

## **AGENDA ITEM 15.1**

### **RULES & JUDGING SUB-COMMITTEE MEETING REPORT**

**Michael R. Heuer, Chairman (RSC)**

**Committee Meetings held in Dubnica nad Váhom, Slovakia  
31 August & 1 September 2012**



**In attendance:**

#### **Rules Sub-Committee (RSC):**

Michael Heuer, Chairman (USA); Alan Cassidy (GBR), Matthieu Roulet (FRA), Debby Rihn-Harvey (USA), Jürgen Leukefeld (GER).

Apologies for absence: Thore Thoresen (NOR).

#### **Judging Sub-Committee (JSC):**

John Gaillard, Chairman (RSA); Nick Buckenham (GBR), Mikhail Mamistov (RUS), L-G Arvidsson (SWE).

Apologies for absence: Graham Hill (GBR), Philippe Kuecher (SUI) - part by Skype.

The two Sub-Committees met in Dubnica just prior to the opening of the European Aerobatic Championships in Slovakia. The EAC organizers provided excellent facilities for the meeting and the meetings were well attended. Due to the large number of proposals, the meetings extended into two days.

After the deadline of **1 July 2012** for the submission of rules proposals, the meeting package was assembled by Rules Chairman Mike Heuer and posted on the CIVA website on 3 July 2012. The CIVA Rules Proposal Report is nearly 100 pages in length. It was also sent to the RSC, JSC, CSC, and GASC members.

In this report, I have summarized the actions taken by Sub-Committees on those proposals. “Urgent” proposals which were submitted by 1 October 2012 (and classified by EPs and SPs) are presented in a separate Agenda report (see Agenda 15.5). Catalogue and Glider Aerobatics Sub-Committee reports are also separate documents in the Agenda Packages.

**Those proposals submitted by Delegates which did not survive Sub-Committee are not included in this report, for the sake of brevity.**

### **NP #2013-1:**

Source: Finland #2, Switzerland #1

Document: Section 6, Part 1

Subject: Deletion of “Groups” in Determining Sequence of Flights (Flight Order)

Finland and Switzerland both proposed the elimination of the division of the rankings into three “groups” and to use a random draw to determine Order of Flight in all flight programmes in all power categories.

Sub-Committees recommend the adoption of the text included in Swiss Proposal #1.

### **NP #2013-2:**

Source: France #1, South Africa #3, United Kingdom #3, USA #5, CSC

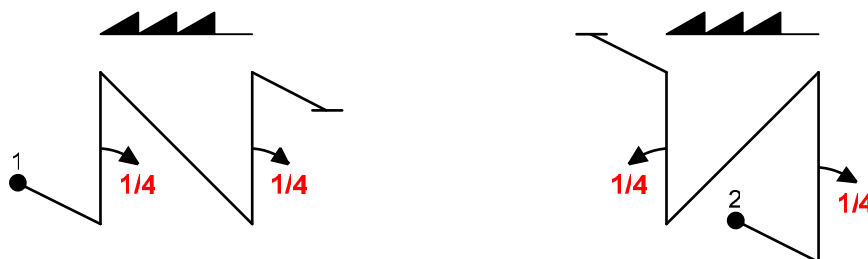
Document: Section 6, Part 1 and Aresti Catalogue

Subject: Directionality Issues on the X-Y Axes

The CIVA RSC, JSC, and Catalogue Sub-Committees considered several proposals to make the rules regarding directionality on the X and Y axes more precise and clear to everyone.

To summarize, after considering all of the proposals, Sub-Committees agreed the new rules will implement the following:

(1) For figures which enter and exit on the Y axis, but which have line segments, either straight or looping, drawn on the X axis, it is expected that pilots will fly the X axis segment of the figure in the direction as drawn on the flimsy (Form B/C) in use. Examples:



Both of these “N” figures are entered and exited on the Y axis, but in Figure 1 the 45° down line MUST be flown into the wind and in Figure 2, the 45° down line MUST be flown

downwind. Failure to fly the diagonal line as drawn will result in an HZ mark from the judges.

