Paragliding Aerobatics Competition Rulebook





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1. Competition Rules

1.1 Registration and Responsibility

Each competitor in the competition participates under his/her own responsibility. By signing the liability waiver, the pilot assumes the responsibility for any damage caused during the competition, whether in the air or on the ground and to the pilot themselves and to third parties.

Each competitor is responsible for his or her maneuvers and should only perform maneuvers that he or she has practiced and can control.

The senior judge and/or the technical delegate must make sure that the organiser properly verifies the administrative documents.

1.2 Equipment

A dry reserve parachute is compulsory, and should be in good condition and recently packed. 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 prohibited

A pilot is allowed to repair or to change their glider and continue the competition in the event of damage.

1.3 Safety

The aerobatic maneuvers must take place 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 landing area will announce that all aerobatics maneuvers and all water landing must immediately stop. The pilot should be able to hear the sound signal.

1.5 General Behavior

In addition to adherence to USHPA's "Code of Conduct for Competitors," competitors must respect the decisions of the judges.

Competitors are responsible for information conveyed at scheduled briefings.

1.6 Warnings and Penalties

For safety reasons but as well for good sportsmanship and respect of the rules, warning and penalties may be imposed on pilots.

1.6.1 Persons Entitled to Impose Warnings

- Judges
- Meet Director

1.6.2 When Warnings Can Be Imposed

A warning can be imposed any time during the event (Flight, Registration, Meals, Transport to the take off, at the take off, during the briefings, etc).



1.6.3 Types of Warnings

1.6.3.1 General Safety Warnings

- Disrespect of the Flight box
- Disrespect of the signal closing the flight box
- Flying over the public

1.6.3.2 Taking Risks

- Loss of control
- Bad recovery after a lost of control
- Endangering others (including the raft crew)
- Unsafe landing

1.6.3.3 Sportsmanship

All competitors shall abide by USHPA's Code of Conduct. Conduct abusive to other competitors is grounds for a penalty. Rude behaviour towards the public or media may lead to disqualification. Other reasons for penalties may include:

- Delay at briefings
- Disrespect of the rules
- Un-sportsmanlike behaviour
- Harmful behaviour towards the organization

1.6.3.4 Point Penalties

Penalties may be imposed by the Judges at the request of the Meet Director.

The total of the point penalties are shown on the Results and are deducted from the total results.

1.6.4 Announcement of Warnings and Penalties

The pilot is personally informed by the meet director when debriefing the task if a warning has been issued.

1.7 Pilots Representation

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 when ever needed.

1.8 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)

1.9 Protest

To dispute a decision, the pilot must present his complaint to the Competition Director. A pilot's last opportunity to register a complaint is at the first pilots briefing after the results are published.

For Category 2 events, all routines are recorded on video and will be referred to in case of a protest. To dispute a decision, the pilot must present his protest in writing with the protest fee (provided for



in the local rules) to the meet Director who will pass it on to the judges. This fee will be returned if the protest is upheld. The pilot may personally defend his protest in front of the judges.

In case of a protest against the Judges a special Jury must be formed. It is composed of the Senior Judge and 2 elected pilots who are not involved in the case and who are especially elected for that case.

There are 3 stages of protest for USHPA Sanctioned Competitions:

- 1. A complaint is made to the Judges.
- The protest is made and the protest fee paid. Protest fee amount will be specified in the local rules.
- 3. The protest must be made in writing by the Team Leader and given to the Meet Director.
- 4. An appeal to USHPA per USHPA's procedures as outlined in the Sanction Manual.

1.10 Validation of Run

In case of difficulties (weather conditions, organizations, etc), the pilots' representatives and the Jury meet to decide to validate or cancel the run.

The Judges may require a re-flight in case of scoring problems. A pilot failing to fly when requested may score zero.

Launch order will be the reverse of the current point standings.

The order of launch in the first round will be by a random drawing.

If conditions deteriorate, a pilot can "push" or pass.

Failure to fly in launch-able conditions may lead to disqualification.

If for any reason a run cannot be completed on one day, it may be continued on a later scheduled day.

