

AGENDA ITEM 14.4

REPORT OF THE GLIDER AEROBATICS SUB-COMMITTEE

Jerzy Makula, Chairman



The Glider Subcommittee met on Thursday, 28 July 2011 in Torun, Poland.

The following proposals are submitted to the CIVA plenary for approval:

Proposed Rule Changes as agreed by the GASC on 28 July 2011

Change paras 1.3.1.1 and 1.3.1.2

1.3.1.1 Programmes

- a) Programme 1: The Known Compulsory Programme
- b) Programme 2: **The Free Programme**
- c) Programme 3: **The 1st Unknown Compulsory Programme**
- d) Programme 4: **The Free Unknown Programme**
- e) Programme 5: **The 2nd Unknown Compulsory Programme**
- f) Programme 6: **The 3rd Unknown Compulsory Programme**

1.3.1.2 Champions

World Champions will be:

- a) **World Champion in the Known Compulsory Programme:**
The competitor who gains the highest number of points in Programme 1.
- b) **World Champion in the Free Programme:**
The competitor who gains the highest number of points in **Programme 2**.
- c) **World Champion in the Unknown Compulsory Programmes:**
The competitor who gains the highest aggregate number of points in **Programmes 3 through 6**.

Change para 4.1.7.2:

"Familiarisation flights are subject to the same safety regulations and minimum heights as contest flights, and will be conducted according to **a starting list produced by the organiser.**"

Change para 4.2.2.2 c) last sentences:

"If the contest is significantly delayed due to unfavourable weather and there is a serious risk that **the minimum number of programmes (3)** may not be completed in time, the limit for **the headwind** in the performance zone may be **raised to 12 m/s without exceeding a crosswind component of 7 m/s** subject to the following provisions:

i) Unanimous decision by the International Jury

ii) Agreement of the Contest Director and the Chief Judge

This decision is to be taken independently for each class (Advanced and Unlimited).

Change para 4.3.1.1:

4.3.1.1 The Championship consists of the following six programmes:

- g) Known Programme (Programme 1)
- h) Free Programme (Programme 2)**
- i) Unknown Compulsory 1 (Programme 3)**
- j) Free Unknown Programme (Programme 4)**
- k) Unknown Compulsory 2 (Programme 5)**
- l) Unknown Compulsory 3 (Programme 6)**

Re-number current section 4.3.4 to **4.3.3**

4.3.3 Free Programme (Programme 2)

Change new para. 4.3.3.5:

4.3.3.5 Sequence Submission

- a) Not later than at the opening briefing of the contest, each competitor must submit a computer file for the programme to the Contest Director for verification of compliance with the relevant rules. The file must contain completed pages for the three Forms described below. **The file format should be PDF. Hard copies or hand drawings will not be accepted.** If any pilot has not submitted their Free Programme by the opening briefing, they will not be allowed to take part in Programme **2**.

Change new para 4.3.3.7:

4.3.3.7 Publication and Changes

- a) After completion of the examination of the Free Programmes by the Contest Officials, all Free Programmes will be made available to all participants. **In order to ensure that the sequence drawings given to the judges are identical to those submitted by the competitors, only copies of the judges' Forms B or C must be published.** Protests can be made up to 6 hours after these Free Programmes become available.

New section 4.3.4:

4.3.4 Compulsory and Free Unknown Programmes (Programmes 3 through 6)

- 4.3.4.1 For Programmes 3 through 6 figures will be chosen from Section 9. Seven (7) figures will be selected for each Programme. A representative of every NAC which has a pilot (or pilots) competing may submit one figure. The order in which teams may select figures will be determined by drawing of lots.

If there are more than 7 NACs participating, representatives will be determined by secret drawing of lots to select one figure each. If there are less than 7 NACs, their representatives will first select one figure. Then, lots will be drawn a second time in order to determine which teams will choose a second figure.

No more than one figure or element may be chosen from families 2, 5, 6, 9.9, 9.10, and 9.11/12. In Unlimited, the minimum acceptable K for each figure is 15. No figure may be selected with a K higher than 40 ("AG" 35). The same catalogue number may only be used once with the exception of continuous rolls (sub-family 9.1).

In the case of teams who select two figures, one must be a reversing figure and the sum K of the two figures must not exceed 60 ("AG" 55).

For subsequent programmes, the same catalogue number may not be chosen again, except for Family 9 (Families 5, 6 and 9 "AG" only).

