AGENDA ITEM 10a

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 2008 sequences.

ADVANCED

Gerard Bichet (FRA)

Advanced #1

Only two flick rolls. This sequence is a bit weak.

Advanced #2

The 45° lines of figure #5, then figure #6 and finally figure #7 are very difficult, if not impossible to fly correctly in the 1000 m length of the aerobatic box, if there is no wind. Figure #7 needs too much performance for an average advanced category aircraft to be correctly flown. This could be unfair.

Figure #3 loses a great amount of energy, as well as figure #6. The consequence is that figure 8 will be flown very low. This is potentially dangerous, all the more because the recovery after the downward flick roll is a negative recovery. Dangerous program.

Advanced #3

A negative recovery at figure #7 is a very disturbing, since it appears somewhat late in the sequence. Rather dangerous program because of this figure.

Advanced #4

OK

Advanced #5

The sequence figure #2 - figure #3 - loses a somewhat great amount of energy. It seems impossible to get correct marks in figure #6 and figure #7 with an average advanced category aircraft. If the loop of figure #6 is correctly flown, the speed at the bottom of the loop is low,

and it is impossible to fly a correct 2/4 upward slow roll in figure #7. The only solution is to dive in the recovery of the loop of figure #6 in order to gain speed, and this must be downgraded. This could be unfair.

Advanced #6

The sequence figure #2 - figure #3 - figure #4 looses a great amount of energy, as well as the sequence 7 -8 - 9, though less dramatically for this last example. The consequence is that the whole program will be flown in two parts : the beginning at high altitude, and the second part at low altitude. This is not very interesting, and needs too much performance for an average advanced category aircraft to be flown in a homogeneous zone of altitude and thus, with a correct positioning mark. This could be unfair.

Figure #8 is unacceptable in the advanced category. Positive flick rolls initiated on a negative line are thoroughly out of the spirit of the Advanced category.

Advanced #7

OK

Advanced #8

Figure #1 needs too much performance for an average advanced category aircraft to be correctly flown. This could be unfair.

Advanced #9

Figure #1 needs too much performance for an average advanced category aircraft to be correctly flown. This could be unfair.

The whole program needs a lot of energy: for instance, figure # 3 loses energy, as well as figure #5. The speed at the bottom of the ¾ loop of figure 7 will surely be high, and the altitude consequently low. Thus, the end of figure #9 will probably be really low, and this is a bit dangerous, especially for a downward flick at the final figure.

Preference order :

4, 7, 1, 8, 5, 9, 6, 3, 2

Martin Vecko (CZE)

Advanced #1

- in case of a strong headwind it will be difficult to place fig. 6+7+8 in a box
- no crosswind correction
- only 2 flicked rolls

Advanced #2

- unusual combination of rolls in fig. 4
- a lot of negative flying
- in fig. 6 all rolls on 45 deg down – will lose a lot of energy
- negative recovery in fig.8 at the end of the programme and probably at the lowest part of the programme (dangerous)

Advanced #3

- negative recovery in fig. 7 at the end of the programme and probably at the lowest part of the programme (dangerous)
- week crosswind correction

Advanced #4

- balanced, OK

Advanced #5

- balanced, but some figures need / eat quite a lot of energy

Advanced #6

- high speed entry into a spin (fig. 4)
- in case of a week headwind the line in fig. 6+7+8 might be too long to fit in the box
- weak crosswind correction
- only flick rolls with half rotation used

Advanced #7

- fig. 9 not common in Advanced
- else balanced

Advanced #8

- fig. 1 might be a problem for less powered aircraft
- weak crosswind correction

Advanced #9

- fig. 1 might be a problem for less powered aircraft
- weak crosswind correction

Preferences:

High	4
medium high	5, 7
medium low	1, 8, 9
low	2, 3, 6

John Morrissey (USA)

Advanced #1

Good, except that the 2, 3, 4, line cannot be kept in the box with the maximum CIVA X axis wind limit and it may be a little too easy.

Advanced #2

No. Rolling element following spin not allowed in Unknown figures, and is an unnecessary altitude looser; #6 contains five of the most subjective elements in aerobatics – three 45 lines and two radius maneuvers; #8 is a 'hard' push at the bottom of the box.

Advanced #3

Not the best – downwind hammerheads are not used in mature Q or 'Free' programs; #7 is a hard push at box bottom, and the sequence a little too 'simple'.

Advanced #4

Excellent – A half loop down with bottom roll(s) replacing the spin (# 2) would make it more competitive for lower powered aircraft, but it is a sound sequence.

Advanced #5

Not the best - Rolling element following spin (not in Unknowns), and hard push at the bottom of box on 7 are not our best effort.

Advanced #6

Good 'if' – the 1 & ¾ spin not necessary and violates my Unknown figure thoughts. If that were a 1 & ¼ spin, a good sequence.

