German Proposals to CIVA 2004

Glider Aerobatics

Proposal 1 Future Format of World/European Championships:

Some time ago, the Polish delegate circulated a proposal to shorten international glider aerobatic championships to seven days overall and five programmes maximum.

In principle, it is a good idea to reduce the time for an international championship, but the reduction as proposed by Poland is considered going too far. We should not only look at the expenses for the organisers of a championship, but rather keep in mind that we are organising championships for the sake of the participating pilots.

Looking at it from the point of view of a competitor, the time spent at the championship itself is the least part of the overall time invested in preparing for and participating in a championship.
Should the Polish proposal be adopted, the average competitor must fear that if he makes a serious mistake in one of the initial three programmes, he has invested all the time and money for just three flights. This would make international championships largely unattractive for most pilots.

Actually, the saving in terms of time for the individual competitor is not really significant:
To travel to the contest site with a glider, to get established, checked in and to make a familiarisation flight will take at least two days. To pack up after the contest and travel home, you need two more days. Add this to 7 contest days, you still need at least 11 calendar days for a championship. In practise, the average competitor will still need two full weeks of vacation.

On the other hand, if we calculate on the basis of two weeks, we could make available 9 days for the contest itself if we adopted the following schedule:
– Travel to the contest site on a weekend;
– Familiarisation flights and check-in Sunday through Wednesday;
– Opening ceremony and opening briefing Wednesday evening;
– Start of contest flying Thursday morning;
– Last contest flight Friday noon of the following week;
– Closing ceremony and farewell party Friday evening;
– Travel home over weekend.

Opening and closing ceremonies must not take up time which can be better used for contest flying. This is also an additional insurance against weather risks.

In addition to deleting the official familiarisation flights, as proposed by Poland, we propose to delete also the Known Compulsory and the final Free Programme.

The current championship format puts too much emphasis on programmes which can be practised to perfection in advance and which do not pose a real challenge for the top pilots.

The proposed format of an international championship would thus be:

Round one
1. Free Programme 1
2. Unknown 1
3. Unknown 2

Round two
4. Free Programme 2
5. Unknown 3
6. Unknown 4

Proposed Changes to CIVA Regulations, Part 2

Proposal 2 Grouping:

1.1.8.1.

a) *UNCHANGED*

b) For Programmes 4, 5 and 6 the leading 10 competitors according to the provisional overall results of the previous programmes will fly at the end of the sequence of flights in reverse order of ranking.
The sequence of flights for the remaining pilots is determined by drawing of lots in the usual manner.

c) *UNCHANGED*

Rationale:
Under the current grouping rule, group 2 practically always flies in the middle of the day with the highest risk of thermal downdrafts and strong turbulence.
This proposal allows for an attractive, media-friendly presentation of the leading group of pilots, whilst the sequence of flights for the rest would not put one particular group at a disadvantage.

Proposal 3 Figures for Unknown Programmes:

1.2.3.6. Figures shall be selected so that they can be flown safely within the operating limits of the competing gliders.
If, in the opinion of the International Jury, a proposed figure is a potential risk to flight safety, this figure should be rejected and the respective team asked to propose an alternative figure.

Rationale:
To prevent the selection of figures which could overstress the competing gliders.
It should be kept in mind that there are not only potential world champions competing in an international championship.

Proposal 4 Versatility of Free Programmes:

1.2.4.2. Free Programmes must contain at least one figure each from family 2 and families 5 through 9 of the GAF catalogue as specified in the following:

a) From family 2 (turns and rolling turns) sub-families 2.3 through 2.20, at least a rolling turn with one full roll.

b) From family 9 (rolls and spins) at least:
– 1/2 slow roll (sub-family 9.1)
– 2 successive elements of a hesitation roll (sub-families 9.2, 9.4 or 9.8)
– 1/2 positive flick roll (sub-family 9.9)
– 1/2 negative flick roll (sub-family 9.10)
– 1 full rotation upright or inverted spin (sub-families 9.11 or 9.12)
– 1/2 super-slow roll (sub-family 9.13)

Current para 1.2.4.2. becomes 1.2.4.3. Current paras 1.2.4.3 through 1.2.4.7. should be re-numbered accordingly.
Delte current chapter 2.1.5 Versatility (Free Programmes).

