

Regulations of the Hamilton Trophy Cup

Version 2019-1

**Issued by the
Swiss Aerobatic Association
SAA**

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1 Fundamental principles and purpose of the Hamilton Trophy

- 1.1 The Swiss Aerobatic Association (SAA) on behalf of the Aero Club of Switzerland (AéCS) and the Swiss Power Flying Federation (FSVM/MFVS) organizes every year (if possible) a training competition currently called after our sponsor the Hamilton Trophy.
- 1.2 The present regulations contribute, primarily, to the best possible running of the Hamilton Trophy. They define the rules and structures of the organization.
- 1.3 No regulation can replace good judgment and common sense of the organizers and participants.
- 1.4 The elaboration of these regulations is based on national and international rules spirit. Moreover, it is constantly renewed. This is why it is legitimate and necessary to adapt these regulations, normally every year, to the new rules and to the evolution of the sport. Propositions and suggestions in this sense are to be addressed before November 15 to the SAA. The final document with all the modifications (national and international) for the year will be transmitted to the Central Secretariat of the AéCS through the FSVM/MFVS as soon as it has been updated.
- 1.5 The result in the Hamilton Trophy could be a part of the criteria to move to a higher category at the SNAC of the year. See SNAC Regulations 5.1.3.
- 1.6 Aerobatics brings an essential contribution to the perfection of flying skills
- 1.7 The Hamilton Trophy is a means to promote the skills of pilots. It encourages contacts between the participants and the exchange of thoughts and experience within the AéCS in a climate of comradeship and good friendship.

2 General considerations / Basics

- 2.1 The AéCS is a member of the FAI and Swiss Olympic. Therefore the AéCS has the air-sport's power in Switzerland, referred to by the Fédération Aéronautique Internationale (FAI) as the National Airports Control (NAC). It is the sovereignty of the AéCS to conduct the Hamilton Trophy.
- 2.2 Media work of the Hamilton Trophy shall be coordinated with the media department of the AéCS.
- 2.3 Safety will, at all times, be the primary consideration for all decisions.
- 2.4 All participants (Swiss and foreign guests) are submitted to the present regulations and must abide by the rules.
- 2.5 The Committee of the SAA – together with the Trophy Director – searches for airfields and fixes the dates without overlapping international championships, FAI events or current SNAC.

- 2.6 The Hamilton Trophy takes place from April to September.
- 2.7 The Hamilton Trophy will take place at 3 to 5 different locations on one single day for each heat.
- 2.8 Planning of the Hamilton Trophy should be published by the mid of April latest.
- 2.9 The Hamilton Trophy will be conducted according to the regulations in place during the time of the beginning of the registration.
- 2.10 This cup is a sports demonstration in the spirit of article 3.1.2, general section, of the FAI Sporting Code in force. The provision of the FAI Sporting Code, Section 6, Part 1 (Powered Aerobatics) is applicable by analogy when the present regulations do not diverge from it.
- 2.11 The present regulations will be in force after the approval by the SAA Committee and the FSVM/MFVS. Yearly amendments and improvements can and should be made. The amendments will be in force right after their approval.

3 Concept and organization

3.1 General

The Hamilton Trophy is the second major competition organized by the SAA, parallel to the SNAC. As the Hamilton Trophy is some kind of training for the SNAC and FAI competitions or events, the organization should plan the last day of the Hamilton Trophy before the SNAC, if possible.

3.2 The Cup concept

- 3.2.1 The Cup is a competition where competitors are flying in their normal category (or higher for SNAC qualification) 3 to 5 programmes on different days on different airfields. The order of programmes will be flown according to the order mentioned in table 4.2.1 without any consideration of the location.
- 3.2.2 A heat of the Hamilton Trophy normally takes place on a Saturday with one associated weather-reserve day (in case of bad weather on the initial planned day).
- 3.2.3 Hamilton Trophy heats
 - (a) A heat is a day when the competitors will fly the assigned programme of their category.
 - (b) A heat is composed of two flights per pilot (when possible). The judges will mark both of the flights and the best will be taken into account for the final ranking of the heat.
 - (c) All competitors are flying in one group without any difference of category, except for altitude maxima and minima.

