



## 2023 WDRC JUDGES GUIDE

The present guide is compliant with the 2023 FAI World Drone Racing Championship Sporting Rules document which is based on the F9U class rules stated in the FAI Sporting Code Section 4 - Aeromodelling Volume F9 Drone Sport 2023 Edition (Effective 1<sup>st</sup> February 2023).

### 1- Contest organisation

Three stages: qualification, elimination and final.

#### **Qualification stage**

The qualifying stage will include 3 qualifying rounds with a different draw for each qualifying round.

Considering the expected number of competitors (120), the qualification rounds will be organised, as much as possible, with 5 competitors per group.

**Note:** Any race with less than the expected number of competitors, for example due to competitor(s) withdrawal, will be moved at the end of the qualifying round concerned in order to complete the race with competitor(s) that have been granted a reflight. If necessary, the last races of each qualifying round may be rearranged by the supervisor judge (under supervision of a FAI Jury member) in order to achieve as much as possible a minimum of 3 competitors for the races concerned.

Each qualification round will be done with a maximum allocated flying time of 3 minutes.

After the start of each qualifying race, three consecutive laps will be timed. When the competitor has completed three laps or when the three minutes allocated time is over, he/she must land its model.

The result of each competitor for the qualification stage will be the average of the 3 best times recorded to perform one valid lap taking all the qualifying rounds into consideration.

#### **Elimination stage**

The scenario A as defined in the F9U class rules will be applied for the elimination stage (64 competitors selected from the qualification stage with the double elimination sequence applied).

Elimination rounds will be organised with 4 competitors per group.

***The placing for each race will be determined taking in account the time for the competitors having flown the number of laps required. Those who will not finish their flight will be ranked considering the distance completed (number of laps and part of the last lap completed). Competitor(s) disqualified will be placed at the end of the race.***

The two best placed in each race will be selected for the next round. In case of a tie for the second place, the placing in the provisional ranking established at the end of the qualifying stage will be considered to define who is selected for the next round.

#### **Additional rounds sequence**

All competitors not selected for the elimination will be entitled to participate to 2 additional rounds to determine their final placing from the 65<sup>th</sup> place to the end.

The draw will be different for each additional round. Considering the number of competitors expected for this sequence, the additional rounds will be organised, as much as possible, with 5 competitors per group.

**Note:** Any race with less than the expected number of competitors, for example due to competitor(s) withdrawal, will be moved at the end of the additional round concerned. If necessary, the last races of the additional round may be rearranged by the supervisor judge (under supervision of a FAI Jury member) in order to achieve as much as possible a minimum of 3 competitors for the races concerned.

Each additional round will be done with a maximum allocated flying time of 3 minutes.

After the start, 3 consecutive laps will be timed. After the three laps are finished, the competitor must land the model.

After the race, the time registered for the three consecutive laps will be considered for the competitors having flown three laps. The registered time to complete two consecutive laps will be considered for the placing of the competitors who did not succeed to complete three consecutive laps. For those who did not succeed to complete two consecutive laps, it will be considered the registered time for their first lap.

### **Final stage**

Every final (Overall, Junior, Women) will be organised on a single race with the 4 competitors qualified.

## **2- Flight occurrences**

### **Obstacle damaged or destroyed during the race**

When an obstacle is accidentally damaged or destroyed during a race, the pilots will be informed as soon as possible of the incident by the starter, and how to proceed.

In the case where it concerns an obstacle to be crossed (air gate, tunnel,...), the decision may be to continue to cross the obstacle, or to give permission to bypass it, or to stop the race. When bypassing of the concerned obstacle is authorized, pilots must do their best not to take advantage of the situation.

In case it concerns an obstacle to be avoided, the race will continue except if it is decided differently considering for example that safety is impacted. When race continues, pilots must do their best to follow the track and not to take advantage of the situation.

### **Faults and penalties**

In the case a pilot don't fly on the expected way (does not cross an obstacle, misses a pylon or flag, does a circuit cut ...) the corresponding lap will not be validated. The pilot may try to execute immediately and on a safe manner a manoeuvre to correct the mistake.

If the pilot corrects its mistake, the lap will be validated.

If during this manoeuvre the pilot has a collision with another model, the pilot will be disqualified for the race.

### **Crash**

When a model crashes, the concerned pilot can resume if the model is in a situation to do so.

When the model cannot go on, it must stay on the ground with motors cut off until the end of the race.

The pilot must clearly indicate that he/she stopped the race by putting off his/her headset goggle.

The pilot and the helper must then stay quiet in their position until the race is finished for all pilots.

### **Safety occurrence**

A pilot can be requested to stop to fly if it is considered the model no longer meets acceptable safety standards. It could be for example the case when a model is damaged after a collision or after a crash, or when the battery is dangling.

