

# F9 DRONE SPORT TECHNICAL MEETING

*Saturday 15<sup>th</sup> March 2025*



**Please,**

- **Mark your names (First & FAMILY) and country (e.g. FRA) by using the button available on your video image**
- **Use the icon “Raise your hand” if you want to speak**
- **Mute your microphone when you are not speaking**

# Technical Meetings - CIAM General Rules



- **According the CIAM General Rule A.5.2**

- Technical Meeting held by the Subcommittee Chairman prior to the CIAM Plenary Meeting
- The meeting *'shall consider items in the Agenda for the purpose of discussion and briefing of all those present and shall, through the Subcommittee Chairman, make their recommendations'* to the Plenary Meeting
- Are eligible to attend a Technical Meeting the Subcommittee members, voting CIAM Delegates / Alternates and any others approved by their NAC
- **In case of a vote, only one person per country may vote**

- **Minutes of the Technical Meeting** will be published on the FAI website

## Introduction

# AGENDA



- **CIAM F9 Drone Sport Subcommittee**
- *Status of the F9U class*
- *F9U class rules changes*
- *Racing circuit design and construction*
- *Drone Racing activities*
- *e-Drone Racing activities*
- *Drone Soccer activities*



## CIAM F9 Drone Sport Subcommittee

- **Chairman:** Bruno DELOR
- **Composition** (*according to CIAM General Rules A.7.2*)
  - Members are selected by the Chairman from the F9 Technical Experts appointed by NACs - Members must be from different countries
  - Subcommittee (S/C) members serve as individual expert consultants and are not obliged to represent the views of their NAC
  - List of the members of the Subcommittee published on the FAI website (<https://www.fai.org/page/ciam-subcommittees>)
- **30 countries actually represented** - The composition of the S/C will be updated before end March by considering the Technical Experts nominated by the NACs for the year 2025
- **Basecamp projects to exchange**
  - CIAM - F9U Drone Racing WG
  - CIAM - F9A Drone Soccer WG
  - CIAM - Drone Racing E-Sport WG

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## Status of the F9U class

- **2024 CIAM Plenary Meeting decision**

- F9U (Drone Racing) considered as an official class (instead provisional class) with World and Continental Championships
- According to the CIAM General rule C.2.1.1 c), a World Championship is held every 2 years

⇒ *Even years retained for the WDRC with the next one in 2026*

- **Consequence of the CIAM General rule A.10.2 for a official class**

- Period of 2 years of no changes to model aircraft/space model specifications and rules
- Rules changes may be submitted to the CIAM Plenary Meeting held the year of the World Championship (*even years for F9U class*) to become effective the following January unless a different date is approved at the Plenary Meeting

⇒ *This means that the proposals approved by the 2025 CIAM Plenary Meeting will be normally effective on 1<sup>st</sup> January 2026 unless to propose an implementation for 2025*

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## F9U class rules changes (1/2)

- **43 proposals for F9U class rule's changes submitted to FAI before the 15<sup>th</sup> November 2024 deadline by:**
  - Canada (Ignacio Romero) - 12 proposals
  - France (Aurélien Duval) - 13 proposals
  - Hungary (Peter Barsony) - 13 proposals
  - Poland (Marek Dominiak) - 5 proposals
- **After checking, the proposals from Canada, France and Hungary are similar** which means finally, 18 different proposals concerning 13 different items
- **According to CIAM General rule A.10.3, proposals may only be submitted by NACs and CIAM Delegates** - So, only the 5 proposals from Poland may be admitted
- **But, all proposals had been analysed within the S/C** to agree on proposals for inclusion on the CIAM Plenary Meeting Agenda
  - ⇒ *16 proposals from the S/C*
  - S/C members electronic secret vote - 24 of the 30 members voted*
  - All proposals approved with a 71% to 100% majority*



## F9U class rules changes (2/2)

- **21 F9U class rule's changes proposals published on the CIAM Plenary Meeting Agenda**
  - 5 proposals from NAC of Poland on items covered by the S/C proposals (C.15 - C.2 - C.5 - C.6.2 - C.6.3)
  - 16 proposals from the CIAM F9 S/C
    - ⇒ *Poland may be encouraged to withdraw their proposals from the Agenda*
- **The F9 Technical Meeting must do a recommendation on each proposal for the CIAM Plenary Meeting**
  - ⇒ *Review to proceed of the 21 proposals*

***F9U being official class from 1<sup>st</sup> January 2025, the Technical Meeting may recommend to the CIAM Plenary meeting 1<sup>st</sup> May 2025 as application date for the approved proposals***

*In that situation, the updated F9 Drone Sports Volume will be applicable for the 2025 World Games Drone Racing event*

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## Racing circuit design and construction

- **F9U class rules refers to the Annex C.1 for the racing circuit specifications and recommendations**
  - 2024 December CIAM Bureau meeting decided to remove the Annexes from the class rules Volumes by converting them as guide documents which may be updated at any time (Not subject to the 2 years rules freeze period)
  - This applies to the Annex C.1
- **Proposal to establish a guide document for the design and construction of a racing track** including considerations how to place the pilot's stage, the start line and the landing area for the drones in order to minimise risk of video interference
  - ⇒ *Working Group chaired by Eric LI-KOO (GBR)*