3.3 Structure

- 3.3.1 Organizational Structure of the Hamilton Trophy includes:

- (a) Trophy Director (CuD)
- (b) Chief Judge (CJ), Judges and Assistants
- (c) Local authorities
- (d) Competitors

3.4 Categories

3.4.1 The competitors can participate in 4 categories:

- (a) Sportsman SPO
- (b) Intermediate INT
- (c) Advanced ADV
- (d) Unlimited UNL

3.5 Hamilton Trophy ranking

- (a) The ranking of the heat is made on percentage of the maximum points possible on the assigned programme, regardless of the category.
- (b) The CIVA Fair Play System will not be used during the Hamilton Trophy.
- (c) The achieved percentage is then translated into points.
- (d) The sum of the points gained during the different heats gives the final ranking of the Hamilton Trophy.
- (e) For Pilots with four heats or more, only the top three results will count towards the overall score of the Hamilton Trophy.
- (f) If a registered pilot misses a heat during the year, he/she will have the 0 point score for that heat.
- (g) In case of equality in points, the higher score achieved in any heat flown during the Hamilton Trophy will resolve the stalemate.

3.6 Awards

- 3.6.1 Awards can only be presented, if at least 3 participants are competing and if at least 1 heat has been completed during the year.
- 3.6.2 The winner will be awarded the gold medal and the title of “Swiss Cup Champion”; the second and third placing will be awarded silver and bronze medals respectively.

3.7 Cup Director (CuD)

- 3.7.1 The Committee of the SAA appoints the CuD. He will act as the general manager of the event, appointing contest officials. The CuD could be a competitor.

3.7.2 The rights and duties of the CuD are the following:

- (a) Administrative (insurance, etc)
- (b) Registration procedure
- (c) Financial supervision
- (d) Technical organization
- (e) Conduct of the Cup
- (f) Infrastructure
- (g) Aerodrome flight adaptations
- (h) Contacts to officials
- (i) Media work, coordination with the local partners and SAA Committee
- (j) Communication with the committee of the SAA and the FSVM/MFVS
- (k) Supervision of the contest in accordance with the present regulations
- (l) Respect the national regulations of the FOCA (BAZL/OFAC) (NOTAM and other) as well as local regulations
- (m) Ensuing the co-ordination with the direction of the airport and foreseeing the zones reserved to the public, the parking of the aircrafts
- (n) Designating of the aerobatic box (no ground markings required).
- (o) Organization of ground/aircraft communication equipment and service.
- (p) Organization and documentation of safety measures in coordination with the direction of the airport, local authorities and help organizations in case of an accident.
- (q) Prepare the logistics for the conduct of the competition flights (judges, assistants, helpers, scoring office, publication of the results, etc...).
- (r) Certify scores.
- (s) Organization of briefings and ensuing adequate information to the pilots.
- (t) Warning or excluding of contest any person or competitor for reason of safety or unsportsmanlike conduct.
- (u) Presenting awards and/or prizes.

3.8 Judges

3.8.1 The CuD nominates the judges before the competition.

3.8.2 The board of judges is composed of:

- (a) 1 Chief-Judge and 1 Assistant Judge. The Chief-Judge has a casting vote in case the required simple majority cannot be reached within the board of judges.
- (b) At least 1 additional Judge and 1 additional Assistant Judge.
- (c) The CuD should consider inviting foreign judges for the mix of competence and experience.
- (d) It's not mandatory that the judges' board is the same during all the heats of the Hamilton Trophy.

3.8.3 The judges are subjected to the FAI Sporting Code, Section 6, Chapter 2.

3.8.4 A judge cannot be a competitor during the current Hamilton Trophy.

3.8.5 Chief Judge (CJ) responsibilities:

- (a) The primary concern should be the accurate and fair judging of the competition flights, including the monitoring of flights for zero marks and penalties. He should place his expertise at the disposal of the board of judges and co-ordinate and guide their work.
- (b) Supervision of the correctness of paperwork recording of penalties.
- (c) In case of serious fault, the CJ can ask the CuD to exclude a judge from the contest. The final decision belongs to the SAA Committee.
- (d) As no video recording system is used during the Hamilton Trophy, the hard zeros (HZ) of the CJ are automatically registered as confirmed hard zeros (CHZ).

3.8.6 No boundary judges are on duty during the Hamilton Trophy.

3.9 Jury

3.9.1 No jury is on duty during the Hamilton Trophy.

3.10 Name of the Hamilton Trophy

3.10.1 The Hamilton Trophy is a concept. The name can be changed according to the situation (sponsor, special event, etc...) by a SAA Committee decision.

