FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE

SPORTING CODE

SECTION 7-B
CLASS O

PARAGLIDERS (Less Accuracy)
CLASS III
AEROBATICS

Effective: May 1st 2006

Index

International Aerobatics Competition Rules for PG

Chapter 1 Competition rules

1.1 - Registration and responsibility :

The entry fee and the number of selection and competition days will be announced in the Local Rules 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 a 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, manufacturer's authorisation, equipment verification.

1.2 – Equipment :

Each nominated competitor must show an authorisation from the manufacturer to fly his glider for the current season (form in chapter 8 - annex 2 – page 26).
A dry reserve parachute is compulsory, and should be in good condition and recently folded. After a water landing a new reserve has to be used if the reserve is wet.
A helmet is compulsory. The local rules will specify the type of helmet allowed.
Use of ballast is limited to 10 kilos, the density of the ballast must be equal or less than 1.

1.3 – Safety :

The aerobatics 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).

1.4 - Emergency stop signal :

In case of emergency, the flight box can be closed.
A sound signal and a visual signal (cross) over the raft announce that all aerobatics manoeuvres and all water landing must immediately stop. The pilot should be able to ear the sound signal.

1.5 - General behaviour :

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

1.6 - 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.

1.6.1 - Persons entitled to impose warnings :

- The judges for sportive aspects
- The organiser for citizenship aspects

1.6.2 - 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…)

1.6.3 - Official list of warnings :

GENERAL SAFETY :

Disrespect of the flight box
Disrespect of the signal closing the flight box
Flying over the public
Unauthorised take off

TAKING RISKS :

Loss of control
Endangering others (raft crew)
Unsafe landing

RESPECT – GOOD CITIZENSHIP :

Delay at briefings
Disrespect of the rules
Unsporting behaviour
Harmful behaviour towards the organisation

1.6.4 - Running of the warnings :

Each judge notes the warning on his scoring sheet. If the half judges or more put the warning, then the warning is valid. If less than the half judges put the warning, then the warning is not valid.

Example: with 3 judges: 2 or more put a warning => the warning is valid.
1 only put a warning => the warning is not valid.
with 4 judges: 2 or more put a warning => the warning is valid.
1 only put a warning => the warning is not valid.

When a warning is imposed to a pilot, it appears on the results of the competition.
Judges and organiser keep record of the warnings.
3 warnings = 1 yellow card
2 yellow card = 1 red card
The red card induces a meting of the judges and organiser to take a decision on the penalty to be imposed to the pilot including possible disqualification.

1.6.5 - Point penalties :

The 2 first warnings are not penalised.
A yellow card gives a 30 points penalty.

After the first yellow card each additional warning give 10 points penalty.
The total of the point penalties are shown of the results and are deducted from the total results.

1.6.6 - Announcement of warnings and penalties :
The pilot is personally informed by the organiser when debriefing the task of the warnings he has been receiving.
Each warning and yellow or red card are displayed on the result sheet.

1.7 - Pilots representation :
During the registration 2 pilots must be elected to represent the pilots when ever needed.

1.8 – Complaint, protest and appeal :
In a category 2 event :

- Complaint :

To dispute a decision, the pilot must present his complaint to the judges.
The ultimate moment to deposit a complaint is the first pilots briefing after the results publishing.

- Protest :

If the pilot is not satisfied by the organiser's answer, he can protest in writing in english with the protest fee provided for in the local rules to the organiser who will pass it on to the jury. The jury is composed of the senior judge and 2 elected pilots non involved in the case and especially elected for that case.The fee will be returned if the protest is upheld. The pilot may personally defend his protest in front of the jury.

- Appeal :

The appeal to FAI made by the NAC as per General Section.

In a category 1 event :

- Complaint : idem
- Protest : idem. The jury is nominated by CIVL and composed by three members from different nations.
- Appeal : idem

The organiser has to keep and archive the paper and notes from the judges.
All routines are recorded on video and will be referred to in case of dispute.

1.9 - Validation of run :
In case of difficulties (meteorological conditions, organisations ...), the pilots' representatives and the judges meet to decide to validate or cancel the run.
For any reason, if a run can not be completed one day, it maybe be continued on the later scheduled day (similar conditions permited).

