FAI Sporting Code

Aerobatic Annex to
Section 7B – Class O
PARAGLIDERS
CLASS III

2013 Edition
Effective 1st May 2013
**Editor's note:** The FAI Sporting Code for Paragliding consists of the General Section and Section 7B combined, it also includes this Annex for aerobatic competition. In cases of doubt, consult the General Section to establish the principles before applying the specific rules which appear in this Section 7B document.

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.
Table of Contents

TYPES OF COMPETITION .................................................................................................................3

COMPETITION RULES ........................................................................................................................5

2.1 REGISTRATION AND RESPONSIBILITY ....................................................................................5

2.2 EQUIPMENT ..................................................................................................................................5

2.3 SAFETY ..........................................................................................................................................6

2.4 EMERGENCY STOP SIGNAL .........................................................................................................6

2.5 GENERAL BEHAVIOUR ..................................................................................................................6

2.6 WARNINGS AND PENALTIES .......................................................................................................6

2.6.1 - Persons entitled to impose warnings .......................................................................................6

2.6.2 - When a warning can be imposed .............................................................................................6

2.6.3 - Official list of warnings ...........................................................................................................6

2.6.4 - Running of the warnings .........................................................................................................7

2.6.5 - Point penalties .........................................................................................................................7

2.6.6 - Announcement of warnings and penalties ..............................................................................8

2.7 SAFETY COMMITTEE ...................................................................................................................8

2.8 SAFETY DIRECTOR .......................................................................................................................8

2.9 COMPLAINT, PROTEST AND APPEAL .......................................................................................8

2.9.1 Video record ...............................................................................................................................8

2.9.2 Complaints & protest by organiser ..............................................................................................8

2.9.3 APWC Evolution events ...........................................................................................................8

2.9.4 Video retention ...........................................................................................................................8

2.10 VALIDATION OF RUN ..................................................................................................................8

2.11 VALIDATION OF THE COMPETITION .......................................................................................8

2.12 PRIZE MONEY ...........................................................................................................................9

2.13 NUMBER OF PILOTS ..................................................................................................................9

2.14 ENTRY FEE ..................................................................................................................................9

2.15 JUDGING PANEL ........................................................................................................................9

COMPETITION DETAILS ....................................................................................................................11

3.1 SAFETY SELECTION ....................................................................................................................11

3.2 OFFICIAL MANOEUVRES ...........................................................................................................11

3.4 COMPETITION FOR INDIVIDUALS ............................................................................................13

3.4.1 - Solo pilot announced program ...............................................................................................13

3.4.2 - Solo restricted announced program .......................................................................................13

3.5 COMPETITIONS FOR TEAMS .....................................................................................................13

3.5.1 - Synchro pilot announced program .........................................................................................13

3.5.2 - Synchro restricted announced program ...............................................................................13

3.6 TYPICAL COMPETITION SCHEDULE .......................................................................................13

3.7 ANNOUNCEMENT OF PROGRAMME START ..............................................................................14

SCORING ...........................................................................................................................................15

4.1 GENERAL .....................................................................................................................................15

4.2 TECHNICAL SCORING ..................................................................................................................17

4.3 SYNCHRONISATION SCORING (FOR SYNCHRO COMPETITION ONLY) ..................................19
International Aerobatics Competition Rules for Paragliding

These rules cover the technical aspects of organising, running and scoring an aerobatic competition in paragliding. Organisers of FAI sanctioned events in this discipline should read this Annex in conjunction with the full Section 7B of the FAI Sporting Code which covers all other matters which must be addressed when running Category 1 or Category 2 events.

**TYPES OF COMPETITION**

In Aerobatic Paragliding there exist two different types of competitions. There are competitions for:

- **Individuals (Solo)**
- **Teams (Synchro)**

The competition calendar must indicate if it is open to teams and/or individuals.

A competition can also be held in different categories:

- **FAI CAT 1**: World Championship, World Air Games, Continental Competitions
- **FAI CAT 2**: National and International Competitions, World Cup Competitions
COMPETITION RULES

2.1 Registration and responsibility
The entry fee and the number of selection and competition days will be announced in the Local regulations (see chapter 7) of the event.
Each competitor must hold an FAI sporting licence issued by the NAC he represents.
Drugs are prohibited: Refer to FAI GS Rules.
Each competitor in the competition participates under his own responsibility. By signing the liability waiver (national law permitting), the pilot assumes the responsibility for any damage caused during the competition, the flights or transportation, to the pilot himself and to third parties.
Each competitor must hold valid air third party insurance. Personal medical insurance is highly recommended.
Each competitor is responsible for his manoeuvres and should only perform manoeuvres that he has practised and that he controls.

The senior judge and/or the technical delegate must make sure that the organiser properly checks the administrative documents: FAI licence, liability waiver if appropriate, third party liability insurance, and equipment verification.

Final registration, equipment and documents check shall be completed on the evening preceding the competition start between 17:00 (5:00pm) and 21:00 (9:00pm). The local rules will specify exactly the opening time of the registration.

2.2 Equipment
Giders, harnesses and rescue parachutes must be in perfect conditions. No damaged or broken lines, fabrics, sewings, reinforcements.

The gliders must be certified according to EN 926-1 or LTF 91-09, for shock and load tests.
The harnesses must be certified according to EN 1651 or LTF.

The rescue parachutes, dry and recently folded, must be certified according to EN 12491 (BASE system certification is not yet compulsory. Two rescue parachutes are compulsory (2 classic or 1 classic and 1 Rogallo or BASE system). After a water landing, they shall be replaced by dry material.

All pilots must wear a helmet certified according to EN 966.

No ballast is allowed.

The safety director, helped by the senior judge, will perform an equipment check during the pilots' registration, the evening preceding the competition start. In case of non compliance with the above regulations, the organiser might refuse to accept a pilot in the competition!

2.3 Safety
The aerobatic manoeuvres are only allowed above the water and in a designated area called “flight box”. Pilots must take in account the drift caused by wind.
It is strictly forbidden to fly over the public (direct elimination from the competition).

2.4 Emergency stop signal
In case of emergency, the flight box can be closed. A sound signal (loud enough to be heard by pilots) and a visual signal (cross and additionally a smoke bomb can be used) over the raft announce that all aerobatics manoeuvres and all water landing must immediately stop.

2.5 General behaviour
Competitors must respect the decisions of the judges. Competitors must respect the schedule of briefings and shuttles.

2.6 Warnings and penalties
For safety reasons but as well for good citizenship and respect for the rules, warning and penalties can be imposed on pilots.

2.6.1 - Persons entitled to impose warnings
The judges for safety and sportive related aspects
The flight director for safety related aspects
The organiser for safety and citizenship related aspects

2.6.2 - When a warning can be imposed
At any time during the event (flight, registration, meals, transport to the take off, at the take off, during the briefings, etc…)

2.6.3 - Official list of warnings
GENERAL SAFETY:
  - Disrespect of the flight box
  - Disrespect of the signal closing the flight box
  - Starting manoeuvre before 1 minute after the preceding pilot has landed
  - Flying over the public
  - Unauthorised take off
TAKING RISKS:
  - Loss of control
  - Endangering others (raft crew)
  - Unsafe landing
RESPECT – SPORTSMANSHIP:
  - Delay at briefings*
  - Delay at Take Off
  - Unsporting behaviour
  - Harmful behaviour towards the organisation
  - No ear for program start

*If for any acceptable reason (plane delay...), a pilot cannot be on time at a briefing he must nominate someone to represent him during the briefing and inform the judges following this procedure:
Before the first pilots' briefing, inform the organiser as soon as possible by a 'phone call (the number must be shown in the Local regulations). The organiser will inform the senior judge.
  - After the first pilots' briefing inform the pilots committee and/or the senior
When the pilot arrives in the competition area he must contact the senior judge to explain what happened. The judges will decide to give a warning or not.

2.6.4 - Running of the warnings
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).

2.6.5 - Point penalties
For special regulations applicable to “APWC Evolution” competition format see Ch4.8.4
The total of the point penalties are shown of the results and are deducted from the total results.
- 1 warning = to make the pilot aware that something went wrong
- 2 warnings = - 5 points
- 3 warnings = - 30 points
- 4 warnings = disqualification

2.6.6 - Announcement of warnings and penalties
Each warning is displayed on the result sheet.

2.7 Safety Committee
At the beginning of the competition 3 pilots must be elected (by the team leaders in Cat 1 or by the pilots in Cat 2) to represent the pilots in the safety committee whenever needed.

