AGENDA ITEM 5.3

CHIEF JUDGE'S REPORT

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XXIII. WORLD AEROBATIC CHAMPIONSHIPS
Burgos, Spain

1. Participating Judges

Seven CIVA Judges were nominated by the CIVA Bureau based on previous performances at Championships, they were as follows: -

L G Arvidsson	-	SWE
G Dungan	-	USA
Q Hawthorne	-	RSA
J Duras	-	CZE
G Hill	-	GBR
F Itier	-	FRA
M Mecklin	-	FIN

Three additional judges were nominated by their Aero Clubs as follows: -

Y Tarasov	-	RUS
P Wanschura	-	GER
A Marengo	-	ITA

Qualified assistants were present for all judges and in addition judges from USA, RSA, GBR and RUS had a third member of their respective judging teams from their own countries.

I was assisted by Brian Howard of the USA whose accurate attention to detail and knowledge of the regulations made the job of being Chief Judge that much easier.

2. Judges Currency Test

Prior to arriving on site a comprehensive judges currency questionnaire had been prepared by G Dungan and posted on the Internet, judges could answer the questions and receive immediate feedback on their answers, the results were summarised and brought to site. This was a worthwhile exercise and carried our in a very professional manner, thanks is expressed to Greg Dungan for his work on this matter. The queries and questions arising out of this exercise were discussed at the initial judges briefing.

3. Judge's Briefing

It was made clear at the Judge's briefing that whilst an experimental Judges Performance Index (JPI) was to be used the Chief Judge would not use any data obtained to drop a Judge from the line, however any Judge artificially marking within a very narrow range (previously associated with obtaining a superior JPI) would be in danger of being excluded. Also addressed at the briefing was the criticism that has been levelled at judges both during CIVA and CIVA sub-committee meetings that judges were not capable of scoring accurately the freestyle programme in particular due to the complex figures involved.

Judges were urged to comply completely with the judging criteria as set out in the regulations and be ultra critical, without fear of adversely affecting their JPI, from my subsequent observations it would appear that this message was received loud & clear.

4. Pilots Briefing

It had been observed during practise days on site that large birds often in flocks had been present in the box, it was therefore agreed at the briefing that should a pilot observe birds likely to obstruct the flight that this be called on the radio "birds, birds, birds" and the Chief Judge would confirm their presence and allow this enforced break to be treated in the exact manner as a technical problem in the regulations. This situation actually occurred during the contest when a pilot having completed the required wing dipping observed birds ahead and broke off and repositioned, without this procedure in place the pilot would almost certainly have been liable to an interruption penalty.

5. The Flight Programmes

After some initial delays due to weather the contest proceeded and was flown out in its entirety without any major reportable problems, general observations and specific recommendations are detailed below.

My assistant Brian Howard of the USA, who kept accurate records of the flights and the timing of the flights, has made some interesting statistics available as follows: - When flying was in progress with no breaks etc. approximately 5.5. flights per hour were maintained, however the effective rate for each day was much slower for a variety of reasons, the actual figures are: -

23 June -	No Flying	
24 June -	Q Programme	
	First Competition Flight:	11:15
	Competitors flown	26
	Total hours	8:38
	Competitors flown per hour	3
25 June -	No Flying	

26 June -	First competition flight	11:30
	Competitors flown	23
	Total hours	8.28
	Competitors flown per hour	2.7
27 June -	Programme 1	
	First competition flight	17:17
	Competitors flown	3
	Total hours	0:36
	Competitors flown per hour	5.0
28 June -	Programme 1	
	First competitive flight	10:15
	Competitors flown	45
	Total hours	10:43
	Competitors flown per hour	4.2
29 June -	Programme 2	
	First competition flight	12:22
	Competitors flown	35
	Total hours	8:41
	Competitors flown per hour	4.0
30 June -	Programmes 2 & 3	
	First competition flight	10:31
	Competitors flown	22
	Total hours	8:20
	Competitors flown per hour	2.6
1 July -	Programme 3	
	First competition flight	10:57
	Competitors flown	29
	Total hours	7:51
	Competitors flown per hour	3.7
2 July -	Programme 4	
	First competition flight	09:45
	Competitors flown	22
	Total hours	3:32
	Competitors flown per hour	6.3

6. Specific Comments & Recommendations

6.1 JPI

Despite having the knowledge that the JPI data was not to be used against them, judges still place an enormous importance to the results produced and express their anguish if the rating does not appear to be that favourable.