1.10 – Announcement of program start :
A pilot, before starting his routine makes one ear to validate his run. If, before starting the 1st manoeuvre, he estimates the conditions unsafe or the altitude too low to complete the run, he notifies the judges panel by making 2 ears with the risk to get warnings if the judges panel doesn't agree with his decision.
Then the pilot has to go down fast without making any aerobatic manoeuvre and land dry. In that case he will be allowed a reflight.

This is the pilot responsibility to start or not to start his routine.

Launch order will be either the reverse of the current points standing or at random drawing.

1.11 - Validation of the competition :

A minimum of **1** runs are required to validate the competition.

1.12 - Prize money :

There should be prize money and the local regulation will announce the amount and the rule for allocating the prize money.

1.13 - Number of pilots :

The organizer must precise the maximum number of place in each competition solo and synchro.
A pilot who is competing in solo and synchro is counting like 2 pilots.
The minimum number of pilots is 5 pilots solo and 3 teams in synchro.

The organizer can manage the number of pilots in his competition with :

- the world ranking order
- inscription time order
- a qualification run just before the competition

This must be announced in the inscription pilot form.

1.14 - Entry fee :

The entry fee is up to the organiser but we recommend 25 Euros per competition day maximum.
The entry fee should cover :

- Take off access.
- Free access to supplementary events.

Chapter 2 Competition formats

The Calendar must indicate if the competition is open to teams and/or individuals.

2.1 - Program, routine and manoeuvres:

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).

Some manoeuvres with 1,80 difficulty coefficient or more can only be performed at the beginning of the routine:

If 3 manoeuvres program => only at first position in the routine
If 4 manoeuvres program => 1st and/or 2nd position
If 5 manoeuvres program => 1st, 2nd, or 3rd position.
If 6 manoeuvres program => 1st, 2nd, 3rd or 4th position.

The concerned manoeuvres are indicated in the official manoeuvres table by "Must be executed at the beginning of the program".

2.2 - Competition for individuals :

2.2.1.1 - Solo compulsory program, free order

Each pilot must execute a required routine as imposed by the jury.
The order of manoeuvres is chosen by the pilot.

2.2.1.2 – Solo compulsory program, compulsory order

Each pilot must execute a required routine as imposed by the jury
The order of manoeuvres is imposed by the judges panel

2.2.2 - 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.

2.2.3- Solo restricted announced program

The pilot may choose his routine from a list of manoeuvres decided by the judges panel.

2.3 - Competitions for teams :

2.3.1.1 - Synchro compulsory program, free order

All teams must execute a required routine as imposed by the jury.
The order of manoeuvres is chosen by the team.

2.3.1.2 – Synchro compulsory program, compulsory order

All teams must execute a required routine as imposed by the jury.
The order of manoeuvres is imposed by the judges panel

2.3.2 - Synchro pilot announced program

Each team must submit his routine prior to his run. The team may choose his 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.

2.3.3 – Synchro restricted announced program

The team may choose his routine from a list of manoeuvres decided by the judges panel.

2.4 – Safety selection :

Safety selection is compulsory for pilots who are not in the world pilot ranking.

All the pilots who are in the WAPR don't need to participate at the safety selection.

The judges panel is able to make a pilot selection with a safety selection flight.
The aim is to demonstrate the pilot's ability to fly the competition.

2.5 – Qualification run and cuts :

If more pilots than the number fixed by the organizer, there is a qualifying run.
Cuts (elimination round) are only allow for a final run and after having minimum 2 valid runs (with all pilots and teams).

Official manoeuvres to be performed during the safety and qualification run
All pilots entering the competition should be able to safely perform the following manoeuvres :

Full stall + exit
Tail slide + exit
Wing over
SAT
Helico

2.6 - Other points for judges appreciation :

Choreography :

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

Landing (only if landing into a raft on water)
See scoring of landing.

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).
- Others safety reasons…

An eliminated pilot may lodge a complain.