2.8 Safety Director
In Category 1 events the organiser shall appoint a safety director acceptable to the CIVL Bureau whose sole responsibility is safety (see Section 7B – Class O PARAGLIDERS Class III – chapter 2.6.2.1)

2.9 Complaint, protest and appeal

2.9.1 Video record
All routines are recorded on video and will be referred to in case of dispute. All the judges’ decisions are final. The Competition Director may hold a conference with the judges to adjust a score in case of an obvious error, but the final scores are not protestable.

2.9.2 Complaints & protest by organiser
For complaints and protests on decisions made by the organisers, FAI General Section rules apply.

2.9.3 APWC Evolution events
For APWC Evolution Format Category 2 events, all the judges’ decision are final. No complaints or protests are allowed.

2.9.4 Video retention
The organiser shall keep and archive the video footage and written notes of the judges until 6 months after the competition.
2.10 Validation of run
In case of difficulties (meteorological conditions, organisations etc), the pilots' representatives and the judges meet to decide to validate or cancel the run. For any reason, if a run cannot be completed one day, it will be continued on the later scheduled day (similar conditions permitted).

2.11 Validation of the competition
A minimum of 2 runs (FAI Cat 1) or 1 run (FAI Cat 2) is required to validate the competition in each category (solo and synchro).

2.12 Prize money
There should be prize money and the Local regulations will announce the amount and the rule for allocating the prize money. For APWC events the minimum prize money is fixed – please see Annex 3.

2.13 Number of pilots
The organiser must specify the maximum number of places in each competition solo and synchro. A pilot who is competing in solo and synchro is counted as 2 pilots. The minimum number of pilots for a Solo competition is 10 pilots. The minimum number of pilots for a Synchro competition is 5 teams.

- The organiser can manage the number of pilots in his competition with:
  - The world ranking order (published 6 weeks before the competition)
  - Inscription or entry fee payment time order
  - A qualification run just before the competition
  
This must be announced in the Local regulations.

The organiser must publish a waiting list.

2.14 Entry fee
The entry fee is defined by the organiser, but a maximum of 35 Euros per competition day is recommended. The entry fee should cover:

- Take off access
- Free access to supplementary events

For APWC events the entry fee is different – please see Annex 3.

2.15 Judging panel
(For “APWC Evolution” competition format see Annex 3)
The judging panel is to consist of at least 3 independent judges from at least 2 different countries (or 3 different countries if there are to be 4 or 5 judges), one of them being chosen from the list of senior judges is to be the chief judge (see Annex 1). The other judges can be national or international ones.
The CIVL Aerobatic Subcommittee in consultation with the organiser nominates the senior judges. After the competition the senior judge is to write a report to the CIVL subcommittee and must stay in contact with the organiser until the results have been sent to the CIVL.
COMPETITION DETAILS

3.1 Safety Selection
Safety selection is compulsory for all pilots who haven’t previously been ranked in any FAI competition.
All the pilots who already appear in the WPRS don’t need to participate at the safety selection.
The aim is to demonstrate the pilot’s ability to fly the competition. The program of the safety selection flights will be decided by the judges and concerned pilots will be informed during the main briefing.

3.2 Official manoeuvres
All pilots entering the competition should be able to safely perform the following manoeuvres:
- Full stall + exit
- Tail slide + exit
- Wing over
- SAT
- Helicopter
Choreography:
- Placement and drift
- Management of altitude
- Flow, rhythm, connection
- Originality, diversity
Synchro co-ordination (only for synchro flights)
Elimination if:
- The pilots’ skills are insufficient to perform the minimum required manoeuvres for the competition
- The manoeuvres are performed unsafely.
- No respect of the flight box (including the drift).
- Other safety reasons…

1.3 Qualification run and cuts
(For special regulations applicable to “APWC Evolution” competition format see Chapter 4.8.3) When registered pilots exceed the maximum number fixed by the organiser, they will be selected according to the WPRS or the order of registration or through a qualification run. (For additional information refer to the Local regulations.)
The qualification is a free announced program or a restricted program. Other aspects that counts at a qualification run are:
Choreography:
- Placement and drift
- Management of altitude
- Flow, rhythm, connection
- Originality, diversity
- Synchro co-ordination (only for synchro flights)
Landing (only for raft landing, see scoring for landing)
Cuts (elimination round) are only allowed for a final run and after having minimum 2 valid runs (with all pilots and teams) for an event CAT 1.

Cuts at qualification runs are allowed in CAT 1 and CAT 2 events.

3.4 Competition for Individuals

3.4.1 - Solo pilot announced program
Each pilot must submit his routine prior to his run. The pilot may choose his routine from the list of manoeuvres by filling in the “announced program” table. The number of manoeuvres is compulsory and announced before the run.

3.4.2 - Solo restricted announced program
The pilot may choose his routine from a list of manoeuvres decided by the judges’ panel.

3.5 Competitions for Teams

3.5.1 - Synchro pilot announced program
Each team must submit its routine prior to its run. The team may choose its routine from the list of manoeuvres by filling in the “Synchro announced program” table. The number of manoeuvres is compulsory and announced before the run.

3.5.2 – Synchro restricted announced program
The team may choose its routine from a list of manoeuvres decided by the judge’s panel.

3.6 Typical competition schedule
(not applicable to “APWC Evolution” competition format)

<table>
<thead>
<tr>
<th>Safety selection:</th>
<th>Safety selection manoeuvres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification Run</td>
<td>Restricted or announced program (Does not count for the scoring)</td>
</tr>
<tr>
<td>1st Task</td>
<td>Restricted or announced program</td>
</tr>
<tr>
<td>2nd Task</td>
<td>Restricted or announced program</td>
</tr>
<tr>
<td>3rd Task</td>
<td>Announced program</td>
</tr>
<tr>
<td>4th Task</td>
<td>Announced program</td>
</tr>
</tbody>
</table>

The starting order of the 1st run is at random drawing, or the reverse order of the actual FAI ranking. For the following runs, pilots will start in the reverse order of the last updated competition standing.

3.7 Announcement of programme start
Before starting the program, every pilot/team has to make one “big ear” to notify to the judges the start of the run. If, before starting the 1st manoeuvre, he estimates the conditions unsafe or the altitude too low to complete the run, the judges have to be 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/team will be allowed a re-flight, except when judges estimate that the pilot/team showed unsportsmanlike behaviour: in this case, warnings might be assigned. Nevertheless, it is always the pilot’s responsibility when to start his routine.

Launch order will be either the reverse of the current points standing or by random drawing.
4.1 General
The program (or routine) consists of a series of X manoeuvres from the official list. Each manoeuvre may only be performed once within the routine (unless performed in the opposite direction i.e. left/right).

The scoring is based on 3 sets of notes for solo competitions:
The technique during the program, the general choreography, and the landing.

The scoring is based on 4 sets of notes for synchro competition:
The technique during the program, the synchronisation of each manoeuvre, the general choreography, and the landing.

Each set of points must be averaged on a 100 points basis:
For that, the pilots’ score will be compared to a maxi score or a medium score.

This averaged score will be balanced with the percentages granted to this set of points. The following percentage apply:
Solo:
- Technical: 60%
- Landing: 20%
- Choreography: 20%

Synchro:
- Technical: 50%
- Synchronisation: 20%
- Landing: 15%
- Choreography: 15%
## 4.2 Technical scoring
Each manoeuvre has a fixed difficulty coefficient in accordance with this table:

<table>
<thead>
<tr>
<th>Official Manoeuvres</th>
<th>Maneuvers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full stall</td>
</tr>
<tr>
<td></td>
<td>Tail Slide</td>
</tr>
<tr>
<td></td>
<td>SAT</td>
</tr>
<tr>
<td></td>
<td>Wing Over</td>
</tr>
<tr>
<td></td>
<td>Asymmetric Spiral</td>
</tr>
<tr>
<td></td>
<td>Looping (Inversion)</td>
</tr>
<tr>
<td></td>
<td>Asymmetric SAT</td>
</tr>
<tr>
<td></td>
<td>Dynamic Full Stall</td>
</tr>
<tr>
<td></td>
<td>Mac Twist</td>
</tr>
<tr>
<td></td>
<td>Misty Flip</td>
</tr>
<tr>
<td></td>
<td>Helicopter</td>
</tr>
<tr>
<td></td>
<td>X-Chopper</td>
</tr>
<tr>
<td></td>
<td>SAT to HELICO</td>
</tr>
<tr>
<td></td>
<td>Misty to Misty</td>
</tr>
<tr>
<td></td>
<td>Mac Twist to Helico</td>
</tr>
<tr>
<td></td>
<td>Tumbling***</td>
</tr>
<tr>
<td></td>
<td>Misty to Helico</td>
</tr>
<tr>
<td></td>
<td>Twister (Helico to Helico)</td>
</tr>
<tr>
<td></td>
<td>HELICO to SAT</td>
</tr>
<tr>
<td></td>
<td>Trippy</td>
</tr>
<tr>
<td></td>
<td>Infinity Tumbling***</td>
</tr>
<tr>
<td></td>
<td>Rhythmic SAT***</td>
</tr>
<tr>
<td></td>
<td>Anti Rhythmic SAT***</td>
</tr>
<tr>
<td></td>
<td>Esfera***</td>
</tr>
<tr>
<td>Synchro Maneuver</td>
<td>Rodeo SAT</td>
</tr>
<tr>
<td>Synchro Maneuver</td>
<td>Rodeo Helico</td>
</tr>
<tr>
<td>Synchro Maneuver</td>
<td>Synchro Spiral</td>
</tr>
<tr>
<td>Pitch Pendulum*</td>
<td></td>
</tr>
</tbody>
</table>

*** These manoeuvres can NOT be the last 2.
* Has to be one of the last 2 manoeuvres.

The CIVL Aerobatic Subcommittee is empowered to continuously review these difficulty coefficients and make changes, as it considers necessary.

