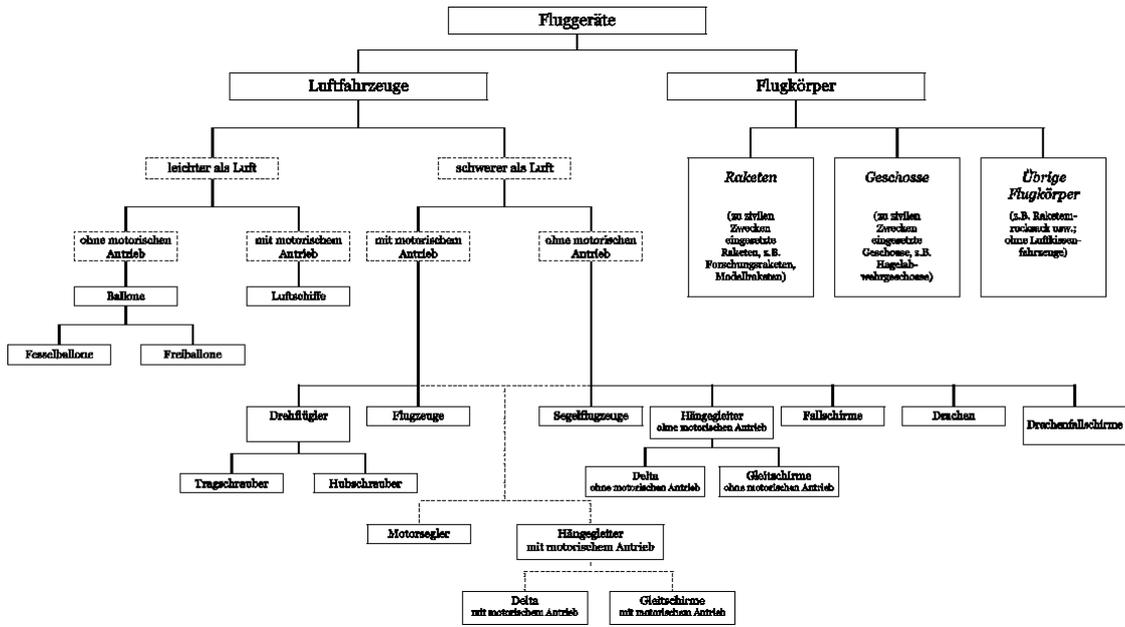
[7] In order to secure the future of base jumping in Switzerland, Moritz Schellenberg and Michi Schwery founded the Swiss Base Association (SBA) in 2007. Their idea was to sell the base jumpers a landing card and pay the proceeds to the farmers. With this, the newly founded association wanted to compensate the farmers for the damage to their land caused by landing on their fields. When money was paid to farmers in the Lauterbrunnen Valley for the first time in 2008, it was the beginning of a friendly coexistence that has lasted to this day. The annual payments grew from CHF 3'660 in 2008 to CHF 14'500 in 2019.

[8th] Since 2011, the SBA has sold an average of 400 landing charts per year. From 2008 to 2018 the landing card cost CHF 25. Since 2019 it has been sold for CHF 40. A small contribution from the proceeds goes into the club treasury. The SBA takes care of the maintenance of the jump sites throughout Switzerland. She sets rules so that nobody is endangered by BASE jumping. She maintains a website and keeps base jumpers informed via social media so everyone is up to date on the latest guidance. In addition, the SBA is in constant contact with the Federal Office of Civil Aviation (FOCA), the municipalities, the police, the property owners, the helicopter companies and the paragliding clubs.

D. Legal classification of base jumping in Switzerland

[9] In order to be able to practice base jumping, the base jumpers are dependent on a parachute. A parachute is an aircraft that can remain in the atmosphere through the action of the air and is therefore an aircraft (Art. 1 Para. 2 LFG). Even if base jumping is not explicitly listed in the nomenclature of aviation law, the Federal Aviation Act (LFG, SR 748.0) with its associated ordinances (in particular the Aviation Ordinance (LFV, SR 748.01), the DETEC ordinance of November 24, 1994 on aircraft of special categories (VLK; SR 748.941), the ordinance of January 22, 1960 on the rights and duties of the commander of an aircraft (KdtV; SR 748.225.1), as well as the provisions of the Annex to the Implementing Regulation (EU) No. 923/2012 of the European Commission of 26 September 2012 (Standardised European Rules of the Air, SERA) the starting point for the legal integration. The FOCA classifies base jumping as a subtype of skydiving because the same jump and landing technique is used and similar material is used as in skydiving.

