Fédération Aéronautique Internationale

CIVA Rules, Judging, and Glider Aerobatics Committee Meetings

Rules Proposals for 2017 (Power and Glider Aerobatics)

GC Meeting to be held in
Matkó, Hungary
14.00, 18 July 2016

Joint RC/JC Meeting to be held in
Moravská Třebová, Czech Republic
09.00, 19 August 2016

Version 1.0 / 10 July 2016

INTRODUCTION

The deadline for the submission of rule proposals to CIVA (1 July 2016) has now passed. CIVA Delegates responded accordingly and these proposals now go to Committees.

This is one of CIVA most important jobs; to examine our experiences and lessons learned from the various Championships we hold each year and to introduce improvements into the FAI Sporting Code, the rules that are the basis for our sport.

Proposals can take four different forms:

Normal Proposals (NPs): These are proposals submitted each year by Delegates in accordance with our normal rules process and deadlines. These are normally due by the 1st of July. By extension such proposals may be submitted on request of CIVA by specially appointed Working Groups.

Safety Proposals (SPs): Proposals to be submitted which relate to safety problems and merit consideration by plenary at CIVA's next meeting. These usually come in after Championships.

Expedited Proposals (EPs): Proposals to be submitted as a result of experiences at Championships and merit discussion by plenary at CIVA's next meeting. The guideline here would be minor changes which are either editorial in nature or of such importance that full Sub-Committee consideration is not required.

Correction Proposals (CPs): Purely editorial remarks (e.g. typos, missing reference,…). Such proposals may be sent anytime to the RC or GC Chairman as appropriate, and implemented as relevant in the next issue of Section 6' corresponding Part without going through the full-fledged approval process, and hence save time in RC/JC/GC discussions as well as in CIVA's plenary meeting. Proposals are classified as CP by the RC (respectively GC) Chairman; however if anyone of the respective Committee member objects to this classification, the proposal automatically goes into NP status.

"Urgent" proposals submitted after Championships, in accordance with a deadline set by the CIVA President each year, are classified as a SP, EP, or NP (and in this latter case set to be examined by the relevant Committees in the following year), at the discretion of the President.

CIVA has the following rule related Committees, elected each year at Plenary, and made up of skilled and experienced specialists. Each has five members plus a Chairman. The committees in 2016 are as follows:

- CIVA Rules Committee (RC): Matthieu Roulet, Chairman (FRA)
- CIVA Judging Committee (JC), John Gaillard, Chairman (SAF)
- CIVA Glider Committee (GC), Manfred Echter, Chairman (GER)
- CIVA Catalogue Committee (CC), Manfred Echter, Chairman (GER)

The GC meeting on Matkó airfield on 18 July, as well as the joint RC/JC meeting in Moravská Třebová on 19 August, will be open to observers. Observers however are not allowed to participate to the debates unless invited to do so by the Chairman on a specific topic. For logistics purposes, Delegates are requested to let the respective Chairman know as soon as possible whether they foresee any observers from their respective NACs.

The RC/JC on the one hand, and the GC on the other hand, will strive to harmonize decisions on rule proposals wherever this makes sense, in order to avoid as much as possible diverging options in Parts 1 and 2.

Comments on the enclosed rule proposals are welcome. After holding their meetings in the summer of 2016, the Committees will issue their recommendations to the Plenary meeting of CIVA. That meeting will be held in Bucarest, Romania on 5-6 November 2016.

The new version of Sporting Code, incorporating those changes, takes effect on 1 January 2017.

Matthieu Roulet
Chairman, CIVA Rules Committee

5 July 2016

RC 2016:
- *M. Roulet (Chairman)*
- *N. Buckenham*
- *M. Heuer*
- *J. Leukefeld*
- *R. Massa*
- *P. Varloteaux*

JC 2016:
- *J. Gaillard (Chairman)*
- *N. Buckenham*
- *B. Howard*
- *Ph. Küchler*
- *M. Mamistov*
- *P. Varloteaux*

GC 2016:
- *M. Echter (Chairman)*
- *M. Delcroix*
- *P. Havbrandt*
- *Ph. Küchler*
- *J. Makula*
- *J. Viitasaari*

CC 2016:
- *M. Echter (Chairman)*
- *A. Belov*
- *M. Delcroix*
- *P. Havbrandt*
- *B. Howard*
- *P. Varloteaux*

RULES PROPOSAL CHECKLIST

Highlighted in Yellow: Proposals for which the GC and the RC/JC should aim for a common position.

CIVA#	NAC	#	Subject	S/C or WG	Page
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NP2017-23		4	Selection of Glider Warm-Up Pilots	GC	34
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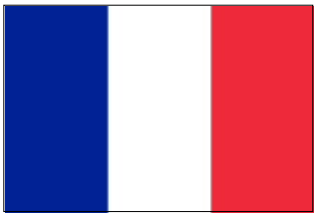


NP2017-1 **RC**

FRANCE PROPOSAL #1

Document: Section 6 Part 1

Subject: **Number of Programmes (Power)**

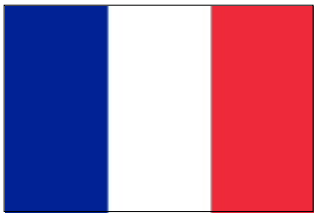
Proposal

Reduce the total number of programmes from 5 to 4 in Unlimited, by eliminating a Free Unknown. The flight schedule would now read:

- Programme 1 : Free Known
- Programme 2 : Free Unknown #1
- Programme 3 : Free Unknown #2
- Programme 4 : Freestyle

Rationale

- This proposal will allow to reduce the duration of the contest : a long-time request from many stakeholders;
- Two Free Unknowns (in addition to the Free Known) should be sufficient to establish a ranking reflecting the merits of competitors, while maintaining both suspense and interest.
- This will give the opportunity to raise the profile of the Freestyle programme – also a sought-after strategic direction: making it a “real” programme using a full day, more appealing to public and media (hence to sponsors). Today, the Freestyle programme is often either not flown or cut down (making pilots unhappy), due to weather issues impacting the nominal competition schedule.
- A Free Unknown creates quite a lot of work and logistics from various stakeholders: Drawing of lots, sequence design, paperwork… With currently 3 Free Unknowns, this is therefore more work than previously – again for a not-obvious benefit.



NP2017-2 RC GC

FRANCE PROPOSAL #2

Document: Section 6 Part 1

Subject: **Scoring System**

Proposal

Task a CIVA working group to assess potential revisions to the scoring system with the objective that, for a given competitor, the overall scoring obtained in a programme does not depend on the scoring of other competitors: a prerequisite to widespread real-time display, which itself is a necessary step towards increased public visibility and media coverage.

