# AGENDA ITEM 10b

# COMMENTS OF THE CIVA Q PROGRAMME ANALYSIS WORKING GROUPS

The following comments were received from members of the CIVA Q Programme Analysis Working Groups and are provided to Delegates for their review prior to voting on the 2010 sequences.

## ADVANCED

### John Morrissey (USA)

Proposal A: Okay. However, you may want to consider the following – The snap/roll combination at the finish of #6 would be more user friendly to lower powered aircraft if the roll order were reversed by placing the 4x8 prior to the 1 & ½ inside snap. The ¾ roll on the vertical up line is prohibited in Advanced Appendix III figures (9.1 pg. A3-30 *note: ¾ roll up may not be followed by a level fly-off). I realize Appendix III restrictions do not apply to 'Q' programs, but these restrictions have had the benefit of CIVA rules committee consideration and evaluation.

Proposal B: Okay. The roll combination on figure 3 could be reversed to help level the playing field for lower performance aircraft (place the ½ roll 1st). And there is a relatively long drive from figure #2 to figure #3 in a CIVA 12 m/s X axis wind.

Proposal C: Okay. The 'drive' from #1 to #2 can be quite long in the maximum CIVA axis wind. I have no problem with a downwind entry but the IAC has a rule that says all Known Compulsory sequences must start into the official wind.

Proposal D: Okay. While the 4x8 on a vertical down line (9.8.5.2) is not allowed in Appendix III for Advanced, there should be no problem with this for the more advanced aircraft types.

Proposal E: Okay with a reservation. #1 not possible for any Pitts variant except the S-1-11B (if there are any left) as there will not be nearly enough energy to create a constant radius during the 5/8th looping portion on top after negotiating the opposite roll combinations. Additionally, opposite rolls are not allowed on 45 degree lines in Advanced Unknowns in order to level the playing field a bit between aircraft of different performance. The downwind cross box combination is more reminiscent of an Unknown Compulsory design than a 'Q' program. The drive from 3 to 4 will be a bit long in a CIVA maximum X axis wind.

Rank Order of Preference: **D, B, A, C, E with very little difference between B, A, & C.**

## Gerard Bichet (France)

Sequence A :
No problem of safety
Good K factor, even if there are only three flick rolls. The flick rolls are not among the most difficult.
Box: no problem
This sequence isn't as selective as I would like it to be.

Sequence B :
No problem of safety
Box: no problem
The K factor is a bit too low.

Sequence C :
No problem of safety
It seems that, if this sequence was to be chosen, it should be important to precise that figure #5 shall be initiated into the wind, even if rather obvious...
Box: no problem
Interesting sequence

Sequence D :
No problem of safety
Box: no problem
Good sequence

Sequence E :
No problem of safety
Box: no problem
Only 3 flick rolls. The K factor has not been computed, but I guess it around 240. The sequence seems to me too easy.

My choice order would be: **C, D, A, B, E**

## Martin Vecko (Czech Republic)

All sequences are safe and are not significantly altitude demanding.

Sequence A: quite complex with good cross wind correction, 3 flick rolls.

Sequence B: only rolling turns for cross wind correction, 4 flick rolls

Sequence C: more box positioning demanding, 4 flick rolls

Sequence D: Good sequence, 4 flick rolls

Sequence E : only rolling turns for cross wind correction, 3 flick rolls, rather easier

My preference: **D, A, C, E, B**

## Mikhail Mamistov & Anatoly Belov (Russia)

A.
1. Figure #9 looks out of synch with the sequence (unnecessary figure without purpose)
2. Bad connection between figures 5 and 6 in sense of speed management = not enough speed for figure 6, gives big advantage to high powered airplanes

B.
1. Repetition of 3X4 on figures #1 and #7

C.
1. The looping segment shape of figure #4 can't be properly seen and marked by judges due to cross box position.
2. In case of strong cross box wind figures 4 – 5 – 6 can't be managed without a penalty for an "out".
3. Figure #3 does not correspond the definition of qualifying programme Q.