[10] According to the appendix to the Ordinance on Aviation (LFV, SR 748.01), parachutes are aircraft that are heavier than air and move without a motor drive.



Annex LFV

[11] The specific legal principles of parachuting (and thus also of base jumping) are contained in the fifth section, in Articles 12–13 of the DETEC ordinance on aircraft of special categories (VLK, SR 748.941).

[12] In Switzerland, the FOCA regulates all air sports. Legally, too, base jumping is a special form of skydiving. Sport is largely unregulated in Switzerland, or “self-regulated” by the SBA. If a base jumper wishes to jump in Switzerland, they are asked to first register on the SBA website and leave an emergency contact. The police officers in Lauterbrunnen and Walenstadt have direct access to this list, which makes their work much easier in the event of a death. After registering, the base jumpers can purchase their landing card for CHF 40.00. The landing card is valid for both Lauterbrunnen and Walenstadt and is valid from January to December. Jumpers can read all the rules and download a list of exit points on the SBA website. At all official exit points there are information boards where the rules and the level of difficulty of the jump are noted. Since nine jump points in the Lauterbrunnen Valley are in the closed airspace of the Air-Glaciers helicopter company, the base jumpers have to report each of these jumps to Air-Glaciers by telephone in order to avoid collisions. In addition, a closure time was introduced at the Mürrenfluh (Lauterbrunnental) in order not to endanger paraglider pilots. From March 1st to October 31st, base jumpers are not allowed to jump from the Mürrenfluh from 9 a.m. to 2 p.m. where the rules and the difficulty of the jump are noted. Since nine jump points in the Lauterbrunnen Valley are in the closed airspace of the Air-Glaciers helicopter company, the base jumpers have to report each of these jumps to Air-Glaciers by telephone in order to avoid collisions. In addition, a closure time was introduced at the Mürrenfluh (Lauterbrunnental) in order not to endanger paraglider pilots. From March 1st to October 31st, base jumpers are not allowed to jump from the Mürrenfluh from 9 a.m. to 2 p.m. In addition, a closure time was introduced at the Mürrenfluh (Lauterbrunnental) in order not to endanger paraglider pilots. From March 1st to October 31st, base jumpers are not allowed to jump from the Mürrenfluh from 9 a.m. to 2 p.m. In addition, a closure time was introduced at the Mürrenfluh (Lauterbrunnental) in order not to endanger paraglider pilots. From March 1st to October 31st, base jumpers are not allowed to jump from the Mürrenfluh from 9 a.m. to 2 p.m. In addition, a closure time was introduced at the Mürrenfluh (Lauterbrunnental) in order not to endanger paraglider pilots. From March 1st to October 31st, base jumpers are not allowed to jump from the Mürrenfluh from 9 a.m. to 2 p.m.

[13] On September 27, 2019, Margret Kiener Nellen submitted an interpellation (Interpellation Kiener Nellen Margret, “Wouldn’t it be appropriate to ban base jumping and wingsuit jumps throughout Switzerland?”, Curia Vista no. 19.4350) and wanted to know from the Federal Council whether a Switzerland-wide ban on base jumping would be appropriate. Alternatively, like the “other Alpine and EU countries”, she also suggested that Switzerland should be subject to authorization and asked whether the cantonal authorities could be tasked with enforcing the law. The Federal Council responded to the interpellation on November 27, 2019 and does not consider it appropriate to ban base jumping. The reason given by the Federal Council was that the number of people who had fatal accidents while base-jumping was low compared to other leisure activities, such as mountaineering, and that most of the accidents occurred in impassable terrain and were therefore far away from traffic routes or settlements and uninvolved people would occur. The danger to third parties, which emanates from base jumping, is therefore marginal. In addition, the introduction of a permit requirement would be disproportionate, too resource-intensive and would increase the probability of accidents. This is because it can be assumed that – to circumvent the controls – jumps are increasingly carried out in the morning and evening hours or from “unofficial” jump locations.