**Execution points:** Each manoeuvre is judged on a scale of 0 minimum to **100** maximum.

**Manoeuvre connections, which are NOT allowed** (exit in between is needed)
- Helicopter to helicopter - same direction
- SAT to SAT – same direction
- Tumbling to infinity
- Rhythmic SAT to infinity
- Rhythmic SAT to tumbling
Infinity to anti rhythmic
Tumbling to anti rhythmic
Rhythmic SAT to anti rhythmic

Calculation of each manoeuvres score for each judge:

Manoeuvres score = execution points X difficulty coefficient

3 judges average:
For each manoeuvre, the scoring software calculates the average score of the 3 judges.
This manoeuvre average score is shown in the Judging Details.

Calculation of final technical score:
A medium score is calculated depending of the quantity of manoeuvres and the difficulty coefficient average.

The difficulty coefficient average is fixed at 1.70 for every kind of task and for solo and synchro competitions.

Medium score = quantity of manoeuvres X 1.70 X 100
Average technical score = (total of the X manoeuvres / medium score)*100
Final technical score for solo = average technical score X 60%
Final technical score for synchro = average technical score X 50%

4.3 Synchronisation scoring (for synchro competition only)
The synchronisation of each manoeuvre is judged on a scale of 0 minimum to 10 maximum.

The judges’ average is made with the final judges synchronisation scores.

The max score to refer to is:

Max score = quantity of manoeuvres X 10

Average synchronisation score = (total of the X manoeuvres / max score)*100

Final synchronisation score = average synchronisation score X 20%

4.4 Scoring of landing
Landing on the raft is an integral part of the competition.
It is important for the media and spectacular for the public.
The raft must be at least 4m wide and 6m long when on a lake and larger 10 when on sea water in order to protect, as much as possible, the glider from the salt.

The judges’ average is made with the final judges landing scores.
The landing score for solo takes into account the following criteria and coefficients:

<table>
<thead>
<tr>
<th>LANDING on RAFT for SOLO</th>
<th>Coef</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach and precision</td>
<td>1.0</td>
</tr>
<tr>
<td>Raft</td>
<td>1.5</td>
</tr>
<tr>
<td>Ground spiral</td>
<td>4.0</td>
</tr>
<tr>
<td>Hand touch</td>
<td>1.2</td>
</tr>
<tr>
<td>Feet touch</td>
<td>0.5</td>
</tr>
<tr>
<td>Spin</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Execution points:** Each manoeuvre is judged on a scale of 0 minimum to 10 maximum and multiplicities by the respective coefficient.

The max score to refer to is:

\[ \text{Max score} = 92 \]

\[ \text{Average landing score} = \frac{(\text{total of the 6 manoeuvres})}{\text{maxi score}} \times 100 \]

\[ \text{Final landing score} = \text{average landing score} \times 20\% \]

The landing score for Synchro takes into account the following criteria and coefficients:

<table>
<thead>
<tr>
<th>LANDING on RAFT for SYNCHRO</th>
<th>Coef</th>
<th>Pilot 1</th>
<th>Pilot 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach and precision</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raft</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOLO Ground spiral</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYNCHRO Ground spiral</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand touch</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feet touch</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spin</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Execution points:** Each manoeuvre is judged on a scale of 0 minimum to 10 maximum and multiplied by the respective coefficient. Each pilot's execution will be graded separately and added.

The maxi score to refer to is:

\[ \text{Max score} = 204 \]

\[ \text{Average landing score} = \frac{(\text{total of the 6 manoeuvres})}{\text{maxi score}} \times 100 \]

\[ \text{Final landing score} = \text{average landing score} \times 15\% \]

4.4.1 - Landing on the ground

The pilots committee in accordance with the organiser can decide to cancel the landing on the raft in case of seawater, 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 m large.
- No ground spiral is allowed.

4.4.2 - No landing scoring
If the conditions cannot permit safe competition landing, the landing will not be scored. The landing score will be 0 for all pilots.

4.5 Scoring of choreography
Choreography is scored for the entire run (including the landing).
The judges’ average is made with the final judges choreography scores.

The choreography score for solo takes into account the following criteria and coefficients:

<table>
<thead>
<tr>
<th>SOLO CHOREOGRAPHY</th>
<th>Coef</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement and drift</td>
<td>1.6</td>
</tr>
<tr>
<td>Management of altitude</td>
<td>1.0</td>
</tr>
<tr>
<td>Flow</td>
<td>1.2</td>
</tr>
<tr>
<td>Rhythm and connexions</td>
<td>1.5</td>
</tr>
<tr>
<td>Originality, diversity</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Each criterion is judged on a scale of 0 minimum to 10 maximum.
The max score to refer to is:

Max score = 73

Average choreography score = (pilots choreography points / maxi score)*100

Final choreography score = average choreography score X 20%

The choreography score for Synchro takes into account the following criteria and coefficients:

<table>
<thead>
<tr>
<th>SYNCHRO CHOREOGRAPHY</th>
<th>Coef</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement and drift</td>
<td>1.6</td>
</tr>
<tr>
<td>Management of altitude</td>
<td>1.0</td>
</tr>
<tr>
<td>Flow</td>
<td>1.2</td>
</tr>
<tr>
<td>Rhythm and connexions</td>
<td>1.5</td>
</tr>
<tr>
<td>Originality, diversity</td>
<td>2.0</td>
</tr>
<tr>
<td>Synchro Coordination</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Each criteria is judged on a scale of 0 minimum to 10 maximum.
The max score to refer to is:

Max score = 93

Average choreography score = (pilots choreography points / maxi score)*100

Final choreography score = average choreography score X 15%

4.6 Total points
All the different scores will be added to obtain a score based on 100. The score will
be rounded to 1 digit after the point.
Final pilot score = final technical score + Final landing score + Final choreography score

Final team score = final technical score + Final synchronisation score + Final landing score + Final choreography score

4.7 Criteria of technical evaluation
The manoeuvres’ table is the reference for the season. Only the official manoeuvres defined in the manoeuvres’ table can be scored in every run.

The manoeuvres’ table includes for each manoeuvre.
- The manoeuvre’s **name** and its **difficulty** coefficient,
- The **criteria of technical evaluation** that is the reference for the execution score.
- The **imperative**: minimum requirements to validate the manoeuvre.
- The **penalties**: reference for discount in execution scoring.

**Penalties:**
The following criteria are some references. It is up to the judges to appreciate the context in which the problem happen, its importance and the way the pilot is managing the situation.

**Collapses / Tucks:**
- 0 % to 25% => 0 to -20 points for the manoeuvre
- 25% to 50% => -20 to -50 points for the manoeuvre
- 50% to 100% => -50 to -80 points for the manoeuvre

**Change of direction:**
- < 90° => 0 to -20 points
- 90° to 180° => -20 to -50 points
- > 180° => -50 to -80 points

**Cravat:**
In case of a cravat, the judges appreciate the way the pilot manages the situation.
Fast recovery and keeping the wing under control is required.
Cravat penalty:
- Cravat <10% and <3 seconds => -20 points
- Cravat >50% and >3 seconds => -20 to -80 points

**Twist:**
In case of a twist, the judges appreciate the way the pilot manages the situation.
- < 1 turn => -20 to -50 points
- 1 turn and more => -50 to -80 points

**Loss of control: 0 for the run**
A loss of control is a momentary lapse of time where the pilot doesn’t have the control
of the situation: a problem with the glider (collapse, cravat…) or twist causes the pilot some unexpected and uncontrolled trajectories. The judges consider the pilot has gone too far and into a dangerous situation.