FPS would be kept to derive detailed judging analysis – which would be used for instance in two different ways:

- as a judge selection tool for the next contest;
- to apply a weighting factor on each judge's marks in the next programme(s) (with weighting factor on the first programme determined by past performance, and performance on the last programme heavily impacting judge index for next selection, etc).

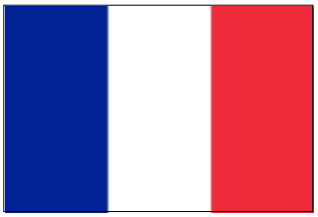
Rationale

As shown by plenty of other sports popularized by the media, a paramount requirement to enthrall the audience is a real-time scoring system: After each competitor's performance, a time or distance or number of points etc, is displayed and the audience immediately gets relative rankings.

If we want to make our sport more appealing to the public and media, it is therefore crucial to display real-time scoring e.g. on giant screens at the contest site. But here we face a fundamental credibility issue in our sport: In which other sport can we have a situation where competitor A is said to have performed better than competitor B but then after competitor C performed, finally no…wait…B did better than A ? This is not understandable for any public or media and we believe goes against the increased visibility we are looking for.[1]

Therefore, we believe a prerequisite to real-time display is the development of a scoring system whereby the number of points obtained by a given competitor is not subject to modifications after his/her performance (while still keeping fairness as a key requirement). We believe there are several ways to achieve that, and would like to promote the idea that a working group be tasked by CIVA to come up with an agreed solution.

[1] The current FPS scoring system has been designed to maximize fairness, and we certainly do not challenge the current system in this respect – it does the job marvelously and we are convinced that no system with non-moving overall score could prove as effective as FPS in resolving bias and unwanted variations
However we believe another requirement -- credibility of our sport – must now come into play in addition to fairness. What we suggest is a rebalance between fairness and credibility. We have been putting all our eggs in the basket of absolute fairness and statistician expertise – and again this led to a great achievement in this respect. Yet statistics experts could not care less about other factors that might hinder progress of our sport. We must take ownership of what we really want to achieve in this respect. CIVA owns the vision of where we want to go and what balance is right for our sport, not experts in statistics.
The fact that all media-appealing sports we can think of, which have a similar "judging" issue – and that all those sports have had a long history, money and the means to develop absolutely fair systems like FPS -- chose not to take this path, maybe should trigger some further thoughts.
There are a number of potential schemes (more or less simplistic, more or less fair, etc) to achieve an "acceptable level of fairness" with non-moving scores, hence the need to investigate and assess.



NP2017-3 **GC**

FRANCE PROPOSAL #3

Document: Section 6 Part 2

Subject: **Cut for the last Programme**

Proposal

Add a new paragraph, 3.3.1.3., as follows:

> For Programme 6, if there is insufficient time to complete the championships due to weather problems or unforeseen circumstances, the International Jury is authorised to introduce a cut of the competitors up to a maximum of 50% of the remaining competitors, based on the combined standings before Programme 6.

Rationale

The equivalent rule already exists in Power. It aims at giving the leading pilots the chance to compete in as many programmes as possible according to the original list, thus increasing the overall sporting value of the contest.

NP2017-4 GC JC

GERMANY PROPOSAL #1

Document: Section 6 Part 2

Subject: **Harmony Mark**

Proposal

Delete the Harmony Mark.

Rationale

The original idea behind the harmony mark was a good one in principle. In practise, however, it is quite obvious that many judges are either unable or unwilling to apply the complex rules for a correct harmony mark. All too often you hear at the judging line: ″Oh yes, we still need a harmony mark; eight point five!″.

Considering that many harmony marks are thus awarded ″out of the belly″, it would be better to drop this mark entirely.

Appendix B adequately addresses figure downgrades for violation of harmony, so a separate mark for sequence harmony is not really necessary.

NP2017-5 **GC**

GERMANY PROPOSAL #2

Document: Section 6 Part 2

Subject: **Sequence K in Advanced (Glider)**

Proposal

The K-factor for the Advanced Free Known should be raised to 190, for the Free Unknown to 175 (min. 160) and for Unknown Compulsories to 160 (min. 145).

Rationale

Since the first WAGAC in 2010 the average level of flying skill in Advanced has improved dramatically. Sequences with the current K-factors are not sufficiently demanding and selective for World Championships any more.

NP2017-6 **GC**

GERMANY PROPOSAL #3

Document: Section 6 Part 2

Subject: **Medals for various Programmes**

Proposal

Instead of medals for the Free Known and the combined Unknowns, award medals for combined Frees (Free Known and Free Unknown) and combined Unknown Compulsories.

Rationale

The relative value of the medals for the Free Known is much less than that for up to five Unknown programmes. In a sporting sense, the character of the Free Known and the Free Unknown is not much different, so it would be logical to combine the two Frees in one award. The imbalance in value between the various medals would thus be alleviated.

NP2017-7

GC

GERMANY PROPOSAL #4

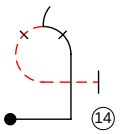
Document: Section 6 Part 2

Subject: **List of Figures for Unknown Programmes (Glider)**

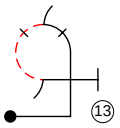
Proposal

Add Figures from Families 8.6.17 through 8.6.23 as shown below to the list of figures for Unknown Programmes (Appendix A).

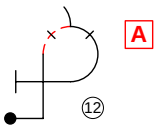
8.6.17.



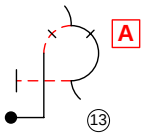
8.6.18.



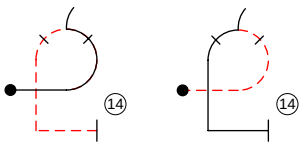
8.6.19.



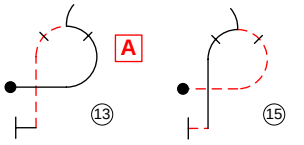
8.6.20.



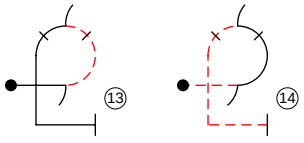
8.6.21.



8.6.22.



8.6.23.



1 2

Rationale

P-Loops with half rolls on top would add variety to the choice of figures for Unknowns without additional risk of over-stressing gliders.

NP2017-8

GC

GERMANY PROPOSAL #5

Document: Section 6 Part 2

Subject: **List of Figures for Unknown Programmes (Glider)**

Proposal

Family 8.6, P-Loops:
Add new remark: A.14.1.3 : No flick rolls on horizontal entry or exit lines of figures in columns 1 and 2.

Rationale

Safety.

