



# FAI Sporting Code

*Fédération  
Aéronautique  
Internationale*

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## **Section 7 B Paragliding Aerobatics Hang Gliders and Paragliders Classes 1 to 5**

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*Maison du Sport International  
Av. de Rhodanie 54  
CH-1007 Lausanne  
(Switzerland)  
Tél. +41 (0)21 345 10 70  
Fax +41 (0)21 345 10 77  
E-mail: [sec@fai.org](mailto:sec@fai.org)  
Web: [www.fai.org](http://www.fai.org)*

**FEDERATION AERONAUTIQUE INTERNATIONALE**  
**MSI – Avenue de Rhodanie 54 — CH-1007 Lausanne — Switzerland**

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1 FAI Statutes, ..... Chapter 1, ..... para. 1.6  
2 FAI Sporting Code, Gen. Section, ..... Chapter 4, ..... para 4.1.2  
3 FAI Statutes, ..... Chapter 1, ..... para 1.8.1  
4 FAI Statutes, ..... Chapter 2, ..... para 2.1.1; 2.4.2; 2.5.2 and 2.7.2  
5 FAI By-Laws, ..... Chapter 1, ..... para 1.2.1  
6 FAI Statutes, ..... Chapter 2, ..... para 2.4.2.2.5  
7 FAI By-Laws, ..... Chapter 1, ..... paras 1.2.2 to 1.2.5  
8 FAI Statutes, ..... Chapter 5, ..... paras 5.1.1, 5.2, 5.2.3 and 5.2.3.3  
9 FAI Sporting Code, Gen. Section, ..... Chapter 4, ..... para 4.1.5  
10 FAI Sporting Code, Gen. Section, ..... Chapter 2, ..... para 2.2.  
11 FAI Statutes, ..... Chapter 5, ..... para 5.2.3.3.7  
12 FAI Statutes, ..... Chapter 6, ..... para 6.1.2.1.3

**Editors Note:**

The FAI Sporting Code for Hang Gliding (hang gliders and paragliders) consists of the General Section and Section 7 combined. In cases of doubt, consult the General Section to establish the principles before applying the specific rules which appear in this Section 7.

Paragliding is a sport in which both men and women participate. Throughout this document the words "he", "him" or "his" are intended to apply equally to either sex unless it is specifically stated otherwise.

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## **1 Introduction and flight definitions**

Section 7B of the FAI Sporting Code is the subset of Section 7 (or “Section 7 Common”) dedicated to Paragliding Aerobatics Championships. This document must be read in conjunction with the Section 7 Common, Section 7I Guidelines and Templates, Section 7E WPRS (CIVL Ranking) and the General Section.

This document defines rules for 1st Category Events. For 2nd Category Events, see Section 7 Common Chapter 12.

### **1.1 Flight Definitions**

Additional definitions relevant to paragliding can be found in the Section 7A Cross Country.

#### **1.1.1 Flight Box**

A three-dimensional virtual and variable space, within which all manoeuvres must take place. The flight box includes an area over the water where a pilot must land in case he loses control of his glider or throws his reserve parachute. The size and shape of the flight box is highly dependent on weather conditions, especially wind drift. It is the pilot’s responsibility to monitor conditions closely during his flight in order to ensure he is in, and stays in, the flight box during all manoeuvres.

The overall flight box area is defined and described during the General Briefing. It may be adjusted later during the event.

#### **1.1.2 No-fly Zone**

The area over which flying is strictly forbidden at all times, irrespective of wind conditions. The no-fly zone is defined during the General Briefing and may be adjusted later during the event.

In the case where the Flight Box includes part of a No-Fly Zone, the rules of the No-Fly Zone prevail.

## **2 Entry and registration**

### **2.1 Entry**

The Local Regulations shall state:

- The maximum number of pilots that may be accepted in the Solo Championship.
- The maximum number of pairs of pilots that may be accepted in the Synchro Championship.
- The maximum number of pilots that may be entered by a NAC.

### **2.2 Eligibility to Compete**

**In the 5 years preceding the start of the championships:**

- Men shall have scored a minimum of 25 WPRS points
- Women shall have scored a minimum of 20 WPRS points
- Synchro pairs must demonstrate their skill either in a previous event or just prior to the championship.

#### **2.2.1 Exemption to Eligibility to Compete**

For any exemptions to pilot qualification requirements, applications must be made by the pilot's NAC, with supporting evidence of the pilot's skill and competition history. It is the responsibility of the NAC to ensure this is received by the CIVL President at least 30 days before the start of the competition.

**The list of exempted pilots is published on the organiser's website.**

The Meet Director, before the start of the competition, may request an exempted pilot or a Synchro pair, to participate in a safety selection to demonstrate the skills defined in §2.2.1.1. In agreement with the Safety Director and Chief Judge, he may refuse entry to the competition if the pilot or the pair is unable to demonstrate these skills.

##### **2.2.1.1 Safety Selection**

**All pilots entering the competition shall be able to safely perform the following manoeuvres:**

- Full stall + exit
- Tail slide + exit
- Wingover
- SAT
- Helicopter

All pilots entering the competition shall be able to demonstrate the following points of choreography:

- Placement and drift
- Management of altitude
- Flow, rhythm, connection
- Synchro co-ordination (only for synchro flights)



## 2.2.2 Qualification Dates

Pilot qualifications must be finalised 30 days before the start of the championship.

## 2.2.3 Procedure for Checking Qualification

Qualification is to be checked by four parties to avoid unnecessary travel, expenses and disappointment in the event that a pilot's entry is rejected due to not meeting the qualification criteria:

- The NAC or National Association/Federation before selecting their pilots.
- The competition organiser.
- The pilot.
- The CIVL Screening Committee.

## 2.2.4 CIVL Screening Committee

A Screening Committee is appointed by CIVL Bureau for each championship. It consists of three people: one representing the Bureau, one representing the Aerobatics Committee, and a Senior Judge.

The screening committee shall

- Check that entries accepted by the organiser meet eligibility to compete criteria. Notify the organiser promptly of any that do not, so that the pilot can apply for an exemption under §2.2.1.
- Accept and check applications for exemptions. Request additional information if needed, make decisions with safety in mind and inform NAC and organisers.
- Check that the allocation process is effected according to the rules.

It is each pilot's responsibility to make sure he is qualified.

## 2.2.5 Organiser's Responsibility

It is the organiser's responsibility to notify NACs of any pilots who do not appear to meet the qualification criteria.

## 2.3 Allocation

The nation ranking for this purpose shall be the WPRS Nation Ranking three calendar months before the championship starts.

Places are allocated to nations, one by one, in order from the top nation in the WPRS nation ranking down to the last-ranked nation; if any places are still available, the process starts at the top again.

This process will continue until the maximum number of pilots is reached or until 60 days before the start of the championship or otherwise stated in the local regulations.

### 2.3.1 Mixed Championships

The base for all nations is one male pilot plus one female pilot (1 + 1).

The allocation is done according to §2.3, but in this process the place allocated to the one female pilot in the base team size cannot be filled by a male pilot in any round of allocation.

### **2.3.2 Host nation**

The host nation shall have the opportunity of entering the same number of pilots as the top nation, except that in mixed championships they may not enter males as substitutes for females with places allocated under the 1 + 1 rule (see §2.3.1).

Current World and Continental Champions, men and women, who are allowed a discretionary entry to defend their title if not selected as part of the national entry, are not taken into account in the number of pilots of the top nation.

## **2.4 Registration**

Each competitor will be required to present to the organisers upon registration:

- Proof of identity.
- Satisfactory evidence of equipment airworthiness.
- Proof of valid insurance as detailed.
- Each competitor will be requested to sign:
  - Waiver declaration (agreement on release of liability). See Section 7I Guidelines and Templates Chapter 12.
  - Certified glider statement. See Section 7I Guidelines and Templates Chapter 16.
- Entry form.

Each competitor will be requested to present his equipment to be checked by the Safety Director and/or a Senior Judge. In case of non-compliance (see Chapter 8), the pilot might not be accepted.

## **3 Briefings**

### **3.1 General Briefing**

A general briefing is attended by all pilots before the start of the first run.

It is mandatory for all pilots to attend the meeting.

The general briefing includes:

- Review of Local Regulations
- Election of the Pilot and Safety Committees.
- Cuts policy.
- Maximum wind limits.
- **Safety briefing (see Section 7 Common Chapters 4 and 9).**

### **3.2 Pilots' Committee**

A Pilots' Committee shall be formed before the start of the competition. It is composed of 5 members, preferably experienced pilots with very good knowledge of the Sporting Code and from as many different nations as possible, elected by the pilots during the mandatory General Briefing from nominations put forward by the Chief Judge.