2.7 - Typical competition schedule :

- Qualification run or safety selection: **Compulsory program (**doesn't count for the scoring).
- 1st Task: **Compulsory or restricted program**
- 2nd Task **Compulsory or restricted program**
- 3rd Task **Announced program**
- 4th Task **Announced program**

2.8 – Judges panel :

The judges panel consist of at least 3 independent judges, one of them being chosen among the list of senior judges is the chief judge. The list is in Annex 1 to these rules.

The two other judges can be national one.

Chapter 3 : Scoring

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

The scoring is based on 4 set of notes for synchro competition :
The technic during the program, the synchronisation of each manoeuvres, 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 : 70%
+ Landing : 10%
+ Choreography : 20%

Synchro :
Technical 55%
+ Synchronisation : 20%
+ Landing : 10%
+ Choreography 15%

3.1 – Technical scoring :

Difficulty of the manoeuvre
Each manoeuvre has a fixed difficulty coef in accordance with the manoeuvres table :

Official Manœuvres	
Manœuvres	**Coef**
Full stall	1
Tail Slide	1,15
SAT	1,25
Wing Over	1,35
Asymmetric Spiral	1,35
Dynamic Full stall	1,40
Looping (Inversion)	1,45
Asymmetric SAT	1,45
Mac Twist	1,60
Misty Flip	1,65
Helicopter	1,65
SAT to HELICO	1,70
HELICO to SAT	1,75
Helico to Helico	1,75
Misty to Tumbling	1,75
Tumbling	1,75
Rhythmic SAT	1,90

Infinit Tumbling	2,00
Synchro Spiral	1,70
Rodeo Helico	1,70
Rodeo SAT	1,70
Pich Pendulum	1,65

New manoeuvres for 2006
Combinated manœuvres
Only synchro manœuvres

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

Calculation of each manoeuvres score:
for each judge:
manoeuves score = execution points X difficulty coefficient
3 judges average:
For each manœuvre, the scoring sofware calculate the average score of the 3 juges.
This manoeuve average score is given to the pilots when publishing the results.

Calculation of final technical score:
A **medium score** is calculated depending of the quantity of manoeuvres and the dificulty coeficient average.
The **dificulty coeficient 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 70%

final technical score for synchro = average technical score X 55%

3.2 - 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 juges synchronisation scores.

The **maxi score** to refer to is:
maxi score = quantity of manoeuvres X 10

average synchronisation score =
(total of the X manoeuvres / maxi score)*100

final synchronisation score = average synchronisation score X 20%

3.3 - 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 10 X 10 when on sea water in order to protect, as possible, the glider from the salt.

The judges average is made with the final juges landing scores.

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

LANDING on RAFT for SOLO	coef
aproch and precicion	1,5
raft	1,5
Ground spiral	2,5
hand touch	0,7
feet touch	0,4
spin	1

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

The maxi score to refer to is:

maxi score = 76

average landing score =
(total of the 6 manoeuvres / maxi score)*100

final landing score = average landing score X 20%

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

LANDING on RAFT for SYNCHRO	coef	Pilot 1	Pilot 2
aproch and precicion	1,5		
raft	1,5		
SOLO Ground spiral	2,5		
SYNCHRO Ground spiral	3		
hand touch	0,7		
feet touch	0,4		
spin	1		

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:

maxi score = 152

average landing score =
(total of the 6 manoeuvres / maxi score)*100

final landing score = average landing score X 20%

3.3.1 Landing on the ground.

The pilots committee in accordance with the organiser can decide to cancel the landing on the raft in case of sea water, very cold water (less than 10°C) or unsafe landing conditions.

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

The pilots sould be able to safely aproach the landing area without over flying the public.
A target landing gives the “raft points”. The target must be 1 m large. The landing area must be at least 50 m long all around the target and completly free.

No ground spiral are allowed.

3.3.2 No landing scoring.

If the conditions can not permit safe competition landing, the landing will not be scored.
The landing score will be 0 for all pilots.

3.4 - Scoring of choreography :

Choreography is scored for the entire run (including the landing).

The juges average is made with the final juges choreography scores.

