F9A-A SUBCLASS RULES AMENDMENT

Based on the tests done by Matthias Möbius for F9A-B subclass (drone balls diameter 20 cm), I recommend to amend as follows B.1.1. Weight and size subparagraph b) Subclass F9A-B:

"The total weight of the drone ball including all equipment necessary for flight (including outer frame and batteries) shall not exceed ~~200 g~~ **300 g**.

….."

Note: This amendment may be implemented 1st January 2021 considering the following Volume F9 provision (page 11): *"Regarding the provisional statute of the F9A and F9U classes, the content of this Volume is not subject to Plenary Meeting approval, nor is it restricted by any rule freeze regulation."*

CIAM PLENARY MEETING AGENDA
PROPOSALS FOR VOLUME F9 DRONE SPORT

A) F9A - DRONE SOCCER

a) B.1.1. Weight and Size — Germany

Modify the following section by deleting text and replacing it as shown below:

B.1.1. Weight and size

A spherical outer protective frame shall surround the drone ball. ~~The diameter of the frame must be 40 cm±2 cm.~~

The diameter of the shell have a diameter of (30 cm to 40 cm) ±2 cm.

Reason given by Germany to support the proposal: There is only one reference point for Soccerballs in Europe, the company Helsel EU in France. The supply options are poor, the prices are very high. Other companies offer a 30 cm version throughout Europe. For this the delivery of the balls as well as the spare parts is secured. 30cm soccer Balls are sold worldwide via a dealer network. Therefore, the inclusion of these balls in the regulations makes sense.

F9 S/C Chairman recommendation: The introduction of the F9A-B subclass in the Edition 2020 of the F9 Drone Sport Volume removes the interest of this proposal. I have understood from an exchange I had with Matthias Möbius (F9 Technical Expert for Germany) that he had no objection to withdraw the proposal. If not, my recommendation is to vote against the proposal.

B) F9U - MULTI-ROTOR FPV RACING

b) C.1.3. Propellers — Germany

Delete the text shown below:

C.1.3. Propellers

~~Any Propeller protection devices is forbidden~~.

Reason given by Germany to support the proposal: The free-rotating propellers on the copter pose a significant risk potential. If a copter is out of control, significant cuts can be the result. In all companies, occupational health and safety demands that rotating parts require a protective device. It should therefore be allowed in the regulations and not prohibited.

F9 S/C Chairman recommendation: This proposal has been implemented in the Edition 2020 of the F9 Drone Sport Volume. So, it is not necessary to consider this proposal.

c) C.6 Event Organisation **Germany**

Modify the following section by deleting text and replacing it as shown below:

C.6. Event Organisation

It is recommended to run the event with a maximum of ~~4 (four)~~ **six (6)** pilots per race ~~in order to minimize risk of video problems especially for elimination and final stages considering reflights are difficult to consider for those stages. Nevertheless, when the number of competitors justify it, the qualifying rounds may be run with 6 (six) pilots per group subject it is legally and technically possible.~~

Reason given by Germany to support the proposal: The pilots want the maximum number of flights on a race weekend. In most countries we can use 8 frequencies on the Raceband. Thus, the expansion to 6 pilots per race would be significantly increased the number of flights per competitor. The experience from 2019 shows that the risk of crashes with 6 pilots does not increase.

F9 S/C Chairman recommendation: The proposal has been done without considering the wording amended as follows in the Edition 2020 of the F9 Drone Sport Volume: *"It is recommended to run the event with a maximum of 4 (four) pilots per race in order to minimize risk of video problems especially for elimination and final stages considering reflights are difficult to consider for those stages. Nevertheless, when the number of competitors justify it, the qualifying rounds may be run with 6 (six) pilots per group subject it is legally and technically possible."*

As written, it is not prohibited to fly races with more than 4 pilots in all stages of the event including elimination and final stages. I don't support the idea to recommend a maximum of 6 pilots per race, because doing it could encourage to run World Cup events with more than 4 pilots per race which is not appropriate from my experience.

In addition, the proposal is not sufficient for a proper implementation in the F9 Drone Sport Volume. It is necessary to add annexes similar to the annexes C.2 to C.4 for scenarios A to C with 4 pilots per group.