Recommendation.

That CIVA continue to develop the JPI system, but until such time as the system is perfected and considered to reflect accurately the performance of the judges, that the results not be published or issued to the judges themselves in order to avoid them modifying their behaviour with the intention to improve such ratings.

That until such time that the JPI is perfected, the CIVA Bureau will select the panel of judges prior to the contest to a maximum of ten and a minimum of seven, thus eliminating the use of JPIs in the Q Programme where more than ten judges are present.

The JPI results of this competition have been published and were available on site, the results of the programmes making up the World Championship i.e. Q to 3 are as follows: -

Judges in rank order of their JPI rating and their average rating for all programmes

1. Hawthorne	-	RSA	-	0.67941
2. Itier	-	FRA	-	0.75317
3. Mecklin	-	FIN	-	0.89774
4. Arvidsson	-	SWE	-	0.92261
5. Hill	-	GBR	-	0.99716
6. Duras	-	CZE	-	1.00100
7. Tarasov	-	RUS	-	1.14815
8. Dungan	-	USA	-	1.16832
9. Wanschura	-	GER	-	1.18437
10.Marengo	-	ITA	-	1.24808

6.2 Standard Judging Procedures

At this contest I had the opportunity to observe closely the procedures being used by judging teams, what I observed somewhat disturbed me in the minority of cases. I had assumed (incorrectly as it turns out) that the assistant judge (required to be experienced) is calling the figure to be flown to the Judge who observes the aircraft at all times. This however is not the case, two judges were observed to be reading the B or C forms themselves, switching their attention from the flight to the paperwork and back again, this practice simply cannot work especially in the free programme. It is not surprising that judges miss errors if they are

following the sequence visually themselves from paperwork. Incidentally it is a requirement of the current regulations that the assistant calls the figures to the judge.

In an ideal judging team set-up consisting of three experienced judges the following or something close to it would apply, the main judge watches the flight 100%, the caller probably watches the flight 70% and follows the sequence on the paperwork 30%, the writer (score recorder) can watch the flight 90% and record the scores 10% (in between figures). With three pairs of eyes on the flight, two for most of the time it is almost impossible to miss a major error, the judging team should also be communication between themselves constantly.

I can only speak with complete accuracy for the South African Judges present who use the above procedure and reference to their JPI results shown previously shows that they are not missing much. Some teams required a writer supplied by the organisers in the case of the free programme all teams had writers. Most of the teams using unfamiliar writers still had their assistants calling figures to them.

Recommendation

That standardised procedures be adopted and enforced to ensure that judges are not attempting to follow the sequence themselves from the paperwork and in addition preference be given in the case of too many judges offering their services to those judging teams providing their own experienced writers.

6.3 Hard and soft zeroes

In the past it was quite rare to see judges utilising the lower range of scores, with very few in the sub 4,5 category and nearly none at all in the sub 2,5 category. The introduction of the possibility of a soft zero i.e. a zero which counts as a score, seems to have changed the reluctance to use the lower range of scores (maybe the judges briefing as well) and multiple soft zeroes were utilised in this contest by a wide range of judges. This should be seen as a positive sign that judges are becoming ultra critical as required in the CIVA regulations. The matter of perception and when a judging conference can be held can still cause minor problems, with the question was the figure to be reviewed a matter of fact or perception, only one such case occurred in this contest, where three judges had scored a hard zero for a manoeuvre which over-flicked by approximately 90 degrees (was it 89 or 91), with six soft zeroes and a single score (this judge was the same nationality as the pilot, coincidentally?), either way the hard zeroes allowed a conference on the video, although no attempt was made to judge the degree over-flicked everybody was unanimous that the figure was way over 45 degrees and approaching or over 90 degrees thus giving either a soft or hard zero, the judge concerned giving the score was suitably embarrassed and voluntarily elected to also change to a soft zero, from this and previous experiences it is apparent that this team of judges do not seem to readily give pilots of their own nationality a zero whatever the circumstances.

One aspect that now seems to be out of line with the current thinking on zeros is the tail slide, where the regulations call for a "Hard Zero" if no slide backwards occurs. The slide of course is also a matter of perception and cannot be proved to be factual by video.

Recommendation.

That the regulation be changed to indicate that a "Soft Zero" be given if no slide backwards is detected.

