



COMPETITION REPORT

AIRSPORT :	Aeromodelling	
EVENT:	2018 FAI World Drone Racing Championships	
CIAM COMPETITION CLASS:	F3U	
DATES:	November 1 - 4, 2018	
PLACE (VENUE):	Shenzhen Universiade Center Stadium, People's Republic of China	
ORGANIZERS:	Aero Sports Federation of China (ASFC) Culture, Sports and Tourism Administration of Municipality of Shenzhen Kaisa Culture Sports & Tourism Group	
CONTEST DIRECTOR:	KANG Dongying (Doreen) - People's Republic of China	
JURY:	Bruno DELOR Antonis PAPAPOULOS Jenny LV	President - France Member - Greece Member - People's Republic of China

INFORMATION BULLETINS

Three (3) Information Bulletins were circulated by the organizer, containing all the necessary details for the event.

A dedicated web site was on line by FAI from the very beginning providing information not only for the participants but also for the spectators and the media.

The registration of all competitors and officials was performed by using Noosphere eNavigator application.

REGISTRATION and TECHNICAL PROCESSING of MODELS

The on-site registration took place Wednesday, October 31, in a room provided by the organizer in the stadium.

34 countries were registered using the eNavigator application for 129 competitors. One competitor from The Netherlands has not been in situation to come.

In total, 279 participants have been registered on-site:

- 128 competitors including 44 Juniors and 13 Women.
- 23 Team Managers. 11 other Team Managers were also participating as competitors.
- 72 helpers.
- 56 supporters.

The technical processing took place Thursday, November 1st, in a room provided by the organizers on the venue. The models of the competitors have been marked as a proof of being processed.

The technical processing and the official practice have been monitored by the officials nominated by FAI to run the event.

COMPETITION AREA STATUS

Shenzhen Universiade Center Stadium in Shenzhen was the venue selected by the organizers. It is a big sporting complex built with Olympic standards so why plenty of room was available to accommodate the FAI Drone Racing World Championships.

The track was designed by the organizers and the setup was impressive. The track was equipped with plenty of electronic devices so to track the models flight and also to time each race. During the night the track was illuminated and various colors were used in order to make easier the recognition of each model by using a different color for each one.

Plenty of rooms was provided for each team, for the score processing team and for the competitors who were competing. A mixed zone to assist the media people was also in place. Separate offices were also provided to FAI, Jury Members, Judges and of course to ASFC and KAISA.

WEATHER CONDITIONS

Weather conditions were good in general, except few short time drizzles which didn't slow down the event since all the areas used for the event were well protected.

EVENT ORGANIZATION

Considering the complexity of the setup, with so many electronic equipment's required to run the event, the fully automated timing system and of course the pressure of the live TV broadcast, the event was well organized.

Needless to mention the tremendous efforts put for the success of the event by the Noosphere team (3 persons).

FAI has nominated 9 officials:

- Chris Ballard (Director of Racing, Freespace Drone Racing - Australia) to assist the Contest Director.
- Javier Soler (Spain) to assist the starter from People's Republic of China nominated by Kaisa.
- 8 judges from different nationalities:
 - Sotir Lazarkov from Bulgaria as Supervisor judge
 - Egon Kuster from Australia
 - Angelika Möbius from Germany
 - Oscar Chinello from Italy
 - Jose-Manuel Martinez Ibanez from Spain
 - Eric Li-Koo from United Kingdom
 - David Roberts from USA
 - Yonghong Lei from People's Republic of China nominated by ASFC.

Performance of all officials has been excellent considering the fact that all were out on the field for more than 14 hours per day.

More than enough volunteers were present throughout the entire event, and nothing was missing.

One Team Manager's meeting was organized before the start of the competition. All the team managers attended the meeting.

The detailed schedule was followed as so announced in the bulletins. Some delays were noticed the first day of the event which was of course natural, taking into account that this was the 1st CAT 1 event for this class. Those delays were not noticed during the next days. Few delays were also noticed during the finals but these were mostly from the live TV broadcasting requirements.

INJURIES

No such an incidence was reported.

DOPING CONTROL

Doping control test was conducted by the National Anti-Doping Organization and 4 competitors have been tested Saturday November 3 after 1/8th final round races. FAI Anti-Doping Manager Mrs Segolene Rouillon was present and assisted the process.

PROTESTS

There were 6 protests submitted: Two from Australia, one from Poland, one from Russia, one common from Thailand - Poland and one from USA.

One protest was upheld (Australia) and five were denied by the Jury.

Jury decisions were published according to the rules.

