



LAUSANNE 2017
111th FAI
GENERAL CONFERENCE

FAI Workshops - Drones

Lausanne - 25 October 2017



One Year with Drones



Workshop Agenda

- **Administration**
- **Dealing with Authorities**
- **Actions / Activities**
- **Sport Development**
- **Next Steps**



Administration

Decisions and Actions by FAI EB

- Establishment of an FAI EB Working Group for Drones (December 2016 – 1st Meeting January 2017)
- Task CIAM to consider the necessary steps to offer the community the 1st FAI Drone Racing World Championships (April 2017)
- Workshop with Event Organizers (April 2017)
- Permission to participate scheme (March 2017)
- Organization of the Drones Expo and Conference together with EPFL at Lausanne (September 2017)
- Contacts with sports marketing agencies
- Decision for the 1st FAI Drone Racing World Championships (October 2017)



Administration

Decisions and Actions by CIAM

- Accepted the mandate from the EB to work for the 1st FAI Drone Racing World Championships. (April 2017)
- Assist on the preparation of the Bid Documents (May 2017)
- Assist on the Bid Evaluation process (September – October 2017)
- Work for the improvement of the Sporting Code.
- 2017 World Cup events
- Establishment of a WG for Safety matters to review the existing situation and prepare a CIAM Safety Guidelines document (April 2017)



Dealing with Authorities

- **Presence at JARUS meeting in Bucharest**
- **Presence at EASA Meetings (4)**
- **Workshop with CIAM delegates before the CIAM Plenary**
- **Detailed information to all European NAC's regarding EASA proposal**
- **Preparation of comments for EASA NPA 2017-05 together with EAS and EMFU**



- **FAI Common Strategy for Drones**

Actions / Activities



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Actions / Activities

**Continuous
communication:
FAI – ASCs - Members**

**Represent
drones activities
in governing
structures**

**Attract/Accept
new users**

**Establish
information flow**



**Offer drone
sports friendly
environment and
competitions**

**Educational and
informational
platform**

**Liaise with
regulatory bodies as
a trusted partner
for safe drone flying**



- **FAI Common Strategy for Drones**
- **Launch a survey for all FAI NACs regarding the current status about Drones matters in each country**

Actions / Activities



Actions / Activities

- **FAI Common Strategy for Drones**
- **Launch a survey for all FAI NACs regarding the current status about Drones matters in each country**
 - **Only 17 replies !!**
 - **10 from Europe**
 - **5 from Asia**
 - **1 from Africa**
 - **1 from Australia**



Sports

Why Drone sports a priority for FAI ?

- **High potential for drone sports activities with a rapid worldwide development**
 - Exciting for competitors and young audience
 - Interesting for spectators (*possibility to display pilot video camera view on large screens*) and well adapted for medias (*real time broadcast on TV and Internet*) and for sponsors

- **Important in that field to be proactive, flexible and open-minded**

considering that drone racing concerns a new breed of participants (pilots and investors) who generally never heard about FAI, or National established bodies, or even regulations authorities

- ⇒ ***FAI priority: Promotion and development of drone sports in a sustainable way and with a long-term view***



Sports

Drone Racing development in FAI frame

- **CIAM Bureau Meeting December 2015 in Dubai:** Introduction of the Drone Racing World Cup based on a new FAI provisional class F3U (Radio Control Multi-rotor FPV Racing) effective 1st January 2016
 - **CIAM Plenary Meeting April 2016 in Lausanne:** Creation of a new CIAM Subcommittee for FPV Racing and similar activities
- ⇒ ***Drone sports activities must be considered as Aeromodelling which justifies CIAM as the ASC concerned***
- ***... but must be visible as better as possible outside FAI, which justifies that on the new FAI website a Drones section is separated from Aeromodelling section***



Sports

RC Multi-rotor FPV Racing rules

- **FPV (First Person View) Racing**
 - 4 to 8 multi-rotor flying together on a racing circuit
 - The pilot is equipped with a headset goggle to control the model from the video picture from the on-board camera transmitted in real time
 - Each pilot is assisted by an Helper and controlled by a Judge
- **Specifications of the model**
 - Total weight (including batteries) < 1 kg
 - Electric propulsion (maximum voltage of 17.0 volts)
 - Maximum distance between axes of the engines 330 mm and maximum diameter of the propellers 6 inches (15.2 cm)



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Sports

Racing circuit





Sports

Drone Racing World Cup rules (1/2)

● Eligible contests

- Selection each year from the F3U FAI Open International contests eligible for the World Cup ranking
- Maximum of two contests per country. If the country extends over more than three time zones, one contest may be selected per each time zone of this country