6.4 Flight Order

There were at least two instances in this competition where flying was delayed due to pilots flying the same aircraft, whilst in this instance the delays were not critical in other circumstances such delays could have a significant impact on the contest. Currently the regulation states that the International Jury may be altered if special circumstances require, but past experience by the International Jury has led to reluctance to change any flight order due to multiple protests experienced on this matter. I personally cannot understand this as we all know that the placings in the top ten are drawn at random and I cannot believe that anyone can honestly believe that the judges are awarding scores strictly on the basis of the flight order for those outside of the top ten (or whatever is decided in future i.e. top third etc.)

Recommendation

That the regulation be reworded to make it compulsory for the International Jury to change the flight order in order to avoid pilots flying the same aircraft being flown consecutively, the wording suggested is as follows: -

"The sequence of flights must be altered by the International Jury to ensure at least two flights between competitors flying the same aircraft, the International Jury should ensure in this process that competitors remains within the same grouping when a random draw has taken place, no discussion will be entered into concerning this process."

6.5 Birds in the Aerobatic Box or other hazardous situations

As outlined previously in this report a temporary procedure (which proved necessary) was in place for breaking off a flight due to bird strike hazard, this should now be formalised into the regulations and treated in the same manner as a technical interruption with regards to re-flight procedures.

Recommendation.

That an additional paragraph be added under the Sporting Code – Air Safety to read as follows: -

"Any competitor required to break-off a competition flight due to danger of collision with unauthorised air traffic or a bird strike, would be treated in the same manner as if a mechanical defect had taken place with regards to a re-flight as applicable. If required to orbit to avoid any such hazard the Chief Judge will allow additional time if required."

6.6 Marking of Positioning

This contest had no line judges or electronic instrumentation, which meant that the higher K factor of 60 was in place; this led to an increased focus on the criteria to be applied by the judges for positioning.

Judges are required to deduct points for errors as per the judging criteria; scores are not awarded for figures flown well. If an aircraft is way out of the box (as was the case in many instances in Burgos) the aircraft could be up to 1,5kms from the judges and at an angle, this is three times the ideal position of an aircraft centred in the box. In these circumstances it is difficult if not impossible to spot minor errors, only major errors will be picked up and downgraded, the competitor will therefore have gained an advantage in certain instances. This therefore was probably the intention of making the K factor so high at 60 to counteract such difficulties of downgrading figures.

However reference to the criteria for positioning calls for a number of subjective decisions from the judges, if electronic or radar was to be used it would only be getting an average position in the box graded accordingly. The mixture of subjective & objective criteria is problematical and leads to a scores for positioning which can be dubious, in order to rectify this the following is recommended.

Recommendation

That the current positioning score based on the current criteria be scrapped and replaced by two separate scores as follows: -

(a) Positioning – To be determined on an objective basis

(b) Presentation – To be determined by the appropriate criteria as currently in the regulations

Positioning (by judges)

That for the purpose of determining a positioning score the performance zone be divided into nine individual zones, far left, far centre, far right, centre left, centre-centre, centre right, near left, near centre, near right. As each figure is flown the judge would indicate to the assistant which zone the figure had been flown in or centred on as appropriate, this information being marked on a sheet provided. At the end of each flight, a quick calculation would take place whereby opposite notations in each of the nine zones be cancelled out e.g. three left centres would cancel out three right centres and a left far would cancel out a near

right. The resulting remaining notations would give an indicated position of each unbalanced figure. For those not in the centre-centre zone the resulting figures should be considered as a percentage of the total figures in the sequence, e.g. if three figures remained un-cancelled outside of the centre-centre zone and the sequence had contained twelve figures, 25% were misplaced resulting in a positioning score of 7,5

In addition to the above when no line judges are being used, those figures flown clearly outside the box would be marked on the working sheet accordingly and taken for the purposes of the previously set out calculation to the nearest zone closest to the edge of the box where the box out had occurred. An additional one point per box out or figure started out would then be deducted from the previous figure, i.e. if one box out had been noted in the previous example the score would now revert to 6,5

The K factor for this positioning exercise would be 40K with or 50K without line judges, when line judges are utilised the additional calculation for box outs would be omitted.

Should an electronic system be available (such a system will be presented to CIVA this year) the judges would not give any scores for positioning.

Presentation

All the current criteria for the optimal placement of figures and sequence symmetry would be used to establish a score for presentation worth 20K