AGENDA ITEM 12a

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)

I would rate the following Advanced 'Q' proposals for 2009 in this order: **C** (if the vertical ascending ¾ roll on figure 4 could be changed to a 2 of 8). If not, then **B, D, & A** in that order. Rationale included below.

Advanced A: This one looks more like an unknown design as it includes a downwind hammerhead (4) as well as a downwind cross box combination (4/5). In a 24 kt X axis wind the 4/5 combo will drift/require 1,800 feet of X axis box, thus making the 3/4/5/ line difficult to keep in the box. No safety or altitude issues. Very difficult to present in a strong X axis wind.

Rating – Poor.

Advanced B: No safety or altitude issues. Will handle a CIVA legal wind. Presentation possibility is good except that the 4 point roll on the Y axis figure will almost assuredly force the pilot to either finish going away from the judges or place maneuvers 6 through 8 and the beginning of 9 in far side of the major axis portion of the box.

Rating – Okay.

Advanced C: A well thought out and developed sequence that allows for a proper opportunity to demonstrate presentation with a very good selection of figures that will allow the judges to evaluate the competitor's capability in Classic Aerobatics. There are no safety or attitude issues but there is a point that should be made regarding figure 4.

FAI Sporting Code, Section 6 Powered Aircraft (All Categories) page 93, (9.17.1.1 Advanced a) prohibits a level fly off after a 9.1.1.3 in the Advanced category. Maneuver # 4 of Advanced proposal C requires a level fly off after a vertical ascending ¾ roll (9.1.1.3). My

suggestion: Change the vertical ascending roll on figure 4 to a 2 of 8 (9.8.1.1) to comply with the intent of our Sporting Code regarding allowed maneuvers for Advanced aircraft.

Rating – Good

Advanced D: No altitude issues. No real safety issues; however, I do not feel a hard push exiting # 1 followed by another 90 degree push is necessary as there are other ways to demonstrate negative 'G' competence. I also feel two cross box combinations (1/2 & 5/6) are unnecessary in a 9 figure sequence for quality of judging reasons previously stated. Lastly, the energy required to perform # 6 will not be available in some of the allowed Advanced category aircraft following # 5 and this give too much of a 'power' advantage to the higher powered aircraft.

Rating – Fair.

Matthieu Roulet and Coco Bessiere (FRA)

Preferred order: **C B A D** (with no significant preference among those).

All proposals OK.

Some further comments:

Advanced A: Fig. 2 : Caution -- Long pull following significant time in inverted flight (second part of fig.1 + inverted level flight that may last some time in case of unfavourable wind / bad positioning in fig.1 + negative spin)

Advanced D: Fig. 1 : Advisory -- Unnecessary inverted exit.

Mikhail Mamistov and Anatoly Belov (RUS)

Priority:

1 - A
2 - D
3 - B
4 - C

Advanced A: Good sequence.

Advanced B: Not a good cross box correction (fig. 5-6). At high crosswind either a pilot will get an out or won't have a possibility to correct positioning along a secondary axis.

Advanced C: Not good speed match for Fig. 5–6.

Advanced D: Not a good cross box correction (fig. 5-6). At high crosswind either a pilot will get an out or won't have a possibility to correct positioning along a secondary axis.

Alan Cassidy (GBR)

Preference: **B, then A. Not C or D.**

Advanced A: Medium-K sequence that can be flown reasonably by lower-performing aircraft. Figures 2 and 7 are complex basic shapes that do not really prove anything and are un-necessarily complex without demonstrating much technique. Could be OK, but not very discriminating.

Advanced B: Quite demanding technically in the middle section. Can be flown in box and does not especially favour high-performance types. Suitable total K for a WAAC year.

Advanced C: High risk of GLOC on Figure 2 after prolonged high-speed negative start. Transition from 5 to 6 strongly favours high-performing aircraft. Very fast exit to 6 leads to likelihood of high negative on 7. Not really safe nor fair enough.

Advanced D: Transition from Fig 5 to Fig 6 greatly favours high-performance aircraft, effectively rendering any further comments pointless.

Martin Vecko (CZE)

My preference: **High – A; Medium – B, D, C**

From the point of view of safety all sequences are acceptable.

Advanced A: Good cross-wind correction in fig. 4, 4 flick rolls – a complex sequence with a good presentation potential.

Advanced B: Cross-wind correction using rolling turns, 3 flick rolls – good sequence.

Advanced C: Cross-wind correction using rolling turns, 3 flick rolls.

Advanced D: Cross-wind correction in fig. 1 and then using rolling turns, 3 flick rolls.

UNLIMITED

John Morrissey (USA)

I would rate the following Unlimited 'Q' proposals for 2009 in this order: **E, then either B/C, A, and D in that order. I would not recommend F.** Rationale follows below.

Unlimited A:

There are 4 opposite roll combinations that include ¼ or ¾ knife edge stops, and that is about three too many. Those knife edge stops, especially on level and 45 lines, make judging a little less consistent/precise. The cross box comes a bit late in the sequence (6/7). A bit unchallenging. However, there are no safety or altitude issues, will handle a legal X axis wind and can be presented well.

Rating – Fair.

Unlimited B:

Safe. No altitude issues. Will handle CIVA winds. Cross box combination (7/8) comes a bit late in sequence. Perhaps a bit too easy.

