

AGENDA ITEM 9.1

CIVA RULES SUB-COMMITTEE REPORT

Mike Heuer, Chairman



The CIVA Rules Sub-Committee met in Jämi, Finland on 16 July 2010 just prior to the start of the WAGAC/EGAC. The meeting was held in joint session with the Judging Sub-Committee, as is customary, however, the Judging Sub-Committee met again later in the Championships because of John Gaillard's absence from the first meeting. John was in transit from South Africa to Finland and chaired the second meeting.

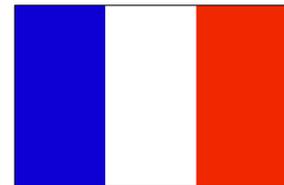
Attending the joint session were Rules Sub-Committee members Mike Heuer (Chairman), and Manfred Echter (Germany). Judging Sub-Committee members present were Bob Chomono (France), Osmo Jalovaara (Finland), Lars-Göran Arvidsson (Sweden), Nick Buckenham (Great Britain), and Philippe Küchler (Switzerland).

Absent from the meetings held in Finland (Rules and Judging) were Matthieu Roulet (France), Alan Cassidy (Great Britain), Thore Thoresen (Norway), and Debby Rihn-Harvey (USA).

Proposals recommended by both Sub-Committees are included in this report. Those which did not survive Sub-Committee deliberations are not included and are not recommended. Delegates who have questions regarding the reasons for their proposals' rejection can raise those questions at plenary. However, proposals which are not recommended will not be re-considered at plenary.

Proposals recommended are presented below in alphabetical (by country) order:

PROPOSALS OF FRANCE



A. All categories

1. Unknown figures: Consistency

Proposal

- Delete rule 9.6.1.1.
- Fig. 7.10.4 to be removed.
- Section 9 Fig. 2.1.3, 2.2.1 and 2.2.3 to be authorized also in Yak52 (while governed by rules 4.3.4.1 and 4.3.4.4) ? tbc by delegations of countries with a Yak52 community.



Rationale

Rule 9.6.1.1. is already handled through rule 4.3.4.1. Rule 4.3.4.1. now imposes a minimum K per figure of 15 (resp. 22) for unknown figures in Yak52 and Advanced (resp. Unlimited). Section 9 shall be made consistent with this rule, while still allowing simple linking figures to be added as per rule 4.3.4.4 (hence justifying keeping lower K figures in section 9).

Proposal recommended by Sub-Committees.

2. Additional roll reference in Unknown Programmes

Proposal

Add ref. 9.8.3.1 (horizontal 2x8) to the list of permitted figures for Unknown Programmes.

Rationale

Adding this ref. would increase diversity to the possible roll combinations proposed in Unknown Programmes, without any drawback such as length of line (note that 4x8 and 8x8 are already allowed).

Proposal recommended by Sub-Committees.

B. Unlimited

5. Additional roll reference in Unknown Programmes, Or Editorial

Proposal

Either delete rule 9.18.1.1, hence allow fig. 9.2.3.8 in Unlimited,

Or:

Clarify rule 9.1.3.1 by adding “(unless otherwise noted in the text)” just like in 9.1.2.1. Rule would then read as follows:

In Unlimited contests, all the Yak 52 and Advanced figures may be flown (unless otherwise noted in the text), plus (...)

Rationale

Fig. 9.2.3.8 currently not allowed in Unlimited but allowed in Advanced?

Proposal recommended by Sub-Committee to delete rule 9.18.1.1.

C. Advanced

6. Additional figure in Unknown Programmes

Proposal

Add ref. 7.5.2 (inverted loop) to the list of permitted figures for Unknown Programmes in Advanced category, with either no rotation or a single roll (9.1.3.4) on top.

Rationale

7.6.1 and 7.6.2 are already allowed. 7.5.2. with this limit on top rotation is totally within the range of all aircraft flying in advanced category, and shall be mastered by all advanced pilots as well. We see no justification for leaving it out.

Proposal recommended by Sub-Committees. To clarify the wording, the Sub-Committee understood the following:

The 7.5.2 loop will be an allowed Advanced Unknown figure with either no rolls or a 9.1.3.4 roll. The outside loop to be included with an accompanying note that says: "Only 9.1.3.4. allowed in 7.5.2."