NP2017-9 **GC**

GERMANY PROPOSAL #6

Document: Section 6 Part 2

Subject: **Warm-Up Pilots**

Proposal

Add the following text to chapter ″Administrative Arrangements″:

1. The International Jury shall be responsible for selecting, several months prior to the event, at least one suitably qualified, non-competing Warm-Up pilot whose sole duty throughout the duration of the event will be to carry out demonstration sequence flights as specified in this document or required by the Chief Judge or the International Jury.

2. The International Jury shall ensure that experience and capabilities of pilots selected for this duty match the demands of the task. Thus, a suitable Warm-Up pilot must have appropriate and current aerobatic experience in the category specified, be able to provide or secure the use of a suitable glider which he/she is qualified and eligible to fly, and be ready and available to fly at any time throughout the duration of the event. The International Jury will only consider applications fulfilling these requirements.

3. Applications may carry options on final name to cater for cases where national team members are selected late. In such case the application shall mention all names of potential applicants, and all pilots in the application shall fulfil the requirements in paragraph 2. above, otherwise the whole application will be rejected.

4. The type of glider to be flown by each Warm-Up pilot should be those in typical use at the event, able to perform in skilled hands at the highest level.

5. In case of unanticipated non-availability of a selected Warm-Up pilot, the International Jury has full flexibility to select a substitute in the best interest of CIVA.

Rationale

In past international championships it has always been difficult to secure adequately qualified Warmup Pilots. It is unacceptable to have Contest Directors or Jury Members perform as Warmup Pilots for lack of an alternative.

The above procedure is largely identical to the rules introduced by CIVA in 2014 for international power aerobatic events. Contrary to power, one suitable Warmup Pilot is deemed sufficient for glider championships.

NP2017-10 **GC**

POLAND PROPOSAL #1

Document: Section 6 Part 2

Subject: **Eligibility « AG »**

Proposal

Add the following sub-para to paragraph 1.2.4.2:

c) The above restrictions do not apply to pilots 60 years of age or older.

Rationale

To allow senior pilots to switch from Unlimited to Advanced category without the 2 year retention period. Pilots at this age still willing to fly aerobatics should avoid extreme manoeuvres, especially negative G figures

NP2017-11 RC JC GC

SOUTH AFRICA PROPOSAL #1

Document: Section 6 Part 1 / Part 2

Subject: **Discontinuation of use of Boundary Judges**

Proposal

It is proposed that the use of Boundary Judges be discontinued.

Rationale

a) In effect it subjects a competitor to double-jeopardy as in addition to a penalty given by Boundary judges for a box-out, the regular Judges are also applying downgrades through our well-developed Position Scoring process.

b) In powered aerobatics the extent of the out of box infringement is not even taken into account, it could be one meter or one-hundred meters yet the penalty remains constant, whereas all other Aresti judging is based on proportionate systems relative to the error seen. For Gliding events the regulations are somewhat more sensible in this particular respect, though all other issues referred to in this proposal remain entirely relevant.

c) Since Boundary Judges were first used, the performance of the aircraft has massively changed, in addition sequences have become significantly more complex.

d) The penalty is inherently unfair as competitors are subject to varying wind conditions, ranging from calm to the maximum allowed in the Regulations.

e) Whilst regular Judges are subject to a strict selection procedure based on performance as statistically analyzed by the Regulations, Boundary Judges have no formal selection procedure and can be changed at any time, and as a result there is no guarantee of their quality.

f) Whereas regular Judges are selected on merit and only two are allowed from one nation, Boundary Judges are nearly always local nationals selected by the organizing Aero Club.

g) There is no standard design of equipment approved for the use of Boundary judges, and consequently the equipment employed can vary from well-designed sighting devices to a pole with pieces of rope attached subject to movement by wind or mishap.

h) The setting up of the Boundary judge equipment and getting judges into position can cause delays on a daily basis.

i) Radio Communication between Boundary Judges and the Chief Judge's workstation is often problematical and delays are experienced if any equipment fails.

j) There is an inherent cost to the Organizing Aero Club, a minimum of ten such boundary judges need to be accommodated and fed.

Comment by John Gaillard:

« Since I have been involved as a Chief Judges at a WAAC in 1995, I have experienced many different standards of boundary judging, ranging from excellent with a high confidence level to extremely poor with an obvious element of cheating by favoring home Aero Club pilots. At certain contests students were used who had never been exposed to aerobatics, resulting in a quick training course in Aresti (incidentally these students actually did a very good job). However, on other occasions there was a very uneasy feeling at the chief Judges Workstation, when we considered it likely that a competitor had exceeded the box limits and inevitably one

boundary judge had called “out” only not to be confirmed as per the system by the second boundary judge., this frequently has involved a competitor from the home nation.

There is no suggestion that this is being done on an organized basis by the home nation, all it takes is one individual acting alone to have a significant impact on the championship results.

Short of applying the same standards to the selection of line judges as to that of a regular Judge (highly impractical) there is no real way to avoid this problem. Of course we have had in the past electronic devises carrying out the duties of line judges – Silverstone was a good example, but these systems are expensive but effective, but until we have the use of a cost-effective proven system, which does not involve having a component installed in the aircraft the only way to monitor boundary infringements is doing it manually with all that entails. »

NP2017-12 RC JC GC

SOUTH AFRICA PROPOSAL #2

Document: Section 6 Part 1 / Part 2

Subject: **Averages**

Proposal

Revise the way we handle "A" to eliminate (or not reward) incompetence or manipulation by judges, as follows:

"A" s given where no 'HZ" is involved :

That Judges be allowed two "A" s per program thereafter a factor of one be added to the Judges RI for the program for each subsequent "A" given.

"A"s given where "HZ" is involved :

That a judge giving an "A" should receive an average of the other judge's raw marks, before the statistical process takes place.

In addition, a factor of two should be added to the judges RI.

Note: That in all cases where there is a mixture of marks and HZ's a judging conference takes place with video to determine the actual facts.

Rationale

The regulation with regards to averages is as follows:

> 4.1.4.4. If a Judge misses seeing a figure, or any part of a figure such that a grade cannot be given with full confidence, the Judge will give a mark of "Average" or "A" to that figure.

The above regulation is straight forward and is necessary to get around a genuine problem if a Judge misses a figure or part of a figure, which can occur in various circumstances, part of this may involve the working relationship between a Judge and the caller especially if a competitor has omitted a figure or a series of figures. It is also a factor that a minority of Judges still attempt to read the figures themselves, generally resulting in multiple errors as at some point when glancing at the diagram an element of the figure will be flown by a competitor, leading to uncertainty.

The procedure for processing an "A" is also straightforward, basically the mark of "A" is discounted until the remainder of marks are processed and then a statistically perfect mark is substituted for the "A", in effect turning the "A" into an ideal grade for both the Judge and Competitor, all this will have an absolutely minimal effect for the Competitor and the Judge's statistical analysis (RI).