The choreography score for solo takes into account the folowing criteria and coeficients :

SOLO CHOREOGRAPHY	coef
Placement and drift	1,6
management of altitude	1
flow	1,2
rythme and connexions	1,2
Originality, diversity	1

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

maxi score = 60

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 folowing criteria and coeficients:

SYNCHRO CHOREOGRAPHY	coef
Placement and drift	1,6
management of altitude	1
flow	1,2
rythme and connexions	1,2
Originality, diversity	1
Synchro Coordination	1,5

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

maxi score = 75

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

final choreography_score = average choreography score X 15%

3.5 - Total points :

All the different scores will be added to obtain a score based on 100. The score will be rounded to 2 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

3.6 - 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** which 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 criterias are some references. It is up to the judges to appreciate the context in witch 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 jury appreciates 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 jury appreciates the way the pilot manages the situation.

Twist	<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 laps of time where the pilot doesn't have the control of the situation: a problem with the glider (collapse, cravat…) or twist cause the pilot some unexpected and uncontrolled trajectories.

The judges consider the pilot has gone too far and into a dangerous situation.

Landing under the reserve 0 for the run

Chapter 4 : RANKINGS

Two different rankings, in paragliding aerobatics competition, are calculated.

1) An Aeobatic Paragliding World Cup (ACRO CUP) of maximum 5 major events with a ranking formula define below (see chapter 7)

2) 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 the ACRO CUP 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.

4.1 - Permanent ranking : W.A.P.R.

The CIVL PR officer Paula Howitt will keep the WAPR provided the following is met:
- The Aerobatics competition must be CIVL cat 2 sanctioned. The organiser has to contact the CIVL PR officer Paula HOWITTt at the following address : paula@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 WAPR
- The organiser must send to Paula HOWITTt the results as soon as possible.

Chapter 5 : ORGANISER RULES

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

An organiser have to feel a form to be FAI category 2 event (see annex). He must precise on this form the name of the senior judge. He must send it to the FAI (mail address) with fee of one pilot entry fee.

For the ACRO CUP rules apply but others are added (see chapter 7).

5.1 - The site.

Aerobatics competitions can only take place above water. It is necessary to get a height of at least 500 m above water in order to perform the movement.
The wind couldn't be normally stronger than 15 km/h.
The box must be large enough to permit, a pilot to use his rescue and land safely in water.

5.2 - Take Off :

A necessary space must be available to spread a minimum of 2 gliders. A unit of place, and easy access as well. Easy and fast access for rescue. Possibility to use a winch (2 boats – 2 winches minimum).

5.3 - Landing.

It is necessary to have a "dry" landing. It is also possible to use a landing place on water. A protected floating platform (10 m X 10 m) without any sharp parts. Each side and corners must be well protected.
Wind socks must be posted at different places of the event.
No flight over the public.

5.4 - Communication :

Radios and / or mobile phones (homologated if necessary).
The start of the run must be announced to all the judges with confirmation.

5.5 - Organisation facilities :

Reception of the public in a delimited area (a parking close to the event, catering, announcers).
Headquarters with all the infrastructure for the results keyboarding, computers, internet access, a high performance photocopy machine, paper (minimum 4 reams) and telephone lines.
Each judges need one secretary to assist them during the notation.
In addition deck chairs (chaises longues) must be provided to the judges.

5.6 - 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.

5.7 - Organisation team :

Continuous shuttles or cable car with priority to the competitors.
A flight director who must be present at landing place.
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 jury.
A secretary who assists the judges panel and helps entering the results (score keeper).

5.8 – 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.

5.9 - Local rules :

The local rules must be published.

5.10 - Weather forecast :

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

5.11 - Safety :

An emergency doctor on the competition area.
An emergency health care helicopter at the competition area or one that will be available within 30 min of contact.
An ambulance at take off and one at landing.
2 motorised boats with an easy access for the pilots.
2 divers with a double autonomous system to breathe and a “cut – lines”. In case of additional show at the event two extra boats should be provided.
No flight over the public.