**Opening of the reserve (rescue parachute)** - 0 (zero) points for the run manoeuvre, but the points allocated earlier in the run will be counted.

**Not opening the reserve or delay in opening in case of needing it:** 0 (zero) points for the run + Warnings

### 4.8 The “APWC Evolution” competition format

#### 4.8.1 Selection

The “APWC Evolution” competition format is a combination of standard runs and direct elimination runs.

When more than 30 pilots register to a solo competition, a selection cut is operated during the selection run 1, which is open to all pilots who already appear in the WPRS and will be valid as a first run. The top 15 ranked of the last updated WPRS and/or APWC are guaranteed to enter the qualifying run 2. Pilots who don’t appear yet in the WPRS will be previously selected through a safety selection flight.

#### 4.8.2 The runs

The competition usually consists of unannounced free program runs, with no limitations in quantity and type of manoeuvres (with the exception that the manoeuvres marked with * in the Manoeuvres board Annex 2 can not be performed as a last or penultimate) and no restriction about the connections listed in Chapter 4.2. Pilots are completely free to express themselves without having to interrupt their program until the landing on the raft (or on land, when no raft is available).

Nevertheless, for safety or other reasons, the judge panel and/or the organiser are entitled to insert technical limitations to the program of every run.

#### 4.8.3 Draw

Typical competition schedule (example with more than 30 pilots / 12 teams):

**4.8.3.1 SAFETY SELECTION FLIGHTS**

For all pilots who aren’t yet rated in the WPRS (according to Chapter 3.1 and 3.2).

**4.8.3.2 SELECTION RUN 1 / SELECTION**

(When more than 30 pilots are registered). Starting order is on the basis of the reversed last updated WPRS ranking. All pilots who are in the top 15 of the current FAI WPRS and/or in the top 15 of the last updated FAI APWC ranking are guaranteed to enter the qualifying run 2, regardless of their score in the run 1 / selection run. Additional pilots, to reach a maximum of 30, will be selected for the qualifying run 2 according to the result obtained during the selection run 1 / selection. All other pilots are eliminated.

**4.8.3.3 QUALIFYING RUN 2**

With 30 pilots and 12 teams: one against one, direct elimination (battle). Couples are formed on the basis of the selection run ranking after run 1 / selection (first against last, second against second last…) or, when no selection-
run was necessary, on base of the last updated WPRS ranking. Qualified for the semi-final run 3 are the 15 pilots and 6 teams winning their qualifying run 2 battle + 5 pilots and 4 teams who lost their series with the best score (lucky losers). 10 pilots and 2 teams are eliminated.

4.8.3.4 SEMI-FINAL RUN 3
- With 20 pilots and 10 teams remaining: one against one, direct elimination (battle). Couples are formed on the basis of the ranking after the qualifying run 2 (first against last, second against second last...). Qualified for the final run are the 10 pilots and 5 teams winning their semi-final run 3 battle + 2 pilots and 3 teams who lost their series with the best score (lucky losers). 8 pilots and 2 teams are eliminated.

4.8.3.5 FINAL RUN
With 12 pilots and 8 teams remaining: the pilots/teams will start in the reverse order of the ranking after the semi-final run 3, which is based on the sum of the points obtained during all preceding runs.

Remarks:

1. The format of the competition can be modified depending of the number of pilots/teams, the number of scheduled competition days, and in case of doubtful weather forecast. In an event with only solo or synchro competition, there can be more than one qualifying run before the semi-final run. In this case, the number of qualified pilots will progressively decrease to reach a maximum of 20 for the semi-final run (see examples 2 and 3 at the bottom).

2. If the competition can’t be completed according to the program (due to bad weather or any other reason) the ranking after the last completed run will become the final ranking.

4.8.4 The scoring system

The judging panel consists of a group of 5 to 8 persons:

- 3 FAI qualified judges
- 04 to 5 VIP judges chosen from, journalists, representatives of sponsors, authorities, non participating or already eliminated pilots...

Every judge gives 3 marks (from 1 to 10, with half points) for the solo discipline and 4 marks for the synchro. The final mark is composed of the scoring average of the FAI judges (importance 80%) and - when applicable - the scoring average of the other judges (importance 20%).

Variation: when a sufficient number of spectators is present on the event area (final runs), a portion of the score is defined by the applause and cheering of the audience. After the pilot/team has landed, the speaker invites the spectators to applaud and cheer. The decibel value is measured or estimated, and integrated to the score (with an importance of 5%, FAI judges is then accordingly reduced to 75, VIP judges importance remaining at 20%)

The judges’ decision is final. No complaints or protests are allowed!
SOLO COMPETITION:

1. **Technical expression (40% of the final mark).** All performed manoeuvres are judged according to the criteria, coefficients and deductions defined by chapter 4.1 and the official manoeuvres board (Annex 2) but there’s no penalty for any kind of connections and no limitation in quantity and type of manoeuvres. An average mark of all manoeuvres is defined. This mark is then multiplied by the average coefficient, which is calculated on the 3 manoeuvres with the highest coefficient flown during the run.

1.2. **Choreography (40% of the final mark).** Judging criteria:

1. Placement and drift, number of manoeuvres, management of altitude (3/10)
2. Flow, rhythm, connections, originality, diversity, style, emotional impact of the run (7/10)

2.3. **Landing (20% of the final mark).** Judging criteria:

3. Approach and precision of the raft landing (3/10)
4. Ground spiral (5/10)
5. Other tricks: hand and foot touch, spin (2/10)

SYNCHRO COMPETITION:

1. General technical expression (30% of the final mark)
2. Choreography (30%)
3. Landing (20%)
4. Synchronisation (20%). Judging criteria based on the average of the synchronization achieved during all single manoeuvres (5/10) and an appreciation of the general synchronization (5/10)

Remark: the importance of the coefficients can be modified depending on local factors. Information about the actual coefficients will be provided at the latest during the main briefing.

CUT COMPENSATION POINTS

After a pilot/team has been eliminated (cut), for each remaining run of the competition he/it will be attributed a certain amount of compensation points. The cut compensation points for a run is the average of the points collected by the pilot/team during all runs completed before elimination, or the lowest score that was attributed during the runs to which he/it has not been participating in (whichever is lower).

WARNINGS
The group comprising FAI judges, the flight director, the safety director and the organiser are entitled to assign warnings according to the FAI rules. A warning becomes effective when assigned to a pilot by at least 2 FAI judges or by at least 50% of this group:

- 1st Warning: 1 point will be discounted from the run result
- 2nd Warning: 1 more point discounted
- 3rd Warning: disqualification of the pilot.

**SCORING SOFTWARE AND RESULTS DISPLAY**

The marks given by the judges are introduced in a software package especially created for aerobatics paragliding. The score of each pilot is available within 1-2 minutes after landing. The marks are displayed in real time on a big screen and the overall intermediate results are updated simultaneously. The system can be adapted at any time for any kind of competition run development.

**4.8.5 Schedule & timing**

Calculation on base of 7 minutes spacing between 2 pilots (30x7 = 210 minutes >> approximately 3 ½ hours for a complete solo qualifying run) and 8 minutes between 2 teams (12x8 = 96 minutes >>> approximately 1 ¾ hour for a complete synchro qualifying run).