However, when a "HZ" is involved, especially when there is a mix of marks and "HZ", some judges who may be uncertain take an easy way out by giving an "A". It needs to be stated that getting an "HZ" wrong in either direction is likely to have an impact on the Judge's RI, especially if the competitor is flying to a high standard, which would lead to a top placing. Judges who use this tactic of giving an "A" in the above circumstances, in effect remove the possibility of having their "RI" compromised and instead end up with a statistical perfect mark, this is a highly undesirable practice and is giving false information to the overall judge's statistical analysis.

"A" s given where no 'HZ" is involved :

In this manner a judge giving multiple "A" s will no longer receive a beneficial RI, but something more in-line with the actual performance.

"A"s given where "HZ" is involved :

Example:

Judge 1 = HZ
Judge 2 = HZ
Judge 3 = 7.5
Judge 4 = 8.0
Judge 5 = HZ
Judge 6 = HZ
Judge 7 = 7.0
Judge 8 = "A" (changed to 3.21 being the sum of scores for the other judges divided by 7)

In this manner giving an "A" would no longer pay dividends in terms of RI and a more realistic result would be given by the overall judging statistics for the program, being beneficial to the competent judges and penalizing the incompetent and fence-sitters.

Conclusion

This proposal is intended to benefit the majority of competent judges whose performance should be reflected in their comparative RI, it will penalize the incompetent judges and those that attempt to manipulate the RI Analysis. It has been said on numerous occasions that judges are now more concerned with their final RI, this should not be seen as a negative statement, the only way a judge can get a good RI (once the anomalies in the system have been removed) is to grade accurately and not make major errors, in other words rank competitors in the right order, this is exactly what we want from a Judge.

NP2017-13 RC JC GC

SOUTH AFRICA PROPOSAL #3

Document: Section 6 Part 1 / Part 2

Subject: **International Corps of Judges**

Proposal

That a judge having a score rejected as "Hi" by the scoring system for a member of their own nation will have a factor of one (1) added to their overall RI for that pilot / that sequence.

Rationale / Background

For many years CIVA has strived to ensure that our International Judges are technically competent and are unbiased, in effect acting as an impartial body without team affiliations when it comes to grading competitors at International Contests.

However, when analyzing the results of contests, it becomes apparent that this not been completely successful. Some judges have clearly embraced the intentions of CIVA and show no consistent bias towards competitors of their own nationality or anyone else, whereas other judges show a consistent favorable bias towards the competitors of their own nation.

The CIVA judge selection process based on averaged RI ranking performance has ensured that the majority of judges selected are technically competent, but the FairPlay System can only eliminate bias above a fixed point and it would appear there is a consistent pattern by some judges of who continue to inflate the scores from competitors of their own nation.

It should also be noted that where a competitor is in any case highly placed the effect on a judges RI of over-grading that is detected and removed by FPS will be minimal since the ranking difference is limited to very few places and the impact on the judges RI is correspondingly restricted.

Shown below is a table that illustrates the over-scoring detected as "Hi" by FPS at CIVA championships for the past three years. In order to de-politicalize this information and to avoid embarrassment the NAC's and judges are not directly named, but the data is a matter of Public Record and can be extracted from "ACRO" using the "Chief Judges overall analysis". Only cases exceeding two instances at any one event are shown, as instances under this could just be part of a normal distribution of marks. The dominance of two particular NAC's is clear and consistent.

National Air Sports Control	Judge from NAC "A"	Judge from NAC "B"	Judge from NAC "C"	Judge from NAC "D"	Judge from NAC "E"	Judge from NAC "F"
Contest:						
WAC 2015	7	5				
EAAC 2015	7					
WAAC 2014	7	3	4	7		
EAC 2014	3	4				
WAC 2013	10	8	5			
EAAC 2013	5	3			3	
WIAC 2013						6
Totals:	**39**	**23**	**9**	**7**	**3**	**6**

As can be seen from the above table, two NAC's in particular show the tendency to have their judge's grades rejected as being unrealistically high for their own nation by the CIVA scoring system. In both cases the judges concerned are considered competent as verified by their RI.

The CIVA regulations call for a competitor to start a figure with a perfect score of 10 and then deductions are made as per the regulations. A judge awarding a higher mark for a particular competitor has therefore failed to see (or act) on an error by a competitor from his own nation, whilst agreeing with the majority of the judges for the remaining competitors; this therefore cannot be considered random and may be a deliberate tactic on behalf of the judge concerned.

Comment :

In this manner judges who are otherwise competent but show continuous undue bias towards their own nation's pilots will suffer a reduced prospect to their selection for the following year's contests, based on their RI. This will encourage judges to eliminate bias and get closer to the CIVA ideal of a competent and unbiased panel of judges.

NP2017-14 **RC** **JC** **GC**

SOUTH AFRICA PROPOSAL #4

Document: Section 6 Part 1 / Part 2

Subject: **International Judges Code of Conduct**

Proposal

a) That 4.1.2.7 be replaced by the following:

> CIVA Judges and Assistants, on being selected for duty on an International Judging Panel, must at all times act with true impartiality and treat all competitors on an equitable basis breaks in the competition. Any indication that a Judge or Assistant is acting contrary to the required manner and/or is seen to be colluding with a third party in matters that could affect their impartiality may lead to expulsion from the judging line, subject to review and confirmation of such a directive by the International Jury.

b) That all judges and assistants are required to sign the following declaration when registering at the event:

> *At [CIVA championship name / title / date] -*
>
> *I the undersigned CIVA appointed Judge / Assistant hereby declare that:*
>
> 1. *I will act in a truly impartial and equitable manner for the duration of this event.*
> 2. *I have studied the CIVA judging regulations and will apply them accurately and without favor regardless of the identity of the aircraft or competitor.*
> 3. *I accept that if I am found to be in breach of these declarations I may be expelled from the judging line, subject to review and confirmation of such a directive by the International Jury.*
>
> *Signature:* _____ *Date:* _____
>
> *Signature:* _____ *Date:* _____
>
> *Signature:* _____ *Date:* _____
>
> *etc.*

Rationale

To reinforce the commitment that every judge and assistant should uphold the required high standard of impartiality and accuracy in recording all observed errors and rule transgressions during program flights, and at all times act as neutral CIVA officials and not in a partial manner nor to the benefit of their own or any other NAC, we propose the two steps above.