Rationale:
Editorial change; puts the rules on versatility where they belong.

Proposal 5 Checking of Free Programmes:

1.2.4.5

a) …conformance of Forms A, B, and C lies with the competitor.
A written record of the Free Programme check showing date, time and name of the checker shall be filed with the original Free Programme forms submitted by the competitor.

Rationale:
A written record of the Free Programme check allows the Jury to track discrepancies in case of complaints or protests.

Proposal 6 Marking of Loops or Part Loops:

Appendix 1

Page 29, Lines, last sentence:

…high-G "square corners" should be penalized by reducing the figure mark by one half (0.5) point per occurrence.

Page 31, Loops and Part Loops, second sentence:

…is not a marking criterion and high-G "square corners" should be penalized by reducing the figure mark by one half (0.5) point per occurrence.
If a stall occurs in a loop or part loop, the figure must be marked zero (0.0).

Rationale:
The current wording is ambiguous. Downgrading harmony alone is not sufficient to deter pilots from flying unnecessarily "hard".
It says nowhere what the judge has to do when he sees a stall in a loop or part-loop.

Proposal 7 Marking of Rolling Turns:

Page 33, Rolling Turns, third paragraph:

When we say that the rolls are integrated, we are saying that in addition to there being a constant rate of turn throughout the figure, there must also be a constant rate of roll and the rolls must be synchronised with the turn.

Page 34, Rolling Turns, Downgrades:

New paragraph:
3. Each visible variation of the rate of roll is a deduction of one half (0.5) point.

Re-number current paras 3. through 9.

4. Each stoppage of the rate of roll as well as the rate of turn turn is a deduction of one (1.0) point.

Rationale:
It says nowhere that the rate of roll must be constant.
Stopping the turn must also be downgraded.

Proposal 8 Marking of Tailslides:

Page 37, Tailslides, sixth paragraph:

Also watch for "cheating" on the vertical line up in the direction of the slide just prior to sliding. (Figure 23) Only in this particular phase of the tailslide a non-standard deduction…

Rationale:
To make it clear that the non-standard deduction does not apply to the entire upline of a tailslide.

Proposal 9 Marking of Half Loops with Rolls:

Page 38, Half Loops with Rolls, second paragraph, second sentence:

When the judge sees a line between roll and part-loop, it should be downgraded by two (2.0) points.

Third paragraph, second sentence:

Again, drawing a line requires a downgrade of two (2.0) points.

Rationale:
This should end the perennial debate on how a line between loop and roll should be downgraded.

Proposal 10 Marking of Flick Rolls:

Page 44, Positive Flick Rolls, second paragraph:

Add the following sentences:
Another important clue is rate of roll: In most gliders it is considerably faster when flicked than by ailerons.

Fifth paragraph:

Delete the second sentence. Insert after the current third sentence:
…proper execution of a flick roll. When a glider does not stall, it will follow a corkscrew-shaped flightpath, similar to a high-G barrel roll.

Rationale:
To make judges aware of the characteristic behaviour of gliders in flick rolls.

Proposal 11 Marking of Spins:

Page 45, Spins, second paragraph:

Insert after the second sentence:
In a correct spin entry, the nose of the glider drops and autorotation starts simultaneously around the longitudinal and vertical axes. If autorotation around the vertical axis is visibly delayed in relation to the roll around the longitudinal axis, entry airspeed was too high, the glider was "flicked" into the spin and the figure must be marked zero (0).

Delete the current fourth paragraph.