5.12 - Insurance :

Each organiser must ensure that all pilots have a liability insurance covering air risks.
Each organiser must have liability insurance.
The insurance third party liability coverage must be 700.000 Euros or equivalent

5.13 - 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.

5.14 – Panel of judges :

The organiser have to choice a senior judge amoung the list include in this document. He must contact him directly.

The part of the senior judge is :

- to choice and organise the judges panel with the organiser

- to note the pilots
- to make sure that the competition rules are implemented
- to make sure that the FAI licences are controled.
- to check the safety aspect of the event
- to teach the local judges

The chief judge is paid 200 Euros per day and his travel expenses, accomodation and wages are reimbourse by the organiser.
The chief judge have 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.

Chapter 6 : LOCAL RULES

6.1 - Name of the event :

6.2 - Dates :
Including training dates and place :

6.3 - Description of the event :
Open to teams and/or individuals
Number of competition days
Date of the qualifying run

6.4 - Maximum number of pilots and selection method :
Maximun number of pilots :
Selection method :
- WAPR
- qualifying run
- order of inscription (date)

6.5 - Entry fee :
Amount.
What is included in the entry fee.

6.6 - Protest fee :
Amount.

6.7 - Prize money :
Amount
How it is awarded

6.8 - Daily program :
This program has to be respected.

6.9 - Safety:
Type of helmet allowed in the competition
Provision for life jackets if any
Provision of spare reserve provided by the organiser

6.10 – Competition :
Definition of the flight Box
Number of manoeuvres to be performed during a flight
Elimination round (cut) before the final run whether appropriate

Chapter 7 : Aerobatics Paragliding World Cup (APWC): "ACRO WORLD CUP"

The Acro World Cup represents the highest competition level in paragliding aerobatics.
The "Acro Cup" is organised every year around 4 to 6 major events chosen by the CIVL Aerobatics working group.
All the competition, in the Acro World Cup, are cat 2 event and are counting in the permanent ranking (WAPR).
All the rules describe above (Chapter 1 to 6) are concerning the **ACRO WORLD CUP** competition except if an other rule is writted in chapter 7.

The winner's title of the Acro World Cup in solo and in synchro are delivred each year (see 7.9).

7.1 Competition format :

The solo and the synchro competitions are separated in 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).

7.2 Number of pilots :

The minimum number of pilots :
In case the organiser runs an only solo competition, he should be able to accept a minimum of 20 pilots.
In case the organiser runs a solo and synchro competition, he should be able to accept a minimum of 20 solo pilots and 10 teams.

The maximum number of pilots :

40 solo and no synchro
or 30 solo and 20 teams
or 30 teams and no solo

No cut will be made during the competition (all pilots have the opportunity to compete the all runs).

7.3 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 WAPRS (for synchro team: based on the best pilots position in the WAPRS).
The pilots will have a response 4 weeks before the event start.
If some pilots are unknown by the judges, a **safety selection flights** has to be done to control the pilot ability to compete.

7.4 Amont entry fee :

Solo : 100€ max / pilot / competition
Synchro : 200€ max / team / competition.
Including minimum: break fast and lunch pack.
The organizer can propose a cheaper fee.

7.5 Amont of competition day :
Minimum 4 days (including safetty selection flights)

7.6 Amont of task par 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.

7.7 Price money (minimum amount) :

rank	Solo	synchro
1st	800 €	1600 €
2nd	400 €	800 €
3rd	200 €	400 €
1st girl	200 €	400 €
	1600 €	**3200 €**

Total : 4800 €

We recommend to give price money and others prices (materials) for the 4th and the 5th.
The organiser sould pay using euros.

7.8 Judges panel :
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 overage of the 3 judges.

The chief judge is paid 300 Euros per day by the organiser.
The other qualified judges are paid 150 euros per day.
All travel expenses, accommodation and wages of the 3 qualified judges are reimbursed by the organiser.

7.9 World cup ranking :
The world cup ranking is based on all valid runs minus 1/3 worst run for each pilot or team.
For example :
If the season got 12 valid APWC runs in total, every pilot will get the summary of his 8 best runs (1/3*12 = 4 => 4 runs are removed).
If 13 runs are valid => 9 best results are taken in account (1/3*13 = 4,33 => 4 runs are removed).
If 14 runs are valid => 10 best results are taken in account (1/3*14 = 4,67 => 4 runs are removed).