CIVA expects its judges and their assistants to act in an impartial and equitable manner at all times and to take steps to be uninfluenced by other judges and third parties, not only on the judging line but while in the company of other competitors and officials, and this requirement is defined in Regulation 4.1.2.7 as follows:

> A Judge will not make improper communications to third parties by means of cell phone, radio, or any other means whilst on the judging line or during

> breaks/lunches. Failure to adhere to this instruction may lead to expulsion from the judging line.

Regardless of what is in the regulations it is clear that a judge so inclined can seek to create an advantage or disadvantage for any competitor, particularly if they have knowledge of who is flying; access to the Order of Flight is not banned by the regulations as this is effectively impossible to police, but simply recognizing the aircraft is often sufficient.

NP2017-15

CC

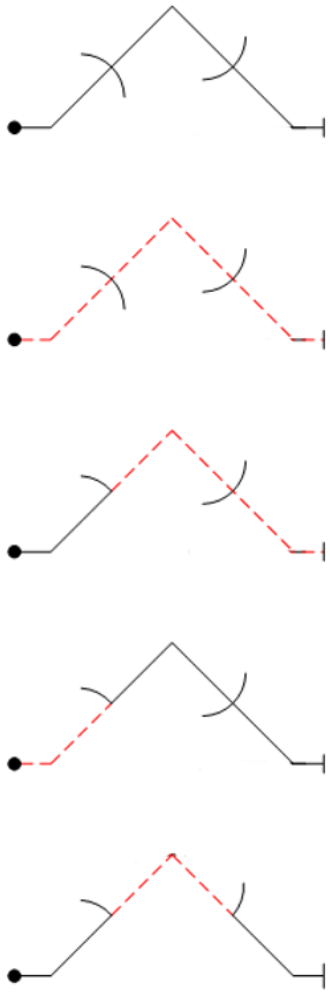
SWEDEN PROPOSAL #1

Document: Aresti Catalogue

Subject: **New Figure Sub-Family**

Proposal

The Catalogue Committee should consider introducing the figures below as new sub-family under Family 1.



Rationale

N/A

NP2017-16 **GC**

SWITZERLAND PROPOSAL #1

Document: Section 6 Part 2

Subject: **Free Unknown Programme (Glider)**

Proposal

For Programme 3 (Free Unknown) paras 3.3.3.8, 3.3.3.10 and 3.3.3.11 should be amended as follows:

3.3.3.8 The IJ will select seven (7) figures from the list of figures selected under 3.3.3.1. These figures will not appear on the list of figures available for construction of Unknown Compulsory sequences. The sum K of the seven figures should be between 170 and 190 ("AG" 130 to 150). competing NACs will be given the list of figures not later than 24 hours before the deadline published by the Organiser for submission of the Free Unknown sequences. Each NAC may submit sequences, composed of these figures, for Programme 3. Either one or two (2) additional figures must be added. The K-factor of additional figures will be set at 5K each for two figures or 10K for a single figure.

3.3.3.10 NACs must submit computer files containing complete pages of all five Forms A, B, C, R and L as described in rule 3.3.2.9 The responsibility for accuracy and conformance of the forms lies with the competing NACs.

3.3.3.11 Publication and Selection of Free Unknown sequences

a) All proposed sequences received by the deadline must be checked, and corrected if necessary by the International Jury.

b) The International Jury shall publish all sequences received from the NACs not later than 24 hours before the start of Programme 3.

c) At least 12 hours before the scheduled start of Programme 3, each competitor will notify the Organiser which of the proposed sequences he/she will fly.

d) Prior to the flight order and paperwork being issued to the judging line, Team Managers or individual competitors as appropriate, shall verify the correctness of the allocation of selected sequence per pilot; this verification shall be recorded by the Organiser.

e) At least 1 hour before the start of Programme 3, the Organiser shall provide each NAC with a list of the Free Unknowns chosen by each competing pilot.

Rationale

Under the existing rules, competing NACs usually compose one sequence each for Programme 3 which is then flown by every pilot from their nation. The proposed rules offer more choices to individual pilots, since all sequences are published in advance and pilots are free to choose any.

NP2017-17 GC JC

SWITZERLAND PROPOSAL #2

Document: Section 6 Part 2

Subject: **Replacement of « Interruption » by « Insertion »**

Proposal

Amend paras 2.6.3.1 through 2.6.3.4 to read as follows:

2.6.3.1 Each insertion will be penalised by 70 points. An insertion is any manoeuvre involving a direction change of more than 90º that is not designated in the flight programme (exception: manoeuvres covered by 2.6.3.2). These can be:

a) A manoeuvre to return to the performance zone.

b) Any manoeuvre which is not part of the current sequence (e.g. full circles).

2.6.3.2 If a pilot is compelled to change his direction after a mistake or after an abandoned figure in order to resume the predetermined direction and/or orientation and has already received a Hard Zero mark for that figure, no penalty points for an insertion will be subtracted, provided the correction of direction or orientation does not comprise more than a heading change of 180° or attitude change of one half roll or half loop.

2.6.3.3 In glider aerobatics there are NO interruptions or breaks with wing rocking before and after. Wing rocking indicates the final conclusion of the sequence.

2.6.3.4 Interrupting a sequence in order to gain altitude by thermalling leads to disqualification for that programme.

Rationale

Simplify the rules by removing the different designations in glider and power aerobatics.

NP2017-18 GC JC RC

SWITZERLAND PROPOSAL #3

Document: Section 6 Part 2

Subject: **Electronic Tracking System**

Proposal

Amend para 2.2.3.1 to read:

2.2.3.1 If an electronic tracking system is used, the position of the aircraft will be tracked by the instrument and performance zone boundary infringements (including the 50 m buffer zone according to 2.6.2.1.a)) recorded. A member of the International Jury or a neutral person assigned by the IJ will be present at the recording station to continuously monitor the operation of the system.

Rationale

We should be able to replace line judges by electronic tracking in the near future. The credibility of any such system can only be assured when its operation is continuously monitored by a neutral official.

RC Chairman note: This proposal is also applicable to Part 1 (Power), para 4.2.3.1. Committees should aim for a common position on this proposal.