### **3.3 Safety Committee**

**As per Section 7 Common – Chapter 4.**

### **3.4 Daily Briefing**

It is mandatory for all pilots to attend the daily briefings.

## **4 Runs**

### **4.1 Official Practice Period**

As per Section 7 Common Chapter 2. All aspects of the organisation are in place except that there is no judging or scoring.

Timings of the practice runs are stated in the Local Regulations.

### **4.2 Cuts**

Cuts are allowed after a minimum of 2 valid runs.

Cuts policy is decided by the Meet Director in agreement with the Chief Judge.

Cuts policy will be presented and discussed during the general briefing.

Cuts policy may evolve during the event depending on weather or other variable elements. In this case, it is presented during the daily briefing.

A pilot who has been cut must remain available until the end of the championship for show flights, otherwise he may be disqualified from the competitions.

### **4.3 Programs**

Programs may be free, imposed or restricted.

In an imposed or restricted program, the Meet Director and/or the Chief Judge are entitled to specify technical limitations.

### **4.4 Pre-Flyers**

Pre-flyers may be used at the discretion of the Meet Director.

### **4.5 Start Order**

The starting order of the first run is set by a random draw or the reverse order of the last updated WPRS. For subsequent runs, pilots/pairs will start in the reverse order of the last updated competition standing.

In case a pilot notices a technical problem to his equipment before taking off, the start marshal or drop master must be informed and a delay might be granted.

### **4.6 Announcement of Program Start**

Before starting the program, every pilot/pair must make one "big ear" to notify the judges the start of the run. If a pilot/pair forgets to comply, a pre-warning will be issued, meaning that the next omission will lead to an official warning.

If, before starting the first manoeuvre, the conditions are estimated unsafe or the altitude too low to complete the run, the judges are notified by making 2 “big ears”. Then the pilot has to fly down immediately to a safe landing without making any aerobatic manoeuvre.

The pilot/pair will be allowed a re-flight, except when judges estimate that the pilot/pair showed unsportsmanlike behaviour: in this case, warning(s) might be issued. Nevertheless, it is always the pilot's responsibility when to start his routine.

#### **4.7 Flight Box**

Aerobatic manoeuvres are only allowed in the flight box.

The characteristics of the flight box are explained during the general briefing, and when necessary, updated at the daily briefing. A detailed image clearly showing no-fly zones and the general area of the flight box will be permanently displayed on the official information board.

At take-off, information on the wind strength along the run and at landing must be provided and constantly updated.

The Meet Director, in agreement with the Safety Director and Chief Judge, defines the maximum strength of wind acceptable. This is discussed at the general briefing.

It is strictly forbidden to fly over the public at any height (immediate elimination from the competition), even when the flight box technically extends over that area (no fly zone).

#### **4.8 Emergency Stop Signal**

In case of emergency, the flight box can be closed.

A sound signal (loud enough to be heard by pilots) and/or a visual signal (cross and additionally a smoke bomb can be used) over the raft to announce that all aerobatics manoeuvres and all water landings must immediately stop. Pilots in the air must fly down and dry land safely.

#### **4.9 Re-flight**

The Meet Director or the Chief Judge may allow a re-flight if a pilot/pair has not been given the opportunity to make a scored run. In case of a re-flight the pilot/pair shall repeat the same manoeuvres that had been flown prior to the moment the run was interrupted. When a pilot/pair is disturbed by any external factor during the landing (safety boat, unauthorised craft, swimmers, etc.) only the landing will be repeated and scored, and will be preceded by the last manoeuvre flown during the interrupted run.

In very exceptional cases, when, for any reason (weather, lack of time...), a re-flight cannot be granted during one run of a competition, for this run, the concerned pilots/pairs will be awarded the same score achieved by the pilot/pair ranked, in that same final run, at the position corresponding to the competition standing after the last completed run, provided that not more than 3 pilots/pairs are affected, and that none of them was ranked in the top 5 of the competition standing after the last validated run.

Otherwise, the final run is cancelled.

Example. After run 3, a pilot is 7th in the competition standing. He cannot complete the final run due to a thunderstorm. For run 4, he will be awarded the same points obtained by the pilot ranked 7th in run 4.

This rule does not apply in the event that, after consultation with the pilots' committee, the chief judge considers the pilot guilty in any way of not having done everything necessary to be able to repeat his flight, for negligence or other reasons (e.g not having dried the equipment when the time available would have allowed it).

#### **4.10 Validation of Run**

A run is usually valid if all competitors have been given the opportunity to make a scored flight.

In case of difficulties (meteorological conditions, logistics, etc.), the Meet Director may decide to stop a run after consultation with the Safety Director and/or the Chief Judge.

If a run cannot be completed one day, it can be continued on the next flyable day. In this case the "5-pilot group rule" will apply. That is to say that pilots ranked in the same 5-pilot group in the competition standing after the last validated run will have to compete on the same day of competition. If the continuation of a run has to be postponed to a further day when only part of a 5-pilot group has been able to complete it, the results obtained by these pilots will be cancelled and the flights repeated when the competition resumes. In very exceptional cases, and only if an alternative solution cannot be found, a run can be considered valid even if 3 or less pilots/pair which was/were not ranked in the top 5 of the competition standing after the last validated run could not complete a run for any reason (e.g. wet or defective equipment, run interrupted that can't be granted a re-flight). For this run the concerned pilots/pairs will be awarded a score as described in chapter §4.9.

If the final run of a competition cannot be completed before the time limit agreed with the organiser, and the exception stated under §4.9 cannot be applied, the final run is cancelled and all scores obtained before the interruption are disregarded.

#### **4.11 Communication**

Radios and/or mobile phones can be used for communication, including between pilots of the same pair. The start of the run must be communicated by operating staff to the judges who will acknowledge confirmation.

## 5 Manoeuvre definitions and evaluation criteria

### 5.1 Solo and Synchro Manoeuvres

#### 5.1.1 Full Stall

- Optional straight climb <math><90^\circ</math> + stall
- Criterias
  - Full Stall: entry, control of pendulum movement, control of direction and exit or connection
  - Twisted Full Stall: twisted on the entry, stay twisted when the glider stalls, untwist during the dive
- “Twisted” and “Devil Twist” bonuses are mutually exclusive
- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.00
- Bonuses:
  - Twisted: 1.5%
  - Twisted Exit: 3%
  - Devil Twist: 4.5%

#### 5.1.2 Tail Slide

- Stabilised backward flying with open glider
- Minimum: 5 seconds
- Criterias
  - Tail Slide: maintenance of the shape, stability, perceptible backwards flight, control of direction, duration, exit or connection
  - Twisted Tail Slide: twisted all the way from entry to exit
- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.15
- Bonuses:
  - Twisted: 6%

#### 5.1.3 SAT

- Evenly balanced SAT rotation
- Minimum: 2 rotations
- Criterias
  - SAT: entry, angle of wing ( $90^\circ$  for max score), low sink rate exit or connection (no collapse penalty for tip collapse during exit)
  - Twisted SAT: twisted on the entry, must stay twisted for 2 turns can be exited untwisted
- Forbidden connection to combo manoeuvres
- Technical scoring coefficient: 1.25
- Bonuses:
  - Twisted: 2.5%

#### 5.1.4 Asymetric Spiral

- Series of pendulum turns in the same direction each time

- Criterias
  - **Asymetric Spiral: rhythm, flow, trajectory, angle (135° for maximum score – the higher the better)**
  - **Twisted Asymetric Spiral: twisted all the way from entry to exit**
- Free Connection
- Technical scoring coefficient: 1.35
- **Bonuses:**
  - **Twisted: 2.5%**

### 5.1.5 Wingovers

- Series of pendulum turns with change of direction each time
- Minimum: twice to one side, twice to the other side, 135° angle
- Criterias
  - **Wingovers: rhythm, flow, trajectory, angle (minimum 135° for maximum score – the higher the better)**
  - Twisted Wingovers: must be twisted during the entry, and stays twisted until the glider stabilises
- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.35
- **Bonuses:**
  - Twisted: 3.5%

### 5.1.6 Looping (Inversion)

- Entry from asymmetric spiral or a normal spiral. Reversal of a revolution that makes the pilot turn around the wing in a roll movement
- Minimum: 135° angle
- Criterias
  - **Looping: entry, energy, timing, flow, trajectory (pitch movement), angle (180° for maximum score), exit or connection**
  - Twisted Looping: twisted on the entry, must stay twisted until the glider stabilises
- Free Connection
- Technical scoring coefficient: 1.50
- **Bonuses:**
  - Twisted: 3.5%

