

AGENDA ITEM 9.2

CIVA GLIDER AEROBATICS SUB-COMMITTEE REPORT

Recommendations for Rules Changes for 2008 (Gliders)



Jerzy Makula
Vice President, Glider Aerobatics

A GASC meeting was held at the site of the WGAC 2007 at Niederöblarn, Austria on 15 and 19 August 2007.

Present: Jerzy Makula (Chairman), Mady Delcroix (France), Ewald Roithner (Austria), Premysl Vavra (Czech Republic), Dick Happs (Great Britain), Manfred Echter (Germany), Bela Guraly (Hungary), Erik Houtman (Netherlands - 19 August only), Helmut Stas (Poland), Georgiy Kaminskiy (Russia), Philippe Küchler (Switzerland).

Also present (19 August only): Michael R. Heuer, CIVA President.

Absent: Carlo Marchetti (Italy), Marti Kalko (USA), Pekka Havbrandt (Sweden), Matti Mecklin (Finland), Karl Berger (Austria).

The following decisions were made:

1. Proposed rule changes for 2008.
2. Proposed Glider Known Programme for 2008 (see Agenda Item #10 package).

On 19 August, the GASC discussed the challenges presented by the inclusion of glider aerobatics in the WAG 2009.

The meeting agreed to install a working group under the leadership of Premysl Vavra, which should draft a set of rules for the glider aerobatics event.

The draft rules for glider aerobatics at the WAG 2009 are also attached to this report.

CIVA is asked to approve the proposed rule changes and the proposed glider known programme for 2008, as well as the rules for the glider aerobatics event at the WAG 2009.



Recommendations for Changes to Sporting Code 6, Part 2

1. Harmony and Positioning K Factors **Paragraph 4.3.5**

Change K factors for Harmony from now 30 to 10 for Programmes 1, 2, 4 and 5 and to 20 for Programmes 3 and 6.

Change K factors for Positioning from now 10 (Compulsory Programmes) and 20 (Free) to 15 for all Programmes (Compulsory and Free).

2. Pilot Qualification for World Championships

Delete sub-paragraph 1.2.4.1.g)

3. On-Board Video Cameras

Add a new paragraph 4.2.1.3:

"Video cameras may be mounted in/on competition aircraft at the discretion of the pilot."

Recommendations for Amendment of the Aresti System, Glider Version

Tailslides

The value of the turn around in a tailslide [Aresti System (power), Part II, Method of Evaluation, Page 17, Family 6] should be increased to the corresponding values for stall turns (Page 17, Family 5).

With this change, the K-factors for tailslides in glider aerobatics will become the same as the K-factors of the corresponding stall turns.

Proposed Glider Known Programme 2008

The GASC proposes to accept the programme originally submitted by Germany.



World Air Games 2009 Glider Aerobatics Event

Draft Rules

1. Format

1.1 Programmes

The event comprises 3 programmes.

- The Precision Programme
- The Free Programme
- The Artistic Programme.

1.2 Flights

Each competitor is allowed to fly up to six times on site.

- One familiarisation flight
- Two practice flights
- Three competition flights

2. Judges

The board of Judges consists of a Chief Judge and 4 International Judges.

2.1 Chief Judge

The Chief Judge will be selected and appointed by CIVA.

The Chief Judge is responsible for the accurate and fair judging of competition flights. He places his expertise at the disposal of the Board of Judges, coordinates and guides their work.

The Chief Judge shall give marks like any of the other Judges.

He records penalties and transmits the raw marks to the scoring system.

The Chief Judge will be supported in his tasks by a qualified assistant.

2.2 Judges

The Judges will mark the quality of individual figures and manoeuvres in accordance with Sporting Code 6, Part 2, chapter 6.

They will mark the quality of Programme 3 on the basis of specific WAG criteria.

The judges record infringements of the lower height limit and the disqualification height as well as infringements of the display line in accordance with WAG rules.

Each Judge will be assisted by one person who enters the marks into the scoring equipment (laptop/PDA etc.) and keeps a written scoresheet for later reference.



