Fédération Aéronautique Internationale

CIVA Rules, Judging, and Glider Aerobatics Sub-Committee Meetings

Rules Proposals for 2016 (Power and Glider Aerobatics)

GASC Meeting to be held in
Zbraslavice, Czech Republic
14.00, 3 Aug 2015

RSC and JSC Meetings to be held in
Chateauroux, France
09.00, 19 August 2015

Version 1.1 / 24 July 2015

INTRODUCTION

The deadline for the submission of rules proposals to CIVA has now passed. Proposals were due by 1 July 2015. CIVA Delegates responded accordingly and these proposals now go to Sub-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 three 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.

"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 Sub-Committees in the following year), at the discretion of the President.

CIVA has the following Sub-Committees, elected each year at Plenary, and made up of skilled and experienced specialists. Each has five members plus a Chairman. The committees in 2015 are as follows:

- CIVA Rules Sub-Committee (RSC): Matthieu Roulet, Chairman (FRA)
- CIVA Judging Sub-Committee (JSC), Philippe Küchler, Chairman (SWI)
- CIVA Catalogue Sub-Committee (CSC), Alan Cassidy, Chairman (GBR)
- CIVA Glider Aerobatics Sub-Committee (GASC), Manfred Echter, Chairman (GER)

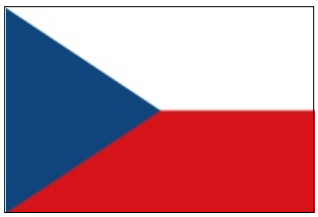
Comments on the enclosed rules proposals are welcome. After holding their meetings in the summer of 2015, the Sub-Committees will issue their recommendations to the Plenary meeting of CIVA. That meeting will be held in Budapest, Hungary on 23-25 October 2015.

The new version of Sporting Code, incorporating those changes, takes effect on 1 January 2016.

Matthieu Roulet
Chairman, CIVA Rules Sub-Committee

15 July 2015

RULES PROPOSAL CHECKLIST



NP2016-1

JSC

CZECH PROPOSAL #1

Document: Section 6 Part 1

Subject: **Organization and Wording of para B.9.29.1. and B.9.29.2.**

Proposal

We propose to add the last sentence from the para B.9.29.1. to the following paragraph B.9.29.2.:

> It should be noted that an aircraft has forward momentum as the aircraft decelerates through stall speed.

Further proposal is to change the words “pronounced” and “enhanced” in the following sentence:

> This appearance is more pronounced when the figure is performed downwind, and is enhanced when performed into the wind.

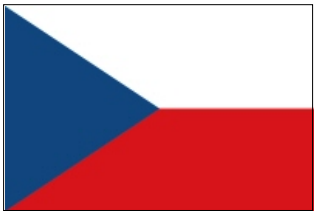
Suggested change is:

> This appearance is more visible when the figure is performed downwind, and is less visible when performed into the wind.

Rationale

The last sentence from the previous paragraph is logically connected to the following paragraph, therefore these two paragraphs should be reorganised, and the sentence in question should be moved to the second para.

Regarding the second change, for non-native speakers is can be difficult to understand this way of wording as it is not clear what the two words “pronounced” and “enhanced” mean in this particular case.



NP2016-2 **GASC**

CZECH PROPOSAL #2

Document: Section 6 Part 2

Subject: **Signalling at the beginning of a programme**

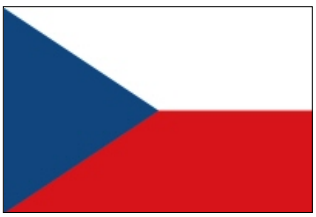
Proposal

Suggested paragraph on signalling:

> A competitor must signal at the start and finish of each programme by distinctly dipping the wing three times immediately one after another by more than 45 degrees.
>
> If the first figure in a programme begins in inverted flight first two wing dips may be in upright flight and the last wing dip must be performed in inverted flight. The competitor may change the flight attitude from normal to inverted only by a half roll prior to the last wing dip.
>
> A horizontal flight path is required at the start of the first figure.

Rationale

In part 2 there is no explanation of how to signal the beginning of the programme, especially when the first figure is in inverted flight. Part 1 includes a detailed explanation of this issue.



NP2016-3 RSC JSC

CZECH PROPOSAL #3

Document: Section 6 Part 1

Subject: **Form of para 5.2.5.1**

Proposal

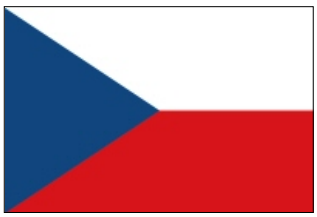
A competitor will be given penalty points, in accordance with the appropriate tariff, if he or she interrupts his or her programme by dipping three (3) times one after another:

a) in order to make a change of attitude or direction between two figures

b) in order to lose or regain height

Rationale

Include the original subparagraph a) into the introductory sentence because it is logical continuation of the sentence and continue with original subparagraphs b) and c) as reasons for interruption. Furthermore, we suggest omitting the contents in brackets because it does not matter if the directional change is more than 90°. If the competitor interrupts the programme, he or she will be penalised also in the case of directional change of less than 90°.



NP2016-4 RSC JSC

CZECH PROPOSAL #4

Document: Section 6 Part 1

Subject: **Cross-reference in para 5.2.6.1**

Proposal

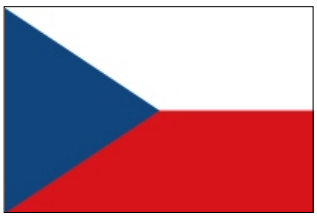
Correct the cross-reference in the mentioned paragraph:

> A penalty of 30 points (all categories) will be given for each and every figure flown outside the box or other than prescribed manoeuvres set out in Rule 4.3.1.1.

Rationale

In the new 2015 version is a mistake, the para says:

> A penalty of 30 points (all categories) will be given for each and every figure flown outside the box or other than prescribed manoeuvres set out in Rule 0.



NP2016-5 **GASC**

CZECH PROPOSAL #5

Document: Section 6 Part 2

Subject: **Removal of para 6.8.1.15**

Proposal

Remove paragraph 6.8.1.15. from Section 6, Part 2 regarding downgrades when transitioning from loop to line stating that:

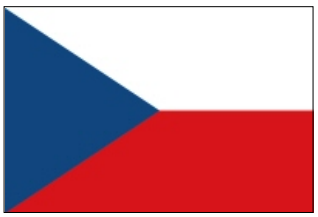
> "any visible "bump" in the transition from a loop or a part-loop onto a line must be penalized by a one (1) point deduction."

Rationale

There is a discrepancy between the above mentioned paragraph and paragraph 6.9.11.3. stating that:

> "A frequent error in hesitation loops is for the aircraft to overshoot the partial loop and then have to bring the nose back to correct the attitude. This must be downgraded by one (1) point for every five (5) degrees."

The downgrades for the same error are different; therefore the first paragraph should be removed from the Section 6, Part 2. Moreover, the paragraph in question is not mentioned in Section 6, Part 1, where this error is downgraded (para 6.9.11.4.) as stated in the paragraph 6.9.11.3 of Section 6, Part 2 (one point downgrade for every five degrees of "overshooting").



NP2016-6

JSC

CZECH PROPOSAL #6

Document: Section 6 Part 1

Subject: **Evaluation of spin forced entry in para B.9.29.3.**

Proposal

We propose to adopt similar spin forced entry as in 6.9.27.6 of SC Section 6, Part 2.

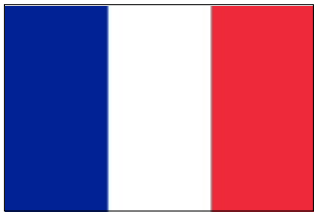
Remove para B.9.29.3

Implement new para describing flight path affected by wind:

> During spin entry and in the spin, the flight path is affected by wind. When the spin is entered with a tailwind, the flight path may suggest that the spin entry was "forced". This change in appearance is not a marking criterion.

Rationale

Para B.9.29.3. describes how to deduct points for forced entry. We believe that this is impossible to judge and obviously different A/C types behave differently. To calculate number of degrees for deduction is almost impossible due to rapidly changing attitude and curve momentum of the movement. The only mark for entering spin at high speed (not stalled) should be PZ. In fact, this is already stated in B.9.29.6. which then contradicts B.9.29.3 and makes no sense.



NP2016-7 RSC JSC

FRANCE PROPOSAL #1

Document: Section 6 Part 1

Subject: **Drawing of lots**

Proposal

For Known and Free Programmes: Maintaining full-range drawing of lots.