7. Editorial

Proposal

Add in rule 9.17.1.1 to clarify:

c) 9.1.2.6 not allowed

Rationale

Fig. 9.1.2.6 currently not allowed in Advanced but allowed in Yak 52. Rule 9.1.2.1 states: *In Advanced contests, all the Yak 52 figures may be flown (unless otherwise noted in the text).*

Proposal recommended by Sub-Committees.

PROPOSALS FROM RUSSIA



2. 4.3.6.1. The organisers must allow sufficient time between programmes such that no competitor shall be required to fly Free or Freestyle programmes less than **three** hours, Unknown programmes less than six hours after landing from his/her previous flight.

Reasoning:

- it will save time at the competitions. Previously practiced programmes (Q, Free, Freestyle) take less time to get ready to fly than Unknowns.

Proposal recommended by Sub-Committees, however, with a change to the proposal to require **four** hours instead of three. See highlighted text above.

3. Make second Unknown a Free Unknown

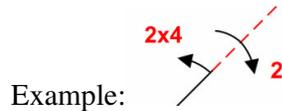
Reasoning:

the same as for the First Unknown:

- saves time to approve the Jury chosen sequence,
- no protests on the “safety” of the sequence,
- competitors can make a sequence which suits their airplanes and ability better.

Proposal recommended by Sub-Committees.

- 6.3** Allow not linked aileron rolls on the 45 degrees lines up. There can be up to 540 degrees of overall rotation with number of stops not more than 4.

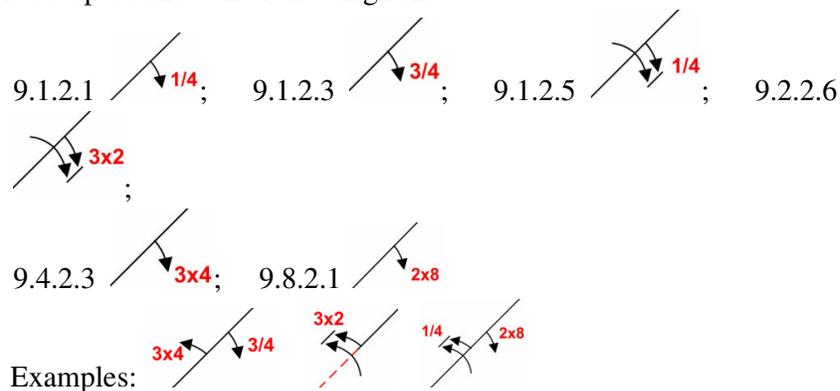


Reasoning:

- unlinked rolls are allowed on the vertical lines, they take less energy and are safe on the 45 degree lines up.

Proposal recommended by Sub-Committees.

- 6.4** If 6.3. is accepted allow the following rolls:



Reasoning:

- these combinations are allowed on the horizontal line and will give more variations for Unknown programmes.

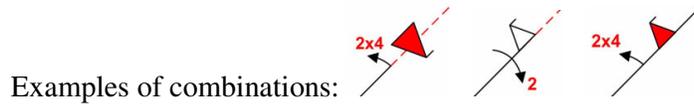
Proposal recommended by Sub-Committees.

6.5 For Free Unknowns allow combination of an aileron (first) and snap (second) rolls on 45 degrees lines up set from the positive attitude with 45 degrees attitude change. No cross attitude or knife edge attitude snaps allowed.

Examples:



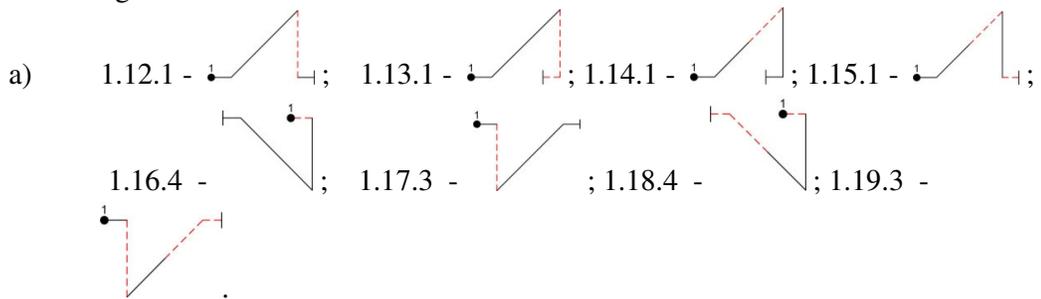
The overall rotation of not more than 540 degrees with not more than 3 stops is allowed.