4 Conduct of Hamilton Trophy

4.1 Box

- 4.1.1 According to FAI Sporting Code, Section 6, Part 1, Chapter 5.2.6.1. No aerobatic figures are allowed outside the box.
- 4.1.2 The Aerobatic Performance Zone. FAI Sporting Code, Section 6, Part 1, Chapter 4.7.
- 4.1.3 One calls "box" the space within which the programmes must be executed.
- 4.1.4 The box is normally located closed to a runway for obvious safety reasons.
- 4.1.5 The horizontal measurements of the box are of 1'000 m x 1'000 m. The center cross of the box will be marked or clearly defined for the Hamilton Trophy. No other markings of the box are required.
- 4.1.6 Height limitations are as per FAI Sporting Code, Section 6, Part 1, Chapter 4.2.4. In addition height limitations for Sportsman and Intermediate categories are valid as per the table below:

Limits	Lower	Upper	Disqualification
Sportsman	500 m / AAL	1'500 m / AAL	300 m / AAL
Intermediate	500 m / AAL	1'500 m / AAL	300 m / AAL
Advanced	200 m / AAL	1'100 m / AAL	100 m / AAL
Unlimited	100 m / AAL	1'000 m / AAL	50 m / AAL

4.1.7 A competitor flying lower than these lower limits will be disqualified (from the current programme) for causing a dangerous situation.

4.1.8 The CuD can, depending on the presence of obstacles in the box or in the immediate vicinity or when the position of the judges does not allow the control of the lower limits of the box or due to airport rules, change these limits upwards. Safety has priority over all other considerations.

4.2 Competition flights

4.2.1 Programmes flown during the season :

	Sportsman	Intermediate	Advanced	Unlimited
1 st Run	Known	Free Known	Free Known	Free Known
2 nd Run	Free	1 st Unknown	1 st Unknown	1 st Unknown
3 rd Run	1 st Unknown	2 nd Unknown	2 nd Unknown	2 nd Unknown
4 th Run	2 nd Unknown	3 rd Unknown	3 rd Unknown	3 rd Unknown / U4FS

4.2.2 Sequence of flights (Drawing of Lots)

FAI Sporting Code, Section 6, Part 1, Chapter 4.1.8

The starting order for each programme will be determined by drawing of lots. The CuD may decide on permutations, if the use of the same aircraft by successive competitors would slow down the competition. A minimum of 2 pilots will be inserted between a multiple-use aircraft.

4.2.3 Radio communications:

In order to improve the security and the good progress of the cup, the pilot must stay in permanent radio contact during the flight with the starter, the CJ or an assistant on the prescribed frequencies. The abusive use of the radio can be sanctioned by disqualification or penalty (250 points).

As an exception, the CuD can allow a contest flight without radio. A competitor experiencing radio failure before starting his programme must land. If the breakdown occurs during the execution of the programme, the competitor can finish the programme before landing and taxi the aircraft into a designated secure area for cases of technical defects.

The competitor enters the box only after permission has been received from the starter or the CJ. A competitor entering an occupied box ("hot

box") will be disqualified for the current flight or the whole competition, as per decision by CuD.

- 4.2.4 Defects on the ground and in flight: FAI Sporting Code, Section 6, Part 1, Chapters 4.2.7.1. and 4.2.7.2. will apply.
- 4.2.5 In the event that a test flight is required and the competitor does not allow a non-competing pilot to fly his aircraft for test purposes, a special authorization will be given to the competitor to fly this test flight. Conditions: FAI Sporting Code, Section 6, Part 1, Chapter 4.2.7.1. b).
- 4.2.6 During the Hamilton Trophy, if one pilot has to change his plane for another one (due to technical problem), the concerned pilot will be allowed to practise some select figures during the Safety Manoeuvres. He will be allowed to fly the described figures in FAI Sporting Code, Section 6, Part 1, Chapter 4.2.8. INT and SPO will be assimilated to "Yak 52" (SPO will fly a full roll (9.1.3.4) instead of the permitted flick roll.
- 4.2.7 Duration of flight and signalling start and finish: FAI Sporting Code, Section 6, Part 1, Chapter 4.2.6. SPO and INT are as per "Yak 52".
- 4.2.8 Safety Manoeuvres: FAI Sporting Code, Section 6, Part 1, Chapter 4.3.1.2.
- 4.2.9 Measures in case of mechanical defects: FAI Sporting Code, Section 6, Part 1, Chapter 4.2.7 will be applied.
- 4.2.10 In addition the following defects will not be counted, FAI Sporting Code, Section 6, Part 1, Chapter 4.2.7.4:
- Bad pre-flight check.
 - Short of fuel or lack of oil.
 - Unsecured fuel and oil caps, engine cowlings, inspection doors, ...
 - Unattached objects: goggles, safety seat belt, charts, etc...
 - Lack of maintenance and cleanliness.
 - Operation outside of aircraft operating parameters and/or pilot not familiar with aircraft operating parameters.
- 4.2.11 A penalty of 250 points will be awarded to a pilot who, without reasonable cause, is not ready when their slot time arrives as per FAI Sporting Code, Section 6, Part 1, Chapter 5.2.4.2.
- 4.2.12 If a pilot keeps the conduct of the contest waiting for more than 10 min without any valid reason, the starter will inform the CuD. The CuD will decide the disqualification of the pilot for the concerned flight.