NP2017-19 **RC**

UK PROPOSAL #1

Document: Section 6 Part 1

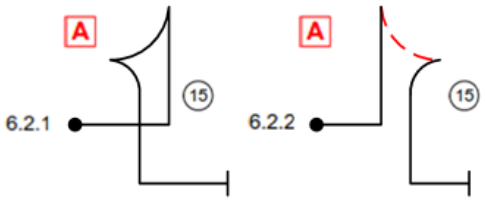
Subject: **Unknown Figures for Advanced Power Category**

Proposal

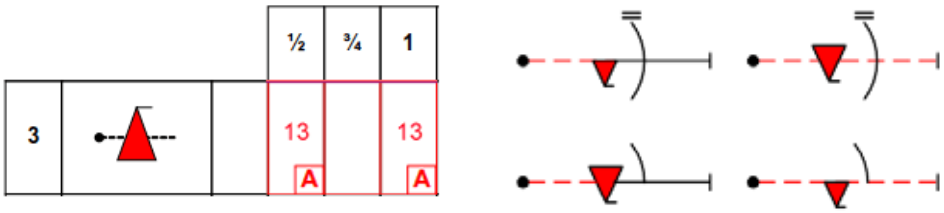
Include either or both of the following additional figures in Section-6 Part-1 Appendix-A so that they can be used during the compilation of unknown Programmes for Advanced category aircraft:

Proposal #1 (a) - Family 6 Tail Slides

In this case no rolls may be added on either the upward or downward lines.



Proposal #1 (b) - Family 9.10 Negative Flick Rolls



In this case the specified flick rolls should be used only on 1.1.1.4 and 1.1.1.2 lines, with optional net 180° and 360° complementary aileron rolls in either the same or the opposite direction.

Rationale

When the Advanced Power category became part of CIVA's championship range and the first of these events took place in South Africa in 1995, entries were limited to a restricted list that prohibited carbon-winged aircraft and allowed nothing over 260hp except the Yak-55, these representing the target range of machines expected for this new "limited" category below Unlimited. In early championships many pilots flew aircraft such as CAP-20's and -21's with limited maximum +/- G capability, whereas today with the restricted list long gone a 6-cylinder 300hp machine with carbon wing is almost essential to place well.

Piloting skills in this category have naturally risen to take advantage of new high-performance aircraft, which are stronger and more capable. In the UK for advanced power unknown sequences the BAeA has re-introduced positive entry/exit tail slides and also added the option of half and full negative flick-rolls to appropriate simple horizontal lines. We think that these provide a valuable extra challenge at this level and with appropriate training are safe to fly.

NP2017-20 RC GC

USA PROPOSAL #1

Document: Section 6 Part 1/ Part 2

Subject: **Addition of Family 8.8 Figures to Appendix A**

Proposal

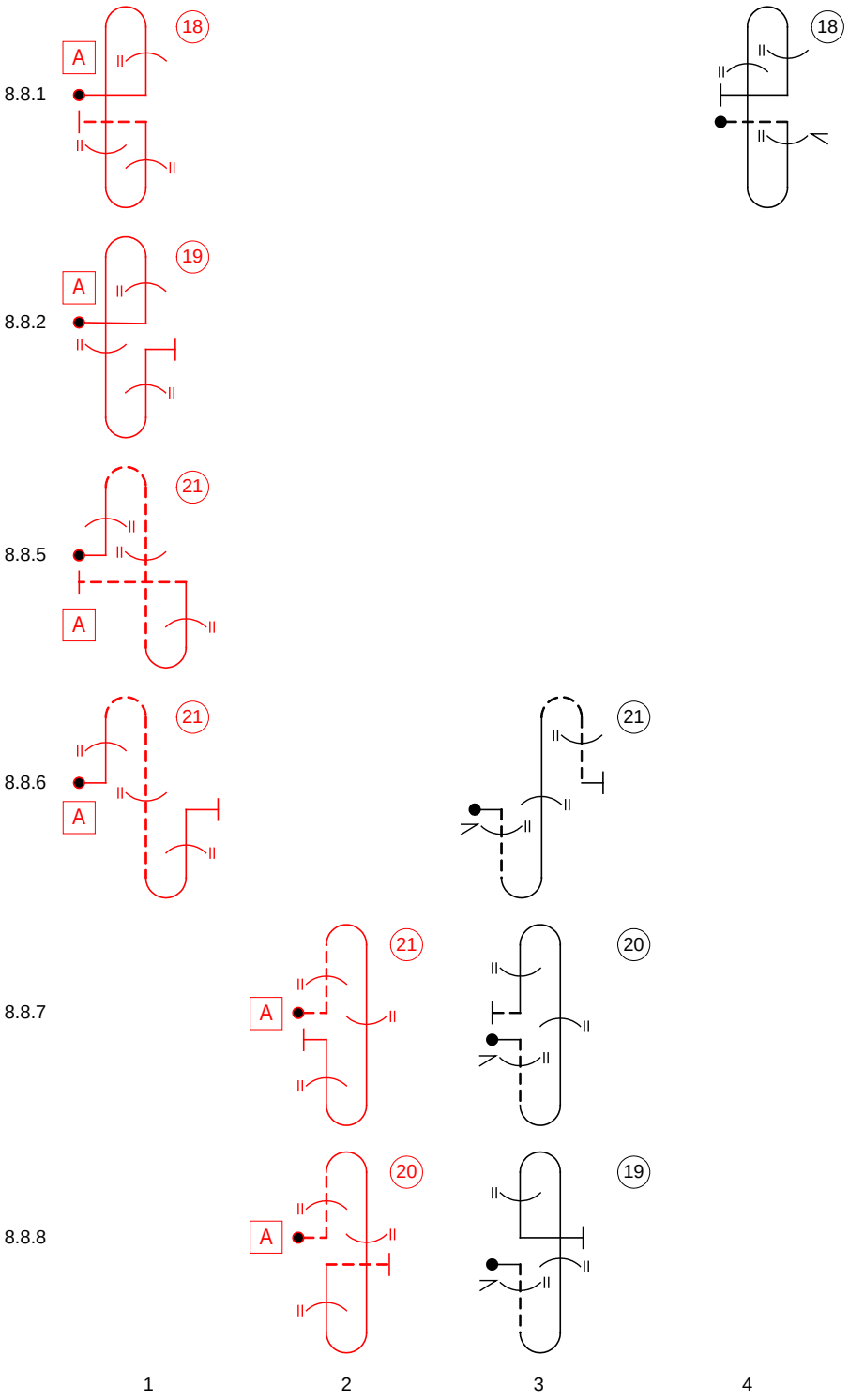
(1) Part 1: Add a new section, A.18, to Appendix A. Existing sections A.18 through A.25 to be renumbered appropriately.

(2) Part 2: Add a new section, A.16, to Appendix A. Existing sections A.16 through A.23 to be renumbered appropriately.

The attached graphic is applicable to the Power categories (Part 1). For Gliders (Part 2) all figures from columns 3 and 4 would be deleted.

(Part 1) A.18. Family 8.8

(Part 2) A.16. Family 8.8 (Part 2 uses columns 1 and 2 only)



A.18.1.1. All categories: In Family 8.8, a maximum of one Family 9 element allowed on any vertical line.