### 5.1.7 Asymetric SAT

- **entry from, say, spiral or wingover in same direction (old school)**
- Criterias
  - **Asymetric SAT: energy, timing, flow, trajectory (SAT rotation), angle (135° for maximum score), asymmetric dynamic exit (no collapse, no stall)**
  - **Twisted Asymetric SAT: twisted all the way from entry to exit**
- Free Connection
- Technical scoring coefficient: 1.55
- **Bonuses:**
  - **Twisted: 2.5%**



### 5.1.8 Super Stall

- Straight climb  $\geq 90^\circ$  + stall
- Minimum:  $90^\circ$  backwards pitch
- Criterias
  - Super Stall: energy, importance of pitch, cleanness of the stall, control of direction and exit or connection
  - Twisted Super Stall: twisted on the entry, stay twisted when the glider stalls, untwist during the dive
  - Twisted Super Stall with Twisted Exit: the twist must be kept for at least 3 seconds or until the next manoeuvre
  - Super Stall with Devil Twisted entry: twisted on the entry, untwist during the stall and immediately twist to the other direction, must exit twisted. The twist must be kept for at least 3 seconds or until the next manoeuvre
  - Super Stall Flip: body flip either forward or backwards during the stall. Flip may begin during the climb out and must be completed before the dive
  - Super Stall Double Flip: both flips must be chained, flow
- “Twisted” and “Devil Twist” bonuses are mutually exclusive
- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.60
- Bonuses:
  - Twisted: 2.5%
  - Twisted Exit: 6%
  - Devil Twist: 8.5%
  - Flip: 4.5%
  - Double Flip: 5.5%

### 5.1.9 Misty Flip

- Straight entry & climb,  $360^\circ$  spin, straight horizontal dive, exit not more than  $180^\circ$  from the direction of entry
- Criterias
  - Misty Flip: importance of pitch on entry,  $360^\circ$  rotation, maintenance of shape, strong dive, no rotation on entry and exit, direction
  - Twisted Misty Flip: twisted on the entry, untwisted by the rotation of the glider
  - Twisted Misty Flip with Twisted Exit: the twist shall be kept for at least 3 seconds
  - Misty Flip Full Twisted: keep the twist during the whole manoeuvre from beginning till exit as well as during the whole rotation. No change of direction of the twist. Twist shall be kept for at least 3 seconds or until the next trick
- Free Connection
- Technical scoring coefficient: 1.65
- Bonuses:
  - Twisted: 2.5%
  - Twisted Exit: 4.5%
  - Full Twisted: 7%

### 5.1.10 X-Chopper

- Entry with high energy, constant & rapid climb, spin, strong dive, exit
- Criterias

- X-Chopper: importance of pitch on entry, minimum 360° rotation, energy, maintenance of shape, strong dive
- Twisted X-Chopper: twisted on the entry, untwisted by the rotation of the glider
- Free Connection
- Technical scoring coefficient: 1.70
- Bonuses:
  - Twisted: 3.5%
  - Twisted Exit: 6%

#### 5.1.11 Misty to SAT

- Misty + transition to SAT
- Minimum: 45° climb before rotation
- Criterias
  - Misty to SAT: same criteria as for Misty Flip and SAT + flow and speed of transition
  - Twisted Misty to SAT: must be twisted during the entry, untwisted by the rotation of the Misty flip
  - Misty to SAT Full Twisted: must stay twisted during the rotation of the Misty Flip, keep the twist during the exit and stay twisted during the SAT until the exit
  - Misty to SAT with Devil Twisted entry: twisted during the entry, untwisted by the spinning of the glider and twisted to the opposite direction, then connected to a twisted SAT. (FYI for this manoeuvre the pilot then has 3/4 twists during the SAT)
  - Misty to Twisted SAT: normal (not twisted) Misty Flip, twisted during the end of the rotation of the misty connected into a twisted SAT
- “Twisted”, “Full Twisted”, “to Twisted SAT” and “Devil Twist” bonuses are mutually exclusive
- Forbidden connection to SAT
- Technical scoring coefficient: 1.70
- Bonuses:
  - Twisted: 3%
  - Full Twisted: 6%
  - Devil Twist: 6%
  - To Twisted SAT: 3%

#### 5.1.12 Helicopter

- Perfect spin with open glider and vertical axe of rotation
- Minimum: 3 rotations
- Criterias
  - Helicopter: maintenance of the shape, stability of rotation axis (vertical), speed of rotation, low sink rate, duration, exit or connection
  - Twisted Helicopter: twisting during the helicopter, must stay twisted for 2 turns, can untwist for the exit
- Free Connection
- Technical scoring coefficient: 1.70
- Bonuses:
  - Twisted: 3%

#### 5.1.13 Mac Twist

- Spin from spiral maintained until pendulum stabilised
- Criterias

- **Mac Twist: energy and asymmetry on entry, speed and importance of rotation, pendulum stabilisation, fast exit or connection**
- Twisted Mac Twist: must be twisted during the entry, untwisted by the rotation of the Mac Twist Twisted
- Free Connection
- Technical scoring coefficient: 1.70
- **Bonuses:**
  - Twisted: 3.5%

#### 5.1.14 Misty to Helicopter

- Misty Flip + transition to Helicopter
- Criterias
  - **Misty to Helicopter: flow and speed of transition**
  - **Twisted Misty to Helicopter: must be twisted during the entry, untwisted by the rotation of the Misty**
  - **Misty to Helicopter Reverse: immediate transition to a Helicopter in the opposite direction**
- Forbidden connection to Helicopter
- Technical scoring coefficient: 1.75
- **Bonuses:**
  - Twisted: 3%
  - Reverse: 3%

#### 5.1.15 Misty to Misty

- Misty chained with another misty on the other side using the exit energy of the first one
- Criterias
  - Misty to Misty: same criteria as of Misty Flip
  - Twisted Misty to Misty: twisted on the entry, untwisted by the rotation of the glider
- Free Connection
- Technical scoring coefficient: 1.75
- **Bonuses:**
  - Twisted: 3.5%
  - Twisted Exit: 5.5%

#### 5.1.16 Twister (Helicopter to Helicopter)

- Helicopter to one side, Helicopter to the other side
- Minimum: 3 rotations each side
- Criterias
  - **Twister: speed of transition**
- Forbidden connection to Helicopter
- **Technical scoring coefficient: 1.80**

#### 5.1.17 Tumbling

- Asymmetric or inversion entry, perfect pitch movement
- Minimum: 1 rotation, 135° angle
- Criterias
  - **Tumbling: energy on entry, timing, flow, trajectory (pitch movement), angle (180° for maximum score), exit or connection**

- Twisted Tumbling: twisted on the entry, must stay twisted, untwist at the exit NOT during the turns
- “Twisted” and “Devil Twist” bonuses are mutually exclusive
- Forbidden connection to Infinite and Anti-Rythmic
- This manoeuvre cannot be one of the last two manoeuvres
- Technical scoring coefficient: 1.80
- Bonuses:
  - Twisted: 3.5%
  - Twisted Exit: 6%
  - Devil Twist: 5%

#### 5.1.18 Anti-Rythmic SAT

- Entry by Tumbling, 180° in the first rotation for maximum points + 1 SAT rotation at the end
- Minimum: 135° angle for the first rotation
- Criterias
  - Anti-Rythmic SAT: rhythm and regularity of the decreasing angle of the axis, flow, exit or connection
  - Twisted Anti-Rythmic SAT: from Cab Slide: twist during the Infinite turns, must stay twisted until the SAT. Must stay twisted for 1 SAT rotation, can untwist for the exit. From Tumbling: twisted on the entry, must stay twisted until the SAT. Must stay twisted for 1 SAT turn, can untwist for the exit
- Free Connection
- This manoeuvre cannot be one of the last two manoeuvres
- Technical scoring coefficient: 1.80
- Bonuses:
  - Twisted: 4.5%

#### 5.1.19 SAT to Helicopter

- Several SAT rotation + connection to helicopter
- Minimum: 2 SAT rotations, 3 helicopter rotations
- Criterias
  - SAT to Helicopter: flow and speed of transition
  - Twisted SAT to Helicopter: twisted on the entry, must be untwisted during the transition into helicopter, NOT before
  - SAT to Helicopter Reverse: immediate transition to a Helicopter in the opposite direction
- Forbidden connection to Helicopter
- Technical scoring coefficient: 1.85
- Bonuses:
  - Twisted: 4.5%
  - Reverse: 4.5%