Rating – Okay

Unlimited C:

No altitude or safety issues. Will handle CIVA wind. Two cross box combinations (5/6 & 7/8) reduce judging efficacy, and 900 degrees of roll on two 45 down lines (2 & 6) not necessary.

Rating – Okay

Unlimited D:

No altitude problems. Safety - The pull from vertical down to the 45 up line on 7 a possible/probable 'grey out/G lock' due to extensive negative G on preceding maneuver (#6). Again, two cross box combinations (2/3 & 6/7) in a 9 figure sequence limits judging efficacy and are not necessary.

Rating – Poor

Unlimited E:

A good sequence that would be acceptable for entry level Unlimited pilots and serve as a qualification flight for a WAC. There should be no problems with altitude, wind, and safety.

Rating – Good

Unlimited F:

Interesting sequence that would make a great unknown for a World Championship if it were a legal unknown. Inverted entry more suitable for an unknown flight program. The push around to a 45 degree down line from level upright followed by a 1 & ½ inside snap from negative, the two snaps in # 6, too many opposing rolls (1,3,7,8), the late (5/6) cross box, and a spin late in the sequence create a degree of difficulty that is more than necessary for a 'Q' program and more difficult than entry level Unlimited pilots should have to negotiate considering the world wide application of CIVA Unlimited and Advanced 'Q' flight programs.

Rating – Do not consider - Poor

Matthieu Roulet and Coco Bessiere (FRA)

Unlimited: **B A C D** (with no significant preference among those).

Proposals E & F to be eliminated - safety issues.

Unlimited E: Fig. 7 : Warning -- too late in the sequence / potentially too low!! In addition, fig. 9 potentially unsafe (flick roll possibly low if 7-8-9 combination not properly mastered).

Unlimited F: Fig. 8 : Warning -- Long spin + roll: too late in the sequence / potentially too low!! In addition, fig. 4 potentially unsafe (followed by fig. 5 which requires significant speed).

Other proposals OK. Some further comments:

Unlimited D: Advisory -- Includes two "high speed" cross-axis transitions (2-3 and 6-7) => box management a bit tricky, otherwise interesting sequence.

Mikhail Mamistov and Anatoly Belov (RUS)

Priority:

1 - C
2 - D
3 - E
4 - B
5 - A
6 - F

Unlimited A: Fig. 2 – to perform this figure some airplanes will need a very high speed and consequently a very high negative G-load. It creates a problem for pilots' health and safety. Fig. 6 – 7 - not a good cross box design at high crosswind. Either a pilot will get an out or won't have a possibility to correct positioning along a secondary axis.

Unlimited B: Fig. 9 – to perform this figure some airplanes will need way too high a speed. Not a good cross box correction (fig. 7 -8). At high crosswind either a pilot will get an out or won't have a possibility to correct positioning along a secondary axis. Too low Total K factor, especially taking into account that the Q might be included to the overall ranking.

Unlimited C: Good sequence, good Total K factor.

Unlimited D: Good sequence, good Total K factor (the same as in Free programme).

Unlimited E: Good sequence, slightly low Total K factor.

Unlimited F: Fig. 5 - to perform this figure some airplanes will need way too high a speed. Fig. 7 - a snap on a bottom line. This is not allowed in Unknown sequences due to safety reasons (some airplanes have speed restrictions for snap rolls initiation).

Alan Cassidy (GBR)

Preference: **A or D, then C. Not B, E or F.**

Unlimited A: Medium total K, but quite technical, especially at the finish. Good flow of figures and no obvious box issues. Nothing that should scare off newcomers to Unlimited.

Unlimited B: Low total K. Ok for the box, but mostly pretty un-demanding. Very low entry speed for flick on Fig 9 will make for some poor results, especially for new entrants in older aircraft.

Unlimited C: Medium total K, but not especially technical. Probably going out of the box in Figures 4 and 9 unless nil wind. Likely fast and low out of 8 at the end. Flick roll on tail slide figure gives a big incentive to pilots to 'cheat' the flick with ailerons causing judging inconsistencies.

Unlimited D: High total K and a large number of negative flicks will make this very hard in regular training. Likely out downwind on Fig 7.

Unlimited E: Total K rather low. Fig 1 unbalanced and horrible to judge. Fig 4 requires a 'ming vase' at high speed, which is aesthetically poor. Figs 6 to 9 not really demanding enough technique to be a good test.

Unlimited F: Total K probably too high. Very high speed inverted start not ideal for sequence to be flown many times over in training. Flick on tail slide encourages 'cheating' with aileron and judging inconsistencies. High speed 'ming vase' on Fig 4 very displeasing, followed by another high speed flick on Fig 7, which will also take everyone out downwind. Ugh!!

YAK 52

No negative comments on the YAK 52 proposal A. It was the only one submitted.

ADVANCED GLIDER

One comment was offered on the Advanced Glider, though this is outside the terms of reference for the Q Working Groups. However, it is a good comment and reprinted here.

Alan Cassidy (GBR)

Advanced Glider A: OK, but very hard to position in strong wind and has a downwind spin entry to make it worse. The whole sequence would be much, much better if it were just turned around and started with Fig 1 entered downwind.