For Unknown Programmes: Establishing 3 equally-sized groups considering ranking after Programme 1 + 2, with drawing of lots within each group.

The International Jury shall decide on the order of flight between groups, depending on remaining time or any other relevant considerations.

Rationale

The Known and Free programmes are supposed to be practiced many time by competitors before the contest, under various weather conditions. Therefore it can be considered that a fully random order of flights determined by drawing of lots is fair.

However, Unknown programmes can not be considered in the same way:

- Weather conditions in international contests often change significantly during the same programme, due to the number of competitors;
- Looking at previous flights is a good valuable support for competitors in these kind of fligts.
- With current rules, two competitors of similar technical level (considering their respective rankings after previous Programmes) may be asked to fly subsequent Programmes under totally different weather conditions.

With current rules, ability to display technical skills, hence ability to rank competitors in a fair manner, then depends too much on random variables. The proposal attempts at moving towards a “level playing field” with improved fairness – which is certainly one of the highest values of sportsmanship.

NP2016-8

GASC JSC CSC

GERMANY PROPOSAL #1

Document: Section 6 Part 2

Subject: **Super-Slow-Rolls**

Proposal

Delete Super-Slow-Rolls (Family 9.13) from the Aresti Catalogue.

Rationale

Correct timing of Super-Slows is crucial and can mean the difference between a good mark or a hard zero. Since the allowed roll-rate is only 36°/s, the time-keeper is mostly unable to recognize the begin of a super-slow accurately enough to start timing correctly. Experience shows that deviations of more than 0.5 seconds are quite common.

It is unfair towards competitors to ask them to fly figures where it is impossible to determine with any degree of certainty that the figure was flown correctly or not.

NP2016-9 RSC JSC GASC

SOUTH AFRICA PROPOSAL #1

Document: Section 6 Part 1 / Part 2

Subject: **Procedure for Free Unknown Programmes**

Proposal

a) That prior to the flight order and clipboards being issued to the judging line, Team Managers or individual competitors as appropriate, verify the correctness of the final documentation and this be recorded by the Organiser.

b) That prior to the commencement of each competition flight, the Chief Judge verifies by radio with the competitor the sequence to be flown.

This should be part of the existing radio check, e.g. from Chief Judge – "Competitor 5 radio check and confirm sequence B", Competitor – "Chief Judge read you 5 and confirm sequence B". The current Regulation with regards to Chief Judge's radio calls would need to be modified.

Rationale

The need for these proposals arose during the last WAAC held in Slovakia, when It became apparent shortly after the start of one competitors flight, that he was not flying the sequence contained on the judge's clipboards or as in the Chief Judge's flight order, this caused to put it mildly some confusion, some judges were able to recognise the actual sequence being flown fairly quickly, others only picked it up later in the sequence, some did not pick it up at all. Being an unknown programme it was not an option for the competitor to re-fly the sequence, all that could be done was for the judges to submit what they could even if not fully complete, all the judges were canvassed and asked to follow this procedure and the paperwork was collated and submitted to the Score Room/International Jury.

It was subsequently established that a simple clerical error had occurred in the Organiser's Office with the wrong sequence designation being allocated to the competitor concerned, in retrospect it is almost inevitable given the current multiple choices of sequences that this would happen one day (Murphy's Law), this just happened to be that day.

NP2016-10 JSC GASC

SOUTH AFRICA PROPOSAL #2

Document: Section 6 Part 1 / Part 2

Subject: **Procedure of handling the score sheets on the Judging Line**

Proposal

That a scanner be incorporated at the Chief Judge's workstation and that all score sheets be scanned prior to any score sheets leaving the judging line.

Rationale

During the WAAC in Slovakia a set of paperwork had gone missing after the days and was only recovered the following morning, after being found in the scoring office, as this involved the Free Unknown programme, the potential for a major disruption had been avoided. However it did highlight the possibilities of what could occur in the event of a loss of paperwork in transit from the Judging Line to the Scoring Office.

NP2016-11 JSC GASC

SOUTH AFRICA PROPOSAL #3

Document: Section 6 Part 1 / Part 2

Subject: **Chief Judge Radio Procedure**

Proposal

It is proposed that the words "and no other" be removed from the existing Regulation and a new paragraph be inserted as follows:

> The Chief Judge or his representative may address the competitor in matters concerned with safety of the competition flight as circumstances may require.

Rationale

The standard radio procedure by the Chief Judge is spelt out in Regulation 4.2.1.7. It is clearly stated that other than the standard radio check as given in Regulation 4.2.1.6. that radio calls will be limited to "Time, time, time", "Break, break, break" & "Land, land, land" in each instance the wording "and no other" is specified.

On numerous occasions at various contests it has become necessary to advise competitors of potentially dangerous situations mainly involving conflicting traffic in the performance zone. At the WAAC in Slovakia this occurred on no less than three occasions, when the starter had released aircraft prior to the previous competitor having completed their sequences. On two of these occasions it was only necessary to advise the prematurely released competitor to remain clear of the performance zone, until advised otherwise. On the third occasion it was necessary to curtail the flight of the current competitor due to two aircraft in the performance zone.

Clearly the Chief Judge has to act on these occasions in the interests of safety, but in doing so infringes the CIVA Regulations.

NP2016-12

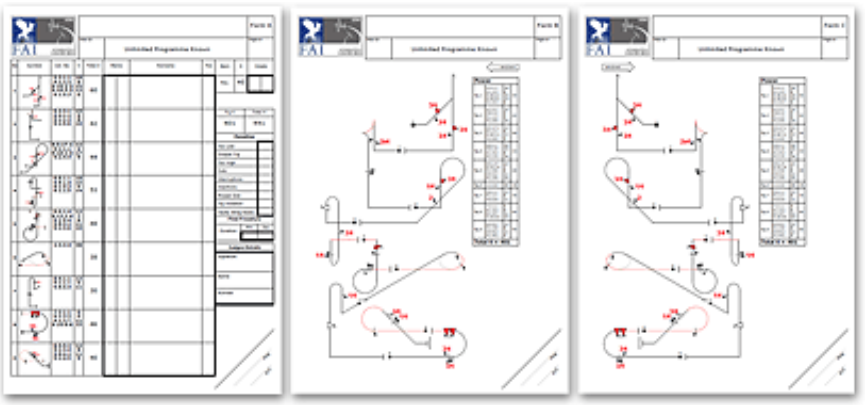
JSC GASC

UK PROPOSAL #1

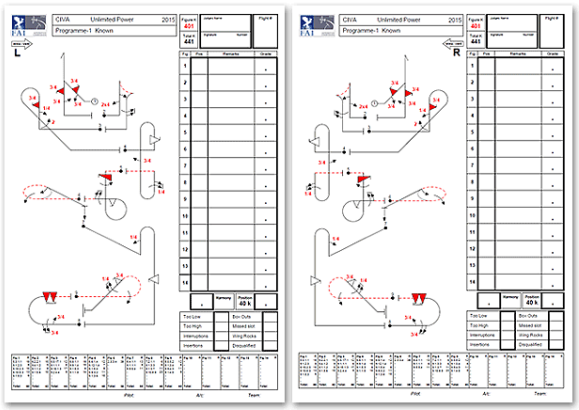
Document: Section 6 Part 1 / Part 2

Subject: **Adoption of alternative "Left" and "Right" scoring forms**

Proposal



The traditional CIVA design of A, B and C judging forms have been developed over many years, and are accepted in every regime of the sport. When there is no separate writer available in a judging team however the caller is responsible for recording the judges' marks and comments during the flight and form-A must be used, even though it is not ideal for calling as it has no wind information and the figure images may be laterally reversed, and also the image details are very small. In these situations many caller/writers have instead found that using the B or the C form as a note-pad to record the judges output and subsequently transferring the marks and comments to the A form is a better solution, though this entails working with two separate pages each time.



The new-style Left and Right forms are designed to meet this situation. The sequence diagrams are the same size as the traditional B + C forms and all of the combined A, B + C information is provided on just two sheets. This layout is ideally suited to the combined calling/writing duty and makes it simpler for the caller to swiftly note the grades and comments directly on the appropriate sequence diagram next to each figure; the marks and if necessary the comments can quickly be copied / expanded into the appropriate boxes immediately following the flight. Pilots have also commented that having the downgrade annotations next to the relevant figures makes for simpler and more direct interpretation of the judges views.