If 15 runs are valid => 10 best results are taken in account (1/3*15 = 5 => 5 runs are removed).

Calculation of pilots points per run :

A coeficient is calculated depending of the winner result compeer to 100 points (teorical maximum points) :

coefficient = 100 / winner points
the APWC points = pilots run points X coeficient.

Example: the winner has 83 points => the coeficient is 1,2
The winner has: 1,2*83 = 100 APWC points
If the 2nd pilots has 80 points => 1,2*80 = 96 APWC points.
A pilot with 25 points => 30 APCW points.

Chapter 8 : ANNEXES

Annex 1:

List of senior judges :

Violaine Dufourmantelle	v.trad@wanadoo.fr
Pernilla Hammar Rognoy	pernilla.hammar@swipnet.se
David Eyraud	davideyraud@wanadoo.fr
François Bon	fb@acro-base.com

List of qualified judges :

Mauricio G Braga	writejr@terra.com.br
Stefan Hodek	stefan@airslave.de

List of trainy judges :

David Soujey	
Claudio Cattaneo	acrolugano@parapendio.ch
Agustin (Galle)	agustin@conceptosdigitales.com.ar
Marc Aubertin	marc.aubertin@free.fr

Annex 2 :

Aerobatics Wing Authorization Form

I the undersigned :
- Manufacturer
- Importer

(cross out the wrong information)

Authorize Mr or Mrs :
to perform competitive aerobatics with :

- make :
- name of glider :
- size:
- serial number:
- color :

Provided this model has undergone a structural test, and under the following conditions :

(to be defined if required and listed by the manufacturer or importer- these conditions should be ascertainable and quantifiable)

The pilot retains full responsibility for the compliance with the above conditions as defined by the manufacturer or importer, and for the use and maintenance of his glider.

The pilot should be in a position to provide the organiser with evidence that the above conditions are met.

This authorization remains valid until : ….
(maximum 6 months following signature)

Date :
Stamp and signature :

Annex 3 :
OFFICIAL MANOEUVERS' BOARD SOLO

Manoeuvre's name	Difficulty coefficient	Criteria of technical evaluation	Imperative	Comments
Full stall	**1,00**	Entry, control of pendulum movement control of direction and exit or connection	No required duration	Change of direction
Tail Slide (Backwards flying)	**1,15**	maintenance of the shape, stability perceptible backwards flight, duration, exit or connection	Min. 3 seconds	Change of direction
SAT	**1,25**	Entry, angle of wing, low sink rate exit or connection	Min. 2 revolutions in SAT	no collapse penalty for tip collapse during exit
Wing Over	**1,35**	Rhythm, flow, trajectory angle (180 ° for maximum score)	Min. 2 inversions with great angle (min. 135°)	
Asymmetric Spiral	**1,35**	Rhythm, flow, trajectory angle (180 ° for maximum score)	Min. 2 revolutions with great angle (min. 135°)	
Dynamic Full stall	**1,40**	Energy, importance of pitch (pitch 90° for maximum score), control of direction and exit or connection	min. 45° backwards pitch No required duration	Change of direction
Looping (Over-Turn / Inversion)	**1,45**	Entry, flow, trajectory angle (180 ° for maximum score), exit or connection	min. angle : 135°	
Asymmetric SAT	**1,50**	Energy, entry, flow, trajectory, angle (180° for maximum score), exit	Min. 1 revolution	
Mac Twist	**1,55**	Energy and asymmetry on entry, speed and importance of rotation pendulum stabilisation, exit or connexion	min. revolution: 360°	Exit without stalling for maximum score
Helicopter	**1.60**	maintenance of the shape, stability of rotation axis (vertical) speed of rotation, low sink rate, duration, exit or connection	Min. 3 revolutions stable	
Misty Flip	**1.65**	Importance of pitch on entry, 360° rotation, maintenance of the shape control of front pitch during exit	360° revolution, pitch exit	
Mac Twist to Helico	**1.65**	Mac twist criteria (/30 pts) + Helico criteria (/30 pts) + connection (/40 pts): flow and speed of transition	Min 3 revolutions Helico	
SAT to Helico	**1,70**	Sat criteria (/30 pts) + Helico criteria (/30 pts) + connection (/40 pts): flow and speed of transition	Min 2 revolutions for SAT + Min 3 revolutions for Helico	
Helico to Helico	**1,70**	1st Helico (/30 pts) + 2nd Helico (/30 pts) + connection (/40 pts): speed of transition	Min 3 revolutions Helico to each side	