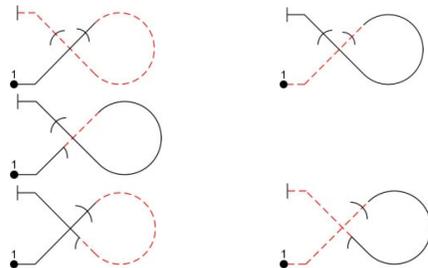
Examples of combinations:

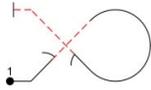
Proposal recommended by Sub-Committees.

6.6 List of figures where the combinations in 6.5 are allowed:

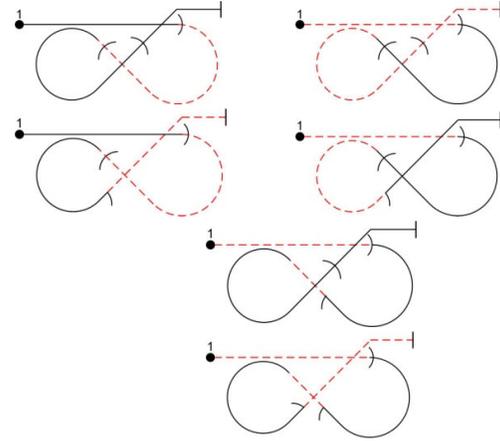


b) 7.19.-7.22., columns 1 and 2:

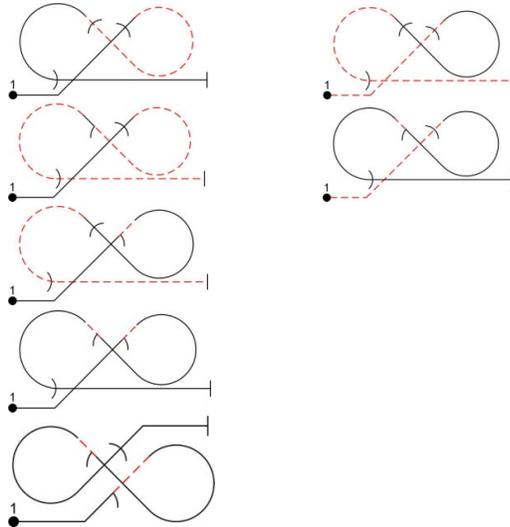




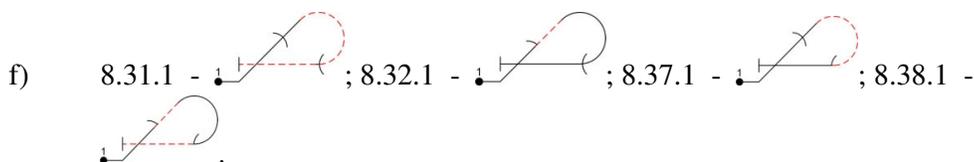
c) 7.23. – 7.26., columns 3 and 4:



d) 7.27.-7.30., 7.35, columns 1 and 2:



e) 8.15.1 - ; 8.16.1 - ; 8.17.1 - ; 8.18.1 - .



Note: a, b, c, d, e, f are to be regarded separately.

Reasoning:

- similar combinations were used by all pilots while flying 7-figures Free,
- such snaps are safe,
- after an aileron roll the speed for a snap is well within the limits,
- a pilot can create a sequence managing the necessary entry speed for a figure.

Proposal recommended by Sub-Committees in its entirety, i.e. "a" through "f".

PROPOSALS OF SOUTH AFRICA



1. Yak 52 Category

Rationale :

Since its introduction the category has found some success, but entrants have mainly been limited to those from the former Eastern Bloc Nations, who have operated the type for decades and whose pilots were brought up on the type. The intended influx of new pilots from Nations where the type is now operated simply did not happen and this is probably due to the standard being set too high, the current regulations have set a high requirement and this is simply beyond pilots with limited experience and new to the sport, it is approaching in some aspects the Advanced Class. It can be said with absolute certainty that the introduction of the Yak 52 class was intended to bring new pilots into the sport at a lower level than the Advanced Class, with a wide distribution of entries, we currently have not succeeded in this aim.