1. Traffic Rules

[14] Article 12 VLK refers to the provisions in the European Commission Implementing Regulation (EU) No. 923/2012 of September 26, 2012 SERA.3101, 3115, 3125, 3145, 3201 and 3205. SERA stands for Standardized European *Rules of the Air*.

[15] The only SERA article that also applies to base jumping is SERA-3215, which states that an aircraft must not be operated so close to other aircraft that there is a risk of collision.

[16] SERA.3205 is worded very vaguely. In particular, it does not contain any rules of precedence, as is the case for hang gliders, for example (cf. Art. 8 Para. 6 VLK). Accordingly, this article is open to interpretation.

[17] In the base jump scene, people often jump in smaller groups of two to four jumpers. This is especially true when using wingsuits, which enable the jumpers to glide down a mountain with a glide ratio of up to 3.5 (3.5 meters forward flight with a one-meter sink) and speeds of more than 150 km/h. During such a flight, which can sometimes last more than two minutes, the jumpers occasionally fly close together. Sometimes the distances are only a few meters, especially when the jumpers film each other. However, there is no known case where a collision between two base jumpers would have resulted in a fatality. In principle, such a flight can be qualified as a formation flight, which also occurs and is permissible in aviation. Think, for example, of the aerobatic team of the Swiss Air Force (Patrouille Suisse). Regarding formation flying, SERA.3135 is the relevant regulation. However, only lit. a is relevant for base jumping, which states that one of the pilots must be designated as the «flight leader». This is already common among base jumpers for safety reasons: one person jumps first and leads the formation. All others follow the leader. There are no requirements regarding the experience of the flight leader. The rule has a purely organizational character. There is no question that any form of formation flying involves a greater risk of accidents. In view of the Swiss and European legislation, such must be classified as critical. Regarding formation flying, SERA.3135 is the relevant regulation. However, only lit. a is relevant for base jumping, which states that one of the pilots must be designated as the «flight leader». This is already common among base jumpers for safety reasons: one person jumps first and leads the formation. All others follow the leader. There are no requirements regarding the experience of the flight leader. The rule has a purely organizational character. There is no question that any form of formation flying involves a greater risk of accidents. In view of the Swiss and European legislation, such must be classified as critical. Regarding formation flying, SERA.3135 is the relevant regulation. However, only lit. a is relevant for base jumping, which states that one of the pilots must be designated as the «flight leader». This is already common among base jumpers for safety reasons: one person jumps first and leads the formation. All others follow the leader. There are no requirements regarding the experience of the flight leader. The rule has a purely organizational character. There is no question that any form of formation flying involves a greater risk of accidents. In view of the Swiss and European legislation, such must be classified as critical. This is already common among base jumpers for safety reasons: one person jumps first and leads the formation. All others follow the leader. There are no requirements regarding the experience of the flight leader. The rule has a purely organizational character. There is no question that any form of formation flying involves a greater risk of accidents. In view of the Swiss and European legislation, such must be classified as critical. This is already common among base jumpers for safety reasons: one person jumps first and leads the formation. All others follow the leader. There are no requirements regarding the experience of the flight leader. The rule has a purely organizational character. There is no question that any form of formation flying involves a greater risk of accidents. In view of the Swiss and European legislation, such must be classified as critical.

[18] With regard to priority rules during the flight (especially during the gliding phase of wingsuit and tracksuit pilots, but also during the flight phase on the glider), there are no explicit priority rules in Switzerland. In principle, non-motorised aircraft have priority over motorized aircraft. Among non-motorized aircraft, balloons take precedence over paragliders and gliders. This is justified by the severely limited controllability of balloons. Because of their small size and high speed, BASE jumpers are practically undetectable by other airspace users. At the same time, BASE jumpers are unpowered and have limited controllability, which is still better than that of a balloon. In principle, BASE jumpers have priority over all other airspace users in free fall, with the exception of balloons. However, BASE jumpers must be aware that it is virtually impossible for other airspace users to get ahead of them to grant or avoid them *in time*. This is particularly the case when base jumpers are above other aircraft or are flying at a low altitude (e.g. in so-called wingsuit proximity flights). However, if local airspace regulations and specific jump times exist (as in the Lauterbrunnen Valley or in Walenstadt), these are considered *lex specialis* and thus supersede the basic rules of priority and must be observed by all airspace users. Once a base jumper has deployed her parachute, we believe she is subject to the same rules of priority as a paraglider pilot. It should also be noted that you have to fly outside of clouds.