**Example 1:**

**Typical schedule for a 3 days competition solo (with more than 30 pilots) + synchro (12 teams)**

**THURSDAY**

- Safety selection flights
- Registration
- Main briefing

**FRIDAY**

- 09:30-13:30 *Run 1 / selection run* solo (30+ pilots)
- 15:30-17:30 *Run 1 synchro (12 teams, start of one against one phase)* Qualifying run solo (30 pilots, start of one against one phase)

**SATURDAY**

- 09:30-12:30 *Run 2 solo (30 pilots, start of the one against one phase)* Semi-final run solo (20 pilots, 15 winners + 5 lucky losers)
- 14:30-16:30 *Run 2 synchro (10 teams, 6 winners + 4 lucky losers)* Qualifying run synchro (12 teams, start of one against one phase)

**SUNDAY**

- 10:00-12:30 Semi-final run synchro (10 teams, 6 winners + 4 lucky
Example 2:

Typical schedule for a 3 days competition solo only (with more than 30 pilots) and no synchro

THURSDAY
- Safety selection flights
- Registration
- Main briefing

FRIDAY
- 09:30-14:30 Selection Run 1 / selection solo (30+ pilots)
- 15:00-18:30 Qualifying Run 2 solo (30 pilots, start of one against one phase)

SATURDAY
- 10:00-13:15 Qualifying Run 3 solo (26 pilots, 15 winners + 11 lucky losers)
- 14:30-17:15 Qualifying Run 4 solo (22 pilots, 13 winners + 9 lucky losers)

SUNDAY
- 10:00-12:30 Semi-final Run 5 solo (18 pilots, 11 winners + 7 lucky losers)
- 14:00-15:30 Final run solo (15 pilots, 9 winners + 6 lucky losers)
- 17:00 Prize giving ceremony

Example 3:

Typical schedule for a 3 days competition synchro only (with 12 teams) and no solo

THURSDAY
- Safety selection flights
- Registration
- Main briefing

FRIDAY
- 10:00-12:00 Qualifying Run 1 synchro (12 teams)
- 14:00-16:00 Qualifying Run 2 synchro (12 teams)

SATURDAY
- 10:00-12:00 Qualifying Run 3 synchro (12 teams)
- 14:00-16:00 Qualifying Run 4 synchro (12 teams, start of one against one
SUNDAY

- 10:00-12:00 Semi-final run synchro (10 teams, 6 winners + 4 lucky losers)
- 14:00-15:30 Final run synchro (8 teams, 5 winners + 3 lucky losers)
- 16:00 Prize giving ceremony
5.1 General
Two different rankings, in paragliding aerobatics competition, are calculated.

1) An Aerobatic Paragliding World Cup (APWC) of maximum 5 major events with a ranking formula defined below (see Annex 3)A permanent ranking, updated monthly based on the formula of the WPRS (World Pilot Ranking System), where the pilot (participant) points are calculated on the sum of 4 best competitions in the last 3 years with time devaluation.
Link to the formula and its explanation: http://civlrankings.fai.org/?a=343&doc_ref=7
All the international aerobatics events including those counting for APWC will be taken into account for this permanent ranking provided they are sanctioned as FAI cat 2 events.
This ranking will give points to all the pilots competing in an event and could be used for selection purposes.

2) An Aerobatic Paragliding World Cup (APWC) of maximum 5 major events per year, with a ranking formula defined below (see Annex 3)A permanent ranking based on the formula of the World Aerobatic Pilot Ranking. This formula and its explanations are available at the following address: http://www.fai.org/hang_gliding/rankings/newrankings/formulahg/index.html
All the international aerobatics events including those counting for APWC will be taken into account for this permanent ranking provided they are sanctioned as FAI cat 2 events.
This ranking will give points to all the pilots competing in an event and could be used for selection purposes.

5.2 World Pilot Ranking System (WPRS)
The CIVL Competitions Co-ordinator will keep the WPRS provided the following is needed:
The Aerobatics competition must be FAI Category 2 sanctioned. The organiser has to contact the CIVL Competitions Co-ordinator at the following address: civl_comps@fai.org to obtain the dossier that requires:
- A sanction fee equivalent of one pilot's entry fee,
- The competition being put on the CIVL calendar one month before the event,
- The organiser to control that the pilots hold a valid FAI sporting licence
Only the pilots holding an FAI sporting licence will be considered in the WPRS.
The organiser must send to the CIVL Co-ordinator the results the same day they are official.

5.3 Aerobatic Paragliding World Cup Ranking (APWC)
In addition to sending the results to the CIVL Competitions Co-ordinator, the Aerobatic Paragliding World Cup (Acro World Cup) organisers must send to Claudio Cattaneo the results the same day they are official at the following address: results@flyandsmile.ch
ORGANISER RULES

These organiser rules apply to all events counting for the World Aerobatic Pilot Ranking.

An organiser has to complete the FAI Category 2 sanction form (see annex). He must specify on this form the name of the senior judge. He must send it to the FAI with sanction fee of one pilot entry fee.

For the APWC rules apply but others are added (see chapter 7 and Annex 3).

6.1 The competition site
Aerobatic competitions can only take place above water. It is necessary to get a height of at least 400 m above water in order to perform the movement.
The wind should not normally be stronger than 30 km/h.
The box must be large enough to permit, a pilot to use his rescue parachute and land safely in water.

6.2 Take Off
A necessary space must be available to spread a minimum of 2 gliders. Easy and fast access for rescue. If it is a towing competition a minimum of two boats/winches is required. A starter is required to regulate take offs & for the communication to the landing area.

HELICOPTER DROP. Helicopter drop can also be used in case no suitable take off is available. In this case an exit master is needed on the helicopter. The exit master and his team are responsible to check the equipment (D-Bag) of the pilot before entering the helicopter. The pilot that is not able to fly his program because of using the rescue, delay in opening of the glider or equipment damage during the drop can request a rerun. In the two latter cases he has to make big ears and go for a dry landing.

6.3 Landing
The main landing place is on the raft. The size of the protected platform is at least 6m X 4m, without any sharp edges. All sides and corners must be well protected.
It is necessary to have a “dry” landing. It is also possible to use a landing place on water. In that case a protected floating platform (10 m X 10 m) without any sharp parts. Each side and corners must be well protected.
Windsocks must be posted at different places of the event.
No flight over the public.

6.4 Communication
Radios and / or mobile phones (homologated if necessary) can be used for the communication.
The start of the run must be announced to all the judges with confirmation.
6.5 Organisation facilities
Reception of the public in a delimited area (a parking close to the event, catering, announcers).
Headquarters with the entire infrastructure for the results keyboarding, computers, Internet access, and a high performance photocopy machine, paper (minimum 4 reams) and telephone lines.
Each judge needs one secretary to assist him or her during the notation.
In addition deck chairs (chaises longue) must be provided to the judges.
For “APWC Evolution” competition format, a reliable wireless connection and a big screen for results display shall be provided on the competition area.

6.6 Aerobatics area movements
It is the pilot's responsibility to consider the strength of the wind and to estimate its drift in case of rescue opening so that he can land in water. The beginning of the routine will start at a minimum distance from the bank. The judges, the organiser and pilot committee fix the maximum strength of wind accepted during the competition.

6.7 Organisation team
Continuous shuttles or cable car with operators giving priority to the competitors.
A flight director who must be continuously present at landing place during flight activity.
A competition director.
A safety director.
At take off: a starter who is responsible for take offs and helped by 2 or 3 assistants.
A speaker for public address.
A cameraman with a camera who is permanently filming. This person must be placed next to the judges.
A secretary who assists the judges’ panel and helps entering the results (score keeper).

6.8 Briefing
Pilot committee election (2 pilots). The pilot committee gives his point of view on the competition and particularly on all the aspects concerning safety.

6.9 Local regulations
The local regulations must be published according to the Section 7 template (see below). These regulations should contain all sites and meet specific information. Two months prior to the event on the official web site. And it has to be posted at the competition's information board during the event.

6.10 Weather forecast
Weather forecast publication. At take off, information on the landing wind strength must be provided.

6.11 Safety
- An emergency response team or health care team at the competition area must be available.
- An emergency health care helicopter that will be available within 30 min of contact.
- 2 motorised boats with staff (3 - 4 for Synchro), hook knives and easy access for the
pilots.
- Additional safety equipment where appropriate.

6.12 Insurance
Each organiser must consider what insurance cover is necessary for each competitor and include this in the local regulations for the event. The following wording is recommended:

It is the responsibility of each competing pilot to ensure that he has valid insurance cover as follows:
- Public liability risk: ................. (Organiser to specify requirement)
- Personal accident/hospitalisation/repatriation................. (Organiser to specify requirement)

If insurance can be arranged on arrival through the organisers this should also be stated and details given.
The local regulations should also state what proofs of insurance the organiser will check before competition flying commences.

6.13 Media exposure
The organiser should organise an event well suited to the media, at least at a national or local level.
Information should be given to the pilots about the broadcast dates on the different channels of the images of the competition.

6.14 Panel of judges
The organiser has to get in contact with one of the senior judges: in case no senior judge is available, he shall contact the chairman Claudio Cattaneo judges@flyandsmile.ch for the selection of judges.

The tasks of the senior judge is:
- To help the organiser in case of questions about the FAI Rules
- To check the list of registration before the competition
- To make sure that the competition rules are implemented
- To make sure that the FAI licences are controlled.
- To check the safety aspect of the event
- To teach the local judges and trainees
- To run the pilots briefings
- To make a report of the competition including the training steps of the trainees
- To resolve scoring software problems

The chief judge is paid 200 Euros per day and his travel expenses; the organiser reimburses accommodation and wages.
The chief judge has the possibility to organise training course for new judges during and/or before the event.
A student judge must have followed a theoretical training course provided by a senior judge.