1.11 Announcement of Program Start

A pilot, before starting his routine makes one (big ear) ear to signify that the run has begun. If, before starting the 1st maneuver, a pilot believes the conditions to be unsafe or the altitude too low to complete the run, he notifies the Jury by making a 360 and exiting the box with the risk to get warnings if the jury doesn't agree with his decision.

The pilot must make a deliberate decent without making any aerobatic maneuvers and land on dry land. In that case he will be allowed a re-flight. The pilot is responsible for the decision to start or not start the run. A pilot may not stop "mid-run." If the pilot pulls a big ear and starts maneuvering, the run will be scored.

1.12 Validation of the Competition

A minimum of 2 runs are required to validate the competition (Category 1 as well as Category 2).

1.13 Prize Money

The decision whether or not to offer prize money is strictly up to the even organizer.

1.14 Competition Format

Each competition may include qualifying rounds and a final round on the last day. This must be specified in the Local Rules.

The local rules must specify which formats are going to be utilised and may be selected from the list in 2.1.



1.15 Maximum Number of Pilots

From experience the recommended maximum number of pilots in a solo competition is 40. The minimum number of pilots for a solo competition is 10. The organizer can reduce this number when taking into account the site capacity and the pilot's skill.

1.16 Entry Fee

The entry fee should be within reason and is strictly decide by the event organiser.

2. Competition Formats

2.1 Programme, Routine and Maneuvers

The program (or routine) consists of a series of X manoeuvres from the official list. The # X is to be determined by the competition environment.

Each manoeuvre may only be performed once within the routine (unless performed in the opposite direction i.e. left/right).

2.1.1 Solo Pilot Announced Program

Each pilot must submit his or routine prior to the run. The pilot may choose the routine from the list of maneuvers by filling in an "Announced Program" form. The number of maneuvres is compulsory and announced before the run.

2.1.2 Solo Restricted Announced Program

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

2.2 Safety Selection Rounds

Before the competition start selection rounds may be required for all the pilots to participate in the event. The dates of the selection rounds will be indicated in the local rules.

Pilots who are in the "world pilot ranking" do not need to perform a safety selection flight.

Each individual pilot must show his/her ability by performing official maneuvers to the satisfaction of the judges.

The aim is to demonstrate the pilot's ability to fly successfully in the competition.

If more than 40 pilots participate in the selection round, the 40 best pilots will be invited to participate to the competition.

2.2.1 Official Maneuvers to Be Performed During the Selection Rounds

All pilots entering the competition should be able to safely perform the maneuvers he or she will be performing in the competition. Demonstrable maneuvers are those on the official list. The current official list includes:

- Full stall + exit
- Tail slide + exit
- Wing over
- SAT
- Helicopter



2.3 Qualification Runs and Cuts

If there are more pilots than the number set by the organization, they will be selected 1) according to the WAPR or the order of registration (this is to be specified in the Local Rules) or 2) through a qualification run.

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.

2.4 Other Points for Judges Appreciation

Choreography:

- · Placement and drift
- Management of altitude
- Flow, rhythm, connection
- · Originality, diversity

Landing (only if landing on a raft):

See Landing Scoring

2.5 Elimination

A pilot may be eliminated if:

- The pilots' skills are insufficient to perform the minimum required maneuvers for the competition
- The maneuvers are performed in an unsafe manner
- The pilot does not maintain a position within the flight box (while taking drift into consideration)
- · Other safety reasons

An eliminated pilot may lodge a protest.

2.6 Panel of Judges

Ideally the panel of Judges consists of 3 independent judges from at least two separate countries. If there are to be 4-5 judges, they must be from 3 different countries. One of the senior judges is to serve as the Chief Judge.

The other judges can be national or international ones.

The senior judges are nominated by the CIVL Aerobatic Subcommittee in consultation with the organiser.

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.

Judges are responsible for scoring each run.

3. Competition Scoring

3.1 Scoring Concept

Scoring is based on 3 sets of notes for solo competitions:

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• The technique during the program

• The general choreography

· 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 as listed below.

