

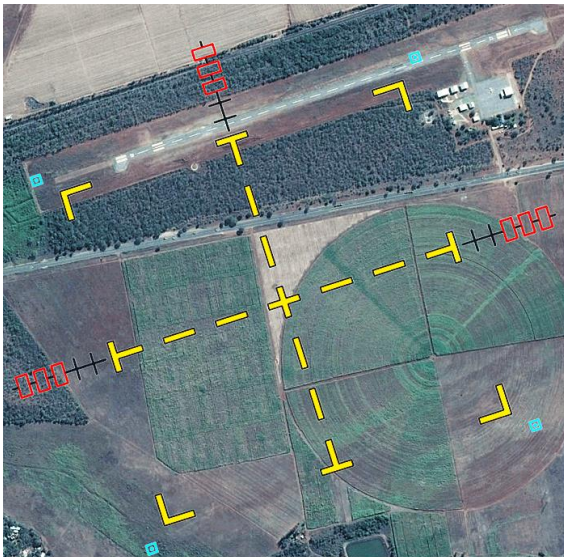
Chief Judges Report for the 29th FAI World Aerobatic Championship

Malelane, South Africa – 9th to 17th September 2017

Nick Buckenham, Chief Judge

Malelane airfield is located about 6km east of the town, primarily accommodating private and commercial GA movements associated with the local sugar refinery and the Kruger National Park, plus some agricultural services. A fine hard runway with adjacent hangarage and administration offices provided a good base for this prestigious event, the lunch and the team R&R areas being combined under a marquee to the north-east of the apron.

Box layout and judging positions



The box was oriented parallel to the runway and to its immediate south, with judging locations prepared at the north, east and west positions. All were easily reached either on-airfield for the most frequently used north position, or across the main road and into the rough field area to the south for the east and west positions. The north position was necessarily only 100m or so back from the boundary, but the other two locations however were at least 150m clear.

The equipment provided was to a good standard with comfortable reclining chairs for all judges, more upright versions available to assistants and small gazebo's to shade us from the very strong sunlight. The Chief Judges' station enjoyed a

good selection of tables and chairs, and a cold-box trailer was provided with a variety of chilled drinks – particularly important as for much of the event the temperature was well above 30°C.

In the club-house however there was no secluded space for judges to use for rest or for video reviews, all of which were necessarily conducted in the main open area once other parties had been asked to leave.

Video recordings of all flights

The organisers had assumed that the video team already commissioned by CIVA to make a half-hour video of the event could also provide the flight-recording service to verify judging matters of fact, and it was necessary to strike a compromise to enable the video team to accommodate both tasks. The video operator however had no direct experience of this process and early reviews of his material revealed that the aircraft was too distant / small in the frame and the presentation jerky and difficult to see clearly. Subsequent recordings showed improvement, though the standard was barely acceptable for this critical task. CIVA has at some recent championships come very close to being unable to determine critical matters of fact because



the standard of video recording has been inadequate, clearly underlining the demands on this essential service in order to achieve the certainty we demand for the final results.

Accommodation and food

Everyone attending the event was accommodated in the Pestana Lodge complex about 5km from the airfield, the food and lodging throughout being to an impressive standard.

Warm Up pilots

Two warm-up pilots were available at the event, Lee le Gonidec (RSA) and Romain Fhal (FRA). It became clear however when we reached the Free Unknown programmes that Lee's experience did not meet the required standard, and Romain carried out the majority of these duties to a high standard from the mid-point of the event.

Communications

The organisers provided Motorola two-way multi-channel radios that delivered a good level of communication between the judging line, the staff at the flag-release point and the Contest Director when the north judging position was used, but these were occasionally ineffective at the east and west locations due to the extended distance and interference from the rising ground. For air-band communications with the competitors we used Icom and Vertex hand-held units with spare batteries available, and no problems were experienced.