These new style Left and Right forms have been available as an option from the OpenAero software package throughout 2015, and have been successfully used at domestic events in many countries. In some circumstances the design can lead to fewer printed sheets being required, but this is a minor benefit of secondary importance.

The UK proposes that these new Left and Right forms are authorised by CIVA for use as alternatives to the traditional A/B/C type, so that either style of form may optionally be used. It will be simple to add references to accommodate this change in Section-6.

NP2016-13 JSC GASC

UK PROPOSAL #2

Document: Section 6 Part 1 / Part 2

Subject: **Downgrades to lines between rolls and half-loops**

Proposal

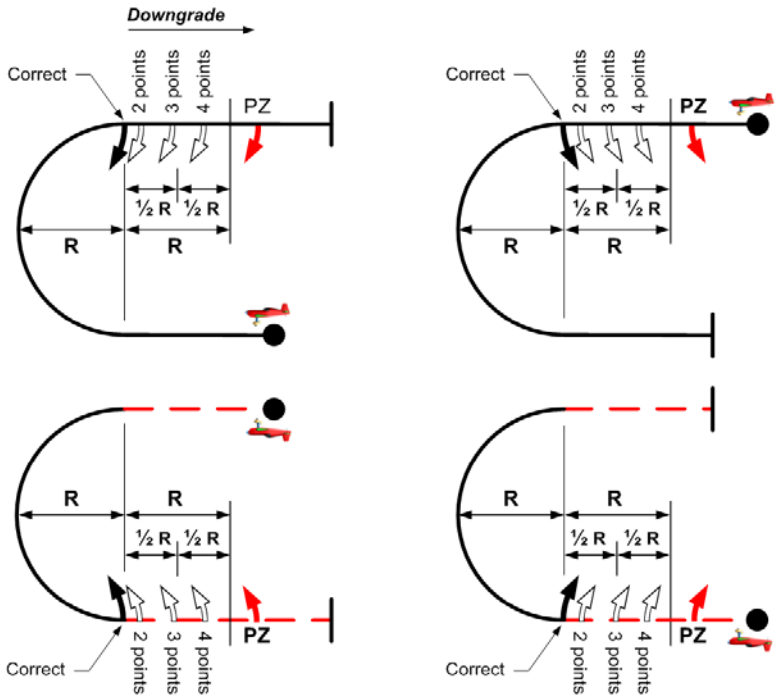
The proposal aims to improve and clarify the directions in Section-6 regarding the downgrades appropriate for lines observed between half-loops and rolls (or rolls and half-loops), avoiding the objections that have been voiced in response to previous proposals.

When a roll or rolls immediately precede or follow a half-loop but the pilot draws a visible line between the two parts, judges are required by B.9.8.2/3 to downgrade the figure by *at least* 2 points. This is illogically different to the usual graduated 'small-medium-large' approach to determining downgrade errors that most would consider more natural.

Sometimes this line becomes excessively long however, and at some stage judges are entitled to consider that the roll has become disconnected from the main figure and should award a Hard Zero on the basis that the wrong figure has been flown. The undefined length of line at which this drastic action should be taken instead of applying a downgrade can only be an opinion, and if the judges are not unanimous the mix of grades cannot subsequently be resolved by reviewing the video as it is not possible to interpret the length of the unwanted line as a 'factual' error.

This situation can be easily resolved by revising the applicable downgrade from the current single instruction "at least two (2) points" to follow the more usual graduated approach, thus:

- Two (2) points for a short but visible line
- Three (3) points for a more obvious line of length up to half the looping radius
- Four (4) points for a longer line with length up to the full looping radius
- Finally, where the length of line exceeds the radius of the looping element, a perception zero (PZ) should be awarded because the judges' perception will be that the rolling element has become logically separated from the base figure and the whole figure should receive a zero grade. In this case the FairPlay System will test the PZ on the usual statistical basis, and may replace it with an average grade (AV) if it is rejected.



The solution also avoids the potential for imposition of an additional ‘Insertion’ penalty for the separated roll, which is inappropriate in this situation.

Judges will find this improved approach simple to apply. It resolves the ambiguity of the current instruction and will also avoid the unnecessary conflict that Chief Judges experience when called upon to “tie-break” major differences of opinion between experienced panel judges.

NP2016-14 RSC JSC GASC

UK PROPOSAL #3

Document: Section 6 Part 1 / Part 2

Subject: **Composition of judging panels**

Proposal

According to Section-6 para 2.1.2.1, a minimum of seven and a maximum of ten judges must be selected for CIVA championships, except for Yak-52 (and presumably Intermediate) events where the maximum is seven. This paragraph also states:

> A maximum of two judges per NAC may be appointed when a full panel is supported by CIVA and the organiser (10 for Unlimited and Advanced; 7 for Yak-52/Intermediate; 10 for Glider Championships). If less than the maximum is supported, then a maximum of one judge per NAC may be appointed.

However, it is reasonable to expect that some nations can typically provide two or more highly experienced judges of good standing. In this case the rigid prevention of more than one judge per NAC until the panel reaches ten members works only to our disadvantage, as it encourages CIVA to select potentially less qualified 8th and 9th judges because the appointee must be from a country not thus far represented on the panel.

Detailed analysis by the FPS sub-committee using many years of recorded data has previously shown that there is no detectable basis for the assumption that employing two judges from the same NAC should lead to unresolvable bias in favour of or against any country's pilots.

The UK therefore proposes that para 2.1.2.1 should be revised as follows:

2.1.2.1 At World and Continental Championships, judges will be invited to apply for selection, irrespective of their nationality, based on their previous RI performance data as recorded in the CIVA Judges Performance Database (JPD). New judge applications for those without International RI performance data can be made by NACs or individuals, but must be accompanied by current RI data produced by the FPS scoring system at a National Competition (not necessarily in their own country). These applications must be made by the deadline published by ~~the President of~~ CIVA in the year in which the Championships are to be held.

2.1.2.2 Judges are subsequently selected in accordance with procedures established by CIVA. The selection process includes a ranking of judges by the RIs in the JPD from past Championships. A minimum of seven and a maximum of ten judges can be selected for power and glider unlimited and advanced category championships; for Yak 52 and intermediate the maximum shall be seven judges. A maximum of two judges per NAC may be appointed when the panel exceeds seven members, otherwise the nations represented shall be all different.

2.1.2.3 The contest organiser shall provide accommodation, food and local transport to them and their assistants, with no entry fees, when a full panel is supported by CIVA and the organiser. If the organisers bid supports less than the maximum then judges and assistants not included in the minimum panel selected by CIVA may individually or through their NAC offer to self-fund, in which case organisers shall accept them at a preferential rate determined to cover only the same accommodation, food and transportation costs as those for the judges selected for the minimum panel.

2.1.2.4 Final selection will be ratified by the Bureau of CIVA.

These changes will enable CIVA to enjoy fuller / improved quality judging panels at many events, and make possible alternative funding solutions for individual judges where appropriate. There would appear to be no down-side to the above arrangement.

NP2016-15

RSC

UK PROPOSAL #4

Document: Section 6 Part 1

Subject: **Competitor eligibility at Intermediate category championships**

Proposal

We have in Section-6 part 1 at 1.2.4.3.a a sensible protocol that prevents competitors who have already gained 60% or more of the maximum possible marks across the sequences they flew in the last Unlimited contest from competing at Advanced events.

The UK believes that the same protocol should be applied to Intermediate events to prevent pilots who have successfully competed at Advanced and even Unlimited championships from eligibility at this lower category, which must strive to remain unaffected by more experienced competitors who may seek to win medals below their natural level of experience.

The UK thus proposes an additional paragraph as follows –

1.2.4.3.b Pilots who have flown in an Advanced or Unlimited World or Continental Championship for powered aircraft, during the year of an Intermediate contest or in the preceding five years, will only be eligible to fly in the Intermediate contest if they gained less than 60% of the maximum possible marks across the sequences they flew in the last Advanced or Unlimited contest.

NP2016-16 RSC JSC GASC

UK PROPOSAL #5

Document: Section 6 Part 1 / Part 2

Subject: **Judge's Performance Evaluation**

Proposal

The proposal is to revise the section-6 wording at para 6.4 as follows:

6.4 Judges' Performance Evaluation

6.4.1.1 Judges evaluation by flight programme will be conducted by the International Jury using the software programme approved by CIVA (see Section C.8). The Chief Judge will receive in print format a complete analysis of all Judges from the International Jury after each programme is completed.