6.15 Results
The organiser must send the results in the correct format (Excel or Access) to the CIVL Competitions Co-ordinator at the following addresses: civl_comps@fai.org and
results@flyandsmile.ch as soon as the final results are official. The results have to be published on the official website of the event one hour after they are official.
LOCAL REGULATIONS

7.1 Name of the event

7.2 Dates
Including training dates and place

7.3 Description of the event
Open to teams and/or individuals
Number of competition days
Date and time of the main briefing

7.4 Maximum number of pilots and selection method
Maximum number of pilots:
Selection method applied:
- WPRS
- Qualifying run
- Order of inscription (date)
The organiser may define a deadline for the payment of the inscription fee

7.5 Entry fee
Amount.
What is included in the entry fee.

7.6 Prize money
Amount
How it is awarded

7.7 Telephone number
The number to be called by pilots in case of a delay.

7.8 Daily programme
This program has to be respected.

7.9 Competition
Kind of competition (solo and/or synchro)
Competition format (Standard or APWC Evolution)
Definition of the flight Box
### Annex 1 - List of Judges

<table>
<thead>
<tr>
<th>List of senior judges:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pernilla HAMMAR-ROGOY <a href="mailto:pernilla@downteam.com">pernilla@downteam.com</a></td>
</tr>
<tr>
<td>François BON <a href="mailto:fb@acro-base.com">fb@acro-base.com</a></td>
</tr>
<tr>
<td>Stefan HODEK <a href="mailto:humaneagle@hotmail.de">humaneagle@hotmail.de</a></td>
</tr>
<tr>
<td>Agustin CIMA (Galle) <a href="mailto:acima@cdhconsultores.com.ar">acima@cdhconsultores.com.ar</a></td>
</tr>
<tr>
<td>Chris GEIST <a href="mailto:info@paragliding-academy.com">info@paragliding-academy.com</a></td>
</tr>
<tr>
<td>Iris VOIGT irisvoigtmx.net</td>
</tr>
<tr>
<td>Arvid HAALAND <a href="mailto:arviden@hotmail.com">arviden@hotmail.com</a></td>
</tr>
<tr>
<td>Claudio CATTANE0 <a href="mailto:judge@flyandsmile.ch">judge@flyandsmile.ch</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List of qualified judges:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauricio G BRAGA <a href="mailto:writejr@terra.com.br">writejr@terra.com.br</a></td>
</tr>
<tr>
<td>David SOUJESTE <a href="mailto:contact@suav-records.com">contact@suav-records.com</a></td>
</tr>
<tr>
<td>Mirjam STEIEN <a href="mailto:glajento@hotmail.com">glajento@hotmail.com</a></td>
</tr>
<tr>
<td>Gilles BERRUEX <a href="mailto:gilles@acroleague.ch">gilles@acroleague.ch</a></td>
</tr>
<tr>
<td>Ivar SVASAND <a href="mailto:svasand@hotmail.com">svasand@hotmail.com</a></td>
</tr>
<tr>
<td>Beverly JÄGER <a href="mailto:klotilde06@gmx.de">klotilde06@gmx.de</a></td>
</tr>
<tr>
<td>Fabian EQUAY <a href="mailto:ablefab1@hotmail.com">ablefab1@hotmail.com</a></td>
</tr>
<tr>
<td>Jeffrey FARRELL <a href="mailto:jeff@superflyinc.com">jeff@superflyinc.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List of trainee judges:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bernhard PALLSNER <a href="mailto:mac.austria@aon.at">mac.austria@aon.at</a></td>
</tr>
<tr>
<td>Matt BEECHINOR <a href="mailto:mattbechinor@yahoo.com">mattbechinor@yahoo.com</a></td>
</tr>
<tr>
<td>Stan KIRSTIANSEN <a href="mailto:stian_k_82@hotmail.com">stian_k_82@hotmail.com</a></td>
</tr>
<tr>
<td>Michel MARQUET <a href="mailto:titi-btf@hotmail.fr">titi-btf@hotmail.fr</a></td>
</tr>
<tr>
<td>Marion REY <a href="mailto:sudj80@gmail.com">sudj80@gmail.com</a></td>
</tr>
<tr>
<td>Marvin OGGER <a href="mailto:marvin@petlu.com">marvin@petlu.com</a></td>
</tr>
</tbody>
</table>
Arif Kemal BUHARA     skyarif@gmail.com     TURKEY
Serdar ÖZÇAROĞLU       serdarozucaroglu@hotmail.com  TURKEY
Fabian EQUAY           fablefab1@hotmail.com          FRANCE
## Annex 2 - Official Manoeuvres Board SOLO & SYNCHRO