Technical: 60%Landing: 20%

• Choreography: 20%

3.2 Technical Scoring

Official Maneuvres		
MANEUVER	COEF	
Full stall	100	
Tail Slide	115	
SAT	125	
Wing Over	135	
Asymmetric Spiral	135	
Dynamic Full stall	160	
Looping (Inversion)	150	
Asymmetric SAT	155	
Mac Twist	160	
Misty Flip	165	
Helicopter	170	
Twisty Flip	170	
Mac Twist to Helico	180	
SAT to HELICO	175	
Misty to Misty	175	
Twister (Helico to Helico)	185	
Tumbling***	1.80	
HELICO to SAT	185	
Trippy	190	
Misty Tumbling***	210	
Rhythmic SAT***	195	
Infinity Tumbling***	200	
SYNCHRO MANEUVER	COEF	
Rodeo Helico	170	
Rodeo SAT	165	
Pitch Pendulum	185	
Synchro Spiral	180	

^{***}These maneuvers may not be the last two maneuvers in the sequence

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



3.2.1 Prohibited Maneuvers Combinations

Maneuvers combinations that are not allowed:

Mac Twist to Helicopter Helicopter

Helicopter Helicopter to SAT

Helicopter to SAT SAT

Helicopter Helicopter to Helicopter

Helicopter Helicopter to Helicopter (twister)

SAT to Helicopter SAT

SAT to Helicopter Helicopter

SAT to Helicopter Helicopter to SAT Helicopter to SAT SAT to Helicopter Tumble Infinite Tumble Rhythmic SAT Infinity Tumbling

Rhythmic SAT Tumble

3.2.2 Calculation of Each Maneuver's Score

- For Each Judge: Maneuver's Score = Execution Points X Difficulty Coefficient
- 3 Judges Average: For each maneuver, the scoring software calculates the average score of the 3 judges. This maneuver average score is shown in the Judging Details.

3.2.3 Calculation of Final Technical Score

A medium score is calculated depending of the quantity of maneuvres and the difficulty coefficient average.

The difficulty coefficient average is fixed at 1.70 for each task.

- 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%

3.3 Landing Scoring

3.3.1 Landing Raft

If a raft is used, it must be at least 4m wide and 6m long minimum.

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

RAFT LANDING	COEF
Approach and Precision	1,0
Raft	15
Ground spiral	4,0
Hand Touch	1,2
Feet Touch	0.5
Spin	10



Execution points: Each maneuver is judged on a scale of 0 to 10 and is multiplied by the respective coefficient.

The maximum score to refer to is:

- Max score = 92
- Average landing score = (total of the 6 maneuvers / maxi score)*100
- Final landing score = average landing score X 10%

3.3.2 Landing on the Ground

The pilots committee in accordance with the organiser can decide to cancel the landing on the raft. In that case, a ground landing can be scored under the following conditions:

- The pilot's should be able to safely approach the landing area without flying over the public.
- A spot 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 completely free of obstacles.
- The pilots should be able to safely approach the landing area without flying over the public.
- No ground spirals are allowed

3.3.3 Landing on Shore

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

3.4 Choreography Scoring

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

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

SOLO CHOREOGRAPHY	COEF
Placement and Drift	16
Management of Altitude	10
Flow	12
Rhythm and Connexions	1,5
Originality and Diversity	2,0

Execution points: Each maneuver is judged on a scale of 0 to 10 and is multiplied by the respective coefficient.

The maximum 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%

3.5 Final Score

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

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Only the official maneuvers defined in the maneuvers table can be scored in every run. The maneuvers table includes each maneuver.

The maneuver 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 maneuver.

The penalties: reference for discount in execution scoring.

3.6 Penalties

The following criteria are some references. It is up to the judges to appreciate the context in which the problem happens, its importance and the way the pilot manages the situation.

• Collapses / Tucks:

0% to 25%
0 to -20 points for the maneuver
25% to 50%
-20 to -50 points for the maneuver
50% to 100%
-50 to -80 points for the maneuver

• 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.

<1 twist
 -20 to -50 points
 1 twist and more
 -50 to -80 points

• Twist:

In case of twist, the jury appreciates the way the pilot manages the situation. Fast recovery and keeping the wing under control is required.