6.4.1.2 Individual judging analysis for each judge will be posted online following the conclusion of each programme. The Chief Judge should make himself available for discussion with individual judges to facilitate their review of this material.

6.4.1.3 Judging analysis of the whole contest including the Chief Judge's complete analysis of all judges will be made available to NACs after the competition has been completed.

Rationale

The content and effectiveness of scoring software used by CIVA to show judges how they have performed in relation to other members of the panel, by analysis of data drawn from the Fair Play System after each programme, enables the Chief Judge and all panel judges to review in considerable detail where significant differences have been detected between the judges grades and/or scores and those of other members of the panel, and thus how these instances might be better avoided in the following programmes. The detailed content and positive educational effect of the individual judge analyses is now well established.

There are two types of analyses:

1. The complete analysis of all judges, seen only by the International Jury and the Chief Judge.
2. An individual judging analysis for each judge, providing details of the other judges grades and scores for comparison where FPS has rejected some data. These are currently given to each judge following completion of each programme, ideally during a discussion with the CJ.

The wording in section-6 at 6.4.1.2 does not preclude the availability of the individual analyses to anyone besides the named judge, and clearly all of the data contained therein is in any case openly available through review of the pilots own online score-sheets. As complete details of the FPS processing of pilots grades after each programme has been openly available for some years, the UK proposes that a complementary approach should now be taken with respect to the judges output. This will foster a balanced and thoroughly open approach to the use of such analysis data as extracted from FPS.

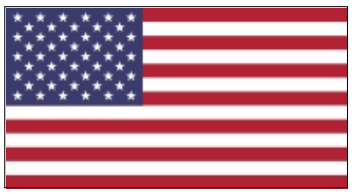
Accordingly the ACRO system now has an option to output the individual judge analyses for each programme as web pages, these being accessed via the judge names at the foot of the relevant programme results pages.

RSC Chairman note: This proposal was submitted on July 3rd, 2015 (i.e. after the deadline of July 1st), nevertheless accepted by RSC Chairman with rationale as follows:

- In informal discussions, it was pointed out that putting the individual judges analysis online after the close of each programme (a new function in the ACRO software) may not be acceptable under section 6 para. 6.4. This debate occurred right after the set deadline, therefore the late submission – coming less than two days after that deadline and before compilation of all proposals into this document – is not the result of negligence in complying with deadlines.
- In view of the bullet point here above, it is felt of being in the interest of CIVA to examine the proposal (without prejudice on its merit) in 2015 and not wait for one year.

NP2016-17

RSC GASC



USA PROPOSAL #1

Document: Section 6 Part 1 / Part 2

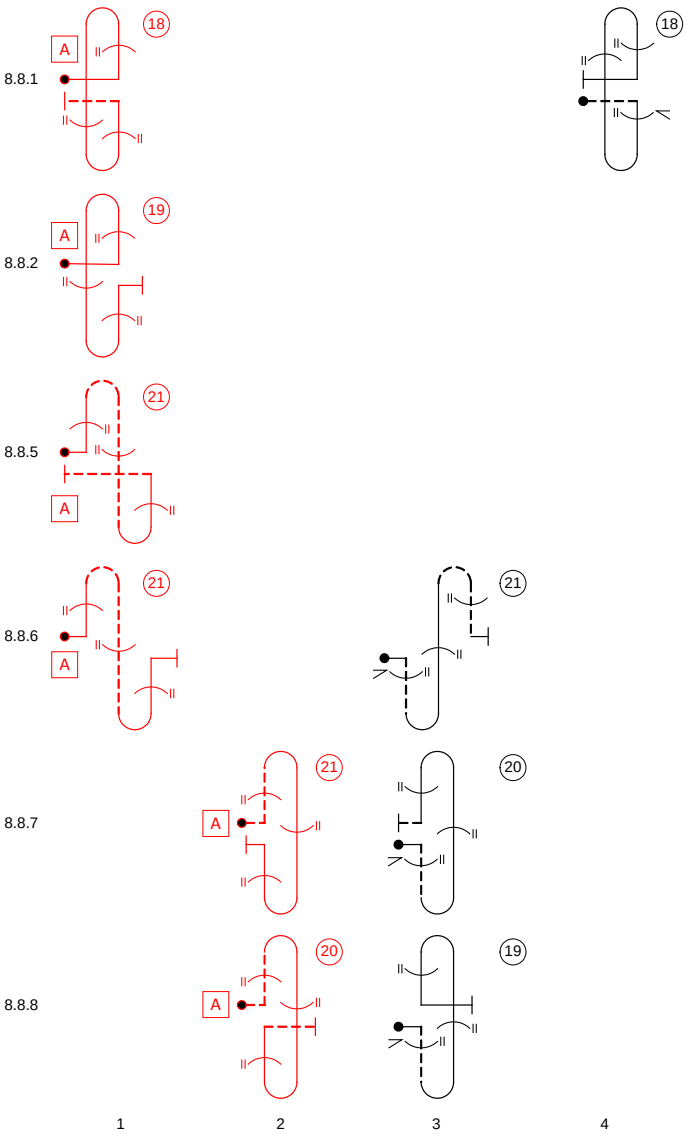
Subject: **List of Figures For Programmes 3 and 4 (Part1)**
List of Figures For Programmes 3 Through 6 (Part 2)

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, "Families 8.8.1 to 8.8.8" to Chapter 9.

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

A.18. Family 8.8.1 To 8.8.8 (Part 1)
Family 8.8.1 to 8.8.8 (Part 2, uses columns 1 and 2 only)

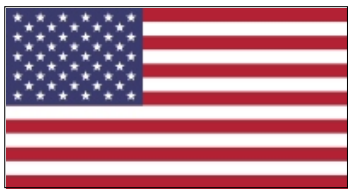


Rationale

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 3 and 4 and as Unlimited Unknown figures in Glider Programmes 3 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.

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.



NP2016-18 **RSC**

USA PROPOSAL #2

Document: Section 6 Part 1

Subject: **Publishing Free Unknowns**

Proposal

4.3.4.6. Publication and Selection of Free Unknown Programmes

a) All ~~these~~ proposed sequences received by the deadline must be checked, and corrected if necessary, by the International Jury. ~~before the start of the programme.~~

b) The International Jury shall publish all ~~the~~ sequences ~~proposed by~~ received from the NACs not later than 24 hours before the start of the programme.

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

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

Rationale

Prior to the introduction of the Free Unknown, paragraph 4.3.4.6 read as follows:

> 4.3.4.6. The Unknown Compulsory Programmes, after being approved by the Chief Delegates or their representatives, will be announced to competitors by the International Jury not less than 24 hours before the time at which each programme is to be flown.

This was quite simple and clear. It required the Jury to "announce" (this would also mean "publish" or "post" in realistic terms) the Unknown programme 24 hours before it was to be flown. This was easily understandable and in the rules that way for many years.

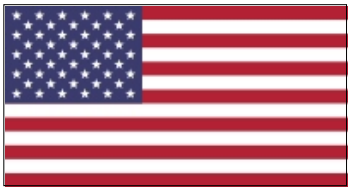
Following the use of Free Unknowns, the wording of 4.3.4.6 changed to the current:

> 4.3.4.6. Publication and Selection of Free Unknown Programmes
>
> a) All these proposed sequences must be checked by the International Jury and if necessary corrected at least 24 hours before the start of the programme.
>
> b) The International Jury shall publish all the sequences proposed by the NACs.
>
> c) At least 12 hours before the commencement of each Programme, each competitor will notify the Organiser which of the proposed sequences he/she will fly.
>
> d) At least 1 hour before the start of each Programme, the Organiser shall provide each NAC with a list of the Free Unknowns chosen by each competing pilot.

This wording makes it clear the Free Unknowns should be "corrected" 24 hours before they are to be flown. It also says the Jury shall publish all of the Free Unknowns. But it does not say anything about when the Free Unknowns must be made available (published) to the pilots. It should.

NP2016-19

RSC JSC



USA PROPOSAL #3

Document: Section 6 Part 1

Subject: **Height Limitations During Safety Maneuvers**

Proposal

4.3.1.1. (2nd paragraph)

Before the wing-dipping at the start of each competition flight in Programmes 2, 3, 4 and 5 it is recommended that all pilots perform safety manoeuvres as follows. These figures are optional but, if flown, may only be flown once, in any order unless a figure starting inverted is used (see below), and continuously on the same axis. They must be flown inside the performance zone and above the lower height limit appropriate to the category as defined by 4.2.4.1.