Another factor to be considered is that the Yak 52 fleet is ageing and the wisdom of stressing such aircraft with complex figures should be taken into consideration. The intention of this proposal is to encourage new pilots into the category by limiting the complexity of figures and sequences, whilst also ensuring less stress on the aircraft. These changes will not adversely affect the current pool of pilots competing in this category.



Proposal

That Regulation 4.3.3. Programme 1 – The Free programme be modified as follows:

4.3.3.1. – Yak 52 Maximum Figures 12 – Maximum Total K 180

4.3.3.6. Versatility Yak 52 – Family 9.9 & 9.10 – At least one

That Regulation 4.3.4. Programmes 2 & 3 – The Unknown programmes be modified as follows:

4.3.4.1. – Yak 52 – Programme 2 – Minimum K 12 – Maximum K 20

- Programme 3 – Minimum K 15 – Maximum K 25

4.3.4.4. – Yak 52 – Family 9.9 – Minimum one - Maximum two

Section 9 – List of Figures for Programmes 2 & 3

That the following figures be eliminated for Yak 52:

9.6 Family 2.1 to 2.8 – 9.6.3.3 (quarter outside rolling circle)

9.17 – 9.1.1.3 (three-quarter upward roll)

- 9.1.2.6 (one and half roll on 45 degree line up)

9.17 – 9.1.4.4 (full roll on 45 degree line down)

- 9.1.5.2. (half roll down on vertical line)

9.19 – 9.4.1.2 (2/4 on vertical up)

- 9.4.5.2 (2/4 on vertical down)

9.20 – 9.8.3.4 (eight point roll)

9.21 – 9.9.2.4 (full flick on upward 45 degree line)

- 9.9.3.6 (one and half flick on horizontal line)

Proposal recommended by Sub-Committees.

PROPOSALS OF THE UNITED KINGDOM



FAI Sporting Code, Section 6, Part 1

Item

Rationale

1.3.1.2

Programmes “Y52”

The Known Programme: The Known Compulsory Programme
Programme 1: The Free Programme
Programme 2: The Free Unknown Programme
Programme 3: The Unknown Compulsory Programme

Allows for the situation wherein the CJ and/or Jury consider that a pilot is insufficiently skilled to continue in the competition with the required degree of safety.

The final results of all completed programmes will count toward the Championship.

The qualification for succeeding programmes will be as follows:

Programme 1: **No pilot shall continue in the competition unless the pilot is, in the judgement of the International Jury and Board of Judges, 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.**

Proposal recommended by Sub-Committees. This wording is already present in 1.3.1.1. (U and A). The Sub-Committees further recommend that 1.2.7.4 be reviewed to make it clear the Chief Judge has the authority to recall a pilot for safety reasons without delay or consultation with the Board of Judges.

5.2.2.2.a) (A & Y52)

...A competitor flying lower than 100 metres (~~“A”~~) or 150 metres (~~“Y52”~~) will be disqualified (from the current programme) for causing a dangerous situation.

To make limits consistent with 4.2.4.1.



Proposal recommended by Sub-Committees.

5.3.3.1.b)

when rolls are superimposed on a turn or loop (Rule 5.3.1.8), the roll is finished but 90° or more of the turn or loop still remains to be flown or the turn or loop is finished but 90° or more of the roll remains to be flown.

Clarification of principle

Proposal recommended by Sub-Committees with the underlined text in blue added.

5.3.3.1.g)

any part of the figure was not visible as it was flown in or behind cloud. If the figure was visible to a majority of judges then the **CJ should instruct** ~~average of their grades may be given by the~~ **unsighted judges to revise their mark from "HZ" to "A".**

"Averages" should not be calculated on the Judging Line. Fitted Values will be applied by FPS.

Proposal recommended by Sub-Committees.

6.4.1.3.

Should a competitor fly a figure at a location, inside or outside the performance zone, such that the accuracy of the flight path or attitude cannot reasonably be determined, a downgrade of 2 points should be applied for each element of the figure that cannot be properly assessed.

Experience now shows that the current rule 6.4.1.3 is rendered ineffective by FPS and is damaging to judges RI's. The existing rule is often not applied by all judges, leading to FPS finding the minority marks sufficiently different from the others to designate them 'Missing' and award a mark anomaly. That the rule works only when the majority of judges apply it is sensible from the pilots



viewpoint, but because the trigger is more a function of aeroplane size vs. judges eyesight than a measure of pilot skill the practical result appears not to be beneficial to judging.