[19] In principle, legal precedence applies to other base jumpers in the free fall phase and the phase on the parachute. Two base jumpers coming towards each other must both fly away to the right, unless this is not possible - for example due to a rock face. Then only the one who has the rock face on his left has to dodge to the right. The other has the right to continue flying straight ahead (*per analogiam* Art. 8 Para. 6 VLK in conjunction with Art. 12 of the DETEC Ordinance on Traffic Rules for Aircraft (VRV-L, SR 748.121.11).

[20] The basic rule is: BASE jumpers are only allowed to jump if the view and the airspace are clear. The jumpers must be able to see the ground and terrain at all times (no flying through clouds). If another aircraft is on the

planned flight path, the jump must be delayed until it has moved away. The flight path and the distance to other jumpers is to be chosen in such a way that there is no risk of collision with other jumpers or other aircraft.

2. Obligation to obtain a permit (Art. 12a VLK)

[21] According to Art. 12a VLK require a permit for parachute jumps over and near airfields and in class C and D airspace. Such permits are usually issued by the responsible air traffic control unit or, if there is no air traffic control unit at the aerodrome, by the aerodrome manager.

[22] A comprehensive pre-flight check must be carried out before each base jump. This check includes meteorological conditions, condition and choice of equipment, physical and psychological condition of the jumper, choice of exit point, flight path and its topographical and local conditions and reconnaissance of the landing site. In addition, the DABS (Daily Airspace Bulletin Switzerland, available at: <https://www.skybriefing.com/de/dabs>) be consulted to ensure that no military flying or gunnery exercises, drone flights or other events that increase the risk of a collision or airspace violation are planned in the planned jump region. If the planned flight path leads past an airport or heliport, we believe that the same distances must be observed as for hang gliders. This means that below an altitude of 2,000 feet (approx. 600 m) above the reference point of a civil airport intended for aircraft without a control zone (CTR) or with an inactive CTR, a minimum distance of 5 km must be observed. During the military flight duty hours (Monday to Friday without public holidays 07.30 to 12.05 and 13.15 to 17.05 Swiss time) the same also applies to military airfields. A minimum distance of 2.5 km applies to heliports. Exceptions can be made individually and in consultation with the *air traffic control services or the aerodrome managers* (Art. 9 VLK).

[23] Base jumps should always take place in airspace class G or E, ie outside controlled airspace (airports and/or heliports, cf. Appendix 1 of the DETEC Ordinance on Traffic Rules for Aircraft (VRV-L, SR 748.121.11)). All controlled airspaces, airfields and heliports can be viewed on the ICAO aeronautical chart of Switzerland, which is also available digitally.

3. Landing site for parachute jumps outside of airfields (Art. 12b VLK)

[24] According to Art. 12b VLK must be reconnoitred the planned landing site before the jump. It must be free of obstacles according to the parachute pattern used and marked with a clearly visible cross. In addition, the surface wind is to be indicated with a windsock. However, before a landing site is marked, the consent of the property owner must be obtained. If a landing is planned in densely populated areas of towns or on public waters, the consent of the responsible police authorities must be obtained. Landings on public roads are not permitted.

[25] This regulation is very relevant for base jumping, since practically no base jump landings take place at an airfield. The SBA manages a total of 33 exit points and the associated landing sites throughout Switzerland. For these landing sites, the SBA has obtained the consent of the beneficiaries. BASE jumpers who want to jump in the Lauterbrunnen Valley or in Walenstadt must register in advance and buy a landing card from the SBA. As long as these jumpers use the official SBA exit points and landing sites, there is no risk that they will infringe Article 12b violating VLK. However, if another landing site is flown to, the consent of the authorized person must first be obtained and the landing site marked accordingly. Since this usually involves considerable effort, it is recommended to only use the official SBA landing sites.

[26] The "B" in BASE jumping stands for "Building". In April 2022 there was a case in Ostermundigen where a base jumper jumped without permission from the newly built 100 meter high Baretower in Ostermundigen (*Berner Zeitung* of April 22, 2022). Luckily nobody was hurt during this action, neither the base jumper nor bystanders. There was also no property damage. In 2009 there was an approved jump from the Sunrise Tower in Zurich-Oerlikon, in which the world-famous Swiss base jumper Ueli Gegenschatz lost his life (*NZZ* from 12.11.2009).