5.2.6.1. A penalty of 30 points (all categories) will be given for each and every figure flown outside the box or other than the prescribed manoeuvres set out in Rule 0. Penalties in accordance with 4.2.4.3. and 5.2.2. shall be levied for violating the lower height limits appropriate to the category as defined in 4.2.4.1.

Rationale

While 4.2.4.3 and 5.2.2 provide penalties for violating height limitations during a competition flight, there is no provision for assessing penalties if those limits are exceeded during the execution of the optional Safety Maneuvers outlined in 4.3.1.1. Safety of flight is no less important during those Safety Maneuvers than it is during a competition flight and violating the lower height limits should be penalized accordingly.

RSC GASC Plenary

CIVA "KNOWN FREE" WORKING GROUP PROPOSAL, 2015

Purpose
In response to proposal #1 of the Strategic Planning Group at the 2014 plenary meeting, CIVA agreed to form a working group to "consider the development and possible adoption of a single new programme format to replace the existing Known and Free programmes, to be called for example the Free Known Programme."

The Working Group is mindful that the following proposal represents a major change to the format and structure of CIVA championships, and is aware that several long established aspects of both power and glider events will be affected if this move is approved. This Working Group, the Rules and Judging sub-committees of CIVA and subsequently its plenary must therefore take care to identify and carefully review any other items that may become inadvertently affected by these changes, to avoid unintended consequences that could adversely affect the sporting nature of World and European championship aerobatic events.

Original aims
See Appendix 1

Proposal - the new 'Known Free' programme 1.

1. The existing 2015 programmes 1 (the 'Known') and 2 (the 'Free') at CIVA power and glider championships should be replaced from 2016 forwards by a single new programme 1 titled the 'Known Free', or some other suitable / agreed descriptor.
2. Sequences for this new programme will be designed by each individual competitor, and for both power and glider will combine all five (5) of the Known figures from the master set selected at the CIVA plenary each year for their category plus five (5) Free figures that each competitor must add, as described below.
3. When this change is implemented –
    a. For power - programmes 2, 3 and 4 will become a succession of Free Unknown sequences, the existing regulatory framework being adapted to provide an increasing level of difficulty as described (individual figure K limits and sequence K total).
    b. For glider - programme 2 will become an unknown compulsory sequence similar to the existing programme 3, 5 and 6 structure, programme 4 remaining as the sole Free Unknown.

The 'Known' figures
In order to achieve the above, rather than receive Known sequence proposals and request approval from plenary for one in each category, the KAWG (Known Analysis Working Group) for power and the GASC (Glider Aerobatics Sub Committee) for gliders will henceforward receive sets of five (5) figures in any category from NAC's, from which they will select at least two (2) sets of figures per category that in their view represent the best options. These sets can be either as submitted by one or more NAC's, or alternatively the KAWG / GASC will be entitled to provide a selection or amalgamation of figures drawn from sets that have been submitted by more than one NAC; in the latter case the experience of KAWG / GASC members should be directed to select figures from all NAC submissions in order to provide the best possible solutions for review by plenary. The CIVA plenary will be asked to approve one 'master' set of figures per category each year for use during the following year.

The KAWG / GASC should refer to the Free figure requirements for each category, and aim to provide at least some of the figure elements from the 'must include' sections so that competitors are encouraged to add a balanced range of additional Free figures.

The 'Free' figures
Power and glider competitors must add five (5) Free figures to the given five (5) Known figures in order to design a ten (10) figure sequence in accordance with current (2015/6) CIVA programme 2 regulations for their category, such that the entire sequence satisfies those regulations.

There should thus be little need to make structural or regulatory changes to the intentions and requirements of existing programme 2 regulations, save that they should be re-worded as necessary to adapt them within the revised programme 1 structure.

Power programme 1 revisions
The existing programme structure enables organisers to schedule the Free Unknown figure selection periods to follow the completion of programme 1, and competitors may practice any figures before and after completing their Known sequence without restriction, within the allowed 10 minutes time period. Note that according to the current regulatory structure the first Free Unknown figures are not selected at this time.

Adoption of this new Known Free system will make it necessary to schedule the first Free Unknown (programme 2) figure selection process at or much nearer to the start of the event so that there is sufficient time for competitors to design, submit and select their sequence. This will necessarily be some time before the close of programme 1, depending on the number of competitors.

There are two possible solutions to this dilemma:

1. The format of programme 1 can be revised to eliminate the existing 10 minute period within which competitors may practice any figures, and must also wing-wag and fly the complete sequence for the judges to record their marks. To provide a similar entitlement of 'practice' to the existing regulations, the range of allowable warm-up figures can be extended, and the number and/or repetition of them that each competitor is allowed can also be increased.
2. Alternatively we can accept that in reality there is little advantage to be gained by a competitor who may decide to practice one or more of the selected Free Unknown figures during the programme 1 time period. In this case the 10 minute allowance can be retained without any restrictions to the figures attempted either before or after the sequence is flown. If this solution is adopted then the initial Free Unknown figure selection process must precede the start of programme 1 so that every competitor is afforded the same opportunity to practice any of these figures.

The Free Known W/G favours option-1 over option-2, but considers that both solutions are workable.

Safety monitoring
The existing practice of monitoring each competitors flight safety and score achieved (Section-6 para 1.3.1.1.a etc.) will continue unchanged with reference to programme 1.

Glider programme 1 revisions
As the glider regulations do not permit 'free practice' within a set time period for any programme, the organisers may schedule the figures selection process for programmes 2, 3, 5 and 6 at the earliest time consistent with prudent operation of the event.

Timescale
This proposal cannot be considered for adoption by CIVA until the plenary in Budapest scheduled for 23-25 October 2015, and therefore if it is adopted there must also be available at that time from the KAWG and GASC suitable sets of Known figures for –

- Unlimited power
- Advanced power
- Intermediate / Yak-52 power
- Unlimited glider
- Advanced glider

from which plenary will be requested to select and approve one set per category.

The Known Free W/G thus proposes that, if this paper is approved for submission to the 2015 plenary, CIVA should use all relevant communication means, i.e. email and also a thorough explanatory news article on the CIVA News website, to inform NAC's of the opportunity to create and send to the KAWG –

- Known sequences in all categories as usual, for consideration in the event that this proposed programme 1 structure is not adopted, or is adopted for use from 2017.
- Sets of five (5) suitable Free Known figures in any or all of the categories listed above for handling as required.

Sequence and figure K factor limits for all programmes
In order to meet the above restructuring of programme formats, it is appropriate to make some changes to the maximum K value that will be allowed for each sequence and to the existing figure max/min K-factors for each programme within each category. The proposals for these revisions are set out in the table below:

Power categories	*P1 Seq K Known Free*	*P2 Fig K Free Unk 1*	*P3 Fig K Free Unk 2*	*P4 Fig K Free Unk 3*	*P5 4m Freestyle*
Unlimited 10 figures	Max 450	Min 22 Max 50	Min 22 No max	Min 22 No max	-
Advanced 10 figures	Max 320	Min 15 Max 30	Min 15 Max 35	Min 15 Max 40	-
Yak-52 / Int 10 figures	Max 200	Min 12 Max 20	Min 12 Max 25	Min 12 Max 30	-

Glider categories	*Prog 1 Known Free*	*Prog 2 Unknown*	*Prog 3 Unknown*	*Prog 4 Free Unk*	*Prog 5 Unknown*	*Prog 6 Unknown*
Unlimited	Max 240 *§*	Min 15 Max 40	Min 15 Max 40	Min 15 Max 40	Min 15 Max 40	Min 15 Max 40
Advanced	Max 185 *§*	No min Max 35	No min Max 35	No min Max 35	No min Max 35	No min Max 35

§ - Up to three (3) figures in these glider sequences may be reduced by 1k each in accordance with Section-6 part 2 para 4.3.3.1.b in order to meet the max sequence K allowances.

Appendix 1
SPG Working Group proposal #1 to CIVA plenary 2014

The SPG proposes that CIVA should consider combining the more interesting aspects of these two programmes into a single new "Free Known" programme, the new process being for example:

- Nations would be requested to submit up to 5 figures to a Sequence Working Group, probably by three months before the plenary. These unrestricted figures should be appropriate for the relevant category, as are those in the Known programmes at present.
- The WG would recommend some – perhaps three – of the submitted figure sets to plenary for the eventual selection of one set.
- Pilots will add five figures of their own choice to the selected set of five to compose a ten figure sequence in accordance with new rules that would be based upon those existing for Free sequence design.
- The maximum-K for each category (to be decided) would be around 450-460 for Unlimited, 300-320 for Advanced and 180-200K for Y52/Intermediate.