Safety

As the wind speed was quite low for much of the event and back-tracking on the single runway could have delayed many take-offs, it became the practice for competitors to take-off toward the west and land in an easterly direction. I had warned against this procedure on safety grounds but received assurance that it was accepted by all the teams. On one occasion however it became necessary to urgently instruct an easterly landing pilot to abort his final approach as the next competitor was already well into his take-off in the other direction. In my view the avoidance of such situations is critical to maintenance of an acceptable level of safety at CIVA championships, and Chief Judges must be entitled to refuse to allow this practice; a head-on collision on the ground or at low altitude would surely be hard to resolve by all parties and have a highly negative impact upon CIVA's good standing.

Judges Forms

We used the newer-style Left and Right forms throughout, judges and assistants declaring them a good basis for their work.

Completion of Programme 4

Through a combination of poor weather including occasional low cloud and high wind it became necessary for the International Jury to cut programme-4 by 50% to enable only the highest ranked half of the field to fly after programme-3. On the final day of the event we therefore flew the entitled P4 pilots first, then without a break continued to run through the 'cut' pilots in the previously established order of flight. Through a combination of swift handling with few breaks and undoubtedly some luck the final competitor was able to complete his sequence starting

about 15 minutes after the time at which we had on previous days declared it unacceptable to continue due to low sun and lack of adequate light for judging.

This certainly enabled the whole field to complete the last programme, though if any had declared the conditions unacceptable at a late stage the organisers and the Jury would have faced a difficult task determining whose scores could be included in the programme-4 results. Delegates should note the proposal from Jury chairman Alan Cassidy that under these circumstances a revised flying order for 'cut' pilots ranked in the descending order of their totalled P1-3 scores would provide a better basis if any pilots are indeed unable to fly due to poor daylight, the onset of unacceptable weather etc.

The Final Freestyle

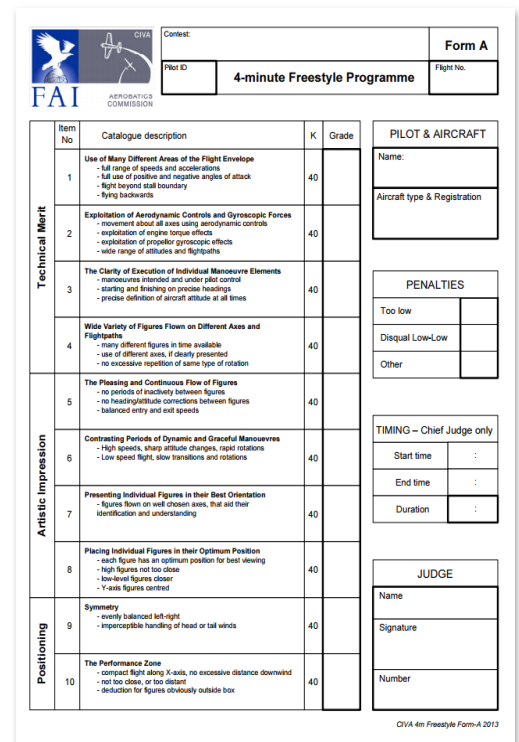
Programme-5 was flown by 17 pilots, as usual on the final day of the event and separated from programmes 1-4 which make up the whole of the Classic championship. This year we had one pilot entered only for P5, Artur Keilak who flew the XA-41 belonging to Tamás Ábrányi.

Following representations from various competitors the organisers agreed that steps would be taken to play the music that many of the pilots had selected at the judging location, although the current judging rules exclude reference to it, and also to transmit the sound to each pilot so they could align their flying with their music. As the judging location for this programme was at the west side of the box about 1km distant from the clubhouse I am not aware whether the music was played there as well, though this would have been possible.

The judging location for this programme was not adjacent to the public area as is normally thought appropriate, principally because the team managers felt strongly that the north position closest to the club-house would require competitors to fly with an on-judge wind. As this was deemed unacceptable the western location was selected. It may be necessary to consider reference to this matter in the Final Freestyle paragraphs in Section 6 part 1.