Rationale / Background

The Family 8.8, the Double Humpty Bumps, were added to the *Aresti Aerobatic Catalogue (Condensed)* in 2012. It is now proposed to allow a subset of those figures to be used as Unknown figures in Power Programmes 2, 3 and 4 and as Unlimited Unknown figures in Glider Programmes 2 through 6.

Removed from consideration as potential Unknown figures in this proposal from all categories were the Double Humpties with outside downward half loops, and those figures with outside elements occurring before inside half loops on the downward side. For the Advanced power category, and all glider categories, all downward starting Double Humpties (columns 3 and 4) were eliminated from consideration.

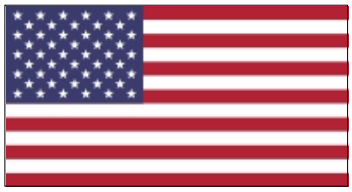
The following note will be included for all categories in both power and glider:

All categories: In Family 8.8, a maximum of one Family 9 element allowed on any vertical line.

The remaining figures present no excessive altitude loss or physical stress on either aircraft or pilots. When combined with the possible vertical rolls and/or spins, these figures will provide considerable additional flexibility in Unknown programme design for wind management and box positioning.

NOTE: This proposal has been modified to address concerns expressed to a similar proposal rejected by the plenary in 2015.

NP2017-21 RC JC GC



USA PROPOSAL #2

Document: Section 6 Part 1

Subject: **Judging of Over/Under-Rotated Flick Rolls and Spins**

Proposal

Changes as follows:

4.4.2.1. A grade of "Perception Zero" (PZ) should be given if the Judge considers that the figure is incorrectly flown in respect of a criterion that is a matter of subjective perception, rather than clearly demonstrable fact. For example, if the Judge considers that a flick roll or spin never started proper auto-rotation, that a flick roll or spin under-rotated by more than 45 degrees as a result of coming out of auto-rotation, that a tail slide did not move backwards by the required amount, or that a rolling turn included a flick roll.

4.4.3.1. A grade of "Hard Zero" (HZ) should be given if the Judge considers that the figure is incorrectly flown in respect of a geometrical error, as listed below, that is clearly verifiable as a matter of fact. A grade of "HZ" will be given to a figure if:

e) any other single deviation in geometry/flight path/attitude/rotation (Rule 4.4.1) reaches 90º. However, if the rotational deviation is observed in either a spin or flick roll as a result of the failure to maintain auto-rotation, a grade of "PZ" will be given;

B.9.27.5. Flick rolls must be observed very carefully to ensure that the rotation is driven throughout by asymmetry in air flow induced by continued rudder application and that the competitor is not "aileroning" the aircraft around its longitudinal axis….A common error is for the aircraft initially to autorotate but to not stay in auto-rotation until the end of the figure, the roll becoming driven substantially by application of aileron. In this case a deduction of one (1) point for each five (5) degrees of rotation remaining when the autorotation ceases must be made. If autorotation ends with more than 45 degrees of rotation remaining, even if the roll is completed with aileron, the flick roll is awarded a ~~numerical~~ perception zero (PZ).

B.9.29.4 After completion of the prescribed number of turns, the aircraft must stop rotating precisely on the pre-stated heading….Be alert for early stopping of the stalled autorotation followed by "aileroning" to the pre-stated heading. In this case, a deduction of one (1) point for every five (5) degrees of "aileroning" must be applied. For example, in a one-turn spin the autorotation is observed to stop after 345 degrees of rotation and the ailerons are used to complete the rotation. The highest score this spin could receive is a 7.0. If auto-rotation ends with more than 45 degrees of rotation remaining, even if the spin is completed with aileron, the spin is awarded a perception zero (PZ).

Rationale / Background

Now that it is possible to mark three different zeros (0.0, HZ, and PZ), not all existing rules have been made consistent in their guidance to the judges as to which type of zero to mark. In particular, rules governing the marks for spins and flick rolls which under-rotate are in conflict with each other.

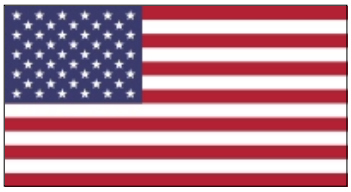
Consider this example: A judge observes a 360° flick roll and the last 90° appears to be an aileron roll. Rule 4.4.3.1.e) states that a grade of "HZ" will be given to a figure if any other single deviation in geometry/flight path/attitude/rotation reaches 90º. But rule B.9.27.5 says, "If autorotation ends with more than 45 degrees of

rotation remaining, even if the roll is completed with aileron, the flick roll is awarded a numerical zero (0.0).” It can further be argued based on 4.4.2.1 that the mark should be “PZ” because the lack of auto-rotation in the last 90° is most definitely a subjective perception. One observation, three possible marks based on three different rules.

The issue with downgrading rotation in spins and flicks is that the observed rotation involves auto-rotation and detecting auto-rotation, or lack of, is one of the prime components which form the basis for the Perception Zero, or PZ (rule 4.4.2.1).

To eliminate these conflicts within the grading criteria, it is therefore proposed that the four rules regarding an under-rotation error greater than 45 degrees in any flick roll or spin, be made consistent in requiring the mark of PZ. The bottom line when judging the rotational component of flicks and spins is that auto-rotation involves the judge’s perception and therefore the mark of PZ is always the correct choice if the error exceeds 45 degrees.

RC Chairman note: This proposal is also applicable to Part 2 (Glider) – corresponding paragraphs 4.3.2.1, 4.3.3.1.d, B.9.25.5 and B.9.27.5. Committees should aim for a common position on this proposal.



NP2017-22

JC

USA PROPOSAL #3

Document: Section 6 Part 1

Subject: **Marking Figures Flown After Time Limit Expires**

Proposal

Changes as follows:

3.10.1.4. The end of the time limit will be clearly announced by the Chief Judge to the pilot by means of radio. Each figure of Programme 1-4 performed after the time limit ~~will not be marked by the judges~~ will be set to CHZ by the Chief Judge, and judges should, where necessary, revise their marks to HZ for these figures. In the event that a pilot takes a permitted weather break, the stop watch will be stopped on the third wing dip at the start of the break and re-started on the third wing dip signaling the beginning of the second part of the broken sequence.

Rationale

Rule 3.10.1.4 currently reads:

3.10.1.4. The end of the time limit will be clearly announced by the Chief Judge to the pilot by means of radio. Each figure of Programme 1-4 performed after the time limit will not be marked by the judges. In the event that a pilot takes a permitted weather break, the stop watch will be stopped on the third wing dip at the start of the break and re-started on the third wing dip signalling the beginning of the second part of the broken sequence.