So, my recommendation is to vote against the proposal or to refer back to the F9 subcommittee.

d) C.6.4. Elimination Stage **Germany**

Add text as follows:

C.6.4. Elimination stage

The elimination stage will be organized according to one of the three following scenarios:

- Scenario A - 64 competitors selected from qualification stage.
- Scenario B - 32 competitors selected from qualification stage.
- Scenario C - 16 competitors selected from qualification stage.
- **Scenario D - Riser System**

Supporting Data

The races are divided so that each of the participants with a straight placement and the participants with an odd placement form the races.

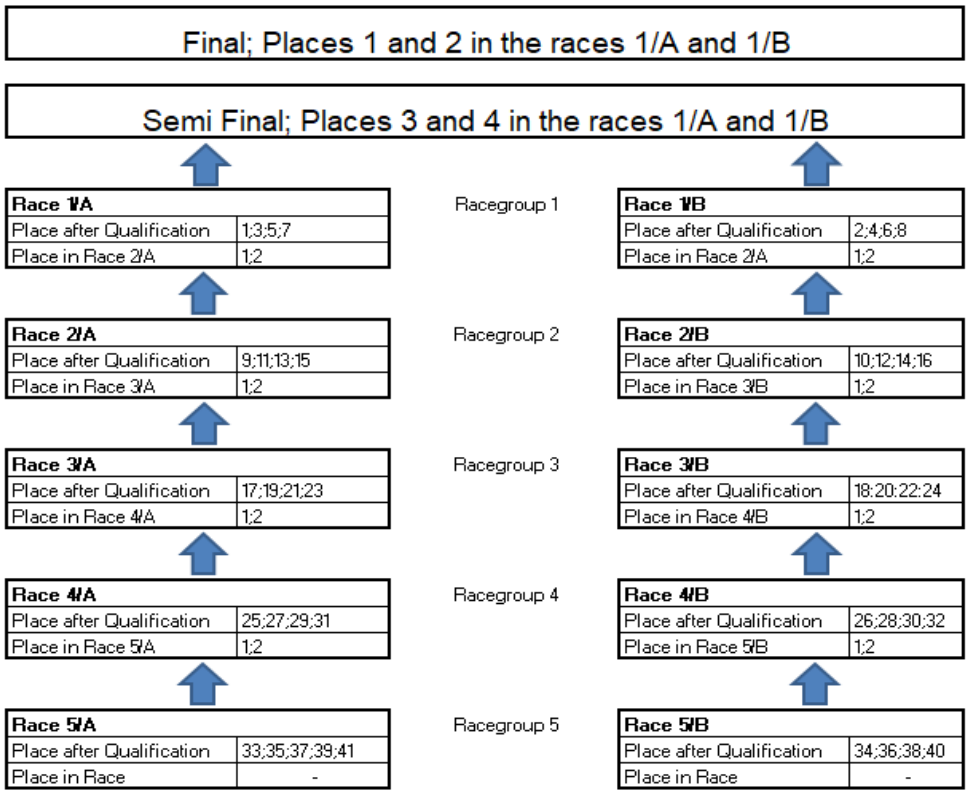
All races with participants who had reached a straight placement forms the race column A.

All race with participants who had an odd placement, forms the race column B.

Two races each from the race columns A and B at the same height form the race group.

From each race of a race group, the two best drivers climb into the race of the next higher race group.
The elimination phase ends with the determination of the participants of the small and the big final.
The appendix lists a scheme for the promotion procedure, which should be adapted to the number of participants.

Example for an Elimination Stage with 41 participants



Reason given by Germany to support the proposal: The systems listed in the rules are designed for 4 participants in the elimination race. Not all participants can participate in the elimination phase. The riser system can be designed for any number of participants in a race. All competitors participate in the riser system.
The results of the qualification go into this phase more strongly.

S/C Chairman recommendation: The example which is presented is not sufficient to understand how to implement this scenario D 'Riser System'. It will be also necessary to add in the Volume F9 Drone Sport an annex for this scenario similar to the annexes C.2 to C.4 for scenarios A to C. In addition, an Excel template as available for the actual scenarios will also be appreciated for presentation of the official results of the event.
I suggest to refer back the proposal to the F9 Subcommittee considering the proposal is incomplete for a proper implementation in the rules and cannot be considered as an urgent proposal.