Furthermore, if a competitor flies at the 'front' of the box, it may be extremely difficult for the judges to assess the flight path for errors – for example, when a loop is flown high at the front of the box.

This wording provides a simple method for handling flight-path judgments during figure elements that are impossible to assess due to poor placement, and would lead to improved uniformity in judging with far less likelihood of interception by FPS.

Proposal recommended by Sub-Committees.

7.5.1.1.

It is required that all Judges **are accompanied by** an experienced Judge's Assistant, **with whom they have worked before**, together with a writer (who may, subject to availability, be supplied on request by the organizers). Judges who do not provide **experienced** Assistants will be excluded.

Sets standards of experience and previous team work, instead of unspecified "qualified" Assistant Judges.

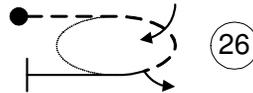
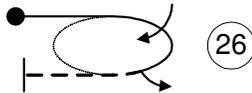
This Proposal was **not recommended** by Sub-Committees. However, it is proposed that 7.5.1.1. be changed to read as follows:

"It is required that all Judges use an experienced Judge's Assistant. Judges who do not provide such an Assistant will be excluded."

9.7 Family 2.9 To 2.20

Add:

19



For Unlimited only. To be consistent, as 2.19.3 and 2.19.4 already included.

Proposal recommended by Sub-Committees.

CIVA Regulations Part 3, World Air Games

Item

Rationale

4.3.3.1

The Timed Free Programme shall have a duration of **four (4)** minutes from the third wing-dip. (*cross-reference*) Only figures completed by this time limit will be graded. A combination will be taken as one figure. There will be no limit to the number of figures flown, **but no figure shall exceed 80K.**

Previously, 5 minute sequences have proven highly fatiguing to pilots and impaired judgement at the risk of safety. Additionally, some extremely complex figures have resulted in the need for judges to make excessive computations in the time available and the integrity judging has been compromised.

Proposal recommended by Sub-Committees.

Investigative Proposals

Box Positioning and Line Infringements.

The origin of the 1km square aerobatic box stems from a half-century ago when sequences with many more figures were flown by much slower aeroplanes, and a 'box-out' would most likely result from poor sequence planning or inattention. However the development of faster, stronger, more agile aeroplanes combined with the complexity and spatial demands of the Aresti figures now possible encourages pilots to exercise brutal and violent manoeuvring to remain within the 1km region to avoid 'box-out' penalties. The enforcement of these historic "cliff-edge" penalties often leads to excessive pilot stress and destroys sequence



harmony, whereas the positioning mark provides a graduated approach to figure placement that encourages good presentation and downgrades distant flying.

In addition the organisational cost implication of line judging is considerable, the need to fund and establish this extra team making heavy demands on already scarce management time.

It is also reasonable to expect that the status of a European Champion who has been allowed to fly over a box without line judges is no less valid than that of a Champion who has flown at a European or World Championship where line judges were used. Arguably, the judging of box-outs by line judges does not alter the validity of the judging process, and the presence or absence of this feature might therefore be considered of relatively low significance.

I propose that the 1km area remains marked to motivate pilots to constrain their flight-path for advantageous viewing by the judging panel, but that the judgement of positioning be transferred wholly to the judges who are the 'experts' employed to interpret such aspects. The counter-argument relies on the inconsistency or unreliability of judges to measure the quality of positioning in an objective manner. However, it is our view that this shortcoming can be overcome, or greatly alleviated, with proper training.

Recommendation.

I recommend that a Working Party of the Judging Sub-Committee be charged with investigating currently used systems (viz. Far / Far Far / Near, grid based etc.) and any other potential solutions that may come to light. The Working Party should report in 2011 on the practicalities and value of each with a view to recommendation of a preferred solution that CIVA should adopt, provided one sufficiently worthwhile is found. Judges should henceforward annotate their Form-A with figure position observations to support the validity of their positioning mark.

The intention would then be to eliminate manual line judging from CIVA Regulations in 2012 onwards.

Proposal referred to Judging Sub-Committee for further discussion. No conclusions reached at the meetings in Finland and will be discussed further this winter.

PROPOSALS OF THE UNITED STATES



President's Note: There were three parts to the US Proposal #1. The Sub-Committees did not accept the changes to 5.2.3.5 and modified the proposed changes to 5.3.3.1. Note the changes below.