D.
1. The position of figure #4 does not allow the judges to see and correctly mark the shape of the figure.
2. In case of strong cross box wind figures 3 – 4 - 5 do not allow a pilot to make a predictable and sufficient position correction in the box.

E.
1. Not a good speed match for figures 5 - 6 and 7 – 8 (not enough speed).
2. In case of strong cross box wind positioning correction on figure #5 can be insufficient.

Priority: **B, D, C, E, A**

# UNLIMITED

## John Morrissey (USA)

Proposal A: Okay with the following reservation/comments – There is a 'G/GLOC' issue on the pull to level at the end of figure 2 and a possible issue with the pull to # 3 a few seconds later. The choice of opposite roll combinations at the end of #9 may lead to judging issues.

Proposal B: Okay. An interesting sequence with even more interesting graphics that can test all but the most experienced callers at contests below WAC & EAC level.

Proposal C: Maybe, but several minor issues combine to detract from the design. A downwind Hammerhead (#7). Line 6/7 will be a very tight fit in the box. If the bottom line on # 6 is not rushed in a CIVA maximum X axis wind of 12m/s (~24 kts), the 6x8 and ¼ opposite roll combination will take about 7 seconds (1,820' at 260 ft./sec). The drift in the HH will be 900 ft. downwind for a total box usage of 3,500 ft counting the 400' radii of the ½ loop portion of # 6 and the pull up radius of #7. And the 5x4 on the vertical ascending line of #9 at the end of the sequence where energy is at a premium will eliminate all but the most robust of the aircraft from the hunt. I know this is Unlimited, but I have never favored an inside snap from an inverted 45 down line at the bottom of the sequence (#9). I am not so concerned about our world class Unlimited competitors, but rather new accessions to Unlimited with less than proper preparation.

Rank Order of Preference: **B, A**

## Mikhail Mamistov & Anatoly Belov (Russia)

A.
1. Figure #1 – safety issue: the negative snap at high speed will lead to unsafe physical load to brain and vestibular apparatus especially for new and unprepared unlimited pilots.
2. The position of figure #4 does not allow the judges to see and correctly mark the shape of the figure.
3. In case of strong cross box wind figures 4 – 5 – 6 can't be managed without a penalty for an "out".
4. In whole the sequence does not match the unlimited category:
    - empty lines on figures 6 and 7;
    - lack of a tail slide;
    - only one count of unlinked rolls.

B.
1. Figures #5 and #8 do not match the unlimited category.
2. There is no tail slide which is one of the necessary unlimited elements.
3. Figure #9 – the speed after ½ snap does not allow to perform the following snap correctly.
4. The total K is too low for the unlimited category.

C.
1. Figure # 3 has an unnecessary 3X4 leading to high altitude loss which can't be regained for the safe performance of figure #6.
2. Certainly not enough speed for a good quality 5X4 with leveling off at the horizon.
3. In case of strong cross box wind positioning correction on figure #5 can be insufficient.
4. The total K is too low for the unlimited category.

Priority: **C, A, B**

## Matthieu Roulet and Coco Bessiere (France)

Proposal A: Interesting sequence, challenging enough to make sure pilots get sufficient training before taking part to an Unlimited contest. Height & safety OK. Smooth box.
=> Interest ++
Safety ++
Box ++
(note: scale: --, -, 0, +, ++; safety below 0 seen as no-go)

Proposal B: Interesting individual figures, but the sequence includes too many repetitive sections: 3 half-loops up! and 2 reverse P-loops. Height & safety OK. Box OK except 180deg rolling circle not best for sequence display.
=> Interest -
Safety ++
Box 0

Proposal C: Interesting sequence. Height & safety OK but height to be checked before pushing in Fig.6 (to perform a nice flick on top of Fig.4, pilots will want to pull hard in the half-loop section, hence altitude gain will be small; then they will need to be extremely careful not to lose any altitude during Fig. 5 (rolling circle)). Box OK except 180 deg rolling circle not best for sequence display.
=> Interest ++
Safety 0
Box 0

Order of preference: **A, C, B**

## YAK 52

Only one comment received from Mikhail Mamistov and Anatoly Belov. "No problem" with the proposal.