Transmission of the sound track was achieved by playing each mp4 file through a loudspeaker at the judging position and broadcasting it on the flight-safety frequency by holding a separate hand-held vhf radio closely in front of the loud speaker, on the strict understanding that if it

became necessary to transmit a safety message at any time the music transmission would be ceased so that as Chief Judge I could immediately communicate with the pilot. In fact no safety messages were required, and with one or two exceptions the process appeared to work well.



Contest: **Form A**
Pilot ID: **4-minute Freestyle Programme** Flight No.:

Item No	Catalogue description	K	Grade	PILOT & AIRCRAFT
Technical Merit	1 Use of Many Different Areas of the Flight Envelope - full range of speeds and accelerations - full use of positive and negative angles of attack - flight beyond stall boundary - being backwards	40		Name: Aircraft type & Registration
	2 Exploitation of Aerodynamic Controls and Dynamic Forces - movement about all axes using aerodynamic controls - exploitation of engine torque effects - exploitation of protractor gyroscopic effects - wide range of attitudes and flightpaths	40		PENALTIES Too low Disqual Low-Low Other
	3 The Clarity of Execution of Individual Manoeuvre Elements - manoeuvres intended and under pilot control - starting and finishing on precise headings - precise definition of aircraft attitude at all times	40		
	4 Wide Variety of Figures Flown on Different Axes and Flightpaths - many different figures in time available - use of different axes, if clearly presented - no excessive repetition of same type of rotation	40		TIMING – Chief Judge only Start time : End time : Duration :
Artistic Impression	5 The Pacing and Continuous Flow of Figures - no periods of inactivity between figures - no heading/attitude corrections between figures - balanced entry and exit speeds	40		
	6 Contrasting Periods of Dynamic and Graceful Manoeuvres - High speeds, sharp attitude changes, rapid rotations - Low speed flight, slow transitions and rotations	40		
	7 Presenting Individual Figures in their Best Orientation - figures flown on well chosen axes, that aid their identification and understanding	40		
Positioning	8 Placing Individual Figures in their Optimum Position - each figure has an optimum position for best viewing - high figures not too close - low level figures closer - Y-axis figures centred	40		
	9 Symmetry - evenly balanced left-right - imperceptible handling of head or tail winds	40		
	10 The Performance Zone - compact flight along X-axis, no excessive distance downwind - not too close, or too distant - deduction for figures obviously outside box	40		

CIVA 4m Freestyle Form-A 2013

CIVA 4m Freestyle Judging Summary Sheet

Pilot	Technical Merit				Artistic Impression			Position		Personal Comments, Worst Factor (not for transfer to the Form A)
	Flight Envelope	Controls and Cycle	Execution and Clarity	Variety of Axes	Pacing/Flow	Control and Grace	Figure Orientation	Figure Position	Flight Symmetry	
1										
2										
3										
4										
5										
6										
7										
8										
9										
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11										
12										
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CIVA 4m Freestyle Judging Summary Sheet - 2013

Interestingly more than one pilot requested his sound track to start some time before beginning his performance to enhance anticipation in the build-up to his opening wing-wags.

I was once again struck by how complex the Final Freestyle judging regulations are, and the surprising amount of time it takes to complete the judging forms even after flying has been completed. With our current desire to refine CIVA's championship structure toward a more media and public friendly style it is increasingly my opinion that a simpler judging format for this programme would provide a positive route to achieve this purpose, and perhaps the use of music could also be incorporated into this solution.

A proposal to establish a working group specifically to review this whole subject will be included in the plenary agenda, where broader discussion by all delegates can hopefully drive this matter forward with a view to implementation in 2019.



Nick Buckenham
Chief Judge, WAC 2017



Panel of International Judges:

Gabor Talabos	HUN
Guy Auger	FRA
Kimmo Virtanen	FIN
Laszlo Liszkay	RSA
Marty Flournoy	USA
Violetta Gedminaite	LTU
Vladimir Kotelnikov	RUS