[27] Jumping from buildings in urban zones is not only extremely dangerous, but also, insofar as there is no police permit, according to Art. 12b Para. 3 VLK also banned.

4. Take-off line (Art. 12c VLK)

[28] Parachute jumps must always be carried out under the direct supervision of a responsible manager and may only take place after an observer from the ground has confirmed by radio or signals that the required airspace is free of aircraft (Art. 12c VLK).

[29] When practicing a dangerous sport like BASE jumping, it's always better to have a second person with you. On the one hand, this can help to control the airspace and, on the other hand, alert the rescue services if an incident occurs. In the case of base jumping, however, there is no take-off line within the meaning of Art. 12c Para. 1 VLK. However, this is usually only necessary if you take off from and land on an active airfield.

[30] From most jump points, the airspace can be independently checked by the base jumpers before the jump. The

visual and acoustic control ensures that there is no other aircraft in the vicinity. But there are also exit points where a ledge restricts the view or where the landing site is far away from the jump-off point. Here the base jumpers have to contact a person at the landing site who can control the airspace for them. Only if this person confirms the free airspace, the base jumpers are allowed to start their flight.

E. Licensing

[31] A license is not required by law for base jumping. The only legal requirement is liability insurance with coverage of at least CHF 1 million to cover liability claims against third parties on earth (Art. 21 VLK). However, if you want to do a parachute jump on an official jump site in Switzerland, you will be asked to present a valid parachute license in addition to valid liability insurance when registering. In Switzerland, the parachute licensing system is controlled and implemented by the Swiss Aero Club (AeCS) in cooperation with the Swiss Parachute Association (Swiss Skydive).

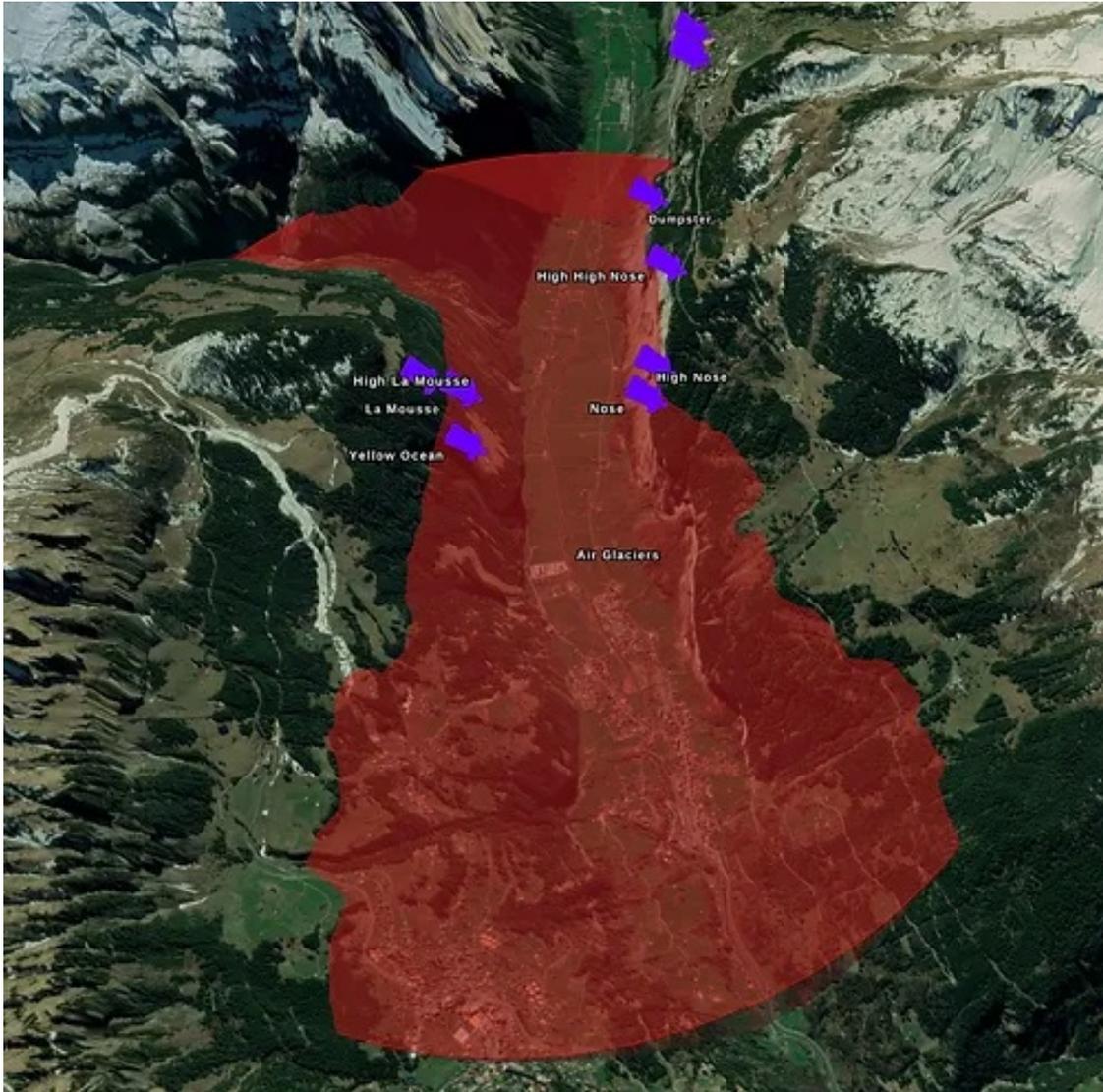
[32] In practice, most BASE jumpers have or have had a parachute license, as most BASE jumpers typically do their first jumps as skydivers. This is definitely recommended before starting BASE jumping.