- 4.3.4.2 Figures shall be selected taking into account the flight characteristics and operating limits of the competing gliders and the safety of all pilots. If the representative of a team or an individual competitor is able to show within 30 minutes from the completion of figure selection that a selected figure may exceed the operating limits of competing gliders, the International Jury will ask the team which proposed this figure either to replace or modify it. After this time (30 min.) the figure selection is considered final.
- 4.3.4.3 The list of figures in Section 9 for Programmes 3 through 6 will be approved by CIVA according to the Aresti System (Condensed) for Gliders. The operating limits of available gliders (full aerobatic certification) must be considered in compiling the list. This list should be re-approved at each CIVA meeting prior to a World Championship, if necessary.

4.3.4.4 The contest Organiser shall provide copies of the list of selected figures to all competing NACs, and each NAC may submit to the International Jury one sequence, composed of these figures, for each Programme. The contest Organiser will determine the deadline for submitting proposed sequences. Sequence proposals must contain complete pages of all three Forms A, B and C. Computer files must be submitted. The file format should be PDF.

4.3.4.5 Sequences for Programmes 3 through 6 are to be composed using all the 7 figures submitted by the NACs and a maximum of two (2) additional figures from Section 9, solely to aid in composition. These additional figures must be simple, but may contain repetitions despite rule 4.3.4.1.

Sequences must have a minimum K of 175 ("AG" 130) and a maximum of 190 ("AG" 145). This may be exceeded by 3 points to facilitate composing the sequences.

4.3.4.6 Unknown Compulsories (Programmes 3, 5 and 6)

a) The International Jury will select one of the submitted sequences for use.

b) The International Jury may alter the selected sequence, if necessary for safety reasons.

c) Chief Delegates or their representatives may object to a sequence for safety reasons only. In this case, the International Jury will modify the sequence in order to remove the objection without changing the figures selected according to rule 4.3.4.1.

d) Sequences, after having been approved by the Chief Delegates or their representatives, will be announced to competitors by the International Jury not later than 12 hours before the scheduled start of each programme.

4.3.4.7 The figures for Programme 4 (Free Unknown) are selected according to 4.3.4.1. The sum K of the figures should be between 170 and 180 ("AG" 130 to 140). Each competitor composes their own sequence for Programme 4 from these figures. No more than two linking figures may be added. The K-factor of linking figures will be set at 5K each for two figures or 10K for a single figure. Competitors will be given the list of figures no less than 24 hours before the deadline for submission of the Free Unknown programmes.

4.3.4.8 Not later than 24 hours before the scheduled start of Programme 4, the competitors must submit [a computer file containing the](#) three standard CIVA forms for their Programme 4, [as described in rule 4.3.3.5](#). The responsibility for accuracy and conformance of Forms A, B and C lies with the competitor. Any pilot who has not submitted their Programme 4 forms on time will not be allowed to take part in Programme 4.

4.3.4.9 Training for Unknown Programmes is not allowed. Competitors violating this regulation will be disqualified (see also 5.2.4.1).

Change para 5.2.4.1 to read:

5.2.4.1 Training for **Unknown Programmes** will lead to disqualification from the entire contest.

Editorial changes to Part 2 concerning the use of Height Measuring Devices (HMDs)

The introduction of yet another HMD system offers the opportunity to clarify the various paragraphs dealing with the use of HMDs.

The following changes are purely editorial and do not modify the content of any existing rules.

4.2.4.2

c) For towing procedures with Height Measuring Devices see section 10.

4.2.4.3 Height Infringements

- a) For an infringement of the upper limit of 1200 m (over datum) the competitor will incur a penalty of 70 points if the first figure is started above 1200 m or this limit is exceeded in the course of the first figure. If the upper limit is exceeded during a subsequent figure, there will be no penalty. This rule can only be applied when an HMD is used.
- b) For an infringement of the lower limit of 200 m (over datum), the competitor will incur a penalty of 70 points for each figure flown entirely or in part below this limit.
- c) For an infringement of the safety height of 100 m (over datum) the competitor will be disqualified for the current programme.

4.2.4.4 **If there is no HMD, height aiming device or electronic positioning instrument available**, infringements of the heights of 200 m and 100 m respectively (over datum) shall be determined by the Board of Judges on a simple majority. For better judgement of these heights by the Judges, a neutral aircraft pilot will carry out flights at 100 m and 200 m along the principal axis and the front and back boundaries of the performance zone (if necessary before flying starts each day).