This rule makes clear the consequences of continuing to fly past the time limit for the programme in question, but is vague in exactly how the judges know to stop marking figures. With judges deployed at 15m spacing, it will be very difficult for all of them to hear the Chief Judge's "Time, time, time!" radio call and a judge might even think they hear the call and stops judging even though the call has not occurred (perhaps due to other radio traffic at the CJ table). As the Chief Judge knows which is the last valid/gradable figure, a post-flight conference will always be the surest way to revise time-expired grades and thus satisfy 3.10.1.4. If a judge were to misinterpret something else as the CJ's "Time!" radio call and stop grading, then those marks are forever lost.

The proposed change provides the same result, but with more security in potentially confusing circumstances.

NP2017-23

GC

USA PROPOSAL #4

Document: Section 6 Part 2

Subject: **Selection of Glider Warm-Up Pilots**

Proposal

New rule added to Part 2:

1.4.1.1. The International Jury is the supreme arbitration body of international aerobatic events and shall be responsible for:

f) Selecting two Warm-Up pilots several months prior to the event, based on applications to be sent by NACs to the President of the International Jury before a deadline to be announced for each event.

Rationale / Background

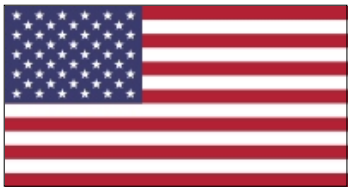
Although the Sporting Code, Section 6, Part 2, rule 3.1.9.1 requires a minimum of one flight at the beginning of each contest day and each programme by a non-competing pilot, the regulations do not contain any formal procedure for the selection of warm-up pilots to perform those flights.

This proposal puts the nomination of warm-up pilots in the hands of NAC's with the International Jury responsible for selecting the best warm-up pilots.

The addition of 1.4.1.1.f) to the glider regulations would ensure getting the best warm-up pilots that can be provided for the judges.

NP2017-24

RC



USA PROPOSAL #5

Document: Section 6 Part 1

Subject: **Removal of Gender Distinction (Power Unl)**

Proposal

All references to gender distinction (male v. female) would be removed from the Sporting Code, Section 6, Part 1. That would include, but not necessarily be limited to: Unlimited team composition, Final Freestyle selection criteria, Unknown figure nominations, awards, and titles.

Background

Currently, Unlimited Power is the only category within the World and Continental Aerobatic Championships which maintains any distinction between male and female competitors. No such distinction exists within the other power categories (I, Y52 or A), or within any of the glider categories. In fact, the gliders eliminated gender from their rules almost 30 years ago at the 1987 plenary meeting. For power, Advanced, Intermediate, or the Yak 52 categories never had gender distinction.

The number of women participating in Unlimited Power has declined to the extent of often not even having sufficient numbers of female pilots for even the largest NACs to field a women's team. Instead, we have seen "mixed gender" teams more frequently. At several WACs in recent years, the "FAI Challenge Trophy" has not been awarded because of the lack of enough women's teams to present the trophy. In 2015, two of the three top-ranked teams were mixed gender.

The Data

Looking at the data table attached to this proposal note the number of women, as a percentage of the total number of competitors, there were in earlier years compared to now. Taking 1990 for example, women composed 21.5% of the total pilots (17 out of 79). Ten years later, in 2000, women pilots still made up 31% of the total pilots (15 out of 48). But starting in 2007 the number of female pilots, both in absolute terms and in percentage of total, began a rapid decline while the total number of competitors remained fairly constant. By the year 2015, the number of female competitors had declined to 12% of the total (only 7 women out of 58 total pilots).

Awarding FAI and CIVA medals to small groups of pilots cheapens the value of these prestigious awards, not to mention the considerable expense to CIVA in having double the medals in Unlimited Power compared to other categories.

The Arguments and Rationale

Those who have argued for retaining the women's classification have said that without it, the number of women would decline. They have stated we need to keep the existing rules to grow the number of women competitors. The opposite has happened and the effort has failed.

Why the number of women competing in World Aerobatic Championships has declined is unknown and open to speculation. Women today are more active in aviation and occupy positions in both civilian and military aviation than ever before in history.

In the USA, women have won the title of US National Aerobatic Champion seven (7) times in the last 25 years. Patty Wagstaff won the title three times, Diane Hakala once, and Debby Rihn-Harvey three times. We have never had gender divisions in USA rules nor has there ever been any demand for such a division from the women pilots amongst our membership.

Many women know that they are just as capable, just as competitive, and just as skilled as any male pilot in aerobatic competition. They fly the same aircraft, they are judged according to the same criteria, they fly during the same times, and they are judged by the same panel of judges. It is only when we come to the awards that they are treated differently.

The USA believes this is outdated, obsolete thinking and does not recognize the reality of the presence and abilities of women in aviation today. We do believe it is important to have programs that encourage women to enter aviation, either as a profession or as a recreational activity, but there is no justification for keeping mid-20th century rules in place that seems to imply that women are somehow less capable than men and need to be treated separately. Ultimately, it is the responsibility of each NAC to develop programs which encourage female aerobatic pilots to enter competition. Exactly how those programs are structured will likely vary from country to country, but the first step is to amend the rules so that each NAC can assure any future women competitors that their skills and hard work will be rewarded and recognized on an absolutely equal basis with the men.

Finally, it must be noted that aerobatic competition is one of the few "Olympic-level" sports which has no component which favours one gender over the other. A male pilot has no real advantage, physical or otherwise, over a female pilot. Why not let all aerobatic pilots, regardless of gender, compete on the same level with the same rewards and recognition for excellence in performance? Gliders and the other power categories have recognized this for a long time. Why should Unlimited power be singled out for this discrimination?

World Aerobatic Championships - Unlimited Power
Women's Participation Levels

Year	Host	Number of Women Competitors	Women's World Champion Overall Placing	Women's World Champion	Number of WAC Competitors – All Genders**
1986	GBR	14	14th	Nemkova	70
1988	CAN	14	9th	Maunoury	40
1990	SUI	17	15th	Sergeeva	79
1992	FRA	17	7th*	Klimovich*	74
1994	HUN	21	8th	Genin	83
1996	USA	19	4th	Kapanina	79
1998	SVK	16	3rd	Kapanina	73
2000	FRA	15	5th	Maunoury	48
2001	ESP	16	6th	Kapanina	59
2003	USA	14	2nd	Kapanina	47
2005	ESP	13	4th	Kapanina	48
2007	ESP	9	4th	Kapanina	50
2009	GBR	8	9th	Klimovich	58
2011	ITA	5	4th	Kapanina	47
2013	USA	8	12th	Lemordant	52
2015	FRA	7	6th	Lemordant	58

* Note 1: Contest incomplete. Only Known was flown.
** Note 2: Number of competitors does not include H/C pilots.