Such a new "Free Known" format could achieve a number of valuable goals:

- It would replace the existing Known and Free programmes with a mildly tougher but more interesting test of sequence design and piloting skill.
- It would lead to swifter commencement of the Free Unknown sessions, generally thought to provide the best test of piloting skills en-route to the declaration of champions.
- It would reduce the likelihood of an event not reaching the point at which a championship result could be declared, for example due to poor weather, with one less sequence to fly before the Free Unknowns would start.
- It would provide the 'front end' to a better designed series of aerobatic flying skill tests that would lead to more worthy champions being declared.
- It would provide a broader-based, more varied and thus more interesting test of judging skills, leading to less likelihood of judge staleness and fatigue in long sessions and thus better consistency in judging standards.
- To maintain a 4-sequence championship format, there would need to be up to three Free Unknown programmes - surely a greater test of piloting skills and mental capability.

Aspects that would require particular attention:

1. With the figure selection briefings for Free Unknowns necessarily one programme ahead of their commencement, the programme-2 Free Unknown figure selection briefing would have to be combined into the initial contest briefing.
2. As the first Free Unknown programme figures would thus be selected prior to the start of this new style Free Known sequence, it would be necessary that this opening programme be revised to exclude free practice time before and after the sequence is flown. The format thus becomes similar to a ‘Known’ in the original style, with normal warm-up figures only.
3. The pressure on the registration and scoring offices is essentially unchanged, as the Free Known sequences – which would very likely all be different – must like the existing Free programme sequences be received, approved, entered into the scoring system and adequate sets of judging paperwork created before flying can commence.

NHB
CIVA Free Known Working Group 2015

RSC Chairman Note: This report requires action by the RSC and GASC in 2015. Following reviews, a final version will be referred to plenary for a vote on introduction of the new structure in 2016.

KNOWN PROPOSALS FOR 2016 -- GLIDERS

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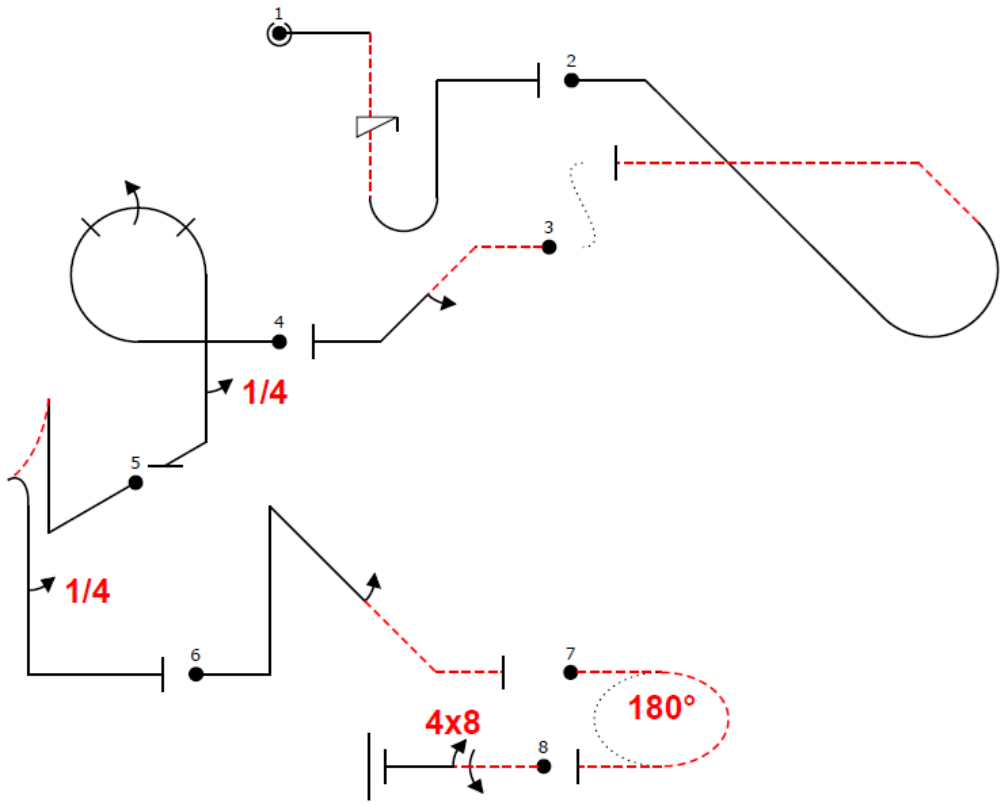
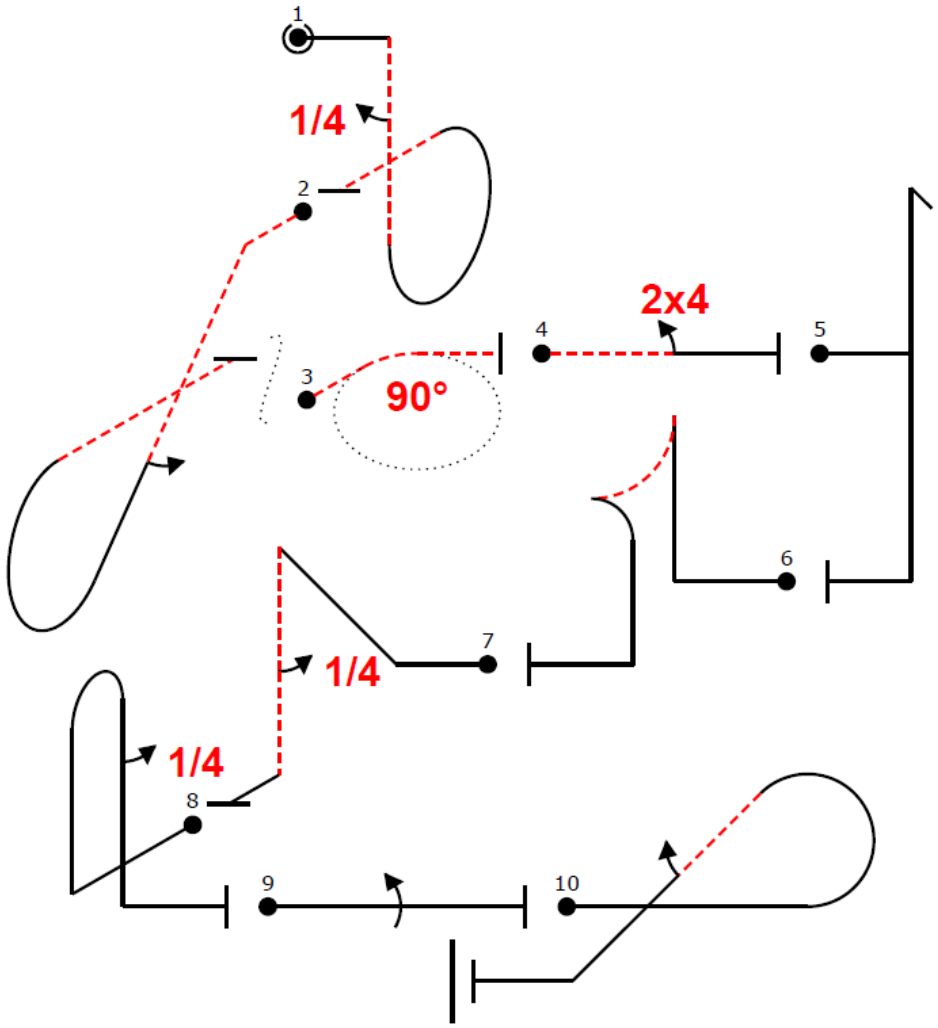
Pilot ID	CIVA Glider Advanced Known	Flight #



Glider			
Fig 1	8.4.3.3 9.11.1.4	15 5	20
Fig 2	8.4.17.3	11	11
Fig 3	1.1.3.4 9.1.4.2	7 6	13
Fig 4	8.6.5.1 9.1.3.4 9.1.5.1	11 12 3	26
Fig 5	6.2.2.1 9.1.5.1	17 3	20
Fig 6	1.2.8.1 9.1.4.2	16 6	22
Fig 7	2.2.1.2	5	5
Fig 8	1.1.1.4 9.1.3.4 9.8.3.2	2 12 11	25
Total K = 142 (max K = 145)			