Proposal #1

The Regulations for power competition contained in the *FAI Sporting Code, Section 6, Part I*, do not explicitly state the rules for direction of flight on the X and Y axes, but rather simply assumes everyone possesses that knowledge. While this works in most situations, when it comes time for protests and Jury decisions, these rules must be codified in the Regulations.

The USA proposes the following changes to ensure a non-ambiguous interpretation of the regulations concerning direction of flight on the X and Y axes:

4.2.3.2 Add the following new subparagraph (b):

- b) The direction of flight on the principal (X) axis is determined by the alignment of the X axis, the "official wind" direction set by the International Jury, and the drawing of the Forms B/C. The secondary (Y) axis is non-directional, however; that is, the competitor shall have the option to determine the direction of flight on the secondary axis whenever an option exists."

Rationale:

Whilst it is generally accepted that the cross axis of the box is non-directional, this is stated nowhere in the rules except in para 4.2.2.6.b where it is implied with reference to restarting after a permitted break.

Proposal recommended by Sub-Committees except the substitution of the words "official wind" as noted above in blue underlined text.



5.3.3.1(b) Add the following new subparagraph to the list of Hard Zero (HZ) marks and relabel existing subparagraphs accordingly:

- b) Any figure, or part of a figure, flown in the wrong direction on the main (X) axis.

Rationale:

This change adds the explicit case of flying a figure in the wrong direction to the list of HZ marks.

Proposal recommended by Sub-Committees, except second sentence in paragraph (b) that was proposed by the USA is deleted.

Sub-Committees also recommend the following text be added as a new 5.3.3.1.(c):

"After a directional deviation of 90° or more on the Y axis, although it is non-directional, the original direction must be re-established before the next figure is flown."

Remaining paragraphs to be re-lettered.

URGENT PROPOSALS

Held over from 2009 for Discussion

WORLD YAK 52 AEROBATIC CHAMPIONSHIPS



From Matti Mecklin, President, International Jury

Proposal # 1 - Add missing information

Current Rule:

1.3.1.2. Programmes “Y52”

a) The Known Programme: The Known Compulsory Programme

Programme 1: The Free Programme

Programme 2: The 1st Unknown Compulsory Programme

Programme 3: The 2nd Unknown Compulsory Programme

b) The final results of all completed programmes will count toward the Championship.

c) The qualification for succeeding programmes will be as follows:

Programme 1: All qualified competitors

Programme 2: All qualified competitor

Programme 3: A minimum of the 25 highest placed competitors after the Known Programme, Programmes 1 and 2, subject to Jury discretion.

Proposed Change (in bold):

1.3.1.2. Programmes “Y52”

a) The Known Programme: The Known Compulsory Programme

Programme 1: The Free Programme

Programme 2: The 1st Unknown Compulsory Programme

Programme 3: The 2nd Unknown Compulsory Programme

b) The final results of all completed programmes will count toward the Championship.

c) The Known Programme is a qualification flight.

Any pilot scoring less than 60% of the total possible score will not continue in the competition unless the pilot is, in the judgement of the International Jury and Board of Judges, capable of safely flying the remaining programmes.

d) The qualification for succeeding programmes will be as follows:

Programme 1: All qualified competitors

Programme 2: All qualified competitor



Programme 3: A **mandatory cut of 25% of the competitors, without respect to gender, will be introduced on the basis of the combined final results after Programmes Known, 1 and 2**, subject to Jury discretion.

Proposal #2 – Lower time limit between each program

Current Rule:

4.3.2.6. Programme 2, Compulsory Unknown

- a) The International Jury will select one of the submitted sequences for use and will insure all figures are as drawn by the NAC s submitting them, e.g. entry/exit directions are as drawn.
- b) The International Jury may alter the selected sequence, if necessary for safety reasons.
- c) Programme 2, after being approved by the Chief Delegates or their representatives, will be announced to competitors by the International Jury not less than 18 hours before the time at which each programme is to be flown.

Proposed Change (in bold):

4.3.2.6. Programme 2, Compulsory Unknown

- a) The International Jury will select one of the submitted sequences for use and will insure all figures are as drawn by the NAC s submitting them, e.g. entry/exit directions are as drawn.
- b) The International Jury may alter the selected sequence, if necessary for safety reasons.
- c) Programme 2, after being approved by the Chief Delegates or their representatives, will be announced to competitors by the International Jury not less than **12** hours before the time at which each programme is to be flown.

