

AGENDA ITEM 12.3

REPORT OF THE CHIEF JUDGE

7th European Advanced Aerobatic Championships
Dubnica nad Váhom, Slovak Republic

August 11-21, 2011

Nick Buckenham

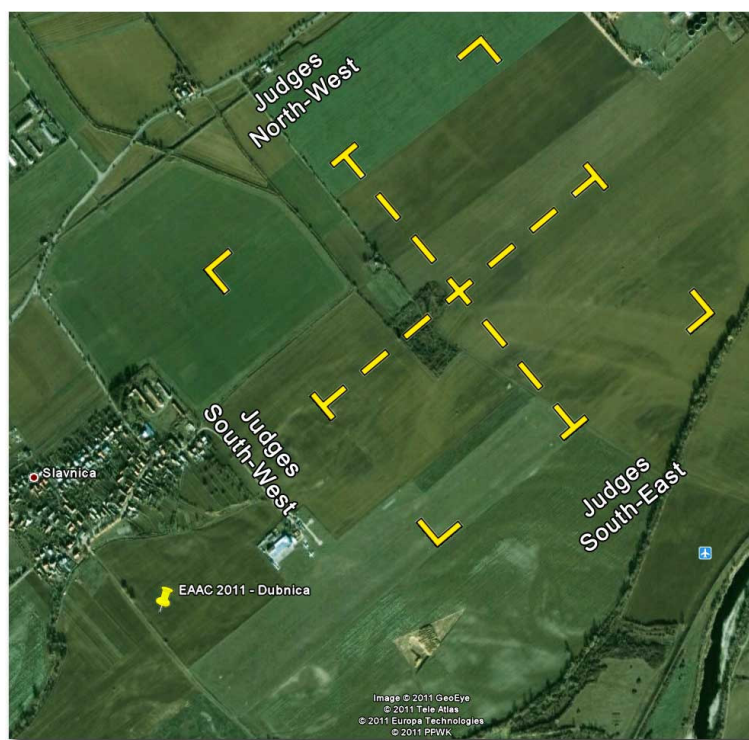
Box layout and judging line facilities

The CJ Team of Peter Macintosh, Jen Buckenham and I travelled to Dubnica two days ahead of the opening ceremony in order to run the scheduled Judging Seminar and training session, and check that the required box and judging line provisions met relevant CIVA standards.

Two judging locations were initially established, to the south-east and south-west. At a later stage the position to the north-west was added so that we could operate after about 1500hr with the primary axis parallel to the runway centre-line but with the sun to one side.

Each location was situated a little over 150m from the near box edge, this being dictated by of the close proximity of the aerodrome service road at the south-west location and the need to give judges the same perspective at all three locations.

The corner and tee box markers were bright white plastic and reported as easily seen from the air. It had not been possible to place a centre marker due to the close proximity of some trees.



A small building within the north-west quadrant was not considered to present a risk and the box base height remained unchanged.

The judging team

The seven CIVA appointed and three invited judges comprised [* = invited]:

Guy Auger *	France
Maciej Bialek	Poland
Bernard Courtois	France
Violeta Gedminaite	Lithuania
Philippe Kuchler *	Switzerland
Algis Orlickas	Lithuania
Vladimir Razhin	Russia
Gabor Talabos Snr *	Hungary
Kimmo Virtanen	Finland
Lyudmyla Zelenina	Ukraine



Judges equipment

The organisers had prepared sets of tables, sun-loungers, hard wooden tubular steel chairs and parasols for each of the judging stations. The chairs were replaced by more comfortable plastic seats following complaints from assistants during the seminar trial flights. An open-sided dark-material tent was also erected behind the CJ's station for refreshments and video review.



Overall the equipment was basic but adequate, and the local team quickly became proficient at moving it between the different locations.