4.2.4.6 **Height Measuring Devices (HMDs)**

- b) At present there are **three** systems approved by CIVA: the Huber height measuring device (HHMD), the Meierhofer height measuring device (MHMD) and the Poznan height measuring device (PHMD). For technical characteristics and operating procedures see section 10. The Local Regulations must state which type of HMD will be used. Whenever an HMD is used, it will be the

primary reference to verify compliance with height limits and for decisions on penalties or disqualifications due to height infringements.

5.2.1.2 (new)

- a) When an HMD is used, a penalty of 70 points is given if the first figure is started above 1200 m or this limit is exceeded in the course of the first figure. If the upper limit is exceeded during a subsequent figure, there will be no penalty. The start of a figure occurs when the aircraft departs from level flight for the first time or when a roll is started on a horizontal line.
- b) When an HMD is used, the Judges will mark all the figures regardless of the altitude and also note down any height infringements they observe. The excursions below 200m will be recorded at the Chief Judge's position and penalty points will be assessed accordingly. 70 penalty points will be given for every figure during or before which the 200m signal is received.

5.2.1.6 When infringements of the lower height limits are estimated by the judges, they will be penalised only if a simple majority has recognised the violation and duly recorded this on their marking sheets. In case the required simple majority could not rise from a vote within the Board of Judges, the Chief Judge shall have a casting vote. If an HMD is in operation, the official video should be checked to verify audible outputs from the HMD receiver. Which figures will be given penalties will be determined by the Chief Judge at the end of a flight.

10.1.1.1 There are currently three types of Height Measuring Devices approved by CIVA.

c) The Poznan Height Measuring Device (PHMD)

10.2.1.4

f) Descending below 200 m until reaching 100 m: continuous signal "beep-beep-beep" (MHMD and PHMD)

10.3.1.1 Last two sentences:

With the MHMD and PHMD discrete tolerances can be selected for each height limit. The Chief Judge decides which tolerances will be set when programming the airborne transmitters.

10.4.1.2 Last sentence:

When the MHMD **or PHMD** is in use, a **computer** should always be connected to the ground receiver in order to record the height data of all flights.

10.5.1.3 At the lower height limit, a penalty of 70 points is given for every figure flown, **during or** before which the 200 m signal is received. If in the same figure there are multiple beeps, only one penalty will be applied.

10.5.1.4 If the 100 m signal is received **during or before** a figure, the competitor will be disqualified.

Further editorial changes to remove ambiguities and contradictions

Drawing of lots:

Insert after the first sentence of para 4.1.8.2:

"If the number of competitors is not a complete multiple of three, the highest ranking group will be enlarged to include the excess pilots."

4.1.8.2 c) change the first sentence to read:

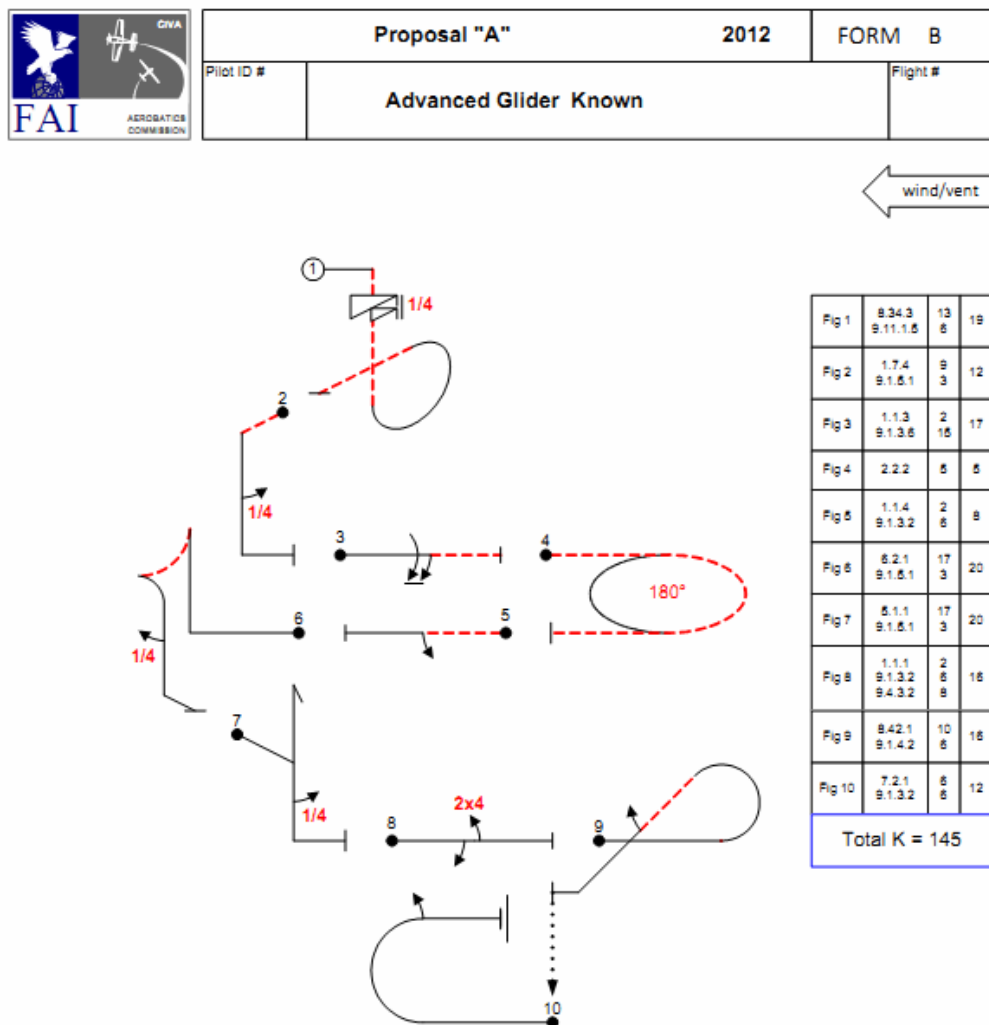
"In case of deterioration of meteorological conditions, the International Jury may authorise the Contest Director to cut the 3rd **and, if necessary, the** 2nd group in order to validate a programme already begun."

Section 9

1. Full rolls 45° up are not allowed neither in Advanced nor in Unlimited Unknown Programmes. All full roll symbols on 45° uplines should be removed.
2. Figure 1.16.1 shows an optional roll symbol on the vertical upline in red. This is not allowed in Advanced.
3. Figures 2.1.1 and 2.1.2 should be marked "A" and shown in red. They are legal for Advanced Unknowns.
4. Figure 2.3.1 is marked "A" and shown in red. This figure is allowed in Advanced Free Programmes but not in Advanced Unknowns.

Known Sequences for 2012

The GASC selected the following Known sequences for 2012:





Proposal "C"		2012	FORM B
Pilot ID #	Unlimited Glider Known		Flight #

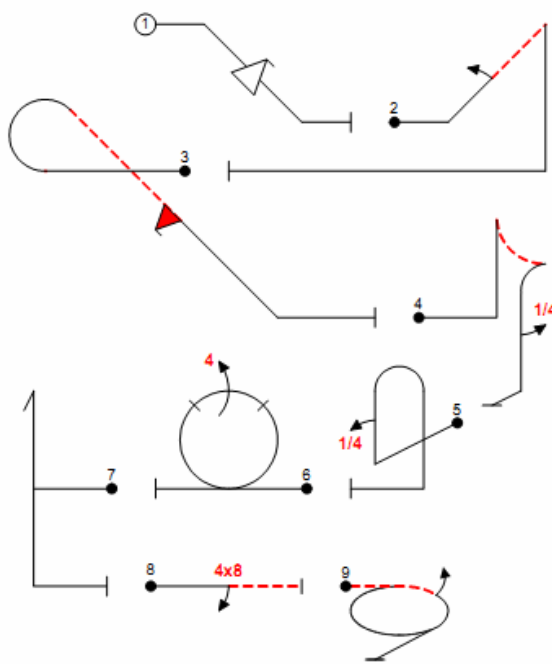
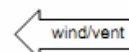


Fig 1	1.2.3 9.9.4.4	7 16	23
Fig 2	1.14.1 9.1.2.2	12 9	21
Fig 3	8.4.2.1 9.10.4.2	10 16	26
Fig 4	8.2.1 9.1.5.1	17 3	20
Fig 5	8.1.1 9.1.1.1	13 9	22
Fig 6	7.5.1 9.4.3.4	10 17	27
Fig 7	5.1.1	17	17
Fig 8	1.1.3 9.9.3.2	2 11	13
Fig 9	2.16.4	21	21
Total K = 189			