Helico to SAT	**1,75**	Helico criteria (/30 pts) + SAT criteria (/30 pts) + connection (/40 pts): flow and speed of transition	Min 3 revolutions Helico + Min 2 revolutions for SAT	
Misty to Tumbling	**1,80**	Misty Flip criteria (/50 pts) + Tumbling criteria (/50 pts)	Min. angle: 135° Must be executed at the beginning of the program	
Tumbling	**1,80**	Energy, flow, trajectory Angle (180° for max. score), exit	Min. angle: 135° Must be executed at the beginning of the program	
Rhythmic SAT (SAT to tumbling)	**1,90**	Rhythm and increase of the amplitude, flow, angle , exit or connection	Min. 3 revolutions, minimum 135 ° in the best revolution, Must be executed at the beginning of the program	
Infinite Tumbling	**2,00**	Rhythm, flow, trajectory (no roll movement), tension in the lines and glider, duration, exit or connexion	Min 3 revolutions Must be executed at the beginning of the program	
Landing manoeuvres				
approach and precision	**1,5**	Quality of the approach and precision (distance to the raft)	Touch the raft for maxi score	
bonus raft	**1,5**	Landing well on the raft	pilot standing for maxi score	
Ground spiral	**2,5**	Entry (speed, sink rate), height of wing tip over water (touch for max. score)	min. height of wing tip : 4 m	wing tip > 1m : -2 points
hand touch	**0,7**	Precision, length of touch with hands…		
feet touch	**0,4**	Precision, length of touch with foot…		
spin	**1**	speed of rotation, good sink rate and standing landing	Min. rotation : ½ turn before pilot's landing	
Penalties: Collapse : 0 to 25% => 0 to -20 points 25% to 50% => -20 to -50 points 50% to 100% => -50 to -80 points		**Change of direction :** <90° => 0 to -20 points 90° to 180° => -20 to -50 points >180° => -50 to -80 points	**Cravat :** cravat <10% and <3 seconds => -20 points cravat >50% and >3 seconds => -20 to -80 points	**Twist:** <1 turn => -20 to -50 points 1 turn and more => -50 to -80 points