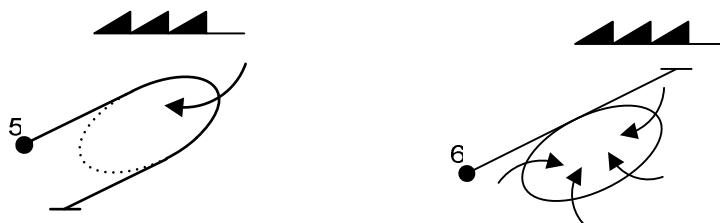
The same holds true for looping line segments. Following are two humpty bump examples:



The top half-loop of Figure 3 MUST be flown into the wind. The top half loop of Figure 4 MUST be flown downwind. Once again, failure to fly the top loop in the X direction as drawn will result in an HZ mark.

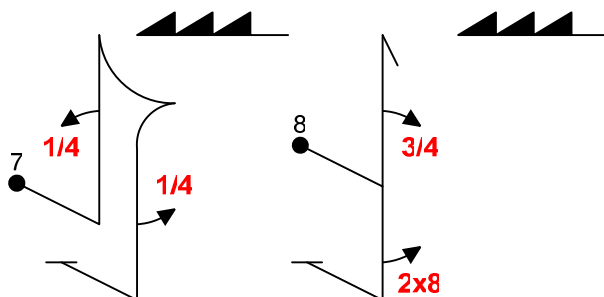
(2) Figures 1 through 4 can be used to illustrate another interpretation of the rules regarding the required direction of a Y axis exit *relative* to the Y axis entry on the same figure. In Figures 1 and 4 above, the flight direction on exit would be expected to continue unchanged relative to the entry direction, while in Figures 2 and 3, the intention is clearly to reverse the entry/exit flight directions and that's what the judges will expect to see.

(3) Please note that this statement of X axis direction clarification does NOT apply to cross-axis to cross-axis 180° and 360° turns and rolling turns. Those turns may be flown with their interior segments either into or out of wind, i.e., the direction of these interior turning segments do not have to conform to the Form-B/C drawing. For example, these 180° and 360° rolling circles ...



... may be flown starting either into wind or down wind without penalty.

Lastly, no implication of direction of movement along the main axis should be imputed from any figure from Families 5 or 6 that is flown from Y-axis to Y-axis but during which the aircraft is aligned with the main axis at the apex – see figures 7 and 8 below.



### **NP #2013-3:**

Source: France #2, South Africa #2, USA #2

Document: Section 6, Part 1

Subject: Direction after Penalized Break

Modify 4.2.2.7.b) from:

A pilot, who has taken a penalized interruption following an HZ figure ending in the wrong direction, may recommence the sequence in the correct direction in order to regain sequence continuity.

To:

After a penalized interruption, there is no obligation for the pilot to resume the sequence in a direction determined by the flight before the interruption.

### **NP #2013-4:**

Source: France #3

Document: Section 6, Part 1

Subject: Entry Fees Harmonization

France Proposal #3 is recommended with the following changes in **bold**:

- 4.1.1.1. Every National Airports Control sending a team or solo pilot or officials to World **or Continental** Championships must pay an entry fee for each member of the official team, solo competitors and officials (except judges or warm-up pilots) to the organising Aero Club.

4.1.1.4. Entry fees will be refunded if the Championships do not take place.

Note: “ ... World Aerobatic ... “ is deleted. Last sentence in the paragraph of the French proposal is deleted.

The changes to the proposal made by Sub-Committees would exempt warm-up pilots from Entry Fees for Continental Championships.

**NP #2013-5:**

Source: France #4  
Document: Section 6, Part 1  
Subject: Warm-up Pilots

Sub-Committees agreed that rules are needed to define adequate standards for warm-up pilots so they are useful to the Board of Judges.

It was agreed to form a Working Group consisting of Nick Buckenham (Chair), Matthieu Roulet, and John Gaillard to draft rules to present to plenary.

**NP #2013-6:**

Source: France #5  
Document: Section 6, Part 1  
Subject: Unknown Figures - Housekeeping

See original French Proposal #5.