CEREMONIES

Opening and Closing ceremonies were well organized. During the Opening ceremony, all the teams marched into the stadium. The parade was followed by short speeches from the local organizers and from the FAI President of Honor Frits Brink. An impressive Drones show took place with a lot of formations and fireworks ended the ceremony.

The Award ceremony took place at the stadium right after the end of the finals and was live TV broadcast covered. The winners were presented the FAI medals and the appropriate National Anthems were performed. Later at the banquet, the FAI diplomas were also presented.

The closing banquet took place later at the garden of Castle Hotel Shenzhen.

TROPHIES

No FAI Trophy is available for this class. However, we need to point out that the organizers offered a trophy to each winner, and money prizes (220.000 USD in total) for all classifications which is happening for first time in a CIAM event.

RECOMMENDATION

The FAI Jury would like to recommend to the Drone Sport S/C to take care for the following matters for the future:

1. Reflight options. The possibilities of reflights need to be revised in order to be clearer both for the participants and also for the judges and the rest of the officials. This concern how to proceed in case of a false start, a video or a radio control equipment (including TBS Crossfire modules) problem, interruption of a race for exceptional circumstances such as for example a battery fire after a crash. Careful reading of protests will assist the S/C to further develop the rules on this aspect.
2. Video issues. As always, this has been a problem even for those who selected to participate with their preferred receiver. Video system is actually the weak point for Drone Racing. DJI digital camera unit and assorted goggles expected to be available on the market beginning 2019 may increase the possibility to have an HD video for piloting with less problems. This could be the opportunity to recommend in addition a video system (transmitter VTX and receiver) with the required HD quality for live broadcasting.
3. Timing system issues. Some timing problems have been noted. The timing system was based on technology RSSI ImmersionRC LapRF 8-Way Event Race Timing System as used for the May test event with 5 boxes (start gate, arrival gate plus 3 intermediate gates on the track). This timing system was interfaced to the Noosphere Event Management System (EMS). An Infrared system was available as back-up system without being interfaced to the EMS. It is recommended to improve the timing system for 2019 Championship Grand Final and Masters World Cup events with an appropriate redundancy in order to ensure complete and permanent reliability of the timekeeping.
4. Use of Wifi. A lot of problems were encountered for this matter since a lot of hot spots were in use all over the stadium. There are technical solutions available for this and this has to be considered for the next event
5. Improvements for the EMS scoring application. It was noticed that in a race the time measurement of a competitor was much lower than the time a competitor may achieve for this track and nobody took a notice of this, until the team manager of the competitor came to the officials the next day to declare the fact. Unfortunately, this was not noticed when it should and because the event has already been moved to the next phase, it was impossible to fix the problem. A possible solution might be to include some check points to the software like minimum time that is acceptable, so that in case there is a time recorded which is not possible to happen, a warning message to pop up and allow the officials to take immediate action.

Similar check points should also be in place when the score sheets filled by the judges are entered into the system. The use of tablets makes this easier to achieve because it will not let the judge to sign electronically the document in case there is a possible problem.

Note: The flight score form for additional rounds sequence needs to be modified in order to mention the rank instead of the number of points which is not available. It is important for the team manager or the competitor to get the rank in the race in addition to the time when he signs the form.

6. Publication of results. Publication after each race will assist to trace any possible error well in time. Currently, the results were published after end of the round and most of the time with a too long delay.

LIVE TV

We would like to mention that when Live TV broadcasting is taking place delays should be minimized. Experience gained from this event will be a good guideline for the future.

We would like also to refer to the on-board digital camera unit that DJI developed for this event which assisted the broadcasting to be more realistic and much more vivid for the spectators. The number of spectators attended the live broadcasting of the final rounds is very impressive and very promising for the future of this class.

STRAIGHT LINE WORLD RECORD ATTEMPT

We would like also to mention the Straight Line World Record attempt which happened as a side event, and organized by ASFC and KAISA Group. The attempt took place at the final round.

Official observer was Mr. Bengt Lindgren (SWE).

62 competitors participated in this attempt in total. The performance achieved is a new World Record and the dossier was forwarded to FAI Head Office for ratification.

COMMENTS

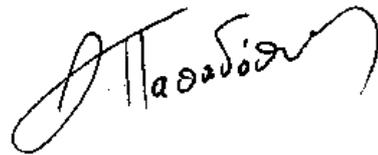
We would like to thank all the organizers and the entire competition staff for running the event in a fair and friendly atmosphere. The organisers are to be commended for an excellent event.

Shenzhen, November 5, 2018

Bruno DELOR (FAI Jury President)



Antonis PAPADOPOULOS (FAI Jury Member)



Jenny LV (FAI Jury Member)