<10% and <3 seconds -20 points</p>

■ >50% and >3 seconds -20 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 cause 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: 0 for the maneuver but the points from the previous maneuvers are counted
- Failure to Open the Reserve When Needed: 0 for the run + warnings

3.7 World Cup / WAPR Ranking

The CIVL Competitions Co-ordinator will keep the WAPR provided the following is met:

 The Aerobatics competition must be FAI Category 2 sanctioned. The organiser has to contact the CIVL Competitions Co-ordinator at 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 WAPR
- The organiser must send to the CIVL Co-ordinator the results the same day they are official

In addition to sending the results to the CIVL Competitions Co-ordinator, the Aerobatic Paragliding World Cup (Acro World Cup) organisers must send to Pal Hammar-Rognoy the results the same day they are official at the following address: pal@downteam.com.

3.8 National Ranking

Due to the currently small number of sanctioned paragliding aerobatics competitions in the United States, the National Ranking shall consist of the rankings of the one Sanctioned competition each year. Should Paragliding Aerobatics competitions grow to more than one competition a year, the Aerobatics Subcommittee shall make a recommendation to the Board of Directors to incorporate multiple meets into the ranking system

3.9 U.S. Team Selection

For the purposes of international competition, USHPA shall select U.S. Team members based on sequential order of the most current National Rankings at the time of submission to FAI.

4. Organizer Rules

4.1 The Site

When appropriate competitions should take place above water. It is necessary to get a height of at least 500 m above water in order to perform maneuvers.

In case of a site above sea water, the organiser has to announce the altitude bellow which no maneuver will be authorised and will not be scored to allow the pilots to safely land on the ground landing field.

4.2 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).

4.3 Landing

It is necessary to have a "dry" landing. It is also possible to use a landing place on water (A protected floating platform without any sharp parts. Each side and corners must be well protected).

Wind socks must be posted at different places of the event.

4.4 Communications

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

4.5 Site Facilities

Reception of the public in a delimited area (A parking close to the event, catering, announcers). No flight over public areas.



4.6 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.

4.7 Organization Team

Continuous shuttles, cable car, tow boat/ trucks with priority to the competitors.

A task 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.

At landing field: A controller of the movement area.

A speaker for public address.

A cameraman with a camera who is constantly filming. This person must be placed next to the judges.

A secretary who assists the Jury and helps entering the results (score keeper).

4.8 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.

4.9 Local Regulations

The Local Regulations must be published in accordance with USHPA sanction procedures.

4.10 Weather Forecast

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

4.11 Safety

An EMT must be onsite during the competition

Where applicable, 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.

4.12 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: (Organizer to specify requirement)

Personal accident/hospitalisation/repatriation..... (Organizer 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.



4.13 Media Exposure

The organiser should work with USHPA's marketing team to 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.

4.14 Panel of Judges

The organizer must choose a senior judge from the list included in this document. He must contact him directly.

The role of the senior judge is:

- to choose and organize the judges panel with the organizer
- to keep track of the participating pilots
- to make sure that the competition rules are implemented
- to make sure that the FAI licences are controlled
- to ensure that proper safety measures are taken within the event
- · to teach the local judges

The organizer is responsible for paying the senior judge and reimbursing his travel expenses, accommodation and wages.

The senior judge has the possibility to organise a training course for new judges during and/or before the event.

4.15 Results

The organiser must send the results in the correct format (Excel or Access) to the CIVL Competitions Co-ordinator at the following address: civl_comps@fai.org 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.

5. Local Regulations

The local regulations must contain the following:

- 1. Name of the event
- 2. Date(s) of the event
 - · Include rain dates & locations
- 3. Description of the event
 - Minimum Pilot Qualifications
 - Number of competition days
 - · Date of selection rounds
- 4. Number of qualifying rounds and final, if appropriate
- 5. Maximum number of pilots
 - Include selection method
- 6. Entry fee



- Amount
- What is included in the entry fee?
- 7. Protest fee
 - Amount
- 8. Prizes
 - Amount
 - How the prizes are awarded
- 9. Daily program
 - The program has to be respected
- 10. Safety issues
 - · Type of helmet allowed
 - · Provision for life jackets, if any
 - Provision of spare reserve provided by the organizer
- 11. Competition issues
 - Definition of the flight box
 - · Number of maneuvers to be performed during a flight
 - · Elimination rounds and final when appropriate