In case of a serious safety issue, the Race Director may decide to stop the race and disqualify the pilot(s) eventually responsible of the safety issue. A restart of the race will be done for the pilots who had not been disqualified and were still in the air when the safety issue occurred.

### **3- Reflights**

Possibility of an individual reflight will only be considered for the qualification stage.

**Note:** For a video issue, indisputable evidence must be available especially when the pilot concerned had not used the video available from the organiser's receiver.

For the rest of the competition (elimination stage, additional rounds sequence, final stage), individual reflights will not be awarded. In that situation, video issue or collision with another model will be considered as race incidents with no reflight possibility.

Granting of a reflight is decided by the Supervisor Judge in cooperation with the Pilot Judge concerned and, where necessary, with the Race Director.

The reflights will be organised at the end of the qualifying round concerned, or as part of any race that have fewer than the required number of competitors.

For any competitor being granted a reflight, the original flight for which the competitor has been granted the reflight is then definitively cancelled.

### **4- Disqualification from the race**

A pilot may be disqualified from a race in the following circumstances:

- Start before the start signal.
- Collision with another model when executing a manoeuvre to correct a mistake.
- Circuit exit (crossing of the safety line).
- Celebratory manoeuvre, especially after the pilot finishes.
- Hazardous piloting or safety compromised.

The disqualification is decided by the Race Director or, where applicable, by the Pilot Judge assigned to the concerned pilot.

When a pilot is disqualified, he must land as soon as he has been informed. In any case, the result of the pilot for the race will not be validated.

Pilot(s) disqualified will be placed for the race after the other pilots. In case more than one pilot is disqualified from the race, the pilots concerned will be placed taking into account the qualification stage ranking.

If a pilot disqualified from a race is considered not being sufficiently cooperative to land, the concerned pilot may be disqualified from the event by the Race Director with the consent of the FAI Jury.

### **5- Pilot Judge role and responsibilities**

Each pilot will be accompanied in the race by a judge standing behind the pilot and the helper.

Except under an exceptional circumstance, the judge's panel will not change for a complete round of flights.

#### **a) Judge equipment**

It is recommended that each judge prepares his/her own document with the racing circuit pattern in order to better memorize the track with position of air gates, obstacles and turns.

An electronic timing system will be used; so, the judges will not be required to do manual timekeeping.

Each judge will have a specially configured iPad tablet for monitoring race progress, and DVR review of the race if necessary.

## **b) Judge potential conflict of interest**

In order to simplify organisation and improve the understanding of the races by the public, a colour attached to the video frequency will be assigned according to the draw order in each group of pilots.

For every round of flights, each judge will be allocated a colour. In that situation, the judge will stay at the same place for the different races of a round.

Nevertheless, a judge will not judge a pilot of his own country in order to avoid any complaint justified by a potential conflict of interest. So, if necessary, a judge will invert with another judge for the concerned race. Such situations will be managed on behalf the Supervisor Judge.

## **c) Role of the judge for the race**

Before the start of the race, the judge must carefully check that the pilot corresponds to the good colour and that the pilot is not from his country in order to avoid to be in a potential conflict of interest situation.

During the race, the judge will monitor that the pilot follows the circuit and crosses every gate and obstacle correctly.

Limited communication must occur during the race between the judge and the pilot or helper.

The judge will normally communicate only to inform the pilot in case of a disqualification, or when the pilot had finished its race. The other infractions or relevant information will be addressed by the judge to the pilot when the race is finished for all the pilots.

**Note:** In case of disqualification, the number of circuit laps completed at the moment of the disqualification will be communicated by the judge to the concerned pilot and recorded.

## **6- Supervisor Judge role and responsibilities**

A Supervisor Judge is appointed in addition to the Pilots' judges.

Before any race, the Supervisor Judge will check that there is no situation of potential conflict of interest between each judge and his/her assigned pilot.

When the race is finished, the Supervisor Judge will:

- support as necessary a judge in case of doubt for a reflight, or to pronounce a disqualification from the race;
- take care that each iPad tablet is signed by the judge and then by the team-manager or the competitor concerned;
- manage the complaints from competitors and team managers.

## **7- Use of the iPads tablets**

Before the beginning of each race, each Pilot judge will be asked to confirm a good view of the video transmitted from the model concerned.

At beginning of each race, judges will focus carefully on their iPad tablet to follow the race of their pilot.

When/if it looks that the pilot don't fly on the expected way (don't cross an obstacle, misses a pylon or flag, does a circuit cut ...), then the judge will tap on the screen of the iPad tablet to mark that moment in time while letting the race continue.

Once the race is finished, the timing system generates protocols or results. Protocols must be signed by judges either using specially configured iPad or paper hardcopies. Once all protocols signed, final flight results are calculated and flight is closed allowing next flight to be started.