4.3 Evaluation of the competition flight and criteria.

- 4.3.1 FAI Sporting Code, Section 6, Part 1, Chapters 5. and 6.

4.4 Penalties

4.4.1 FAI Sporting Code, Section 6, Part 1, Chapters 5.2 and 5.3, applies.

4.4.2 Tables of penalties with Hamilton Trophy adaptations for INT and SPO.

Penalty	U4FS	UNL	ADV	INT	SPO
Time out	10 / sec	-	-	-	-
Faulty wings rocks	150	30	30	30	30
Too low	250	250	200	150	150
Too high	-	50	30	30	30
Missed slot	250	250	200	150	150
Interruption	-	150	100	50	50
Insertion	-	150	100	50	50
Violation of Safety Manoeuvres	30	30	30	30	30

4.5 Meteorological conditions

4.5.1 FAI Sporting Code, Section 6, Part 1, Chapter 4.2.2. applies.

4.6 Video recording

No video recording is required for the Hamilton Trophy.

5 Entry conditions

5.1 Competitors

5.1.1 Every pilot must have a valid pilot's license with aerobatic extension. (Unless included in the pilot's license, reasonable proof of adequate aerobatic experience has to be provided).

5.1.2 Category admittance criteria:

The first competition shall be at SPO level. During the Known Compulsory, the pilot has to assure the CuD and the judges that he is in control of the aircraft and safely flies the series of figures in the box. Higher category participation in the Hamilton Trophy is possible, even if the SNAC category admittance criteria are not fulfilled (See SNAC Regulations 5.1.2 for details). In that case, the pilot has to prove that he has sufficient training to be safe in the concerned category (hours of recent training, special training with trainer, foreign competitions, etc...)

5.1.3 Scores reached in the current Hamilton Trophy could qualify the pilot for the higher category at the SNAC (See SNAC Regulations 5.1.3).

5.1.4 Swiss and Liechtenstein competitors, as well as foreigners who are members of AéCS and flying with a Swiss delivered licence, can win a

medal or the title of Swiss Champion. Others foreign pilots however are welcome and can compete as guests as “Hors Concours” (H/C) pilots. “H/C” pilots will not be ranked during the Hamilton Trophy.

- 5.1.5 The CuD fixes the maximum number of competitors. In case of too many applications, the rule of first come first served will prevail.
- 5.1.6 The competitors participate in all briefings and comply with given instructions.
- 5.1.7 All the participants must be familiar with and accept the doping regulations issued by the AéCS.

5.2 Aircrafts

- 5.2.1 Must have a valid certificate of airworthiness.
- 5.2.2 Must have certificate of insurance with coverage in civil responsibility, warranting a cover of at least three millions of Swiss Francs (CHF) and not excluding the participation at aerobatic competitions.
- 5.2.3 In all manoeuvres, the pilot will respect rigorously the limits stipulated in the Aircraft Operating Manual (AOM), allowing for some safety margin.
- 5.2.4 The aircraft must be capable of flying all manoeuvres of the category the pilot competes in without restriction.
- 5.2.5 The aircraft must have a VHF radio in working condition.
- 5.2.6 An aircraft will not be admitted to the contest unless the appropriate documentation has been submitted to the organizers.
- 5.2.7 Pilots must wear a parachute during competition flights.