2.3 Jury

The Jury at the WAG will be nominated by FAI.
Specific rules for the WAG Jury are to be issued by FAI.

2.4 Line Judges

Infringements of the display line will be recorded by two Display Line Judges.

2.5 Position of Judges

The Chief Judge selects the positions for the Judges in coordination with the WAG Event Manager. Optimally, the Judges should be placed opposite the center of the display line, approximately 200m from the display line.

2.6 Public Voting

The audience may be invited to vote by any means provided by the WAG organisers.
The ranking by public vote will be kept separate from the official ranking.

3. Competition Flight Rules

3.1 Briefings

3.1.1 Opening Briefing

A briefing will be held prior to the start of flying by the Contest Director, the Flight Director and the Chief Judge.

This briefing will cover local flying procedures, the performance zone, position of judges, contest programmes and any questions arising over the interpretation of contest rules.

3.1.2 Daily Briefing

Before the beginning of each flying day, a briefing will be held for the competitors, the Judges and the International Jury on the following subjects:

- Weather forecast and winds aloft
- Safety rules and flight limitations (release height, minimum height, display line)
- Flight order
- Music procedures
- Emergency procedures

3.1.3 Judges' Briefing

The Chief Judge will hold a briefing for the International Judges and the Display Line Judges. This must cover:

- Judging rules (Marking criteria, range of scores, handling of data and other items deemed necessary)
- Duties of Display Line Judges
- Emergencies

3.2 Performance Zone



All flights will be conducted behind a display line which is marked on the ground to indicate the minimum safety distance from the spectators.

The center of the display line which is also the end point of the Y-axis of the performance zone will be marked. The judges should be positioned opposite the center of the display line.

A competitor violating the display line will be disqualified if the two Display Line Judges and the Board of Judges are unanimous on the violation.

3.3 Height Limits

3.3.1 Release height is 1000m above the minimum height for competition flights.

Minimum height for competition flights will normally be 100m AGL as long as the terrain or obstacles under the performance zone do not mandate a higher height limit. Competitors violating the minimum height will be given 100 penalty points for each occurrence. Penalization depends on majority vote of the Board of Judges.

3.3.2 Disqualification height is 50m AGL.

Competitors flying below this height during a competition flight will be disqualified if the Board of Judges is unanimous on the violation.

3.3.3 Minimum heights do not apply after finish of programmes. Low passes are allowable with prior permission by the Flight Director and briefing by the Chief Judge.

3.4 Towing and Release Procedures

Competitors will be towed so as to be at the release height 1km before reaching the performance zone.

Before release, the tow will fly parallel to the display line into the prevailing wind at a lateral distance of no more than 1km to the display line. Competitors will release on their own on the first approach to the performance zone.

3.5 Signalling Start and Finish of Programme

The competitors must signal the start and finish of each programme by distinctly dipping the wing towards the judges three times.

If the signal is omitted or done so that the judges cannot see it, a penalty of 50 points is given for each occurrence

3.6 Music Procedures

Each competitor must provide a CD with the music recorded EXACTLY the way it will be played during the flight of Programme 3.



For Programme 3 the competitor will be able to hear the music in the cockpit transmitted on a special frequency from the ground. This system will also be used to transmit pilot's commands to the sound operator for starting the music.

After a radio check on the music frequency, music will be started on the word "GO" from the pilot.

Procedure: "Music READY.....Music GO"

4. Contest Programmes

A total of three Programmes will be flown:

4.1 Programme 1 The Precision Programme

This is an Unknown Programme to test pilots' skills in classical glider aerobatics.

- Maximum figure K = 200; minimum 185.
- The competitors select one figure each from the list of unknown figures in Sporting Code 6, Part 2 (chapter 9). Sporting Code procedures apply for selection of figures.
- The Jury/Chief Judge choose at least 6 figures from the figures selected by competitors to compose the programme and may add one starting and/or one closing figure to make a total of 8 figures.