#### 5.1.20 Helicopter to SAT

- Helicopter + connection to SAT
- Minimum: 3 helicopter rotations, 2 SAT rotations
- Criterias
  - Helicopter to SAT: no rotation on entry and exit, direction
  - Twisted Helicopter to SAT: twist during the helicopter. Must stay twisted during the whole transition, at least 1 turn of SAT twisted. Can untwist on the exit

- Helicopter to SAT Reverse: immediate transition to a SAT in the opposite direction
- Free Connection
- Technical scoring coefficient: 1.85
- Bonuses:
  - Twisted: 4.5%
  - Reverse: 4%

#### 5.1.21 Mac Twist to Helicopter

- Mac Twist with the spiral maintained to Helicopter
- Minimum: same as Mac Twist and Helicopter
- Criterias
  - Mac Twist to Helicopter: flow and speed of transition
  - Twisted Mac Twist to Helicopter: must be twisted during the entry, untwisted by the rotation of the Mac Twist
  - Mac Twist to Helicopter Reverse: immediate transition to a Helicopter in the opposite direction
- Free Connection
- Technical scoring coefficient: 1.85
- Bonuses:
  - Twisted: 4.5%
  - Reverse: 3.5%

#### 5.1.22 Infinity Tumbling

- Series of perfect Tumbling (pitch movement)
- Minimum: entry plus 5 rotations
- Criterias
  - Infinity Tumbling: rhythm, flow, trajectory (no roll movement), tension in the lines and glider, duration, exit or connection
  - Twisted Infinity Tumbling: twisted on the entry, must stay twisted, untwist at exit and NOT during the turns
  - Infinity Tumbling Flip: body flip either forward or backwards during the Infinite Tumbling. Flip must begin and end at the same point of one full rotation
- “Twisted” and “Devil Twist” bonuses are mutually exclusive
- Forbidden connection to Tumbling or Anti-Rhythmic SAT
- This manoeuvre cannot be one of the last two manoeuvres
- Technical scoring coefficient: 1.85
- Bonuses:
  - Twisted: 3.5%
  - Twisted Exit: 6%
  - Devil Twist: 5%
  - Flip: 6%

#### 5.1.23 Cowboy

- Misty Flip to dive to Helicopter
- Minimum: 45° climb before rotation
- Criterias
  - Cowboy: misty Flip criteria + forward dive + short SAT move + transition to Helicopter + Helicopter criteria

- Twisted Cowboy: must be twisted during the entry, untwisted by the rotation of the Misty
- Forbidden connection to Helicopter
- Technical scoring coefficient: 1.90
- **Bonuses:**
  - Twisted: 4%

#### 5.1.24 Corkscrew

- **Spin during the entry over the glider into a Helicopter**
- Minimum: 120°
- Criterias
  - **Corkscrew: energy on entry, timing, flow. Stable entry into the Helicopter**
  - Twisted Corkscrew: twisted during the entry, untwisted by the rotation of the cork
  - Corkscrew Reverse: immediate transition to a Helicopter in the opposite direction
- Forbidden connection to helicopter
- Technical scoring coefficient: 1.90
- **Bonuses:**
  - Twisted: 4.5%
  - Reverse: 4%

#### 5.1.25 Joker

- Tumbling entry. 1 rotation only, stopped during the dive. Exit with high energy connected to a Helicopter to the same side + SAT to Helicopter connection
- Criterias
  - **Joker: energy on entry, timing, flow, energy on exit, angle, connection to Helicopter (fluidity, rapidity). Only 1 Tumbling rotation**
  - Twisted Joker: twisted on the entry, twisted on the dive, must untwist during the connection into helicopter
  - Joker Reverse: immediate transition to a Helicopter in the opposite direction.
- Forbidden connection to Helicopter
- Technical scoring coefficient: 1.95
- **Bonuses:**
  - Twisted: 5%
  - Reverse: 4.5%

#### 5.1.26 Mac Twist to Tumbling

- **1 turn (360°) Mac Twist rotation (half a Mac Twist) followed by a high Tumbling**
- Criterias
  - **Mac Twist to Tumbling: energy on entry, timing, flow**
  - **Twisted Mac Twist to Tumbling: twisted on the entry, untwisted by the rotation of the glider**
- **Forbidden connection to Infinite Tumbling nor Anty-rhythmic**
- **This manoeuvre cannot be one of the last two manoeuvres**
- **Technical scoring coefficient: 1.95**
- **Bonuses:**
  - **Twisted: 2.5%**

#### 5.1.27 Rythmic SAT

- Entry without pitch, constant progression until reaching 180° + 1 straight rotation at the end
- Minimum: 135° in the best rotation

- **Criteria**
  - **Rhythmic SAT:** rhythm and regularity of the variation of the axis, flow, angle, exit or connection
  - **Twisted Rhythmic SAT:** twisted on the entry, must stay twisted, untwist at the exit and **NOT** during the turns
- Forbidden connection to Tumbling, Infinite and Anti Rhythmic
- Technical scoring coefficient: 1.95
- **Bonuses:**
  - Twisted: 5.5%
  - Twisted Exit: 6%

#### 5.1.28 Esfera

- **Rhythmic SAT pulled to the vertical and followed by an Anti-Rhythmic SAT to the other side**
- **Criteria**
  - **Esfera:** same as for Rhythmic SAT and as for Anti-Rhythmic SAT
  - Twisted Esfera: twisted on the entry. Must stay twisted until going vertical, untwist when vertical and twist again on the other side for the Anti -Rhythmic. Must stay twisted for at least one SAT rotation. Can exit untwisted. The pilot must twist immediately after untwisting. Untwist during 1 rotation and twist again during the next rotation
- Free Connection
- This manoeuvre cannot be one of the last two manoeuvres
- **Technical scoring coefficient: 1.95**
- **Bonuses:**
  - Twisted: 6%

#### 5.1.29 Super Stall to Infinity Tumbling

- **Super Stall directly connected into an Infinite Tumbling. The Full Stall must not necessarily be high but shall be perfectly straight**
- **Minimum: entry + 3 rotations**
- **Criteria**
  - **Super Stall to Infinity Tumbling:** rhythm, flow, trajectory (no roll movement), tension in the lines and glider, duration, exit or connection
  - **Twisted Super Stall to Infinity Tumbling:** twisted on the entry, untwist after the stall and proceed into the Infinity Tumbling without twist
  - **Twisted Super Stall to Infinity Tumbling with Twisted Exit:** stay twisted during the exit of the Infinity Tumbling
  - **Super Stall to Infinity Tumbling Full Twisted:** twisted on the entry, stay twisted after the stall and proceed into the Infinity Tumbling twisted and untwist at exit (not during the turns)
  - **Super Stall to Infinity Tumbling with Devil Twisted entry:** twisted on the entry, untwist during the stall and immediately twist to the other direction and proceed into the Infinity Tumbling twisted
  - **Super Stall to Infinity Tumbling Flip:** the pilot performs a flip just after the glider stalled, proceed into the Infinity Tumbling
- **“Twisted”, “Full Twisted” and “Devil Twist” bonuses are mutually exclusive**
- **Forbidden connection to Tumbling or Anti-Rhythmic SAT**
- **This manoeuvre cannot be one of the last two manoeuvres**
- **Technical scoring coefficient: 2.05**
- **Bonuses:**

- Twisted: 2.5%
- Twisted Exit: 2%
- Full Twisted: 8.5%
- Devil Twist: 8.5%
- Flip: 6.5%