Rationale:
Editorial change. The current fourth paragraph was left standing alone when crossover spins were deleted.

Proposal 12 Marking of Positioning:

Page 46, Positioning:

Replace second and following paragraphs.
Positioning refers to the placement of the figures in relation to the X and Y axes of the performance zone. Additionally, positioning relates to the placement of each figure at its optimum distance from the judges, taking into account the height of the glider and the nature of the figure being flown. Lastly, positioning also refers to the symmetrical placement of the entire sequence in relation to the lateral (Y) axis of the performance zone.

Optimal Placement of Figures

Accurate flying is best assessed when the judge's sightline is neither too high nor too low above the horizon. On the other hand, a glider continuously loses height whilst flying an aerobatic sequence. In practise this means for the pilot, in order to place his figures optimally that he should not fly too close to the forward edge of the performance zone whilst high up and not too far away from the judges towards the end of the sequence at lower altitude.
This must also consider the character of the figure flown. For example:
– A loop or a 45 degree line cannot be judged accurately when flown too close to the judges.
– A rolling turn at low altitude, flown away from the judges is much harder to assess than flown towards the judges.
If a figure is flown in a position where it is difficult to judge, it is justified to deduct one half to one point (0.5 - 1.0) from the positioning mark for each occurrence.

Sequence Symmetry

A sequence should be flown so that it is symmetrically placed in relation to the lateral (Y) axis of the performance zone. Particularly under wind influence, the pilot must try to balance his sequence so it remains centered on the lateral axis.
In a typical 10-figure sequence, the ideal placement would be 5 figures each to the left and right of the center. If the balance is disturbed, one point (1.0) should be deducted per unbalanced figure.
For instance: Of a total of ten figures, 3 are placed on one side of center and 7 on the other, this would be 2 mis-positioned figures and a deduction of two (2.0) points.

Rationale:
CIVA Regs, Parts 1 and 3, (Unlimited and Advanced, power) contain valuable additional guidance on judging of positioning. Those parts which are applicable to gliders were adopted accordingly.

Proposal 13 Marking of Harmony:

Page 46, Harmony:

New chapter:

(See CIVA Regulations, Part 2, chapter 2.1.6)

The harmony of a glider programme is judged on the following criteria:

- Energy management
- Appropriate and even rhythm
- Figure separation
- Figure spacing
- Directional Control

The basic idea behind the harmony mark is to measure the quality of those aspects of a glider sequence which are not covered by the marks for the individual figures nor the positioning mark.

Excessively hard, high-G manoeuvring in a glider programme is poor energy management and violates the principle of harmony. If a pilot flies unnecessarily hard pull-ups or shows excessively long vertical and/or 45 degree lines throughout his sequence, the harmony mark should be reduced by two (2.0) points.

The entry airspeed for the next figure should be established upon exiting the previous figure (CIVA Regs, Part 2, para 2.1.6.1.). If a glider pilot must use the lines between figures to gain or dissipate speed, this indicates poor energy management and must be reflected in a reduced harmony mark. An angle of the entry and/or exit lines of a figure greater than +0/-10 degrees relative to the horizon is a deduction of one half (0.5) point per occurrence. Varying the flightpath angle within an entry/exit line is also a one half (0.5) point deduction per occurrence.

There will be no downgrade on harmony if the competitor is forced to gain or dissipate speed between figures due to unharmonious construction of a compulsory programme (CIVA Regs, Part 2, para 2.1.6.1).

Another important factor of harmony is an appropriate and even rhythm throughout a glider programme. The competitor should fly his figures with clear separation and even spacing. The lines between figures must have a constant flightpath angle and should be of even length, taking into account varying speeds. Omitting the lines lowers the harmony mark by one half (0.5) point per occurrence. The same applies to unduly long horizontal lines or flying lines of greatly varying length, as long as this is not necessary to compensate for strong winds (CIVA Regs, Part 2, para 2.1.6.1).