4.2 Programme 2 The Free Programme

Competitors are free to compose their programme without any limitations on number of figures, mandatory figures/families or maximum figure K.

- Minimum figure K = 230
- No repetition of catalogue numbers allowed without exceptions.

4.3 Programme 3 The Artistic Programme

This is a freestyle programme with accompanying music and mandatory use of smoke. Main emphasis should be on optimum public appeal with no limits on pilot originality and creativity.

5. Evaluation of Performance

5.1 K-Factors

5.1.1 Programme 1

- Figure K-factors in accordance with Aresti catalogue
- Harmony K = 10
- Positioning K = 15

5.1.2 Programme 2

- Figure K-factors in accordance with Aresti catalogue
- Harmony K = 20
- Positioning K = 15
- Creativity K = 20



5.1.3 Programme 3

5.1.3.1 Technical Merit: Total K = 120

- Complexity and difficulty of figures/manoeuvres K = 40
- Precision of execution K = 40
- Variety of figures/manoeuvres/flight paths K = 40

5.1.3.2 Artistic Quality: Total K = 120

- Harmony of presentation K = 40
- Synchronisation with music K = 80

5.1.3.3 Positioning: Total K = 60

- Symmetry K = 30
- Optimal placement of figures/manoeuvres K = 30

5.2 Marking

Judges award marks from 0.0 to 10 in the usual manner.
Marking criteria for the various programmes are described below.

5.2.1 Programmes 1 and 2

- Figures, Harmony and Positioning marked i.a.w. Sporting Code, Part 2, chapter 6.
- Creativity:
Is the Free Programme composed in such a way that it presents the figures optimally for the Judges and the audience?
Does the programme show originality in the selection of figures and a maximum variety of manoeuvres at different speeds and attitudes?
Does the sequence of figures make optimum use of the available energy?

5.2.2 Programme 3

5.2.2.1 Technical Merit

- Complexity and difficulty of figures:
Does the competitor show figures which are difficult to perform?
Are there complex combinations of manoeuvres which favourably present the capabilities of pilot and aircraft?
- Precision of execution:
Is the pilot always in full control of his glider or is control occasionally relinquished?
Are individual figures and manoeuvres flown with the precision one should expect from a top quality pilot?
- Variety of figures/manoeuvres and flight paths:
Does the pilot show a sufficient variety of figures/manoeuvres or does he repeat certain figures?



Is the pilot using the full flight envelope and the available energy or does he limit his display to mostly level or shallow diving/climbing manoeuvres?

5.2.2.2 Artistic Quality:

– Harmony of presentation:

Is the display flown smoothly and elegantly without any breaks or pauses?

Are exit and entry speeds of figures/manoeuvres matched or is the pilot forced to gain or lose speed between figures/manoeuvres?

Are changes of flight path or attitude done within figures/manoeuvres or did the pilot fly unnecessary direction changes between figures?

Was it necessary to recover to the correct flight path after a failed figure/manoeuvre?

– Synchronisation with music:

How does the character of the music fit the style and impression of the flown sequence?

Is there a recognisable relationship between pace and rhythm of the music and the dynamics of the flying display or is the music simply a background?

5.2.2.3 Positioning:

– Symmetry:

Is the sequence centered on the Judges' position?

Is the sequence well balanced left and right of the Judges' line of sight?

Does the pilot correct for wind influence on the balance of his sequence?

– Optimal Placement of Figures/manoeuvres:

Were any figures/manoeuvres flown too far away or too close to the display line whilst still high up?

Were any figures/manoeuvres flown on a flight path which made it difficult for the Judges and spectators to determine what was actually going on?

6. Scoring

Judges' marks are entered directly via laptop/PDA. A written scoresheet is produced as proof and for later reference. The Chief Judge adds any penalties and transmits Judges' data to the scoring system.

Competitors' scores and provisional ranking are displayed immediately after each flight on the public displays.

6.1 Score Computation

Either raw scores or FPS may be used.

Competitor's final score is the sum of points achieved in the three programmes.