Sub-Committees agreed to the proposal without change.

**NP #2013-7:**

Source: France #6  
Document: Section 6, Part 1  
Subject: *Hors Concours* (H/C) Pilots

French Proposal #6 called for the examination of the rules regarding H/C pilots. The Sub-Committees agreed to organize a Working Group to propose rules changes at plenary.

The Working Group consists of Matthieu Roulet (Chairman), Alan Cassidy, and LG Arvidsson.

**NP #2013-8:**

Source: France #7  
Document: Section 6, Part 1  
Subject: Gender Neutralization -- Housekeeping

See original French Proposal #7.

Sub-Committees agreed to the proposal without change. It was editorial or “housekeeping” in nature to gender-neutralize the text of the rules.

**NP #2013-9:**

Source: France #8  
Document: Section 6, Part 1  
Subject: General Housekeeping - Editorial

See original French Proposal #8.

Sub-Committees agreed to the proposals without change.

**NP #2013-10:**

Source: France #9

Document: Section 6, Part 1

Subject: FPS – Processing of Unknowns and Super Families

See original French Proposal #9.

Sub-Committees agreed to the proposals without change.

**NP #2013-11:**

Source: South Africa #1

Document: Section 6, Part 1

Subject: Conduct of Competition Flights (determination of official wind, etc.)

4.2.3.2. Conduct of Competition Flights

Sub-Committees changed the proposal and the paragraph to be reworded as follows:

“The official wind for all Programmes shall be determined by the International Jury.

No flight shall be required to commence within a period of 30 minutes after the official wind is determined or subsequently changed.”

The second sentence in the first paragraph of the proposal was deleted.

### **NP #2013-12:**

Source: South Africa #5 and #13  
Document: Section 6, Part 1  
Subject: YAK-52 Aircraft Restrictions

Sub-Committees agreed to change 4.6.1 to the following:

#### **4.6.1. Yak 52 Contests**

- 4.6.1.1. Aircraft must pass a technical inspection of the wing attachment units. Only those aircraft with the reinforced wing and a normal loading limit of +7/-5g will be allowed. They must be equipped with two calibrated accelerometers, one fitted in each cockpit.
- 4.6.1.2. Immediately after each competition flight, before the pilot has vacated the front cockpit, the Technical Commission shall record the maximum readings on these two accelerometers. The Technical Commission shall then ask the pilot to acknowledge these recordings and sign the form provided by the Organiser for this purpose. Should a pilot fail to comply with this procedure, then the Technical Commission shall take a digital photograph of both accelerometers before they are reset and report their findings to the International Jury.
- 4.6.1.3. The International Jury shall exclude from the current programme any pilot shown by this process to have exceeded the normal loading limit.

### **NP #2013-13:**

Source: South Africa #6  
Document: Section 6, Part 1  
Subject: YAK-52 Champion Trophy (donated by RSA)

The wording recommended:

4.5.3.1. a) – The Yak 52 World Aerobatic Champion will be awarded the Gold Medal, the Diploma of the FAI and *the Yak 52 World Aerobatic Champion Trophy donated by the Sport Aerobatic Club of South Africa.*



**NP #2013-14:**

Source: South Africa #8  
Document: Section 6, Part 1  
Subject: YAK-52 Free Programme (Prog 1) K Limit

The Free Programme K limit to be changed as follows:

4.3.3.1. Change the maximum K for Yak 52 to 200.

**NP #2013-15:**

Source: South Africa #9  
Document: Section 6, Part 1  
Subject: Awards

Sub-Committees agreed to the change in 4.5.1.1. (f) to remove the reference to the Manfred Stroessenreuther Trophy as the trophy has been lost (for WAC Programme 4).

**NP #2013-16:**

Source: South Africa #10  
Document: Section 6, Part 1  
Subject: Programme Q – the 60% Rule

The South African proposal was agreed in principle. It reads as follows (1.3.1.1.b):

“Programme Q -The Known Compulsory Programme. No pilot should continue in the Competition unless the International Jury and Board of Judges are satisfied that the pilot is capable of safely flying the remaining programmes. Any pilot disqualified under this rule will be so informed by the International Jury before the start of Programme 1. The Known Compulsory Programme will be included in the results for all Competitions.”