F. Mid-Air Collisions

[33] The problem of collisions in the air is mainly in the Lauterbrunnen valley between paraglider pilots, helicopter pilots and base jumpers. For example, a complete visual check of the airspace is not possible at the "High Ultimate" and "Low Ultimate" jump points (Mürrenfluh). Therefore, as already mentioned, the SBA has introduced a curfew to prevent collisions with paraglider pilots. From March 1st to October 31st, no base jumps may be made from the Mürrenfluh between 9 a.m. and 2 p.m. During this time, the paraglider pilots fly close to the rock face to take advantage of the thermal updrafts.

[34] The heli base of the Air-Glaciers (LSXL Heliport Lauterbrunnen) is also located between Lauterbrunnen and Stechelberg. Nine drop locations are within the 2.5 km radius (see image below, not all affected drop locations are marked in the image). The frequently frequented exit points "Via Ferrata", "High Ultimate" and "Low Ultimate" are outside the radius, even if only by a few hundred meters. The SBA has an agreement within the meaning of Art. 9 Para. 2 with the helicopter company Air-Glaciers VLK can meet. Base jumpers are allowed to jump within the 2.5 km radius as long as they register their jump by telephone at the heliport beforehand. The regulation applies both to free fall (gliding phase) and to parachute flight (flight phase).

[35] BASE jumpers who do not follow SBA rules will be contacted and admonished by the SBA. In rare cases, jumpers are sanctioned by "public shaming" on social media. If a base jumper jumps into the closed airspace of the heliport, Air-Glaciers may file a complaint and the jumper may face criminal prosecution.



The closed airspace of the Lauterbrunnen LSXL heliport (image by Kenny Daniel, source: <https://www.swissbaseassociation.org/rules> , last visited on 11/16/2022).

II. Private law

[36] Usually, the damage caused by BASE jumpers is limited to marginal land damage. Without exception, the exit points are in impassable terrain in the Swiss Alps and the landing sites are usually directly below on a field. Inhabited areas are very rarely overflowed. Accidents usually occur when jumping (hitting the rock after just a few seconds), during flight (proximity flying) or when landing with a parachute. To date, these incidents have not caused any significant damage to third parties.

[37] Article 21 paragraph 1 VLK states that the liability claims of third parties on earth must be secured by the owner through liability insurance with a guaranteed sum of at least CHF 1 million. This insurance covers damage caused on the ground, for example if BASE jumpers would breach the roof of a house or fall on a third party on the ground, seriously injuring or killing them. In principle, damage to a high-voltage line or a cable car system would also be conceivable. Art. 21 para. 3 VLK stipulates that proof of liability insurance must be carried with every jump.