<table>
<thead>
<tr>
<th>Manoeuvre's name</th>
<th>Coef</th>
<th>DESCRIPTION, IMPERATIVE</th>
<th>Criteria of technical evaluation</th>
<th>CONNEXIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Stall</td>
<td>1,00</td>
<td>Full stall</td>
<td>Entry, control of pendulum movement, control of direction and exit or connection</td>
<td>-</td>
</tr>
<tr>
<td>Tail Slide</td>
<td>1,15</td>
<td>Backward flying with open glider</td>
<td>maintenance of the shape, stability, perceptible backwards flight, control of direction, duration, exit or connection</td>
<td>-</td>
</tr>
<tr>
<td>SAT</td>
<td>1,25</td>
<td>Equilibrated SAT rotation</td>
<td>Entry, angle of wing (90° for max score), low sink rate, exit or connection (no collapse penalty for tip collapse during exit)</td>
<td>no connection to combo manoeuvres</td>
</tr>
<tr>
<td>Wing Over</td>
<td>1,35</td>
<td>Series of pendulum turns with change of direction each time</td>
<td>Rhythm, flow, trajectory, angle (minimum 135° for maximum score – the higher the better)</td>
<td></td>
</tr>
<tr>
<td>Asymmetric Spiral</td>
<td>1,35</td>
<td>Series of pendulum turns in the same direction each time</td>
<td>Rhythm, flow, trajectory, angle (135° for maximum score – the higher the better)</td>
<td></td>
</tr>
<tr>
<td>Looping</td>
<td>1,50</td>
<td>Entry from asymmetric spiral or a normal spiral - Reversal of a rotation that make the pilot turn around the wing on a pitch movement. min. angle : 135°</td>
<td>Entry, energy, timing, flow, trajectory (pitch movement), angle (180° for maximum score), exit or connection</td>
<td></td>
</tr>
<tr>
<td>Asymmetric SAT</td>
<td>1,55</td>
<td>Entry from say spiral or wing over in the same direction (old school)</td>
<td>energy, timing, flow, trajectory (SAT rotation), angle (135° for maximum score), asymmetric dynamic exit (no collapse, no stall)</td>
<td></td>
</tr>
<tr>
<td>Dynamic Full Stall</td>
<td>1,60</td>
<td>Strait climb Min. 1 revolution (min. 45° backwards pitch) + full stall</td>
<td>Energy, importance of pitch (pitch 90° for maximum score), control of direction and exit or connection</td>
<td></td>
</tr>
<tr>
<td>(Super Stall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mac Twist</td>
<td>1,60</td>
<td>Spin from spiral maintained until pendulum stabilisation. Minimum 90° for maximum score</td>
<td>Energy and asymmetry on entry, speed and importance of rotation, pendulum stabilisation, fast exit or connexion</td>
<td></td>
</tr>
<tr>
<td>Manoeuvre's name</td>
<td>Coef</td>
<td>DESCRIPTION, IMPERATIVE</td>
<td>Criteria of technical evaluation</td>
<td>CONNEXIONS</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
<td>-----------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Misty Flip</td>
<td>1.65</td>
<td>straight entry &amp; climbing, 360° spin, straight horizontal shooting, exit not more than 180° form the direction of the entry</td>
<td>importance of pitch on entry, 360° rotation, maintenance of shape, strong shooting no rotation on entry and exit, direction.</td>
<td>no connexion to combo manoeuvres (twister, Helico-sat...)</td>
</tr>
<tr>
<td>Helicopter</td>
<td>1.70</td>
<td>Perfect spin with open glider and vertical axe of rotation. Min. 3 revolutions</td>
<td>maintenance of the shape, stability of rotation axis (vertical) speed of rotation, low sink rate, duration, exit or connection</td>
<td>no connexion to combo manoeuvres (twister, Helico-sat...)</td>
</tr>
<tr>
<td>X-Chopper</td>
<td>1.70</td>
<td>Entry with a lot energy, constant &amp; rapid climbing, min. 90°, min. 360° spin, strong shooting, exit shooting not more than 270° from the direction from the entry</td>
<td>Importance of pitch on entry, min. 360° rotation, energy, maintenance of shape, strong shooting</td>
<td>no connexion to combo manoeuvres (twister, Helico-sat...)</td>
</tr>
<tr>
<td>SAT to Helico</td>
<td>1.75</td>
<td>Min 2 SAT revolutions + connection to min 3 Helico revolutions</td>
<td>Sat criteria (/30 pts) + Helico criteria (/30 pts) + connection (/40 pts): flow and speed of transition</td>
<td>no connexion to Helico</td>
</tr>
<tr>
<td>Misty to Misty</td>
<td>1.75</td>
<td>same criteria for the misty, transition: use the same energy to the first misty for the next one</td>
<td>Direction must be changed</td>
<td></td>
</tr>
<tr>
<td>Mac Twist to Helico</td>
<td>1.80</td>
<td>Radical negative spin from spiral maintained to Helico. Min 3 revolutions Helico</td>
<td>Mac twist criteria (/30 pts) + Helico criteria (/30 pts) + connection (/40 pts): flow and speed of transition</td>
<td>no connexion to Helico</td>
</tr>
<tr>
<td>Tumbling ***</td>
<td>1.80</td>
<td>Asymmetric or inversion entry , perfect pitch movement Min 1 revolution</td>
<td>Energy on entry, timing, flow, Trajectory (pitch movement), angle (180° for max score, minimum 135°), exit or connexion</td>
<td>no connection to infinity</td>
</tr>
<tr>
<td>Misty to Helico</td>
<td>1.80</td>
<td>Same criteria for a misty flip, min. 45° climbing before rotation + transition to Helicopter + Helico criteria</td>
<td>Misty Flip criteria (/30pts) + Helico criteria (/30 pts) + connection (/40 pts): flow and speed of transition</td>
<td>no connexion to Helico</td>
</tr>
<tr>
<td>Twister (Helico to Helico)</td>
<td>1.85</td>
<td>Helico one side to Helico other side Min 3 revolutions each side</td>
<td>1st Helico (/30 pts) + 2nd Helico (/30 pts) + connection (/40 pts): speed of transition</td>
<td>no connexion to Helico</td>
</tr>
<tr>
<td>Manoeuvre’s name</td>
<td>Coef</td>
<td>DESCRIPTION, IMPERATIVE</td>
<td>Criteria of technical evaluation</td>
<td>CONNEXIONS</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Helico to SAT</td>
<td>1,85</td>
<td>Min 3 Helico revolutions + connection to min 2 SAT revolutions. No rotation in entry and exit</td>
<td>Helico criteria (/30 pts) + SAT criteria (/30 pts) no rotation on entry and exit, direction.</td>
<td>no connexion to simple SAT</td>
</tr>
<tr>
<td>Trippy</td>
<td>1,90</td>
<td>Helico – SAT – Helico, SAT – Helico – SAT one manoeuvre but you could choose if you start with SAT or Helico</td>
<td>2 rotations for Helico and 2 rotations for SAT 20 pts for each manoeuvre and connection part</td>
<td></td>
</tr>
<tr>
<td>Infinity Tumbling ***</td>
<td>1,95</td>
<td>Series of perfect Tumbling (pitch movement) Min entry plus 5 revolutions</td>
<td>Rhythm, flow, trajectory (no roll movement), tension in the lines and glider, duration, exit or connexion</td>
<td>no connexion to Tumbling, Anti Rhythmic</td>
</tr>
<tr>
<td>Rhythmic SAT ***</td>
<td>2,00</td>
<td>Entry without pitch, constant progression Minimum 135 ° in the best revolution, 180° for maximum points + 1 straight revolution at the end</td>
<td>Rhythm and regularity of the variation of the axis, flow, angle, exit or connexion</td>
<td>no connexion to Tumbling, Infinity and Anti Rhythmic</td>
</tr>
<tr>
<td>Anti Rhythmic***</td>
<td>2,00</td>
<td>Entry by a tumbling, Minimum 135 ° in the first revolution (180° for maximum points) + 1 SAT revolution at the end</td>
<td>Rhythm and regularity of the variation of the axis, flow, angle, exit or connexion</td>
<td></td>
</tr>
<tr>
<td>Esfera***</td>
<td>2,20</td>
<td>Rhythmic SAT pulled to the vertical and followed by an Anti Rhythmic to the other side</td>
<td>Rhythmic SAT criterias (/50 pts) + Anti Rhythmic criteria (/50 pts)</td>
<td></td>
</tr>
<tr>
<td><strong>SYNCHRO MANOEUVRES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rodeo SAT</td>
<td>1,65</td>
<td>Synchronised and rapid entry, proximity of the wings flow duration, exit</td>
<td>Min. 2 rotations around the SAT at the same altitude</td>
<td></td>
</tr>
<tr>
<td>Rodeo Helico</td>
<td>1,70</td>
<td>Synchronised and rapid entry, proximity of the wings flow duration, exit</td>
<td>Min. 2 spiral rotations around the helicopter at the same altitude</td>
<td></td>
</tr>
<tr>
<td><strong>Pitch Switch</strong></td>
<td>1,75</td>
<td>Synchronised and rapid entry, proximity of the wings flow duration, synchronised and rapid switch, exit</td>
<td>Min. 2 spiral rotations around the SAT at the same altitude for each pilot swinging</td>
<td></td>
</tr>
<tr>
<td>Synchro Spiral</td>
<td>1,80</td>
<td>Synchronised and rapid entry, proximity of the wings, duration, high sink rate, rapid and controlled exit</td>
<td>Min. 2 revolutions max. distance is one paraglider line length in between (approx. 10 m)</td>
<td></td>
</tr>
<tr>
<td>Pitch pendulum Synchro (Moline)*</td>
<td>1,95</td>
<td>Rapid and synchronised entry, pilots should be vertically aligned for max. score</td>
<td>Min. twice one over the other one The manoeuvre has to be one of the last 2 manoeuvres</td>
<td></td>
</tr>
<tr>
<td>Maneuvers</td>
<td>Value</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landing maneuvers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach and precision</td>
<td>1,0</td>
<td>Touch the raft for maxi score Quality of the approach and precision (distance to the raft)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raft</td>
<td>1,5</td>
<td>Pilot standing for maxi score Landing well on the raft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground spiral</td>
<td>4,0</td>
<td>Min. 360° revolution, height of wing tip blow 3m at the lowest point Entry (speed, sink rate), height of wing tip over water (touch for max. score)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synchro Ground Spiral</td>
<td>5,0</td>
<td>Min. 360° revolution, height of wing tip blow 3m at the lowest point Entry (speed, sink rate), height of wing tip over water (touch for max. score) very close to each other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand touch</td>
<td>1,0</td>
<td>Precision, length of touch with hands…</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feet touch</td>
<td>0,5</td>
<td>Precision, length of touch with foot…</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spin</td>
<td>1,0</td>
<td>Min. rotation: ½ turn before pilot’s landing speed of rotation, good sink rate and standing landing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choreography</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placement &amp; Drift</td>
<td>1,6</td>
<td>For max. score: Start the program considering the drift of the routine and end up with enough altitude for the (+ spiral) landing close to the raft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of Altitude</td>
<td>1,0</td>
<td>Managing all manoeuvres of the program and using all the altitude available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow</td>
<td>1,2</td>
<td>Each manoeuvre has to be flown fluently and round with a good management of the energy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhythm &amp; Connection</td>
<td>1,5</td>
<td>Rhythm and connection means a good management of the energy between the manoeuvres.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Originality &amp; Diversity</td>
<td>2,0</td>
<td>Good originality and diversity is using all of spin/stall/dynamic manoeuvres. Also going to both sides left and right. Using different entries for manoeuvres. Appeal to public.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synchro Coordination</td>
<td>2,0</td>
<td>Have the same altitude when performing the manoeuvres. Keeping together, not far away from each other. Starting/ending manoeuvres simultaneously.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penalties:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collapse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 25% =&gt; 0 to -20 points</td>
<td></td>
<td>Cravat: &lt;10% and &lt;3 seconds =&gt; -20 points Change of direction: &lt;90° =&gt; 0 to -20 points</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25% to 50% =&gt; -20 to -50 points</td>
<td></td>
<td>Cravat: &gt;50% and &gt;3 seconds =&gt; -20 to -80 points 90° to 180° =&gt; -20 to -50 points</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% to 100% =&gt; -50 to -80 points</td>
<td>&gt;180° =&gt; -50 to -80 points</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**this manoeuvres can't be performed in the last two positions**
* this manoeuvres has to be one of last 2
Annex 3 - Aerobatic Paragliding World Cup (APWC)

The APWC represents the highest competition level in paragliding aerobatics. The APWC is organised every year around 3 to 5 major events chosen by the CIVL Aerobatics working group. All the competitions of the APWC are to be Category 2 events and will therefore count in the permanent ranking (WPRS). All the rules described above (Chapter 1 to 6) are concerning the APWC competition except if another rule is written in the present Annex 3.