OFFICIAL MANOEUVERS' BOARD SYNCHRO

Maneuvre's name	Dif. coef	Criteria of technical evaluation	Imperative	Comments
Full stall	**1,00**	Entry, control of pendulum movement control of direction and exit or connection	No required duration	Change of direction
Tail Slide (Backwards flying)	**1,15**	maintenance of the shape, stability perceptible backwards flight, duration, exit or connection	Min. 3 seconds	Change of direction
SAT	**1,25**	Entry, angle of wing, low sink rate exit or connection	Min. 2 revolutions in SAT	no collapse penalty for tip collapse during exit
Wing Over	**1,35**	Rhythm, flow, trajectory angle (180 ° for maximum score)	Min. 2 inversions with great angle (min. 135°)	
Asymmetric Spiral	**1,35**	Rhythm, flow, trajectory angle (180 ° for maximum score)	Min. 2 revolutions with great angle (min. 135°)	
Dynamic Full stall	**1,40**	Energy, importance of pitch (pitch 90° for maximum score), control of direction and exit or connection	min. 45° backwards pitch No required duration	Change of direction
Looping (Over-Turn / Inversion)	**1,45**	Entry, flow, trajectory angle (180 ° for maximum score), exit or connection	min. angle : 135°	
Asymmetric SAT	**1,50**	Energy, entry, flow, trajectory, angle (180° for maximum score), exit	Min. 1 revolution	
Mac Twist	**1,55**	Energy and asymmetry on entry, speed and importance of rotation pendulum stabilisation, exit or connexion	min. revolution: 360°	Exit without stalling for maximum score
Helicopter	**1.60**	maintenance of the shape, stability of rotation axis (vertical) speed of rotation, low sink rate, duration, exit or connection	Min. 3 revolutions stable	
Misty Flip	**1.65**	Importance of pitch on entry, 360° rotation, maintenance of the shape control of front pitch during exit	360° revolution, pitch exit	
Mac Twist to Helico	**1.65**	Mac twist criteria (/30 pts) + Helico criteria (/30 pts) + connection (/40 pts): flow and speed of transition	Min 3 revolutions Helico	
SAT to Helico	**1,70**	Sat criteria (/30 pts) + Helico criteria (/30 pts) + connection (/40 pts): flow and speed of transition	Min 2 revolutions for SAT + Min 3 revolutions for Helico	
Helico to Helico	**1,70**	1st Helico (/30 pts) + 2nd Helico (/30 pts) + connection (/40 pts): speed of transition	Min 3 revolutions Helico to each side	
Helico to SAT	**1,75**	Helico criteria (/30 pts) + SAT criteria (/30 pts) + connection (/40 pts): flow and speed of transition	Min 3 revolutions Helico + Min 2 revolutions for SAT	
Misty to Tumbling	**1,80**	Misty Flip criteria (/50 pts) + Tumbling criteria (/50 pts)	Min. angle: 135° Must be executed at the beginning of the program	

Tumbling	**1,80**	Energy, flow, trajectory Angle (180° for max. score), exit	Min. angle: 135° Must be executed at the beginning of the program	
Rhythmic SAT (SAT to tumbling)	**1,90**	Rhythm and increase of the amplitude, flow, angle , exit or connection	Min. 3 revolutions, minimum 135 ° in the best revolution, Must be executed at the beginning of the program	
Infinite Tumbling	**2,00**	Rhythm, flow, trajectory (no roll movement), tension in the lines and glider, duration, exit or connexion	Min 3 revolutions Must be executed at the beginning of the program	
Synchro maneuvers				
Synchro Spiral	**1.70**	Synchronised and rapid entry, proximity of the wings, duration, high sink rate, rapid and controlled exit	Min. 3 revolutions very close to each other	
Rodeo Helico	**1,70**	Synchronised and rapid entry, proximity of the wings, flow duration, exit	Min 2 spirale rotations around the helicopter	
Rodeo SAT	**1,70**	Synchronised and rapid entry, proximity of the wings, flow duration, exit	Min 2 spirale rotations around the SAT	
Pitch pendulum synchro (molineta)	**1.65**	Rapid and synchronised entry, pilots should be vertically aligned for max. score.	Min. twice one over the other one	
Landing maneuvers				
aproch and precision	**1,5**	Quality of the aproch and precision (distance to the raft)	Touch the raft for maxi score	
bonus raft	**1,5**	Landing well on the raft	pilot standing for maxi score	
SOLO Ground spiral	**2,5**	Entry (speed, sink rate), hight of wing tip over water (touch for max. score)	min. hight of wing tip : 4 m	wing tip > 1m : -2 points
SYNCHRO Ground spiral	**3**	management of energy		wing tip > 2m : -5 points
hand touch	**0,7**	Precision, lenght of touch with hands…		
feet touch	**0,4**	Precision, lenght of touch with foot…		
spin	**1**	speed of rotation, good sink rate and standing landing	Min. rotation : ½ turn before pilot's landing	
Penalties: Collapse : 0 to 25% => 0 to -20 points 25% to 50% => -20 to -50 points 50% to 100% => -50 to -80 points		**Change of direction :** <90° => 0 to -20 points 90° to 180° => -20 to -50 points >180° => -50 to -80 points	**Cravat :** cravat <10% and <3 seconds => -20 points cravat >50% and >3 seconds => -20 to -80 points	**Twist:** <1 turn => -20 to -50 points 1 turn and more => -50 to -80 points