Video equipment

The equipment provided comprised two video cameras: a tripod mounted mini-cassette unit that required connection to a TV-monitor to review output, and a second unit using SD cards that was attached by tie-wraps to a pair of old military-style binoculars on a tripod, the output being reviewed on a laptop. Both produced basic/amateur quality video

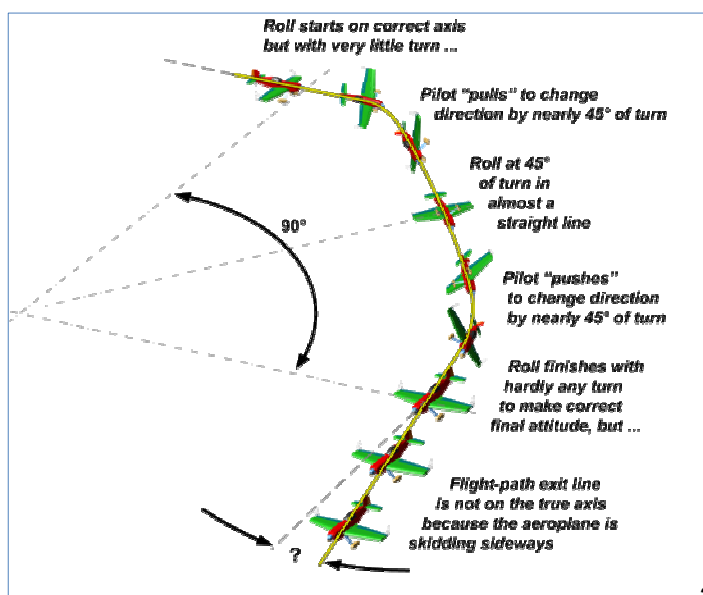


and the tripods suffered markedly from stick-slip, making image tracking rather jerky. Although auto-focus was set to 'off' in each unit, when the sun glinted on the aeroplane the image often blurred for a short while and became unusable. CIVA Section-6 para-5.1.6.3 requires organisers to "... *provide quality equipment with qualified operators to insure useful information is provided* ..." – this wording is simply not adequate to make sure that the output is realistically usable to determine crucial matters of fact. In two instances we could not reach a definitive conclusion, and the pilot was necessarily given the benefit of the doubt. I strongly recommend that CIVA take advice from a suitable professional in this regime and re-write 5.1.6.3 to define the minimum standard of tripod, camera and replay equipment that is acceptable for championship use.

The Judging Seminar

In accordance with 2011 CIVA instructions I ran an all-day seminar immediately prior to the championship along the following lines:

- i) 0930 to 1130. A presentation and discussion of key judging criteria, review of the judging test paper, and preparation for the practical judging to follow. Emphasis was placed on PZ assessments and rolling turn error identification, supported by clear right/wrong diagrams and text, together with material on a range of other subject areas of importance.
- ii) Two judging sessions followed – one before and one after the lunch break to give the two pilots time to recover and prepare for their second flight. In the first session each flew the advanced "Q" sequence followed by a series of flick-rolls and spins, the extra figures intentionally comprising some that were 'good' and some incorrectly flown. The pilots subsequently provided for us their opinion of which was which. For their second flight the pilots flew their own Programme-1 Free sequence.
- iii) 1500 to 1630. Review of the four flights and the marks awarded by each judge, followed by deeper consideration of key areas of interest amongst which were the perception aspects of flicks and spins, and the judging especially of 'straight lines and corners' in rolling turns as shown here. Although at the time we seemed in good agreement, in reality it took several days of verbal reinforcement to encourage many from their



initial reticence to award PZ's whenever in doubt and to penalise clear and obvious rolling turn errors.

The additional effort and cost of this exercise certainly yielded some positive benefit, but I have to add that such training should be substantially complete before arrival at the event – expecting to achieve any real effect at this stage infers that judges require it, and this should not be the case.

Judging the Championship

One warm-up pilot was available who flew on each occasion required, normally the low lines and a full sequence at the start of each day, then just the low lines and box axes when we changed the judging location.

Judge positioning on the line

To introduce an element of variety and avoid the judges selecting positions adjacent to 'preferred' colleagues, we ran a draw at the start of each day to allocate the judge stations. This quickly became a welcomed ritual and served to make very clear the importance of recording solely the judges' original personal opinion rather than a subsequently discussed / revised view. I recommend that this simple but effective procedure is incorporated into Section-6 and used at future championships, either at the start of each day (as we did) or perhaps at the commencement of each sequence group.



All the judges and assistants worked well together throughout the event. In general the marking was consistent across the team, although some judges were certainly more forthright in awarding PZ's and HZ's. The PZ concept has clearly encouraged most to use this mark whenever there is reasonable doubt, a welcome step forward from the reticence previously shown when the SZ should have been awarded for perception reasons but often was withheld to 'protect' the judges RI.