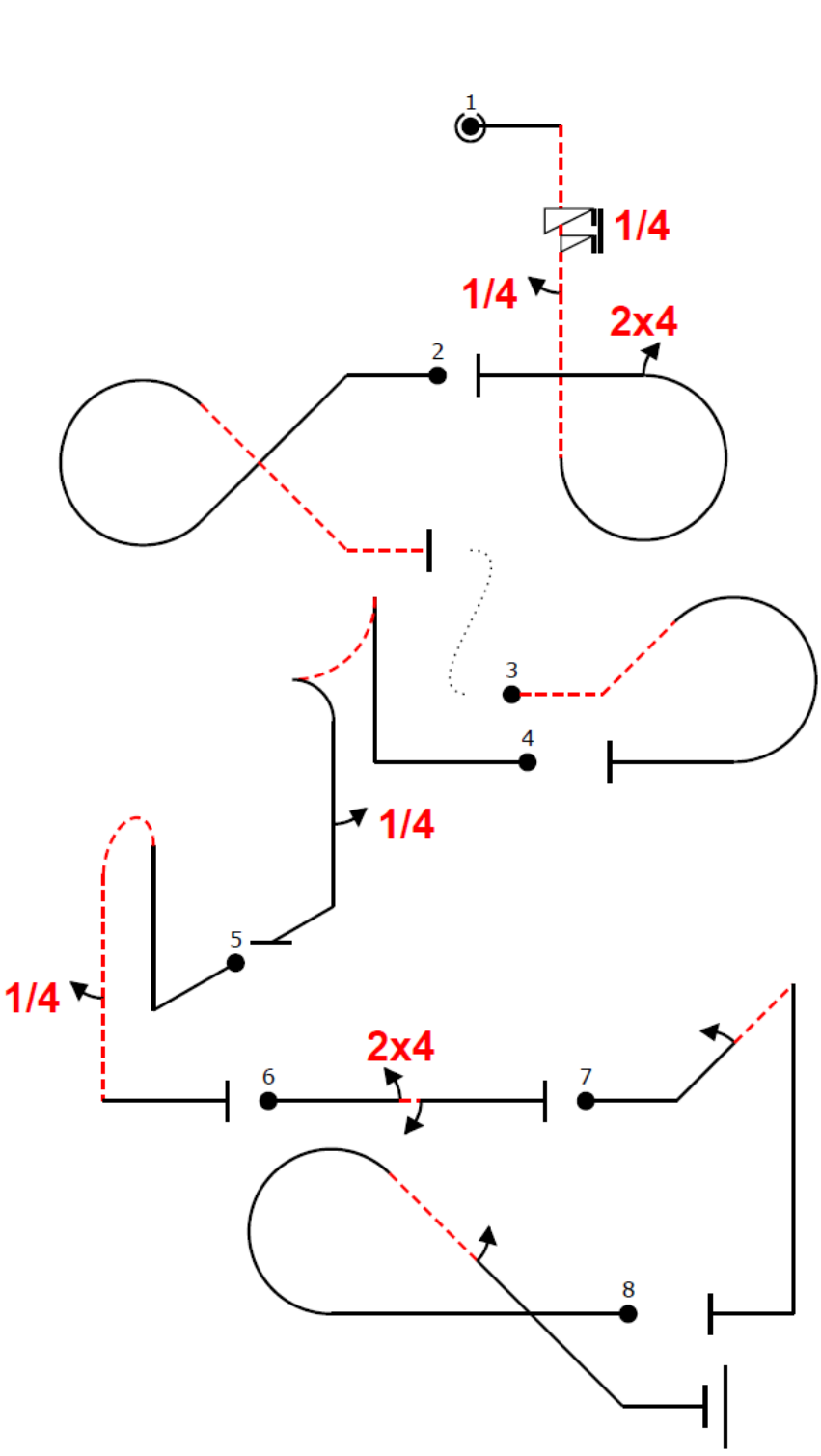
FAI AEROBATICS COMMISSION CIVA	**ADV PROPOSAL "B"**	Form B
	Pilot ID / CIVA Glider Advanced Known / Flight #	

wind/vent



Glider			
Fig 1	8.6.3.3 9.1.5.1	13 3	16
Fig 2	8.5.2.4 9.1.4.2	11 6	17
Fig 3	2.1.1.2	4	4
Fig 4	1.1.1.4 9.4.3.2	2 8	10
Fig 5	5.2.1.1	17	17
Fig 6	6.2.2.1	17	17
Fig 7	1.2.1.1 9.1.5.1	13 3	16
Fig 8	8.4.1.1 9.1.5.1	13 3	16
Fig 9	1.1.1.1 9.1.3.4	2 12	14
Fig 10	8.5.6.1 9.1.4.2	10 6	16
Total K = 143 (max K = 145)			

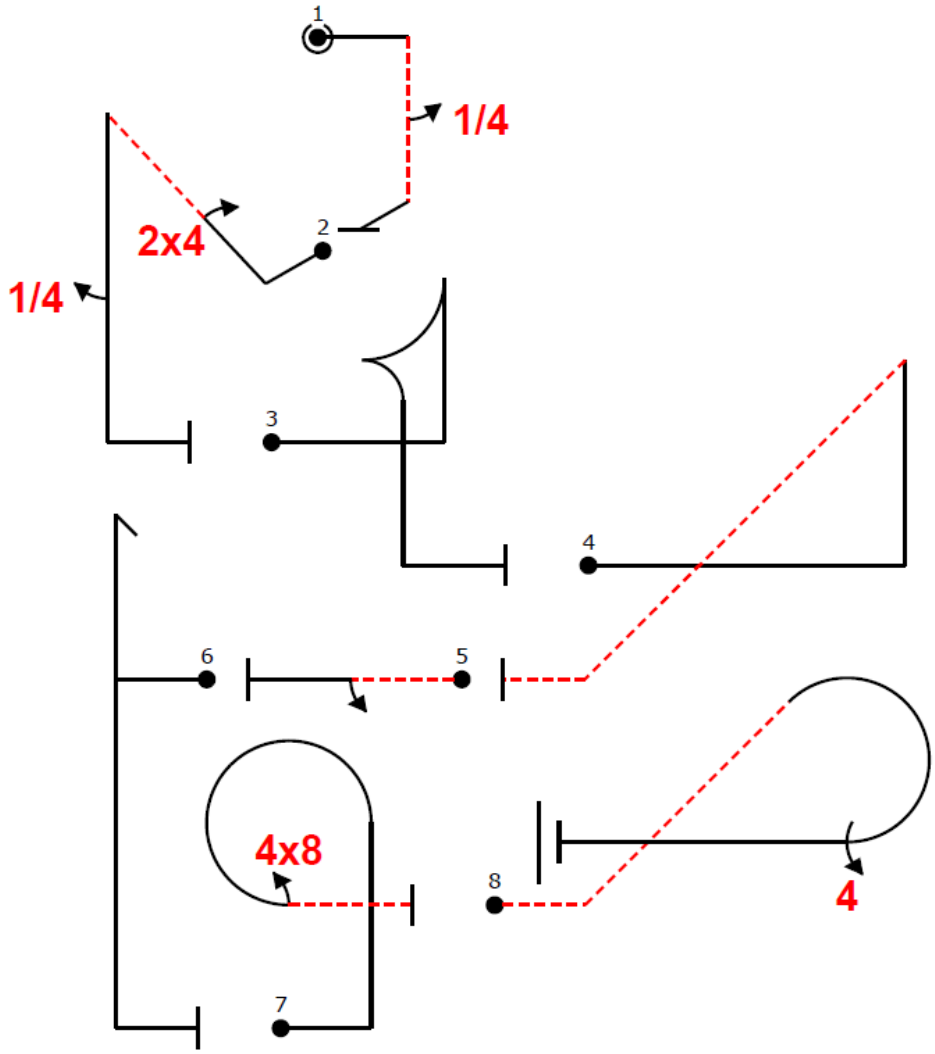
FAI AEROBATICS COMMISSION CIVA	**ADV PROPOSAL "C"**	Form B
Pilot ID	CIVA Glider Advanced Known	Flight #



Glider			
Fig 1	8.6.4.3 9.11.1.5 9.1.5.1 9.4.3.2	13 6 3 8	30
Fig 2	7.3.1.3	14	14
Fig 3	8.5.1.2	10	10
Fig 4	6.2.2.1 9.1.5.1	17 3	20
Fig 5	8.4.3.1 9.1.5.1	15 3	18
Fig 6	1.1.1.1 9.4.3.2 9.1.3.2	2 8 6	16
Fig 7	1.2.3.1 9.1.2.2	12 9	21
Fig 8	8.5.6.1 9.1.4.2	10 6	16
Total K = 145 (max K = 145)			