### 5.1.30 Flat Stall to Infinity Tumbling

- Full Stall directly connected into an Infinite Tumbling. The Full Stall must not necessarily be high but shall be perfectly straight. The pilot must not take any energy before the stall. It must come from a straight flying scenario, no pitch before the stall
- **Minimum: entry + 3 rotation**
- **Criteria**
  - Flat Stall to Infinity Tumbling: rhythm, flow, trajectory (no roll movement), tension in the lines and glider, duration, exit or connection
  - Twisted Flat Stall to Infinity Tumbling: twisted on the entry, untwist after the stall and proceed into the Infinity Tumbling without twist
  - Twisted Flat Stall to Infinity Tumbling with Twisted Exit: stay twisted during the exit of the Infinity Tumbling
  - Flat Stall to Infinity Tumbling Full Twisted: twisted on the entry, stay twisted after the stall and proceed into the Infinity Tumbling twisted and untwist at exit (not during the turns)
  - Flat Stall to Infinity Tumbling with Devil Twisted entry: twisted on the entry, untwist during the stall and immediately twist to the other direction and proceed into the Infinity Tumbling twisted
  - Flat Stall to Infinity Tumbling Flip: the pilot performs a flip just after the glider stalled, proceed into the Infinity Tumbling
- “Twisted”, “Full Twisted” and “Devil Twist” bonuses are mutually exclusive
- Forbidden connection to Tumbling or Anti-Rhythmic SAT
- This manoeuvre cannot be one of the last two manoeuvres
- This manoeuvre **MUST** be the first manoeuvre
- Technical scoring coefficient: 2.10
- **Bonuses:**
  - Twisted: 2.5%
  - Twisted Exit: 2%
  - Full Twisted: 8.5%
  - Devil Twist: 8.5%
  - Flip: 6.5%

### 5.1.31 Misty to Tumbling

- **Misty Flip (360° spin rotation) followed by a high Tumbling using the dive from the Misty Flip**
- **Criteria**
  - Misty to Tumbling: energy on entry, timing, flow
  - Twisted Misty to Tumbling: twisted on the entry, untwisted by the rotation of the glider
- **Forbidden connection to Infinite Tumbling nor Anty-rhythmic**
- This manoeuvre cannot be one of the last two manoeuvres
- **Technical scoring coefficient: 2.15**
- **Bonuses:**
  - Twisted: 6%



### 5.1.32 Tail Slide to Infinity Tumbling

- Tail Slide or Deep Stall directly connected into an Infinite Tumbling. The Tail Slide/Deep Stall must not necessarily be long but shall be entered from either straight flying or from the exit of another trick.
- Minimum: entry + 3 rotation
- Criterias
  - Tail Slide to Infinity Tumbling: Rhythm, flow, trajectory (no roll movement), tension in the lines and glider, duration, exit or connection
  - Twisted Tail Slide to Infinity Tumbling: Twisted on the entry, untwist after the Tail Slide/Deep Stall and proceed into the Infinity Tumbling without twist
  - Twisted Tail Slide to Infinity Tumbling with Twisted Exit: stay twisted during the exit of the Infinity Tumbling
  - Tail Slide to Infinity Tumbling Full Twisted: Twisted on the entry, stay twisted after the Tail Slide/Deep Stall and proceed into the Infinity Tumbling twisted and untwist at exit (not during the turns)
- Forbidden connection to Tumbling or Anti-Rhythmic SAT
- This manoeuvre cannot be one of the last two manoeuvres
- Technical scoring coefficient: 2.25
- Bonuses:
  - Twisted: 2.5%
  - Twisted Exit: 2%
  - Full Twisted: 8.5%

## 5.2 *Synchro only Manoeuvres*

### 5.2.1 Wingovers Opposite

- Series of pendulum turns with change of direction each time
- Minimum: twice to one side, twice to the other side with high angle (minimum 135°) the pilots perform the turns to the opposite direction of each other
- Criterias
  - Wingovers Opposite: rhythm, flow, trajectory, angle (the higher the better)
  - Twisted Wingovers Opposite: must be twisted during the entry and stay twisted until the glider stabilises
- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.60
- Bonuses:
  - Twisted: 3.5%

### 5.2.2 Rodeo SAT

- One pilot is performing a SAT while the other is spiralling around
- Minimum: 2 revolutions around the SAT at the same altitude
- Criterias
  - Rodeo SAT: same criteria of the SAT
  - Twisted Rodeo SAT: same criteria of the SAT
- Free Connection
- Technical scoring coefficient: 1.65
- Bonuses:

- Twisted: 2.5%

### 5.2.3 Synchro Asymmetric Spiral

- Series of pendulum turns in the same time and direction during a synchro spiral
- Minimum: twice to the same side
- Criterias
  - **Synchro Asymmetric Spiral: thymh, flow, trajectory, angle (the higher the better)**
- Free Connection
- Technical scoring coefficient: 1.65

### 5.2.4 Rodeo Helicopter

- **One pilot is performing a Helicopter while the other is spiralling around**
- Minimum: 2 spiral revolutions around the helicopter at the same altitude
- Criterias
  - Rodeo Helicopter: same as for Helicopter
  - Twisted Rodeo Helicopter: same as for Helicopter
- Free Connection
- Technical scoring coefficient: 1.70
- **Bonuses:**
  - Twisted: 3%

### 5.2.5 Bitch Switch

- **Rodeo SAT + connection to Rodeo SAT with pilots replacing each other**
- **Minimum: 2 spiral revolutions around the SAT at the same altitude for each pilot**
- Criterias
  - **Bitch Switch: same as for SAT**
- Free Connection
- Technical scoring coefficient: 1.75

### 5.2.6 Synchro Half Pipe Combo

- Straight entry, minimum 45° climb before rotation & 180° spin, straight horizontal dive, exit 180° from the direction of entry, in transition use the exit energy of the first Half Pipe for the next one. Direction must be changed
- Criterias
  - **Synchro Half Pipe Combo: importance of pitch on entry, 180° rotation, maintenance of shape, strong dive, no rotation on entry and exit**
  - Twisted Synchro Half Pipe Combo: twisted on the entry, untwisted by the rotation of the glider
  - **Synchro Half Pipe Combo Full Twisted: keep the twist during the whole manoeuvre from beginning till exit as well as during the whole rotation. No change of direction of the twist. Twist shall be kept for at least 3 seconds or until the next trick**
- Free Connection
- Technical scoring coefficient: 1.75
- **Bonuses:**
  - Twisted: 3.5%
  - Twisted Exit: 5.5%

### 5.2.7 Bro Hook

- One pilot flies straight, the other pilot approaches from behind and connects
- Minimum: 4 seconds connected
- Criterias
- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.80

### 5.2.8 Synchro Spiral

- **Minimum: 2 revolutions and a maximum distance of one paraglider line length between (approx. 10 metres)**
- Criterias
- Free Connection
- Technical scoring coefficient: 1.80
- **Bonuses:**

### 5.2.9 Wingovers Cruzados

- **Same as Wingover Opposite but the pilots must cross each other during the manoeuvre**
- Criterias
  - Wingovers Cruzados: same as Wingover Opposite
- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.85

### 5.2.10 360° Synchro Spiral to Half Pipe Combo

- Combination of a Synchro Spiral and Half Pipe Combo
- Criterias
  - **360° Synchro Spiral to Half Pipe Combo: after a turn – 360° – of Synchro Spiral the pilots connect to a half pipe and exit it towards each other and start another 360° turn to the other direction in Synchro Spiral, after the turn another connection to a Half Pipe**
- Free Connection
- Technical scoring coefficient: 1.85

### 5.2.11 Bro Hook Lateral Wings

- One pilot flies straight twisted, the other approaches from behind and connects. After the connection both pilots must position their wings in lateral position – inside tip touch
- Minimum: 4 seconds
- Criterias
- **No connection to other Bro Hook manoeuvres**
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.85

### 5.2.12 Bro Hook Spiral

- Start as a Bro Hook. After the connection the pilots must dive into a spiral
- Minimum: 4 seconds
- Criterias
  - **Twisted Bro Hook Spiral: one pilot has to stay twisted from entry until exit**

- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.90
- **Bonuses:**
  - Twisted: 2%

#### 5.2.13 Pitch Pendulum Synchro (Molineti)

- Minimum: twice, one over the other
- Criterias
  - Twisted Pitch Pendulum Synchro: both pilots must stay twisted during at least 2 revolutions
- Free Connection
- **This manoeuvre can only be one of the last two manoeuvres**
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.95
- **Bonuses:**
  - Twisted: 6%

#### 5.2.14 Bro Hook Wingovers

- **Wingover but in Bro Hook position. Both pilots must stay connected during the manoeuvre until the gliders stabilise. Series of pendulum turns with change of direction each time**
- **Minimum: twice to one side, twice to the other side with 135° angle**
- Criterias
  - **Bro Hook Wingovers: rhythm, flow, trajectory, angle (the higher the better)**
  - **Twisted Bro Hook Wingovers: one pilot has to stay twisted from entry until exit**
- Free Connection
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 1.95
- **Bonuses:**
  - Twisted: 2%

#### 5.2.15 Fusion

- Start from Bro Hook Lateral position. Both pilots spin the wings into deep stall with the leading edge facing each other
- Minimum: 4 seconds
- Criterias
  - **Fusion: maintenance of the shape, flow, entry, duration (min 4 sec.), disconnection**
- Free Connection
- **This manoeuvre cannot be one of the last two manoeuvres**
- Repetition allowed according to chapter §6.5.1.4
- Technical scoring coefficient: 2.20

#### 5.2.16 Fusion Helicopter

- **Start from Fusion position into Helicopter**
- Minimum: 1 rotation
- Criterias
  - **Fusion Helicopter: maintenance of the shape, flow, entry, minimum 1 rotation, disconnection**

- Free Connection
- Technical scoring coefficient: 2.25

## 5.3 *Landing*

### 5.3.1 Solo and Synchro Landing

#### 5.3.1.1 Approach and precision

- Land on the raft for maximum score.
- Quality of the approach and precision (distance to the raft).