[38] If damage on earth is caused by two or more base jumpers colliding in flight, these base jumpers are fundamentally liable to compensate the injured third party as joint and several debtors (Art. 66 LFG). These claims for compensation become time-barred in accordance with the provisions of liability law (Art. 67 LFG).

III. criminal law

A. Penal Provisions

[39] The Aviation Act also contains criminal law norms relevant to BASE jumpers. A commander of an aircraft who

willfully disregards the legal regulations or traffic rules and thereby knowingly endangers the life and limb of people or other people's property of considerable value on the surface of the earth is punished with imprisonment for up to three years or a fine (Art. 90 LFG). Negligent action will be punished with a fine of up to 180 daily rates. Furthermore, a fine of up to CHF 20,000 can be imposed if traffic rules or regulations on flight operations are intentionally or negligently violated and serve the safety of people or property (Art. 91 LFG). In addition, law enforcement authorities are empowered to confiscate aircraft, in our case base jump equipment, if there is a risk that its continued use would endanger public safety or its improper use is to be feared (Art. 92 lit. b LFG). In our opinion, BASE jumpers as pilots of parachutes are commanders of aircraft within the meaning of Art. 90 LFG and are therefore subject to the above provisions. Of course, under certain circumstances, the common criminal offenses of the Criminal Code can also be applied, whereby only Article 117, 125, 129, 144 and possibly Art. 186 StGB should be relevant. Also the application of Art. 237 and 238 StGB is conceivable if public or rail traffic is disrupted by an accident.

B. Casuistry

[40] In the past four years, the cantonal police in Bern have reported five base jumpers for airspace violations on behalf of the helicopter company Air-Glaciers. In 2018, two American wingsuit pilots jumped from the High La Mousse jump site without contacting Air-Glaciers by phone. They flew over the heli base and pulled out their parachutes there. This is a clear violation of the understanding entered into between the SBA and Air-Glaciers (within the meaning of Article 9(2) VLK). The Americans received a penalty order from the Bern canton's public prosecutor's office and were fined several thousand francs. In 2020 there were two Spanish citizens who had not registered their jump from "High La Mousse". They too were sentenced to a fine. In 2021, a British base jumper invaded Air-Glaciers airspace without prior telephone notice. He also had to pay a fine.

IV. Accident and social security law

[41] In the case of non-occupational accidents that are due to an (absolute) risk, the cash benefits are reduced by half and denied in particularly serious cases (Art. 50 Para. 1 UVV; Mueller, N 386). There is an absolute risk if a dangerous action is not worthy of protection or if the action is associated with such great dangers to life and limb that they cannot be reduced to a reasonable level even under the most favorable circumstances (BGE 141 V 37, E. 2.3; see Article 50 UVV).

[42] There are no reductions in the costs of treatment, recovery, rescue and transport (but only if the injured person has accident and health insurance. This is sometimes not the case, especially with foreign base jumpers). On the other hand, daily allowances and disability pensions are reduced, which can often have serious consequences for those affected (SUVA).

[43] SUVA qualifies base jumping as an absolute risk, but without stating the reasons (SUVA; Schneuwly, fn. 64; KOSS UVG- Gehring, Art. 39 N 77; Müller, margin no. 397; OFK UVG- Kieser/Gehring/ Bollinger, Art. 39 N 17). This was implicitly confirmed by the Federal Supreme Court in an *obiter dictum* (BGE 141 V 37, E. 4.1). This assessment is generally accepted. Even if the risk of injury is between 0.05%-0.2% according to the most recent study (Brodmann Maeder *et al.*, p. 1) and is therefore lower than in most popular sports (the risk of injury in football is 1.24%, in tennis 0.38%, in cycling 2.18%, in volleyball 2.09%, in skiing 1.95% and in Dancing at 1.11% [Majewski, p. 41, with other sports]), the risk of death in base jumping is 0.02%-0.08%, significantly higher than in popular sports, where it is around 0.000058% according to a German study (Parceller/Cook/Raschka, which examined 2374 sport-related deaths in 70 disciplines over a period of 16 years and compared the result to all athletes registered with sports clubs. 1431, i.e. around 60.3% were due to cardiovascular events, the rest due to traumatic or other causes).