Advanced #7

NO – another 1 & ¾ spin (not allowed in Unknowns) on figure 4 and a ¾ roll up followed by a 'cap off' again violates the Unknown rules for Advanced.

Advanced #8

No – Energy requirements for # 1 exceeds lower powered aircraft's ability to competitively complete this figure; rolling element after spin (again).

Advanced #9

NO! – energy requirements for # 1, 1 & ¾ spin (Unknown rules + altitude loss).

Rank order: 4, 6 (If spin changed to 1 & ¼), & 1. The rest need too much revision to fix.

Anatoly Belov & Mikhail Mamistov (RUS)

Advanced #1

Dangerous sequence of fig.5+fig.6: blackout possible. Fig.6+fig.7+fig.8 too long moving by wind. No crosswind correction.

Advanced #2

Fig. 8 is placed in very dangerous position: high speed and low altitude. Fig. 5+6+7 is long shift without head wind. Fig. 4 is "innovation" not only for Advanced but for Unlimited too!

Advanced #3

Fig.7 is very dangerous because of placement at end of sequence with low altitude and high speed negative recovery. Crosswind correction fig.3+4 is ineffective.

Advanced #4

OK.

Advanced #5

Fig.2+3 unfounded losing of energy. This proposal requires starting at very high altitude. In other case it will be faced with safety problems.

Advanced #6

Fig.3+4 losing energy. Fig.8 – the half flick roll: is it Advanced attempt to feel Unlimited?

Advanced #7

OK.

Advanced #8

OK.

Advanced #9

Fig.1 is not for advanced aircraft. Crosswind correction fig.5+6 is ineffective.

Preference order:

8, 4, 7, 5, 1, 9, 6, 3, 2

UNLIMITED

John Morrissey (USA)

Unlimited #1

Okay – snap on 1 not allowed in Unknowns but not a safety issue.

Unlimited #2

No – too many cross box maneuvers from 5 onwards will make judging difficult and inconsistent.

Unlimited #3

No - #1 violates Unknown rules (1 & ½ outside snap on 45 up) and # 8 (1 & ½ outside snap down + over 360 rotation violates Unknown rules); gives a decisive advantage to high powered aircraft (figures 1 & 2); in max CIVA X axis wind # 8 will not fit box if flown correctly.

Unlimited #4

Fair – except maneuver # 1 will eliminate many competitors on the first figure of the first flight. I just do not believe in beginning a 'Q' program with a 'triple axel'. I remember in 1994 (I think) the Q began with a 1 & ¼ vertical ascending inside snap – not a pretty sight! Figure # 1 also violates my thoughts concerning Unknown rules as it is not allowed and neither is the 1 & ¾ spin in # 4. We can do better than this.

Unlimited #5

Good – perhaps too simple but it would certainly give a good pilot in an average aircraft a chance to demonstrate excellence in 'Classic Aerobatics'.

Unlimited #6

Very Good – A good test that still gives the good pilot a chance to excel – the ¾ vertical ascending snap must be mastered both directions! The only issue is – there are only three snaps.

Rank Order: 6, 1, 5, 4.

Matthieu Roulet & Coco Bessiere (FRA)

Unlimited #3

Strong safety issue, must be discarded: Such vertical rotations on the downline of Fig.8 (i.e. towards the end of the sequence) do not allow sufficient margin in altitude -- and the design of the 45° up line just before does not help either: Managing an 8-point roll followed by a 2-point roll prevent the use of a steep climb to mitigate the risk. (note: In addition to the safety issue, flyability of the 45° up line of Fig.1 is deemed marginal for a majority of pilots).

Other Proposals

Flyability of the other sequences is deemed OK.

We would like to take this opportunity to second Anatoly's comment on Fig. 3 of Proposals 5 and 6.

Preferences:

Our preference goes to proposals 1, 2 or 4 (in no specific order). We would not oppose proposals 5 and 6, however they might prove a bit tricky for a number of pilots.

Mikhail Mamistov & Anatoly Belov (RUS)

Unlimited #1

OK.

Unlimited #2

OK.

Unlimited #3

Figs. 1, 2, 8 require very high speed. The aerobatic performance zone is too small for fig.8. The same rotation is placed on fig.9.

Unlimited #4

OK.

Unlimited #5 and #6

These have the same design therefore have the same problems. Fig.3 – CIVA canceled (two years ago) flick rolls on vertical down lines after hesitation roll in the loop because of safety problems for some types of aircraft. Is there reason to change this decision?

Preference order:

4, 1, 2, 5, 6, 3

YAK 52

YAK #1

Perfect sequence.

YAK #2

Too simple. Only one flick roll- it's not enough for World championship.

YAK #3

Fig.3 is very hard for YAK-52. It's a low speed for starting fig. 8.

Preference order:

1, 2, 3