Note: This proposal also touches 1.3.1.1.a), 4.3.2, 4.4.1 (at least).

The RSC also amended the proposal to change **“Programme Q”** to **“Programme 1”** since the former “Q” will now count in the final results for all Championships.

**NP #2013-17:**

Source: South Africa #12

Document: Section 6, Part 1

Subject: International Jury Technical Commission and Jury Amendments

Sub-Committees amended the proposal to read (see underline/strikethroughs):

1.4.1.1.e) At Yak 52 contests the Technical Commission will report to the Jury any instances where the g-limits have been exceeded by the pilot (see 1.4.4.3), ~~once agreed this should be passed to the Contest Director~~ for the disqualification of the pilot according to 4.6.1.1.

**NP #2013-18:**

Source: South Africa #14

Document: Section 6, Part 1

Subject: YAK-52 Q/Known References

Superfluous if NP #2013-16 adopted (South Africa #10).

**NP #2013-19:**

Source: South Africa #15

Document: Section 6, Part 1

Subject: YAK-52 Q/Known References

Proposal was amended by Sub-Committee. It would now read (note amendments: underline/strikethroughs):

4.4.1.1. (...). At least two programmes are required.

Note: This proposal depends on approval of South Africa #10 and United Kingdom #1.

**NP #2013-20:**

Source: United Kingdom #1 (related to South Africa #10)  
Document: Section 6, Part 1  
Subject: “Q” Championship Scores in the Final Results

See United Kingdom Proposal #1. Sub-Committee agreed without change.

**NP #2013-21:**

Source: United Kingdom #5  
Document: Section 6, Part 1  
Subject: Interpretation of Figures Submitted for Programmes 2 and 3.

Sub-Committees amended the proposal as follows (amendment: underline/strikethrough):

~~4.3.4.4.e) Sequences must use all of the submitted figures with their catalogue references unchanged.~~

4.3.4.4.f) Figures with their entry and exit on the same axis must maintain their construction as submitted, i.e. with the exit flight path in the entry direction or with the direction of flight reversed as originally drawn.

In addition, the RSC proposes to amend 4.3.4.4., first sentence as follows (addition underlined):

4.3.4.4. Sequences for Programme 2 or 3 are to be composed using the 10 officially approved figures submitted by the Aero Clubs and (...).

### **NP #2013-22:**

Source: United Kingdom #6

Document: Section 6, Part 1

Subject: Lines Between Half Loops and Rolls; Line Length between Unlinked or Opposite Roll Elements

The RSC-amended proposal reads (amendments: underline / strikethrough):

6.8.8.2. When a half-loop is preceded by a roll or rolls, the half-loop follows immediately after the rolls without any visible line. Drawing a line requires a downgrade of two (2) points per second. Should the half-loop begin before the roll is completed, (...).

6.8.8.3: The half-loop followed by a roll is also flown with no line between the half-loop and roll. Again, drawing a line requires a downgrade of two (2) points per second.

### **NP #2013-23:**

Source: United Kingdom #7 and USA #8

Document: Section 6, Part 1

Subject: Guidance for Aerobatic Performance Zone Demonstration Flights

Details of wording to depend on whether USA Proposal #8 is approved (suppression of recording of Performance Zone boundary infringements by the Board of Judges).

UK proposal, pending that determination, is recommended.

**NP #2013-24:**

Source: USA #1  
Document: Section 6, Part 1  
Subject: Currency Requirements for Judges

Sub-Committees agreed that these proposals would be incorporated into a new “CIVA Guidelines for Selection of Judges” document to be prepared and not included in Section 6.

**NP #2013-25:**

Source: USA #3  
Document: Section 6, Part 1  
Subject: Required Form A Information for Programme 1 (Power) and Programme 3 (Glider)

Recommended by Sub-Committees without change.