#### 5.3.1.2 Raft

- Pilot landing smoothly on his feet for maximum score.
- Landing fully on the raft.

#### 5.3.1.3 Ground Spiral

- **Minimum 360° revolution, height of wing tip over water, less than 3 metres at the lowest point.**
- Entry (speed, sink rate), height of wing tip over water (touch for max. score).

#### 5.3.1.4 Hand touch

- Precision, length of touch with hand.

#### 5.3.1.5 Foot touch

- Precision, length of touch with foot.

#### 5.3.1.6 Jesus walk

- Precision, length of walk and frequency of the steps.

#### 5.3.1.7 Spin

- Minimum rotation: ½ turn before pilot lands.
- Speed of rotation, good sink rate and standing landing.

#### 5.3.1.8 Raft flip

- Control and effectiveness

### 5.3.2 Synchro only Landing

#### 5.3.2.1 Synchro Ground Spiral

- **Minimum 720° revolution when performed independently, or 360° when following a Synchro Spiral (total 3 revolutions), height of wing tip below 3 metres at the lowest point.**
- Entry (speed, sink rate), height of wing tip over water (touch for maximum score) in close proximity to each other.

#### 5.3.2.2 Wingovers Cruzado Inside Landing

- Same criteria as Wingovers Cruzados.
- Minimum one pendulum to each side and 360° in spiral.
- After the last inside pendulum connection to a spiral until the water as a Synchro Ground Spiral.

- Height of wing tip below 3 metres at the lowest point.
- Entry (speed, sink rate), height of wing tip over water (touch for maximum score) in close proximity to each other.

#### 5.3.2.3 Wingovers Cruzado Outside Landing

- Same criteria as Wingovers Cruzados.
- Minimum one pendulum to each side.
- After the last outside pendulum connection to a spiral till the water as a Ground Spiral performed individually.
- Height of wing tip below 3 metres at the lowest point.
- Entry (speed, sink rate), height of wing tip over water (touch for maximum score).

#### 5.3.2.4 Pitch Pendulum Landing

- Rapid and synchronised entry. Pilots should be vertically aligned for maximum score.
- Minimum twice, one over the other.
- The lower pilot must be less than 3 metres over the water in the last pitch, 1 metre or less over the water for maximum score.

## **6 Scoring**

### **6.1 Competition Validity**

A minimum of 2 runs is required to validate the championships in each category (Solo and Synchro).

A maximum of 7 rounds may be flown in each category.

### **6.2 Champions**

#### **6.2.1 Solo**

The overall score of each pilot is calculated by adding up all his task scores. The winner has the highest scores. Pilots with the same score are ranked in the same position.

#### **6.2.2 Synchro**

Pairs of pilots can be of the same or different nationalities.

Pairs of pilots of different nationalities fly under their respective national flags and anthems.

The overall score of each pair is calculated by adding up all their task scores. The winning pair has the highest score. Pairs with the same score are ranked in the same position.

#### **6.2.3 Team**

The number of pilots constituting a national team (X) and the number of pilot scores used to calculate the team score (Y) will be stated in the Local Regulations.

There is no team competition in Synchro.

The run score of a nation is calculated by adding up the highest Y scores of that nation's team pilots (X) for that run. The overall team score is the sum of the run scores. The winning nation has the highest score. Nations with the same score are ranked in the same position.

##### **6.2.3.1 Non Team Pilots**

The number of pilots entered by a NAC might be higher than the number of pilots constituting a national team. Pilots that are not eligible to score for the national team are eligible to compete for the individual championships.

#### **6.2.4 Tied Scores**

If, at the end of the competition there is a tie for any of the first three places, the pilot or pair with the highest run score will be declared the higher placed pilot or pair. If both have the same highest score, the second-highest scores will be considered.

### **6.3 Scoring**

A scoring system that has been approved by CIVL (currently Acropyx) will be used for competition scoring.

A scoring system shall be tested at a major competition before it is used in a 1st Category event.

Only manoeuvres defined in Chapter 5 are scored. Definitions include description, minimum criteria, technical evaluation criteria, connections, technical scoring coefficient and bonus.

There is no limitation in number and type of manoeuvres unless specified by the Meet Director and/or the Chief Judge. Any limitation must be clearly notified to all pilots prior to the start of the run.

The judging panel consists of at least 3 CIVL qualified judges. No more than 2 judges can be of the same nationality.

### 6.3.1 Scoring in Solo

Each judge awards 3 marks:

- Technical expression during the program (T)
- General choreography (C)
- Landing (L)

Marks are from 0 to 10, with half points. For each mark, the final mark is the average of each judge's mark. A distribution of 40% for technical mark, 40% for choreography mark and 20% for landing mark is done during calculation. Those values can be modified depending on local factors.

From the list a manoeuvre flown during the run (see §5.1 and §5.2), the technicity (TC) and bonuses (B) are deduced/calculated (see §6.3.1.1 and §6.6). Technicity (TC) directly applies to the technical mark while the bonus (B) is applied in addition to both the technical and choreography final scores.

The final score is calculated this way:

- Technical final score =  $T * TC * 40\%$
- Choreo final score =  $C * 40\%$
- Landing final score =  $L * 20\%$
- Bonus = (technical final score + Choreography final score) \* B%
- final score = Technical final score + Choreography final score + Landing final score + Bonus

These calculations can be modified depending on local factors. Information about those changes in force will be provided and justified at the latest, at the general briefing.

#### 6.3.1.1 Technicity in Solo

Manoeuvres are judged according to:

- criteria
- penalties

The technicity is a difficulty coefficient calculated as the average of the 3 highest coefficient manoeuvres flown during the run.

#### 6.3.1.2 Choreography in Solo

Manoeuvres are judged over some objective criteria (8/10) and the remaining points (2/10) are subjective and up to the judge's feeling about the whole run.

The objective criteria are distributed as follows for the run until the beginning of the landing (8/10):



- Trick's directions should be even (1/8). To get the maximum point, in a run, a pilot must perform the same number of tricks in both directions. In the case of an odd number of tricks with direction, a difference of 1 between both directions is considered as even.
- Each manoeuvre must be as chained as possible with the following and the least amount of time wasted between tricks should be rewarded with the maximum points (1/8). A run with each manoeuvre done independently should not be rewarded at all.
- No replacement during the run (1/8). A pilot who did not fly straight to replace himself will be rewarded with maximum points. Between the last manoeuvre of the run and the landing, there should be no pause and the flow must continue until the end of the landing (1/8).
- The tricks must be diverse as much as possible (1/8). A run with a maximum diversity of manoeuvres will be rewarded with the maximum points. Example: a 4 tricks run with Eesfera to Rythmic to Anti-rhythmic to Joker should be rewarded with a 0 point mark.
- The run composition must be as original as possible (3/8). To gain maximum points a pilot would ensure :
  - an original sequence of tricks (by changing the type of manoeuvres, by changing the rhythm during the run, ...)
  - perform rarely performed manoeuvres and/or place more common tricks in original manner
  - For example: A run starting with infinity-based manoeuvres then followed only by heli-based manoeuvres, OR a run composed exclusively of heli-based manoeuvres will be less rewarded than a run which alternates tumbling-based and heli-based manoeuvres. Therefore, a run composed only by a succession of high-coefficient manoeuvres without lower coefficient manoeuvres executed in between to bring "rhythm contrast" will be less rewarded than a run with "rhythm contrast".

The subjective mark (2/10) represents the general feeling of the judge from the start of the run until the end of the landing. This rewards the freestyle part of the sport. There are no criteria describing those points. It could be anything that gives emotion to the judge. It could be anything that makes a judge remember a run more than others. While all other criteria are objective and must be rewarded the same way by different judges, 2 different judges can give 2 opposite subjective marks to the same run.