6 Registration

6.1 Pilots

- 6.1.1 Must be SAA Members.
- 6.1.2 Foreign pilots may compete as guests or “Hors Concours”, H/C pilots. They must provide the following:
 - (a) A valid pilot’s license and a valid medical certificate.
 - (b) A proof of level in aerobatics by their national aero-club, or the proof of participation to a similar level of contest (national or international).

6.2 Registration document

- 6.2.1 Online registration on www.saa.ch.
- 6.2.2 Registration deadline: fixed by the CuD.

6.3 Registration fee

- 6.3.1 Registration fee: fixed by the CuD.
- 6.3.2 Payment deadline: fixed by the CuD.
- 6.3.3 Banking information for registration fee payment: fixed by CuD.

6.4 Free, Free Known Programmes

- 6.4.1 Fill in correctly according to category regulations.
- 6.4.2 Standard CIVA forms A, B, and C, resp R & L preferably in aerobatics figure drawing format and pdf.
- 6.4.3 Send via e-mail to the CuD.
- 6.4.4 Free, Free Known deadline: fixed by the CuD.
- 6.4.5 The SAA Committee will decide if the Frees will be checked or not by a Free Programmes Controller.

6.5 What to bring to the contest:

- pilot license,
- aerobatic extension,
- medical,
- low-level flying permission,
- aircraft documents (insurance, log book, airworthiness certificate, ...),
- signed anti-doping agreement (download from www.saa.ch).

7 Protests

- 7.1 All protests must be submitted to the CuD in writing, with a deposit of CHF 50 per pilot, not later than two hours after the occurrence, decision or publication of results, which causes the protest to be made. The deposit will be returned if the protest is granted.
- 7.2 The CuD and the CJ decide within 2h after the filing of the protest.
- 7.3 The decision of the CuD and CJ is final.
- 7.4 The money collected by protests is part of the current Hamilton Trophy budget.

8 Validity of titles

- 8.1 The title of “Hamilton Trophy Champion” can be assigned to a Swiss citizen or a citizen of Liechtenstein, as well as foreigners who are members of AÉCS and flying with a Swiss delivered licence.

8.2 The title of “Acting Hamilton Trophy Champion” is valid until the next Hamilton Trophy.

8.3 The title of “Hamilton Trophy Champion” does not expire.

9 Liability / Insurance

9.1 The insurance should protect the organizer of the Hamilton Trophy.

9.2 Liability and responsibility:

9.2.1 Every competitor is liable and responsible for his or her own insurance. The organizer assumes no liability.

9.2.2 Legal liability of 3 Mio. CHF is mandatory.

10 Category Sportsman (SPO)

10.1 Programmes

In the Sportsman category, the pilots accomplish the following Programmes:

- | | |
|-----------------------------|---------------|
| (a) Known Compulsory | Programme KC |
| (b) Free | Programme FR |
| (c) 1 st Unknown | Programme UK1 |
| (d) 2 nd Unknown | Programme UK2 |

10.2 Programme KC - The Known Compulsory Programme

See current SNAC Regulations 10.3.

10.3 Programme FR - The Free Programme

See current SNAC Regulations 10.4.

10.4 Programmes UK – The Unknown Programmes

See current SNAC Regulations 10.5.

10.5 Positioning marks.

See current SNAC Regulations 10.6.

11 Category Intermediate (INT)

11.1 Programmes

In the Intermediate category, the pilots accomplish the following Programmes:

- | | |
|-----------------------------|---------------|
| (a) Free Known | Programme FK |
| (b) 1 st Unknown | Programme UK1 |
| (c) 2 nd Unknown | Programme UK2 |
| (d) 3 rd Unknown | Programme UK3 |

11.2 Programme FK - The Free Known Programme

See current SNAC Regulations 11.3.

11.3 Programmes UK - The Unknown Programmes

See current SNAC Regulations 11.4.

11.4 Positioning marks.

See current SNAC Regulations 11.6.

12 Categories Advanced (ADV) and Unlimited (UNL)

12.1 Programmes

In Advanced and Unlimited categories, the pilots accomplish the following Programmes:

- | | |
|-----------------------------|---------------------------|
| (a) Free Known | Programme FK |
| (b) 1 st Unknown | Programme UK1 |
| (c) 2 nd Unknown | Programme UK2 |
| (d) 3 rd Unknown | Programme UK3 |
| or 4-min. Freestyle | Programme U4FS (UNL only) |

12.2 Programme FK - The Free Known Programme

See current SNAC Regulations 12.3.