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## Drone Racing activities (1/3)



- **2024 WDRC** (October 31 to November 3 - Hangzhou, China)

- **Venue:** Shangcheng District Sports Center

- **Organisation**

- Aero Sports Federation of China (ASFC)
- China National Sports Group (CNSG)
- Hangzhou City support

- **Participation**

- 225 participants in total from 30 countries
- 107 competitors including 45 juniors and 11 female

- **US Drone Sports Inc. company** providing full services to run the event as for TWG 2022 and 2023 WDRC

- **Video problems** mainly due to the large quantities of metal used for the construction of the track

- **2026 WDRC:** Bidding process to be launched soon





## Drone Racing activities (2/3)

### ● TWG 2025 Drone Racing event

- **Venue:** Chengdu, China  
**Venue:** Secondary stadium in Dong'an Lake Sports Park
- **Arrival day on 11th August - Departure day on 18th July** (with possibility to participate to the Closing Ceremony)
- **Schedule for the competition**
  - 13<sup>th</sup> August: Model processing - Pilot's track walking through - Competitor's meeting - Official practice
  - 14<sup>th</sup> August: Qualification rounds (5)
  - 15<sup>th</sup> and 16<sup>th</sup> August: Competition run during night sessions
- **Format:** 32 athletes  
**All athletes are now qualified:** 24 men and 8 women from 21 countries
- **Livestreaming and broadcasting of all events** (International Sports Broadcasting company)



## Drone Racing activities (3/3)

### ● 2024 Drone Racing World Cup

- **12 events in 11 countries** including 2 new ones (Philippines & Türkiye)
- **305 competitors placed from 37 countries** including 118 juniors (39 %) and 20 women
- **Podium**
  - 1- MinJae KIM (Junior) - Korea (*2022 edition winner*)
  - 2- Killian ROUSSEAU - France (*2018 & 2023 editions winner*)
  - 3- WonKyun CHOI (Junior) - Korea
- **6 juniors in the top 10**

### ● 2025 Drone Racing World Cup

- **14 events from 13 countries planned**
- **Riyadh Drone Racing World Cup event** (23<sup>th</sup> to 25<sup>th</sup> January) with 137 competitors from 48 countries (Guinness World Record regarding number of countries participating in a Drone Racing event)

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## e-Drone Racing activities (1/4)

### ● 2024 FAI e-Drone Racing World Cup

- **Series of 5 virtual international events** from June to November
  - All pilots fly remote with their RC equipment connected to a computer
  - Different track for each event (Closed circuit with 3 laps to complete or “A to B” track in a specific environment) - Standard drone model
  - EreaDrone simulator and event management system - Steam platform
- **Event format**
  - **Qualification stage**
    - Period of time defined for the qualification stage (5 days to 3 weeks depending the event)
    - Each pilot flies alone (Flights 'asynchronous') with 12 attempts authorised to register times to complete the number of laps defined for the event
    - Qualification ranking calculated by considering the fastest registered time
  - **Competition day 1** (*First round with 8 pilots per race*) - 64 pilots selected from the qualification stage (*8 races*) - 4 best placed in each race qualified for the round 2
  - **Competition day 2** (*1/8<sup>th</sup> finals up to finals with 4 pilots per race*) **livestreamed with a commentator** - 32 pilots qualified from the first round (*16 races in total*) - 2 best placed in each race qualified for the next round <sup>17</sup>



## e-Drone Racing activities (2/4)

### ● 2024 e-Drone Racing World Cup *(continued)*

#### ■ Participation

- 208 pilots from 40 countries registered - 140 pilots from 35 countries participating
- New pilots and countries not yet concerned by FAI Drone Racing events (World Cup and WDRC)

#### ■ World Cup ranking

- For each event, points allocated to the pilots depending on their placing and on the number of pilots participating to the qualification stage
- World Cup ranking determined by considering for each pilot the sum of their best 3 event results (numbers of points)

#### ■ Podium

- 1- Swan VERSMISSEN - France (*Winner of the 2023 FAI e-Drone Racing Cup in Namwon*)
- 2- Kirill LOBAN - Serbia
- 3- Krutharth Mohan CHICKMAGALUR - India

#### ■ Top 10: Concern 9 different countries and 5 juniors

**Best female:** Yiran SHENG (13 years) from China - Placed 9<sup>th</sup> in the ranking & winner of the last event (Saudi Arabia e-Drone Racing World Cup)