#### 6.3.1.3 Landing in Solo

Manoeuvres are judged according to:

- Approach and precision of the raft landing (3/10)
- Ground Spiral (5/10)
- Other tricks: hand and foot touch, Jesus walk, spin, raft flip (2/10)

#### 6.3.2 Scoring in Synchro

The scoring for synchro is the same as for solo (see §6.3.1) with the following changes:

- A Synchronisation mark (S) is given
- The distribution is done as follow:
  - 25% for Technical
  - 25% for Choreography
  - 25% for the Landing
  - 25% for the Synchronisation
- The bonus does not apply to the Synchronisation mark

The final score for synchro is calculated this way:

- Technical final score =  $T * TC * 25\%$
- Choreo final score =  $C * 25\%$
- Landing final score =  $L * 25\%$
- Synchronisation final score =  $S * 25\%$
- Bonus = (Technical final score = Choreo final score) \* B%
- Final score = Technical final score + choreography final score + Landing final score + Synchronisation final score + Bonus

These calculations can be modified depending on local factors. Information about those changes in force will be provided and justified at the latest, at the general briefing.

#### 6.3.2.1 Technicity in Synchro

Same as for solo, see §6.3.1.1.

#### 6.3.2.2 Choreography in Synchro

Same as for solo, see §6.3.1.2.

The synchronisation is judged according to the following criteria:

- Maintain the same altitude when performing the manoeuvres.
- Staying in close proximity to each other.
- Starting/ending manoeuvres simultaneously.

#### 6.3.2.3 Landing in Synchro

Manoeuvres are judged according to:

- Approach and precision of the raft landing (3/10)
- Ground Spiral (3/10), Mirror Ground Spiral (4/10) or Synchro Ground Spiral (5/10)
- Other tricks: hand and foot touch, Jesus walk, spin (2/10)

#### 6.3.2.4 Synchronisation

Judging criteria is based on the average of:

- an appreciation of the general synchronisation (5/10)
- the synchronisation achieved during all single manoeuvres (5/10)

## 6.4 *Technical*

Each manoeuvre has a fixed difficulty coefficient in accordance with the table found in §5.1 and §5.2.

### 6.4.1 High coefficient manoeuvres

During each run, a maximum of 2 manoeuvres with coefficient of 1.95 or more can be flown. If more than 2 such manoeuvres are flown, the extra manoeuvres will not be scored and their coefficients not taken into account for the determination of the average coefficient.

## 6.4.2 Points Deductions

The following provide some reference criteria. The judges shall appreciate the context in which the problem occurs, its importance, and the way in which the pilot manages the situation.

### 6.4.2.1 Collapses/Tucks

- 0 to 25%: 0 to 2.5 points reduction for the manoeuvre
- 25 to 50%: 2.5 to 5 points reduction for the manoeuvre
- 50 to 100%: 5 to 8 points reduction for the manoeuvre

### 6.4.2.2 Unplanned Change of Direction

- <90°: 0 to 2.5 points reduction for the manoeuvre
- 90° to 180°: 2.5 to 5 points reduction for the manoeuvre
- >180°: 5 to 8 points reduction for the manoeuvre

### 6.4.2.3 Cravat

Fast recovery and full control are required.

- <10% and recovery in less than 3s: 2.5 points reduction for the manoeuvre
- >50% and recovery in more than 3s: 2.5 to 8 points reduction for the manoeuvre

### 6.4.2.4 Unplanned Twist

- <1 turn: 2.5 to 5 points reduction for the manoeuvre
- 1 turn or more: 5 to 8 points reduction for the manoeuvre

## 6.4.3 Synchro

Each manoeuvre has a fixed difficulty coefficient in accordance with the listing found in §5.2.

All bonuses allowed to be flown in Solo can be performed in Synchro and they will be rewarded by the same bonus points according to the same criteria.

Point deductions for collapses, tucks, cravats and unplanned twists or changes of direction, as noted for Solo, will also be applied to Synchro scoring.

## 6.5 Choreography

Choreography is scored for the entire run, including the landing.

### 6.5.1 Repetition

#### 6.5.1.1 Repetition during the same competition.

Each manoeuvre may only be performed once during the same competition without deductions to the bonus score. A manoeuvre can therefore be performed left and right, twisted, reversed and flipped without a deduction during the same competition. When the same manoeuvre is flown more than once to the same direction during the same competition, every repetition will be accorded a deduction of the bonus mark. Under certain conditions, the Chief Judge and/or Meet Director may choose to ignore this rule, in which case, information shall be provided at the briefing preceding that run.

In Synchro, when the two pilots perform the same manoeuvre simultaneously in opposite directions (mirror), the manoeuvre is considered as neutral, without a specific direction of rotation.

For Rodeo SAT and Rodeo Helicopter, the rotation of the SAT or the helicopter will determine the direction of the manoeuvre.

#### 6.5.1.2 Repetition during the same run.

- Only one of the following manoeuvres can be performed during the same run:
  - SuperStall to Infinite Tumbling
  - Flat Stall to Infinite Tumbling
  - Tail Slide to Infinite Tumbling
- Only 2 tumbling, infinity and rhythmic related manoeuvres can be performed during the same run

If this limitation is not respected, only the allowed manoeuvres (in the order of execution) will be scored.

#### 6.5.1.3 Deductions

The penalty for repetition is typically a reduction of 13% of the choreography mark for each repetition, but may be specified differently (especially for events where the completion of more than 4 runs is expected) and will be stated at the general briefing.

#### 6.5.1.4 Exceptions to Repetition

The following manoeuvres can be performed more than once without penalty within the same competition:

- Tail Slide, Wingover
- Full Stall
- Dynamic Full Stall
- Pitch Pendulum
- Bro Hook

However, each manoeuvre can be performed only once twisted or flipped within the same run. If the same manoeuvre is repeated twisted or flipped within the same run, the extra bonus will not be rewarded.

## 6.6 Bonus

Each manoeuvre can be awarded by different kinds of bonuses: twisted, reverse or flipped.

### 6.6.1 Twisted manoeuvres bonus

During each run, up to 5 manoeuvres can be performed twisted. They will be rewarded with “twisted bonus” points in accordance with the listing found in §5.1 and §5.2.

Some manoeuvres can be rewarded with an additional other kind of twist (like “twisted exit”, “devil twist”, “full twisted”...) and their respective bonus are added to each other if not specified otherwise in the manoeuvre definition.

The twisted exit bonus is awarded when a twisted manoeuvre is exit twisted and is followed by another twisted manoeuvre, without untwisting in between. Exception: the last manoeuvre of the run. In this case the trick has to be clearly exited twisted and controlled.

If more than 5 manoeuvres are flown twisted, the extra manoeuvres will not be scored and their coefficients not taken into account for the determination of the average coefficient. All manoeuvres allowed to be flown twisted in Solo can be performed twisted in Synchro.

### **6.6.2 Reversed Manoeuvres bonus**

During each run, up to 3 manoeuvres can be performed reversed. They will be rewarded with “reversed bonus” points in accordance with the listing found in §5.1 and §5.2.

If more than 3 manoeuvres are flown reversed, the extra manoeuvres will not be scored and their coefficients not taken into account for the determination of the average coefficient. All manoeuvres allowed to be flown reversed in Solo can be performed reversed in Synchro.

### **6.6.3 Flipped Manoeuvres bonus**

During each run, up to 2 manoeuvres can be performed flipped. They will be rewarded with “flipped bonus” or “double flipped bonus” points in accordance with the listing found in §5.1 and §5.2. If more than 2 manoeuvres are flown flipped, the extra manoeuvres will not be scored and their coefficients not taken into account for the determination of the average coefficient. All manoeuvres allowed to be flown flipped in Solo can be performed flipped in Synchro.

If a flipped manoeuvre is to be performed, it shall be announced before the run by personally informing one of the judges, or, at the latest before take-off, by requesting the start marshal or drop master to inform the judges.

### **6.6.4 Wing touch bonus**

The wing touch bonus is awarded when, during the execution of some synchro manoeuvres, the two wings smoothly touch each other. They will be rewarded with “wing touch bonus” points in accordance with the listing found in §5.2.

## **6.7 Landing**

Landing on the raft is an integral part of the competition.

The raft must have a surface area of 25 square metres minimum on a lake, and larger when on sea water in order to protect, as much as possible, the glider from the salt.

### **6.7.1 Landing on Ground**

The Meet Director, in agreement with the Safety Director and Chief Judge and after consultation with the Safety Committee can decide to eliminate the landing on the raft in the case of rough seas, very cold water (less than 10 °C) or unsafe landing conditions.