A programme interruption must result in a reduction of the harmony mark by two (2.0) points.
If the judge is overruled on a programme interruption, his harmony mark will nevertheless not be adjusted afterwards.

Good directional control is paramount for harmony. If there is a directional deviation greater than 45 degrees in a figure or coming out of a figure and the competitor must correct his alignment in the horizontal plane, the harmony mark should be reduced by one (1.0) point per occurrence. When this correction is done in the vertical plane, even if the figure is zeroed for directional deviation, it will not influence the harmony mark.

A Hard Zero, given for an entire figure flown in the wrong direction, reduces the harmony mark by one (1.0) point. If the judge is overruled on this HZ, the harmony mark must not be adjusted afterwards.

Hard Zeroes given for any other reasons (omitted figures, wrong figures, figures started behind the judges, etc.) have no influence on the harmony mark.

Rationale:
There was widespread agreement at the 2003 WGAC that the rules on marking of harmony need to be more specific. This change is intended to give more logical and easily understandable guidance. Since marking of harmony is always a matter of perception, it is not justified to adjust the harmony mark afterwards for any overruled Hard Zeroes.

CIVA Glider Known Programme 2005 | FORM B

German Proposal

wind/vent

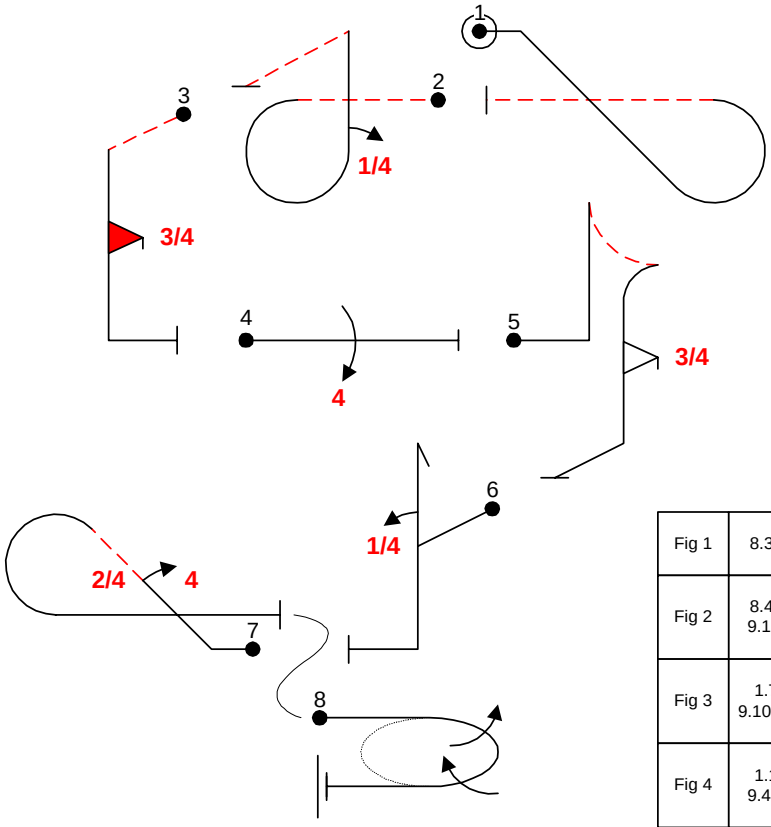

Fig 1	8.31.3	10	10
Fig 2	8.43.4 9.1.1.1	12 9	21
Fig 3	1.7.4 9.10.10.3	9 17	26
Fig 4	1.1.1 9.4.3.4	2 17	19
Fig 5	6.2.1 9.9.5.3	15 14	29
Fig 6	5.1.1 9.1.1.1	17 9	26
Fig 7	8.32.1 9.4.2.2	10 11	21
Fig 8	2.11.3	34	34
Figure K = 186			

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Pilot:

A/C