1 Competition format
The solo and the synchro competitions are counted for two different ranking. The pilots can participate to both competition at the same time but it is highly recommended to have two complete equipments (reserve and glider).

For APWC events (FAI CAT 2), any of the following two competition and scoring concepts is available. The choice is made by the organiser of the event in agreement with the appointed senior judge.

- The standard competition format, as defined by section 4
- The “APWC Evolution” competition format, as defined by section 4.8

2 Number of pilots
- The minimum number of pilots/teams:
  - only solo competition: 20 pilots.
  - solo and synchro competition: 20 solo pilots and 10 teams
- The maximum number of pilots/teams:
  - 40 solo and no synchro
  - or 30 solo and 20 teams
  - or 30 teams and no solo

Cuts are allowed until a minimum of 812 pilots / 5 teams. The organiser and the judges will inform the pilots about the application of cuts during the first competition briefing.

3 Selection method
The registrations are open until 6 weeks before the event start. If there is more pilots than the maximum allowed by the organiser, the pilots will be selected based on the WPRS (for synchro team: based on the best pilots position in the WPRS). The pilots will have a response 4 weeks before the event start. If some pilots are unknown by the judges, a safety selection flight has to be done to check the pilot ability to compete.

4 Selection run
When more than the prescribed number of pilots are registered, a selection run will be performed, and will be valid as the first run. 50% of the places are fixed for WPRS ranked pilots. The other 50% will be selected through the selection run.

5 Amount of entry fee
Solo: 200 € max / pilot / competition
Synchro: 200€ max / pilot / competition.
Solo + Synchro: 300 € max / pilot / competition
Including minimum: break fast and lunch pack and transportation to take off.
The organiser can propose a cheaper fee.

6 Number of competition day
Minimum 3 days (including safety selection flights)

7 Number of tasks per day
At least 1 in each category (in case of good conditions).
The organiser has to take care that the maximum task per day for one pilot is limited at 3 runs.

8 Prize money (minimum amount)
The organiser is encouraged to raise the prize money if possible.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Solo</th>
<th>Synchro</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>750 €</td>
<td>1.500 €</td>
</tr>
<tr>
<td>2nd</td>
<td>500 €</td>
<td>800 €</td>
</tr>
<tr>
<td>3rd</td>
<td>250 €</td>
<td>500 €</td>
</tr>
<tr>
<td>4th</td>
<td>175 €</td>
<td>200 €</td>
</tr>
<tr>
<td>5th</td>
<td>125 €</td>
<td></td>
</tr>
<tr>
<td>1st woman (if at least 3 women are competing)</td>
<td>250 €</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Subtotal 2.000 € 3.000 €
Total 5.000 €

We recommend to provide prize money or other prizes for as many pilots as possible. The organiser should pay using euros.

9 Manoeuvres for an APWC competition

Rule for standard APWC “Evolution” (not applicable to competition format!)
The pilots can fly the same manoeuvre only once (to each direction) during the whole solo competition until the last run. For example: He can fly Helico left and Helico right. Manoeuvres that can NOT be performed to both sides are Full Stall, Tail Slide, Wing Over, Dynamic Full Stall, Misty to Misty, Twister, Trippy and Intinity.

The same rule applies to synchro competitions with the exception of the synchro manoeuvres which teams are allowed to perform twice during the whole event.

Rule for the APWC “Evolution” competition format: A manoeuvre can be flown several times during the same competition. Nevertheless, every repetition of a manoeuvre to the same side will imply a reduction (malus) of 13% of the choreography mark. Exceptions: Tail slide, Full stall, Dynamic full stall and Pitch Pendulum can be performed more than once without penalty.

Some specific manoeuvres, when performed “twisted” as the last 3 manoeuvre, will increase the choreography mark as follows:
+ 5% for twisted misty flip or misty to helico
+ 7% for twisted stall or twisted looping
+9% for twisted sat to heli, heli to sat  
+11% for twisted tumbling, rhythmic SAT, infinite tumbling, anty rhythmic, esfera

10 Judges panel  
(special regulations applicable for “APWC Evolution” competition format: see chapter 4.8.4)  
At least 1 senior judge and 2 qualified judges. It is recommended to have 2 other training judges.  
The final score of the run is the total of the 5 judges’ scores to which the 2 extreme scores are removed keeping the 3 remaining.  
If only 4 judges are available, average the 2 extreme scores and consider this average score and the 2 remaining scores.  
If only 3 judges are available, the final score of the run is the average of the 3 judges.  
The chief judge is paid 300 euros per day by the organiser (expect to include the work that has to be done on the registration day).  
The other qualified judges are paid 150 euros per day.  
All travel expenses (up to 150 euros), the organiser reimburses accommodation and wages of the 3 qualified judges.  

11 APWC Ranking  
Competitors ranking 1st to 30th during every competition are awarded points in accordance with the following schedule:

<table>
<thead>
<tr>
<th>Place</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>100</td>
</tr>
<tr>
<td>2nd</td>
<td>80</td>
</tr>
<tr>
<td>3rd</td>
<td>60</td>
</tr>
<tr>
<td>4th</td>
<td>50</td>
</tr>
<tr>
<td>5th</td>
<td>45</td>
</tr>
<tr>
<td>6th</td>
<td>40</td>
</tr>
<tr>
<td>7th</td>
<td>36</td>
</tr>
<tr>
<td>8th</td>
<td>32</td>
</tr>
<tr>
<td>9th</td>
<td>29</td>
</tr>
<tr>
<td>10th</td>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th</td>
<td>24</td>
</tr>
<tr>
<td>12th</td>
<td>22</td>
</tr>
<tr>
<td>13th</td>
<td>20</td>
</tr>
<tr>
<td>14th</td>
<td>18</td>
</tr>
<tr>
<td>15th</td>
<td>16</td>
</tr>
<tr>
<td>16th</td>
<td>15</td>
</tr>
<tr>
<td>17th</td>
<td>14</td>
</tr>
<tr>
<td>18th</td>
<td>13</td>
</tr>
<tr>
<td>19th</td>
<td>12</td>
</tr>
<tr>
<td>20th</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>21st</td>
<td>10</td>
</tr>
<tr>
<td>22nd</td>
<td>9</td>
</tr>
<tr>
<td>23rd</td>
<td>8</td>
</tr>
<tr>
<td>24th</td>
<td>7</td>
</tr>
<tr>
<td>25th</td>
<td>6</td>
</tr>
<tr>
<td>26th</td>
<td>5</td>
</tr>
<tr>
<td>27th</td>
<td>4</td>
</tr>
<tr>
<td>28th</td>
<td>3</td>
</tr>
<tr>
<td>29th</td>
<td>2</td>
</tr>
<tr>
<td>30th</td>
<td>1</td>
</tr>
</tbody>
</table>

The overall standings will be counted on the basis of the results a competitor or a team has achieved in all APWC-sanctioned events of the season (calendar year).  
If at the end of all the events, a number of participants have achieved an equal number of points, then they shall be placed according to the number of their 1st places, then their 2nd places, 3rd places, etc.  
If they cannot be classified by this system, the result obtained during the final competition of the season will be decisive.  
The points collected by the pilot/team during all runs of every competition of the season are added to obtain the Overall APWC ranking for the solo and synchro category.  
The competitor and the team who have won the overall classification will be named
"Winner of the Aerobatic Paragliding World Cup (APWC)".

Overall Nations Cup Classification: the APWC Nations Cup will be awarded to the national team that achieves the highest total of World Cup points during the course of a season adding the top 4 competitors points from the overall solo classification.

12 Aerobatic Paragliding Masters
At the end of every season (but before the 15th of May of the following year) a contest restricted to the very best pilots can be organised. Admitted are the top 10 pilots and teams of the APWC ranking and of the last updated WPRS. Additionally, some wild cards can be assigned by the organiser. The competition, conducted under the APWC Evolution format, does not count for APWC or WPRS: the winner is named "Aerobatic Paragliding Master".