● Classification

- Total World Cup score of each competitor: sum of his best four contest results (numbers of points)
- One contest result per organising country may be considered for each competitor
- Competitor with the highest total score is the winner of the World Cup



Sports

Drone Racing World Cup rules (2/2)

● Points allocation

For each contest, points are allocated to competitors depending on the placing and on the number of participating competitors (**N**)

a) $N > 40$

Placing	1	2	3	4	5	6	.....	40	41 and over
Points	40	39	38	37	36	35	.....	1	0

b) $N = 40$ or < 40

Placing	1	2	3	4	5	6	.....	N-1	N
Points	N	N-1	N-2	N-3	N-4	N-5	.....	2	1

In addition, Bonus points for each of the 3 first placed (maximum of 8 points for the first, 5 points for the second and 3 points for the third)



Sports

Drone Racing World Cup statistics

- **2016 Edition (1st Edition)**
 - 9 contests organised by 7 countries
 - 229 competitors competed (including 18 juniors) from 17 countries
- **2017 Edition**
 - 16 contests organised by 12 countries
 - After 13 contests taken in account, 381 competitors competed from 33 countries
 - First place in the current ranking list is a Junior





Before going into actions CIAM Bureau discussed the case and issue the following statement which was also approved unanimously by CIAM Plenary (April 2017)

FAI World Drone Racing Championships

Initial considerations

CIAM Bureau Statement

FAI Executive Board taking into account the rapidly expanding activity of drones racing around the world, asked CIAM to consider the necessary steps that are needed in order to be able to offer to the community a Drone Racing World Championship event as soon as possible.

CIAM Bureau decided to accept this mandate from the FAI Executive Board. The FPV Racing S/C together with the CIAM Bureau will work together in order to fulfill this task and make it happen end of this year or beginning of next year



FAI World Drone Racing Championships bidding process (1/2)

- **Drones Events Organizer Meeting:** 30 April 2017 in Lausanne
- **Development and Invitation to Bid document:** Launched 23 May with a deadline to submit a bid fixed for 31 July 2017
- **3 supporting documents:** Bidding Form with Annexes - Rules Framework - Organizer Agreement draft document
- **3 bids were received as follows** (*in alphabetical order*)
 - Albuquerque (USA) through the Anderson Abruzzo ABQ International Balloon Museum
 - Barcelona (ESP) through Freedom Class Racing and Freedom Drones Sports
 - Shenzhen (CHN) through the Aero Sports Federation of China (ASFC) in conjunction with Kaisa Holding



FAI World Drone Racing Championships bidding process (2/2)

- **Evaluation of the 3 bids**
 - Letter with questions to each bidder dated 31 August 2017 after evaluation done in August
 - Evaluation meeting 6 and 7 October 2017 in Lausanne
- **Report of the Evaluation WG** dated 17 October 2017
- **Decision by the FAI EB** dated 22 October 2017
- **Official announcement of the winner during the FAI General Conference**



FAI World Drone Racing Championships

FAI key role

- **Secure the basis of competitors selection and performance comparison to an internationally accepted standard**
- **Establish the rules, quality and safety standards of the Championships**
- **Cooperate and coordinate the relationship with the Organiser in support of staging the event**
- **Choose in conjunction with the Organizer the appropriate officials (competences and experience)**
- **Ensure that competing pilots are in possession of an FAI Sporting License**
- **Support the connection with all related Authorities**
- **Promote the event through all available channels**



Next steps

FAI mid-term guidelines

- **Define a global Drone Racing events format** adapted for media production
- **Secure quality and consistency of the FAI Drone Racing events**
- **Find a sports marketing agency** as partner for media production and commercialisation of the FAI media rights
- **Set up an FAI Drone Racing IT platform**
 - Event management system
 - Information and communication
- **Offer to the International Drones Leagues** the possibility to cooperate with FAI



Next Steps

Proposal of FAI Event format

- **Phase 1 - Year 2018**
 - **1st FAI World Drone Racing Championships**
 - **FAI Drone Racing World Cup** as organised in 2016 and 2017
- **Phase 2 - Years 2019 and over**
 - **FAI Drone Racing World Cup with two Events Series (A and B)**
 - **Series A:** Four major events with media production allocated by FAI with a bidding process
 - **Series B:** Other CIAM Open International F3U events
 - **World Championships Grand Final (or Master Cup):** at the end of the year with 24 competitors selected based on the World Cup ranking, plus 8 wild cards for the best competitors in the other International Drone Racing Leagues



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