12.3 Programmes UK - The Unknown Programmes

See current SNAC Regulations 12.5, but Hamilton Trophy differences:

- 12.3.1 The Unknown programmes will be chosen by the CuD and presented the day before the competition between 20:00 and 21:00 LT as the decision of flying or not flying is made and confirmed for the next competition day.
- 12.3.2 These programmes will be built by the CuD or chosen among the past programmes of SNAC's or international competition or other NAC's competitions.

12.4 Programme U4FS - The Unlimited 4 Minutes Freestyle

- 12.4.1 Flights according FAI Sporting Code, Section 6, Part 1, Chapter 4.3.5
- 12.4.2 For the last heat of the Hamilton Trophy, the CuD can decide that the UNL pilots will fly an Unlimited 4 Minutes Freestyle instead of a third unknown programme.
- 12.4.3 In that case, the opportunity is offered to fly the U4FS to :
- (a) All UNL pilots of the current Hamilton Trophy, if they have proven to the CuD, that they are safe and have sufficient training for it.
 - (b) UNL pilots who have participated at at least one SNAC during the last 3 years, with an overall ranking of 60% or more or who had an UNL or 4 Minute Freestyle podium ranking at the same SNAC's,
 - (c) Foreign UNL pilots as "H/C" pilots, invited by the SAA Committee.
- 12.4.4 The CuD can refuse the participation of a pilot at the U4FS for safety reason or lack of proven experience and practice.

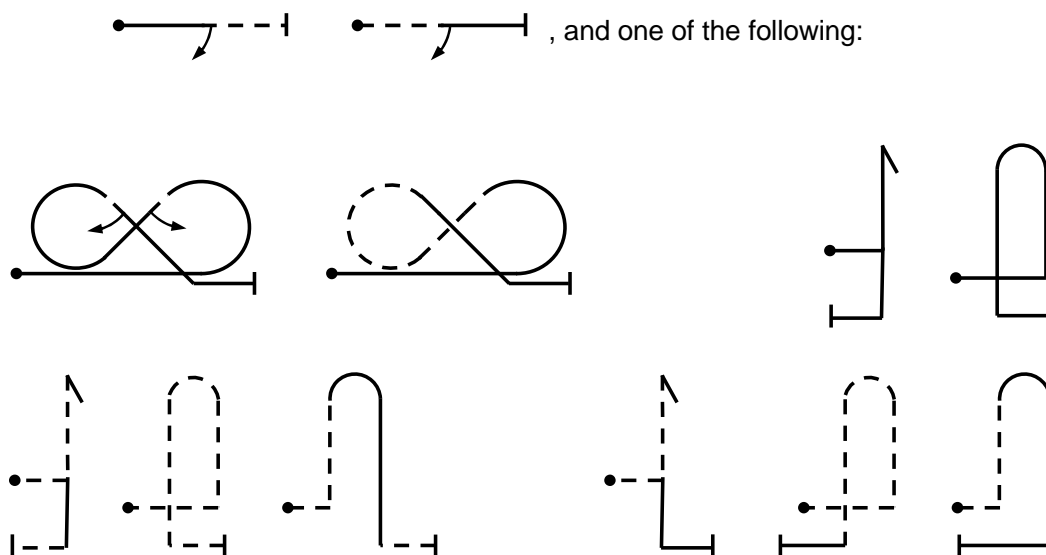
12.5 Positioning marks.

See current SNAC Regulations 12.6.

13 Safety maneuvers

FAI Sporting Code, Section 1, chapter 4.3.2.1

13.1 Before the wing-dipping at the start of each competition flight in Programmes 1, 2, 3, and 4 it is recommended that all pilots perform safety manoeuvres as follows. These figures are optional but, if flown, may only be flown once, in any order unless a figure starting inverted is used (see below), and continuously on the same axis. They must be flown inside the performance zone:



13.2 Figures of Families 5 and 8 that start or finish inverted are not permitted in SPO and INT. When flown, a figure from Family 5 or 8 that starts inverted shall be inserted after the first half roll. In that case, if the figure is one that finishes positive, the second half roll is not flown.

The SAA committee has approved the present regulation on 15th of December 2012.
This present regulation has been modified on the 25th of March 2018.

The president of the SAA

Ariel Lüdi