## e-Drone Racing activities (3/4)

- **Olympic Esports Games (OEG)**
    - **23<sup>th</sup> July 2024:** 142<sup>nd</sup> IOC Session held in Paris approved the creation of the OEG with a 1<sup>st</sup> edition in 2025 in the Kingdom of Saudi Arabia
    - **8<sup>th</sup> October 2024:** IOC Framework document sent to all Olympic and Recognized International Federations (FAI for air sports) inviting to send proposals by 4<sup>th</sup> November 2024
    - **4<sup>th</sup> November 2024:** FAI proposal for e-Drone Racing in the category “Simulated Sports Games” sent to the IOC
    - **11<sup>th</sup> February 2025:** IOC announcement that the 1<sup>st</sup> edition of the OEG will be held in 2027 in Riyadh, Saudi Arabia in partnership with the Saudi Olympic and Paralympic Committee (SOPC) with Esports World Cup Foundation (EWCF) as Founding Partner for the OEG
- ⇒ *Use that delay to improve maturity of the e-Drone Racing World Cup and level of participation for female gender*



## e-Drone Racing activities (4/4)

### ● 2025 e-Drone Racing World Cup

#### ■ Series of virtual international events and rules similar to 2024

- Possibility to use the EreaDrone system **or** the Velocidrone system newly available
- Looking for organisers interested to run an e-Drone Racing World Cup event based on the racing track designed for their Drone Racing event
- Looking for partners interested by an e-Drone Racing World Cup event in a specific environment

#### ■ FAI E-Drone Racing Grand Final

- CAT1 event with FAI World Champion title
- 2 days event concerning the best placed pilots in the 2025 World Cup ranking with all pilots invited to be present on the OEG venue

⇒ *Looking for a partner to host the event*

*Such an event could be a good argument to put forward to the IOC*

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## ● Framework defined on September 2024

### ■ CIAM CAT2 events

- Continue the effort to encourage more countries to organise CIAM F9A Open International events
- Annual World Cup ranking based on a Series of CIAM F9A Open International events will request to fix for the year the composition of the Drone Soccer teams participating in the World Cup

⇒ *That requirement significantly reduce the interest of such a World Cup*

### ■ FAI CAT1 event

- As soon as a World Cup similar to the Drone Racing World Cup is not appropriate for FAI to take a worldwide leadership, it has been considered appropriate to introduce rapidly a FAI World Championship (CAT1 event)
- Decision to hold FAI World Drone Soccer Championships (WDSC) every 2 years on the odd years (WDRC on the even years)
- According to CIAM General Rule C.2.1.1, there must be teams from at least 8 different countries to validate the WDSC
- The WDSC will concern both F9A-A and F9A-B subclasses with a different event in each subclass
- For each subclass, every NAC will be authorised to register 2 teams



## Drone Soccer activities (1/4)



## ● 2025 WDSC

### ■ Bidding process

- Invitation to bid document distributed on 22<sup>th</sup> October 2024 with a deadline to submit a bid fixed on 1<sup>st</sup> December
- CIAM Bureau awarded the WDSC on 20<sup>th</sup> January 2025 to China
- Organiser Agreement signed on 25<sup>th</sup> February by the parties concerned (ASFC President, CIAM President and FAI Secretary General)

### ■ Location & dates

- Shanghai Stadium in Xiujiashui Sports Park
- 15<sup>th</sup> November (Opening Ceremony) to 18<sup>th</sup> November (Closing Ceremony)

### ■ Organisational structure

- Organiser: Aero Sports Federation of China (ASFC)
- Executive branch: Shanghai Science and Technology Sports Management Center

⇒ *Small group of F9A Technical Experts appointed to exchange with the organisation structure on all operational aspects : David ROBERTS (USA) - Matthias MÖBIUS (GER) and Frédéric THEUREL (FRA)*

## Drone Soccer activities (2/4)



## ● 2025 WDSC (continued)

### ■ Event format

- Group stage with every team playing a match against each other team of the group
- Knockout stage run with a direct elimination of any team having lost a match
- Final stage with a play-off match for the 3<sup>rd</sup> place

### ■ Information of the NACs and CIAM Delegates

- **Preliminary Entry Form (PEF):** Important to estimate ASAP the countries intending to participate and the number of teams expected in each subclass
  - ⇒ *PEF emailed on 3<sup>rd</sup> March with end March deadline to return it*
- **Bulletin 1:** Expecting to be in situation to distribute it beginning April

### ■ Pending topics

- Number of active players to consider for the F9A-B event (5v5 or 3v3)
- Number of groups for the group stage in each subclass
- Number of referees necessary
  - ⇒ *Decision will be taken by considering the PEFs received*

**Drone Soccer activities (3/4)**



## ● 2024 Drone Soccer Open International events

German Drone Ball Cup	ID 16397	Germany	Hannover	February 2 to 4, 2024
FAI F9A Drone Soccer USA Open International Cup	ID 15911	USA	Alexandria, Virginia	April 26 to 28, 2024
FAI Korea Drone Soccer Open International	ID 16603	Korea	Seoul city	June 1 & 2, 2024
FAI Hong Kong International Drone Soccer Competition	ID 16385	Hong Kong, China	Hong Kong	December 21 & 22, 2024

## ● 2025 Drone Soccer Open International event

2. Open international German Drone Soccer Cup	ID 17263	Germany	Aalen	March 21 to 23, 2025
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**Drone Soccer activities (4/4)**



Minutes, list of participants and presentation slides will be uploaded on the following webpage:

<https://www.fai.org/ciam-plenary-2025>