**NP #2013-26:**

Source: USA #4  
Document: Section 6, Part 1  
Subject: Comparison of Internal Partial Loop Radii

The RSC/JSC agreed to the USA proposal in principle but proposes the following new wording to the CIVA plenary:

**6.7.2. Loops and Part Loops**

6.7.2.1. The loop is a figure from Family 7, but part-loops are integral to every other family so it is necessary to define some key elements before considering the other families.

- a) A loop must have, by definition, a constant radius. It starts and ends in a well-defined line which, for a complete loop, will be horizontal. For a part-loop, however, such lines may be in any other plane of flight and will be defined by the aircraft's attitude. As the speed changes during execution of a loop or part-loop, the angular velocity around the aircraft's lateral axis also has to change in order to keep the radius constant. Thus, the angular velocity can be an aid for the Judge to gauge the radius -- especially when the angular velocity in the

higher part-loop is seen to be faster, as this is a clear indication that the radius is smaller. This aid becomes more important when two part-loops are separated by a line between.

- ~~b) The part-loops of any one figure should all have the same radius, except in Family 1 figures and where indicated in Family 8. For example, a figure starts on a horizontal line, with a quarter loop next, followed by a vertical line and then another quarter loop. The quarter loop at the top of the vertical line (Family 1 figure) need not have the same size radius as the quarter loop at the bottom. However, the top radius must not be a "corner" or very sharp angle. It must have a smooth, distinct and constant radius.~~
- b) Part-loops are depicted either as round elements or as 'corner' angles. It should be noted that any 'corner' angle drawn in the pictograms, such as in Figure 12, is always to be flown as a part-loop and must have a smooth, distinct and constant radius.
- c) For any one figure having several internal part-loops depicted as round elements, all such part-loops shall have the same radius – with exception for all of Family 8.8 figures (double humpty bumps) for which the radius of the second part loop is not required to match the radius of the first one.
- d) For any one figure having one or more internal part-loops depicted as corner angles, all such part-loops may have different radii, and none of them is required to match the radius of any part-loop depicted as a round element in the same figure – with exception for all of Family 3 (combinations of lines) and Family 7.4 (whole loops) figures, which must keep a regular geometrical shape and therefore require all part-loops to have the same radius.

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Note: this will affect various parts of Chapter 6.8 ; + Glider/Part 2: to be checked

6.8.4.1 => clarification that all radii equal (no change in principle)

6.8.5.2.a) => Deleted

6.8.9.1 => Modified as per USA #4 wording

6.8.16.2 => Modified as per USA #4 wording (editorial note: diameter to be replaced by radius for consistency with all other wording)

6.8.19.1 => Modification that none of the radii need to be equal

6.8.20.1 => Modification that none of the radii need to be equal

6.8.21.1 => Modified as per USA #4 wording

6.8.22.1 => Modification that radius of corner angle need not be equal to that of round-depicted part-loops

**NP #2013-27:**

Source: USA #6

Document: Section 6, Part 1

Subject: New Unknown Figures and Text for Unknowns (Power and Gliders)

Recommended by Sub-Committee without change.

**NP #2013-28:**

Source: USA #8

Document: Section 6, Part 1

Subject: Remove Judging Panel Involvement from Performance Zone Boundary Infringements

The RSC-amended proposal reads (amendments: underline / strikethrough):

2.2. Boundary Judging

2.2.1. The use of Boundary Judges, or alternatively a CIVA-approved electronic tracking system, is mandatory except in the Final Freestyle programme (Unlimited) for which boundary judging is not applicable.

2.2.2. Boundary Judges

2.2.2.1. ~~The use of Line Judges is mandatory at World Championships if an electronic tracking device is not operated. Line Judges may only be waived at World Championships under special circumstances and with prior approval by the Bureau of CIVA.~~ When boundary judges are used, they shall be placed at each corner of the 50m buffer zone placed around the performance zone. Boundary judges should, if possible, be international. If they are operated by the organiser, a permanent supervision must be provided by the International Jury.