In that case, a ground landing can be scored under the following conditions:

- The pilots should be able to safely approach the landing area without over flying the public.
- A target landing gives the “raft points”. The target must be 1 metre diameter minimum.
- Ground spirals, raft flip, and all the synchro landing tricks are not allowed. All other landing tricks are allowed but must be safely performed, taking into consideration the nature of the landing area, the obstacle and people on ground.

### **6.7.2 No Landing Scoring**

If the conditions are not safe, the Meet Director, in agreement with the Safety Director and Chief Judge and after consultation with the Safety Committee can decide that landing will not be scored (0 for all pilots/pairs).

### **6.8 Synchronisation**

Synchronisation is scored for the entire run, including the landing.

### **6.9 Manoeuvre and Score Validation**

Just after completing the run, pilots/pairs are requested to validate their manoeuvres by checking in at the judges' tent.

When a run is completed the list of manoeuvres and the provisional results are published on the official information board. The pilots/pairs have 1 hour time to check the scores and report to the judges to point out possible errors.

The provisional and final results must include the following information:

- The average judge's marks by type (technique, choreography, landing) between 0 and 10
- The bonuses percentage
- Technicity : average of the 3 highest technical coefficients (max 2 above 1.95) as described in §6.3.1.1 and §6.4.
- The overall score

This applies to all kinds of official communication (web site, PDF, paper, ...).

### **6.10 Obvious Error**

The Meet Director may hold a conference with the judges to adjust a score in case of an obvious error.

## **7 Penalties and warnings**

### **7.1 Penalties**

#### **7.1.1 Dangerous Flying**

When the judges determine that a pilot has put himself into a dangerous situation through recklessness, poor preparation or by attempting a manoeuvre beyond his current skill level/proficiency.

0 points for the run.

#### **7.1.2 Opening of Reserve**

Opening of the rescue parachute:

Technical score only for the manoeuvres already completed. 0 for choreography and landing. A warning will be issued in the case of §7.1.1

#### **7.1.3 Not Opening of Reserve**

Not opening the reserve or delayed deployment when needed:

0 points for the run + Warning.

### **7.2 Warnings**

For safety reasons but also to ensure sportsmanship and fair play, warnings can be imposed on pilots/pairs. Warnings carry penalties.

Each warning is displayed on the results sheet.

The penalty points are shown in the results and are deducted from the total results.

Officials entitled to impose warnings:

- The judges for safety and competition related aspects: each judge notes the warning on his scoring sheet. The warning is valid if at least 2 judges (or 3 when 5 judges) give a warning.
- The Meet Director and Safety Director for safety related aspects.
- The Meet Director for sportsmanship related aspects.

Warnings can be imposed for incidents occurring at any time during the event: flight, registration, meals, transport to the take-off, at the take-off, during the briefings etc.

#### **7.2.1 Offences liable to result in a warning**

##### **7.2.1.1 General Safety**

- Disregard of the flight box.
- Disregard of the signal closing the flight box.
- Performing one of the manoeuvres not allowed to be flown as one of the last 2 manoeuvres.
- Over flying the public.

- Unauthorised take off.

#### 7.2.1.2 Taking Risks

- Dangerous flying.
- Endangering others (raft crew).
- Unsafe landing.

#### 7.2.1.3 Respect – Sportsmanship

- Late arrival/non-attendance at briefings.
- Delay at take-off.
- Unsporting behaviour.
- Disrespectful or aggressive behaviour towards the organisation, officials or other competitors.
- **No “ear” before programme start.**
- Any other behaviour deemed by the judges and/or the meet director as serious misconduct.

### 7.2.2 Warning Penalties

Warnings carry penalties:

- 1st warning: 0.5 point.
- 2nd warnings: 1 point.
- 3rd warnings: Disqualification.

Penalties will be applied whether the same offence is repeated or whether warnings have been applied for different offences.



## **8 Complaints and Protests**

The competition organiser shall retain and archive the video footage and other relevant competition material which might be used as evidence for at least 90 days after the end of the event, or until an appeal has been dealt with (see General Section Chapter 6).

### **8.1 Technical errors**

A pilot who notices a technical error (wrong manoeuvre, undeserved warning...) has the right to notify the judges who will take into account the notification, will evaluate it and will correct their decision if appropriate.

Scoring a routine remains a subjective matter, even when the scores of the 3 judges are averaged. Pilots and Team leaders should be aware that complaints or protests that are not about technical errors, but about the subjective way a run has been appreciated, are unlikely to be upheld by a Meet Director or a Jury.

### **8.2 Video Evidence**

The competition organiser shall arrange a video recording of all runs. The video recording can be used as an additional source of evidence only if:

- The Meet Director requests the adjustment of a score.
- The Chief Judge decides to review it when dealing with a complaint.
- The Jury decides to review it when dealing with a protest.

Amateur video evidence can be accepted when the official footage is missing or of unsatisfactory quality.

### **8.3 Complaints**

A complaint may be made to the Meet Director, preferably by the Team leader, in writing in English, to request a correction. It must be made within one hour of the publication of the provisional results.

If provisional scores are posted more than 2 hours after sunset and before 6:00 a.m next day, then the deadline for a complaint is 8:00 a.m.

For the last competition run, complaints must be submitted at the latest one hour after the publication of the provisional results.

Complaints will be dealt with expeditiously.

The Local Regulations might change the complaint deadlines.

### **8.4 Protests**

If the complainant is not satisfied with the outcome, a protest may be made to the Meet Director, which is passed to the FAI Jury. Protests should be made, preferably by the Team leader, in writing in English, within two hours of the result of the complaint being notified to the complainant.

For the last competition task, protests must be submitted within one hour after the result of the complaint is notified to the complainant.

The protest fee is defined in the Local Regulations. It may not be larger than \$50 US or €50 for championships held on the European Continent. It will be returned if the protest is upheld.

The Local Regulations may adjust the protest deadlines.

## **9 Safety & Equipment**

### **9.1 Personal Responsibility**

Each competitor has a personal responsibility for his own safety and those of others. He should only perform manoeuvres that he has practiced and that he can control fully.

### **9.2 Equipment**

All equipment, including glider, harness and rescue parachutes must be in perfect condition. Pilots will not be able to compete with damaged or broken lines, damaged fabric, coverings, stitching or reinforcements.

In case of damage to the competing glider that had been presented to the Competition Organiser during the period of registration, the pilot shall inform the Chief Judge and get his approval before using a replacement glider. If the damage occurs during a run and forces to stop it, a rerun can be granted, but only if this does not cause the competition and/or the prize-giving ceremony to be delayed.

#### **9.2.1 Glider**

Gliders must be certified according to EN 926-1 or LTF 91-09. Pilots may fly with non-certified gliders under the following conditions:

- The glider has a unique serial number for identification.
- A document is shown proving the manufacturer's agreement for a nominated pilot to fly a specific glider.

All lines must be fixed on the maillon with rubbers/plug to prevent moving. Knots not allowed, loops must be clean.

#### **9.2.2 Harness**

The harness must be certified according to EN 1651 or LTF.

The harness must be connected to the glider with carabiners or quick out carabiners with 16kN minimum breaking load.

#### **9.2.3 Reserve Parachutes**

Two rescue parachutes are compulsory: 2 classic or 1 classic and 1 Rogallo or BASE system.

For D-bag drop competitions, at least one rescue parachute must be a Rogallo or BASE system. An organiser may request an exemption from this requirement when bidding.

They must be certified according to EN 12491 (except for BASE system).

Both reserve parachutes must be dry and recently repacked. After a water landing, they must be dried or replaced by dry material.

Rescue parachutes must be connected to the harness with maillons rapides (both ends fixed with rubbers to prevent moving) or soft links with 16kN minimum breaking load. Connection with a loop can be exceptionally accepted only when securely fixed with tape.

#### **9.2.4 Helmets**

All pilots must wear a helmet certified according to either EN 966 (HPG), ASTM 2040 (Snow sports) or SNELL rs98 (Snow sports).

#### **9.2.5 Ballast**

No ballast is allowed.

#### **9.2.6 Emergency lines cut away**

Emergency lines cut away compulsory for D-Bag drop competitions.

### **9.3 *Equipment Checks***

The Safety Director and/or a Senior Judge will perform an equipment check during the pilot registration. Further checks may be made during the event. Any equipment change during the event has to be notified to the Meet Director. In case of non-compliance with the above regulations, the Meet Director may suspend or exclude the pilot from the competition.