Proposal #3 – Time between unknown flights

Current Rule:

4.3.4.1. The organisers must allow sufficient time between programmes such that no competitor shall be required to fly less than six hours after landing from his/her previous flight

Proposed Change (in bold):

4.3.4.1. The organisers must allow sufficient time between programmes. **Between Unknown programmes no competitor shall be required to fly less than six hours after landing from his/her previous unknown flight.**



Proposal # 4 – Conflicting information with 4.2.4.1.

Current Rule:

5.2.2.2. Advanced and Yak 52

a) For every obvious and visually recognised infringement of the lower height limit during the performance of any programmes, the competitor will be given 200 penalty points; an additional 200 penalty points will be given for each figure flown completely below the lower height limit. For an infringement of the upper height limit, 30 penalty points will be given. A competitor flying lower than 100 metres (“A”) or **150 metres (“Y52”)** will be disqualified (from the current programme) for causing a dangerous situation.

(Bold text to be deleted)

Proposed Change to Read:

5.2.2.2. Advanced and Yak 52

a) For every obvious and visually recognised infringement of the lower height limit during the performance of any programmes, the competitor will be given 200 penalty points; an additional 200 penalty points will be given for each figure flown completely below the lower height limit. For an infringement of the upper height limit, 30 penalty points will be given. A competitor flying lower than 100 metres will be disqualified (from the current programme) for causing a dangerous situation.

Proposal # 5 – No hand drawing accepted. More detailed Free Unknown procedure. Time between Unknown programs to be shortened to 12 hrs

Current Rule:

4.3.2.7. Programme 3, Free Unknown

- a) The International Jury will publish all the sequences proposed by the NACs. At least one linking figure, up to a maximum of four, must be included in each sequence. The K factors for the linking figure(s) shall be modified so that they share equally an aggregate of 24K.
- b) 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.
- c) At least 18 hours before the commencement of Programme 3, each competitor will notify the Organiser which of the alternative proposals he/she will fly.
- d) At least 1 hour before the start of Programme 3, the Organiser shall provide each NAC with a list of the Free Unknowns chosen by each competing pilot.

Proposed Change (in bold):

4.3.2.7. Programme 3, Free Unknown



- a) The International Jury will publish all the sequences proposed by the NACs. At least one linking figure, up to a maximum of four, must be included in each sequence. The K factors for the linking figure(s) shall be modified so that they share equally an aggregate of 24K.
- b) All these **sequence proposals must contain complete pages of all three Forms. A, B and C. Computer file must be submitted. Currently acceptable file formats are Microsoft Visio using Aresti software and Olan.** Sequences must be checked by the International Jury and if necessary corrected at least 24 hours before the start of the programme.
- c) **The Jury selects one of submitted sequences or creates one as a default one.**
- d) At least **12** hours before the commencement of Programme 3, each competitor **shall** notify the Organiser which of the alternative proposals he/she will fly. **In case a pilot fails to notify the Jury about his/her selection of the sequence, he/she is supposed to fly the default/jury version.**
- e) At least 1 hour before the start of Programme 3, the Organiser shall provide each NAC with a list of the Free Unknowns chosen by each competing pilot.

Proposal # 6 – Level of Disqualification

Current Rule:

4.6.1.1. Aircraft must pass a technical inspection of the wing attachment units. Only those aircraft with the reinforced wing and a G-limit of +7/-5 are allowed. They must be equipped with checked and sealed accelerometers. Any pilot exceeding the +7/-5 g-limit will be excluded from the competition.

Proposed Change (in bold):

4.6.1.1. Aircraft must pass a technical inspection of the wing attachment units. Only those aircraft with the reinforced wing and a G-limit of +7/-5 are allowed. They must be equipped with checked and sealed accelerometers. Any pilot exceeding the +7/-5 g-limit **will be disqualified from the current programme.**

Proposals recommended by Sub-Committees except Proposal #3 which may be considered for change if the “4 hour” rule is adopted elsewhere.

Urgent Proposals from Russia

Held Over from 2009



Proposal #2

Remove 9.4.5.2. (vertical downward 2x4) from the List Of Figures For Programmes 2 And 3 for Yak-52.

Rationale: Safety, the altitude loss is too high.

Proposal recommended by Sub-Committees.