[44] According to Gabriela Prettyr, former SUVA spokeswoman, the insurance companies pay a maximum of 50 percent of the cash benefits in the case of absolute risks and nothing in extreme cases (Handelszeitung from 01.09.2017). However, this problem can be solved with a so-called UVG supplement or differential insurance. A differential insurance fully compensates for all reductions or refusals of benefits from the compulsory accident insurance as a result of risk or gross negligence (Handelszeitung from 01.09.2017). Persons who are not compulsorily insured through an employer can take out individual accident insurance, which usually also covers accident costs resulting from hazardous activities. In any case, it is recommended that you ask the insurer explicitly before taking out the insurance whether absolute risks, especially base jump accidents, are covered and whether there is no exclusion in this regard. This should be confirmed in writing by the insurer.

V. Tandem BASE Jumping

[45] Anyone who would like to experience the free fall without completing the full training course to become a parachutist can book a tandem jump at various jump sites in Switzerland. With a licensed tandem instructor, the paying customer jumps out of a plane or helicopter. Since 2009, this offer has also been available in base jumping. The American base jumper Sean Chuma has completed more than 1000 commercial tandem base jumps from the "Perrine Bridge" in the American state of Idaho since 2009 (Geser; SBA). In Europe, Italian Maurizio di Palma offers tandem base jumps from Monte Brento near Lake Garda.

[46] In 2022, the first videos appeared on social media showing BASE jumpers with passengers jumping off a rock in the Lauterbrunnen Valley. In July 2023, a base jumper performed the first tandem jump from the mushroom on the north face of the Eiger. It is possible that tandem base jumps will become more and more common in Switzerland in the future.

[47] In our opinion, tandem jumps in base jumping are extremely problematic from a legal point of view, since a passenger who has no skydiving experience whatsoever can only with difficulty consent to the high risk of injury or even death. In any case, before the jump, the passenger would have to be given a comprehensive explanation, which would have to be signed by the passenger. The passenger must be aware that, for example, if the parachute opening is asymmetrical, the passenger and his pilot can collide with the rock, often resulting in serious injury or even death. Likewise, the passenger would need to be made aware that there is no insurance coverage (there is currently no insurance that would protect the passenger) and that in the event of an accident or death all costs would need to be borne privately. Müller, Rz. 374; BSK OR I – Widmer Lüchinger/Wiegand, Art. 100 N 4).

[48] If an accident occurs during a tandem base jump in which the instructor survives, it can be assumed that the instructor would very likely be reported for negligent serious bodily harm or negligent homicide, since it can be assumed that there is regularly an agreed endangerment of others, since the passenger has no way of intervening in the flight (see e.g. judgment of the BGer 6B_208/2021, 6B_209/2021 dated March 29, 2023 E. 3.5.4, but which concerned a tandem paragliding flight). In addition, according to Art. 6 Para. 1 KdtV, the instructor as "commander" has to take all necessary measures within the framework of the legal provisions and the recognized rules of aviation to protect the interests of the passenger. The base jumper could face a fine or even imprisonment for up to three years. In addition, it would also be expected that the passenger and/or his relatives would make a high claim for damages and satisfaction. In December 2022, the SBA issued a statement strongly discouraging all BASE jumpers from BASE jumping with passengers in Switzerland.

[49] The Federal Supreme Court recently shared this view in connection with a tandem paraglider accident (Federal Court judgment 6B_208/2021, 6B_209/2021 of March 29, 2023), although it also expressly exempted the pilot from the offense of negligent disruption of public transport (Article 237 paragraph 2 StGB) acquitted. This is on the grounds that if someone knowingly takes on a certain risk, which then manifests itself, they have not exposed themselves to any general danger. The Federal Supreme Court mentions, among other things, that anyone who gets into a car with a daring stunt driver is not endangering the public within the meaning of Art. 273 suspend the Criminal Code. Victims within the meaning of Art. 237 In other words, according to the Federal Supreme Court, only those road users who are "accidentally" affected by the danger posed by the perpetrator and who represent the public in relation to the perpetrator (E. 5.2.4) can be penal code – according to the Federal Supreme Court. Furthermore, it is irrelevant whether the passenger knows the stunt driver personally or not, since in any case the passenger is not accidentally affected by the dangers of public transport. In our opinion, the same considerations would also apply to tandem base jumping. In any case, however, the penal provisions protecting individual legal interests remain unaffected. The exclusion of Art. 237 StGB does not release the pilot from the responsibility for the safety of his passenger.