2.2.3. Electronic Tracking System

2.2.3.1. If an electronic tracking system is operated, the position of the aircraft will be indicated by the instrument and performance zone boundary infringements (including buffer zone according to 5.2.3.3) recorded ~~with indelible ink~~ by an official ~~one of the positioning judges (i.e. instrument observers)~~ on the positioning sheet, which will immediately be signed by an

~~International Judge~~ appointed to this end by the International Jury. The evaluation will be made in the evaluation office using a special positioning table.

### 5.2.3. Infringements of the Performance Zone

#### 5.2.3.1. Definitions

- a) When Line Judges are used, an infringement is considered to have occurred if the fuselage of the aircraft is seen by the Line Judges to have crossed the line being observed (as per 5.2.3.3), even if this occurs more than once in a single figure.
- b) If an electronic instrument is operated, an infringement is considered to have occurred if the position of the aircraft is indicated by the system as crossing the limits defined in 5.2.3.3.

5.2.3.2. ~~The performance zone for all programmes will be 1000 metres each for the main (x) and the cross-wind (y) axes. For Programmes Q, 1, 2 and 3, infringements may be recorded by a technical device or by four Line Judges. When performance zone infringements are not recorded (see 2.2.2.1), the decision to adopt this option will be published not later than the second contest bulletin.~~

5.2.3.3. For each infringement of the performance zone in Programmes Q, 1, 2 and 3 by more than 50 metres in the direction of the x-axis and/or the y-axis a pilot will be given penalty points in accordance with the table below; this applies to the operation of either the boundary judging or the electronic method (i.e. either visual observation or tracking).

Zone Infringement	Unlimited	Advanced or Yak 52
Penalty point tariff	30	20

5.2.3.4. ~~If the conventional method is used, each infringement beyond 50 metres outside the performance zone will be penalised. Thereafter, for every figure started beyond 50 metres outside the performance zone, further penalty points will be given, again in accordance with the same table below.~~



**NP #2013-29:**

Source: USA #10  
Document: Section 6, Part 1  
Subject: "International Contests"

Sub-Committee agreed to delete references in Section 6 to "International Contests" as these rules are never used.

**NP #2013-30:**

Source: USA #11  
Document: Section 6, Part 1  
Subject: Required File Format for Free Programmes

The RSC-amended proposal reads (amendments: underline / strikethrough):

4.3.3.7. Sequence Submission

a) Not later than 48 hours before the start of Programme 1, each competitor must submit a computer file for the programme, in an acceptable format, to the Contest Director for verification of compliance with the relevant Rules. Hard copies alone, or hand drawings will not be accepted. The computer file must contain completed pages for the three Forms described below. ~~Currently~~ Acceptable file formats are Microsoft Visio using Aresti software and Olan. It is the competitor's responsibility to ensure the software used has been updated to comply with the Aresti System (Condensed) and Section 6, Part 1, regulations as currently amended by CIVA. If any pilot submits their Free Programme after the 48 hour deadline, they will not be allowed to take part in Programme 1.

4.3.4.5 to be updated as well, by reference to 4.3.3.7. Similar changes to Section 6, Part 2.



**NP #2013-31:**

Source: WAGAC/WGAC 2011 Jury President Proposal #2  
Document: Section 6, Part 1 and 2  
Subject: Line Judges

While this was a proposal for GASC, it is valid for Power as well and recommended by Sub-Committee.

**NP #2013-32:**

Source: RSC #1 (discussed and agreed at RSC/JSC meeting)  
Document: Section 6  
Subject: Editorial Change

Change 4.3.3.12 as follows (amendments: underline / strikethrough):

4.3.3.12. Notwithstanding paragraph 4.3.3.8.b), the judges shall only take into account what is actually shown on the relevant Form B or Form C, depending on the ~~prevailing~~ official wind direction. (...)

**NP #2013-33:**

Source: RSC #2 (discussed and agreed at RSC/JSC meeting)  
Document: Section 6  
Subject: Waiver of Rules

There is currently wording in the rules regarding waiving the requirement for Line Judges at World Championships which is done by application to the CIVA Bureau. Sub-Committees recommend wording to establish a procedure for the waiver of any rule. Organizers would apply to the Bureau and if approved, the waived rules would be announced in the Championships Bulletins.