Across all four sequences the FPS Analysis shows judging styles ranging from the lowest median raw mark of 6.48 to a high of 7.45 – effectively a whole mark higher – with scope (2 x SD) from a low of 1.21 up to 2.01, a difference of 66%. This clearly underlines the unavoidable requirement for a reliable statistical system to balance and validate all judges'

marks, and to provide detailed feedback to each judge and the CJ of their differences where these are significant.

National bias, as shown by the CJ's combined analysis report, was generally minimal.

Communications

A single radio frequency was used throughout for CJ-to-pilot and box safety communications, pilots being authorised for runway departure by marshals using a simple flag system. This completely avoided the possibility of a 'hot-box' through mis-heard or mis-interpreted signals.

There was one instance of a pilot who inadvertently switched-off his radio but continued with his sequence, despite no communication with the CJ as had been mandated. The pilot was subsequently warned, and at the next briefing I re-emphasized that pilots must land immediately if two-way communication cannot be established. The Jury cautioned that if this re-occurred the pilot would be liable to disqualification. A statement at para 4.2.1.6 explaining the likely discipline under these circumstances would clarify this position.

An occasional problem arose from transmissions on the box safety frequency from commercial aeroplanes declaring POB, destination, meal requirements etc. – probably to their base. I was told that we were using an unallocated frequency and that this might infrequently happen; it would clearly be better – certainly safer – if each organiser was obliged by CIVA regulations to obtain a formally allocated secure frequency so that illegal transmissions should not be expected.

Protests

I was not aware of any protests submitted during the event, although I understand that discussion between some pilots and the Jury was able to deflect this likelihood on one occasion.

Points for further consideration:

1. Line length between rolls and half-loops:

One area of HZ dissent at several post-flight discussions related to the permitted length of line between a roll and half-loop, more specifically the point at which a line ceases to cause a downgrade and should instead lead to a HZ plus insertion because the judge has seen two separate manoeuvres. Where the line is short 6.8.8.2 & 3 provide advice on the downgrade, but I can find no instruction to determine when such a line is deemed to separate the roll from the looping segment sufficiently to require a HZ and insertion to be given. As such issues can quite clearly be reviewed by video it would seem sensible to apply a fixed time to determine this point; in my view anything beyond two seconds (at 120kt this represents 200ft) is unacceptable,

and I suggest the JSC considers this for clarification and inclusion in para 6.8.

2. Line length between unlinked roll elements:

This was also an issue and is similar to (1) above, though if hesitation rolls are involved then the process may be affected by the pilots style of hesitation. Paragraphs 6.8.21.4 c) & d) require the hesitation between the roll elements to be a 'brief but perceptible pause' or a 'minimal ... brief check' but clear instruction is required to separate what is acceptable and should be downgraded from what is not. Again I would suggest a pause significantly longer than the preceding hesitations should be downgraded, but at two seconds the judge may conclude that the pilot has forgotten the element and an HZ plus insertion is appropriate.

3. Communication radios:

A number of 'Sencor' personal mobile radios were distributed to key administrative staff to facilitate communications around the aerodrome, in my case between the judging line and the Contest Director, flag marshal etc.. These tiny radios are moderately effective over short distances but struggle at much over 1km or when physical obstructions intervene. On many occasions I was unable to contact the CD or he me unless he was at 1st floor level near the tower; when the afternoon NW judging location was in use communication was impossible and mobile telephone the only workable solution. I suggest that a more professional standard of PMR is required for this safety critical duty, such as the Motorola-GP340 series, and that domestic walkie-talkies like the Sencor be avoided as they are simply not adequate for this duty. Section 6 should also reflect the importance of this safety-critical requirement.

4. Video recording and review equipment:

As discussed above, the equipment at EAAC 2011 was simply not adequate to provide the clarity required to determine matters of fact on all the occasions demanded.

Despite the relatively minor problems outlined above, I am satisfied that we were able to carry out the judging to a wholly satisfactory standard and without any significant safety issues occurring.

A handwritten signature in blue ink, appearing to read 'Nick Buckenham'.

Nick Buckenham
EAAC 2011 Chief Judge