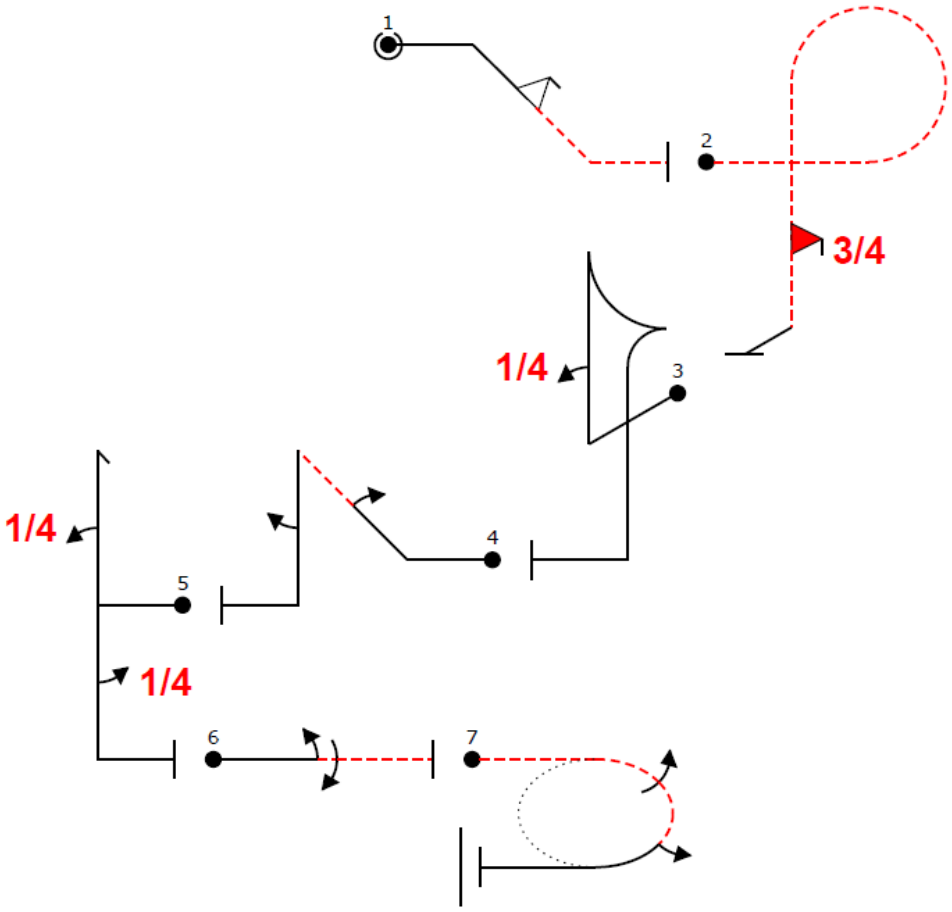
FAI AEROBATICS COMMISSION CIVA	**ADV PROPOSAL "D"**	Form B
Pilot ID	CIVA Glider Advanced Known	Flight #

wind/vent



Glider			
Fig 1	1.1.6.3 9.1.5.1	10 3	13
Fig 2	1.2.3.1 9.4.2.2 9.1.5.1	12 11 3	26
Fig 3	6.2.1.1	17	17
Fig 4	1.2.5.1	14	14
Fig 5	1.1.1.4 9.1.3.2	2 6	8
Fig 6	5.2.1.1	17	17
Fig 7	8.6.2.1 9.8.3.2	12 11	23
Fig 8	8.5.1.2 9.4.3.4	10 17	27
Total K = 145 (max K = 145)			

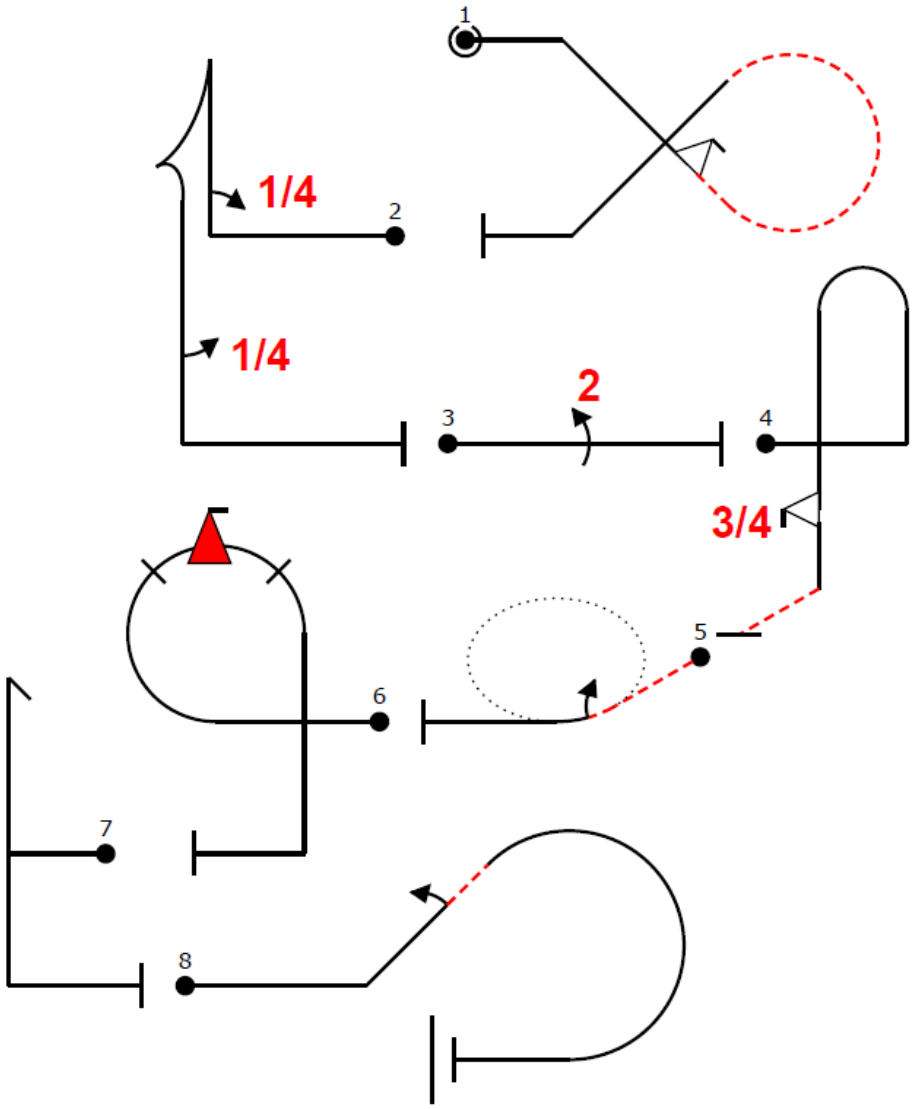
FAI AEROBATICS COMMISSION CIVA	**UNL PROPOSAL "A"**	Form B
Pilot ID	CIVA Glider Unlimited Known	Flight #



Glider			
Fig 1	1.1.3.3 9.9.4.2	8 12	20
Fig 2	8.6.6.2 9.10.5.3	15 17	32
Fig 3	6.2.1.1 9.1.1.1	17 9	26
Fig 4	1.2.3.1 9.1.2.2 9.1.5.2	12 9 6	27
Fig 5	5.2.1.1 9.1.1.1 9.1.5.1	17 9 3	29
Fig 6	1.1.1.3 9.1.3.2 9.1.3.4	2 6 12	20
Fig 7	2.2.3.4	35	35
Total K = 189 (max K = 190)			

FAI AEROBATICS COMMISSION CIVA	**UNL PROPOSAL "B"**	Form B
	Pilot ID:	Flight #
	CIVA Glider Unlimited Known	

wind/vent



Glider			
Fig 1	7.3.2.3 9.9.4.2	17 12	29
Fig 2	6.2.1.1 9.1.1.1 9.1.5.1	17 9 3	29
Fig 3	1.1.1.1 9.2.3.4	2 14	16
Fig 4	8.4.2.1 9.9.5.3	14 14	28
Fig 5	2.1.2.2	19	19
Fig 6	8.6.5.1 9.10.8.4	11 22	33
Fig 7	5.2.1.1	17	17
Fig 8	8.5.2.1 9.1.2.2	10 9	19
Total K = 190 (max K = 190)			