Competition rules of the class of F3B-RES
Rudder elevator spoilers

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1. General provisions:

(a) "F3B-RES" is a competition class for radio-controlled glider models with a maximum of two (2) meters wingspan and "predominant" timber construction. It is controlled via rudder and elevator and spoiler as flaps (placed on the top of the wing at least 5 cm / 2 in before the end bar). *Note: It is not clear if "end bar" refers to a rear spar, which may not be present in all models, or the trailing edge.*

The landing flaps can be controlled with one or two servos.

Is launched with a bungee (RES 100 set of EMC-Vega, see point 6).

(b) definition of a radio-controlled glider:

A model of aircraft, which is not equipped with a drive device and its upwelling is based on aerodynamic forces which act upon motionless permanent surfaces.

The models must be controlled from the ground by radio remote control by the contest participants.

(c) in the competition, at least four (4) preliminary rounds are flown. For each round, the participants are divided into groups. The results of each group are Pro Mille "normalized," to come to comparable ratings of the flight groups, even if weather conditions change during a round. The four (4), but not more than eight (8) participants with the highest normalized ratings in the preliminary rounds fly a "Fly-off" with two (2) further final rounds in a group, to determine the final standings. The size of the group in the "fly-off" is equivalent to the size of the Group of the preliminary round.

(d) the participants may use a maximum of two (2) models in the competition, but only one (1) model per round.

(e) the participants may use up to three (3) of their own helpers. These helpers may launch his model and retrieve it, inform him about flying weather, flight time, and change the high start direction. At least a helper has to constantly make sure that their own high start does not obstruct other participants at the start. This requires that rubber and rope are immediately withdrawn after notching at the assigned start point.

In a crosswind, the contest administrator can determine proper orientation of launches so that the ropes come to lie not one above the other.

(f) the organizer should have official scorekeeper/timekeeper available. This is not the case, stop the helpers of the pilots the flight time, the Organizer does but sample moderate over checks of flight times. *Note: This is interpreted to mean that helpers for non-flying pilots are assigned by the organizer to act as official timer for flying pilots*. Deviations of more than three (3) seconds for the benefit of the part's lead to a zero rating of flight.

(g) the landing points are recorded whenever possible always by an official scorekeeper.

2. model:

2.1 the model consists generally of wings, fuselage and tail unit. Flying models that do not have a fuselage and elevator or vertical stabilizer or none of these components are also part of the class if they have control surfaces totaling only around two (2) axes. Each of these control surfaces may be controlled only by a single servo respectively. Otherwise the building regulations apply for the tail models accordingly.

The model is "overwhelming" timber construction. This means:

(a) in the wing, FRP/carbon/Kevlar tubes or Fibreglass/carbon fibre/Kevlar can be used as wing connectors and leading edges (otherwise timber).

(b) the tail boom to the tail of a Fibreglass/carbon fibre / Kevlar tube or profile can used. The tube/profile may be (as seen from the rear) up to the half of the wing surfaces depth.

(c) the strength of a wooden fuselage may be increased by covering with Fibreglass/ carbon fibre/Kevlar.

(d) all servo-control surface pushrods / pull-pull systems and suspension parts are excluded from the CFRP/GRP constraint.

2.2 usage is <u>not allowed:</u>

(a) a full Fibreglass/carbon fibre/Kevlar - or other plastic body (E.g. expert, EPP etc.),

(b) a Fibreglass/carbon fibre/Kevlar monocoque created wing or empennage, also no FRP/carbon/Kevlar-D-box,

(c) a tail or wing Fibreglass/carbon fibre/Kevlar-shelled foam or other plastic

(d) fixed or retractable devices for braking of the model upon landing on the ground (E.g. pin, sawtooth-like protruding devices, etc.). Nothing may protrude except the towhook(s) (size: each 5 mm wide x 15 mm high, seen from the front). The towhook(s) can be adjustable, but should be the adjustment does not have remote control.

(e) ballast which is not located in the model or is not securely fastened.

(f)) any transmission of information from the flight model to the competitors, with the exception of the signal strength, the receiver temperature and voltage of the receiver battery (no vertical speed indicator).

(g) by telecommunication systems on the airfield for contestants and helpers (radios and phones included).

3. competition site

(a) the competition must take place on a site that is relatively flat and there is an as low as possible chance of slope soaring or wave gliding.

(b) the flight area must have a designated starting line. The starting line is perpendicular to the wind, and must have for every participant a designated starting point, that is at least eight (8) meters are away from each other. 150 meters apart starting line and "Line of fortifications" of high start rubber (see also point 6 exception). The high start mounting points are on the "line of fortifications"with eight (8) m spacing.

(c) the marked landing points should be at least eight (8) metres away from each other. You are at least ten (10) metres downwind from the start points.

(d) the landing points must be clearly marked on the ground. The distance between of the tip of the fuselage to the landing point is determined using a tape measure or measuring string.

(e) a landing field perimeter is set by the Organizer, a country field is set. Landings outside the landing fieldare given a zero rating.

4. competition flights

(a) the participant is entitled to at least four (4) official flights.

(b) the participant is entitled to an unlimited number of attempts during the framework period.

(c) it is considered an official attempt if the model has left the hand of the participant of the competition or the helper and the rubber is energized.

(d) in the case of multiple attempts, the result of the last flight is the official result.

(e) the contest administrator is entitled to interrupt the competition and the start line in order to reorient the launch direction if the wind direction becomes very different or even tail wind comes up. He can cancel the competition entirely if there is a wind of more than nine (9) m/s / 20 mph.

5. flight reps:

The participant is entitled to a new execution time if:

(a) his model crashes during high-speed launch or in flight with a different model which is either flying or taking off.

(b) he is prevented from lying about his start-up by another other start-up at the start (first or repetition starts).

(c) the flight was impeded or stopped by an event that is outside its control.

To claim his flight review in accordance with the above stated reasons, the competition participants must make sure that the official timekeeper or the competition leader has perceived the disability and the pilot needs to land his model as soon as possible.

Should the participant continue his flight after the disability, it is assumed that he waives his right to a new transit time.

6 start:

The high start is 14.7 meter rubber hose and 100 meter nylon rope (RES 100 set EMC Vega.).

On flight sites which do not allow to a total cable length of 150 metres (in the extended state) due to size of the field, the organiser may necessarily shorten the nylon rope and rubber hose proportionally to make a reduction in flight time. In the competition these changes must be pointed out.

7 landing:

(a) each participant is assigned his own landing point before his competition flight. Each contestant is responsible to assure they always use the correct point of landing.

(b) during the process of landing, the pilot and his helpers are allowed to reside within a radius of 10 metres to the point of landing. More volunteers and the official timekeepers remain at the starting line.

(c) after the landing the pilots may overtake their models within the time frame, if not impeded by other participants of the group, as well as their models. After the landing is completed, the models are not allowed to be touched or be taken away until the official scorekeeper of the organizer has made the distance measurement (otherwise the country rating is zero: see point 8.2 f).

(d) plug-in (lawn dart) landings are not permitted. A plug-in landing is when the tail end of the model does not rest on the ground.

8. evaluation of flight performance and landing:

8.1 evaluation of flight performance:

The timing begins with release of the model from the high start line and ends
(a) with the halt of the model
(b) at the end of the frame

The maximum flight time is six (6) minutes (360 s) within nine (9) minutes (540 s) working time. The pilot achieving more than six (6) minutes (360s) within the working time will have the overtime deducted from the six (6) minutes (360s).

The flight time is laid down in seconds without rounding.

Two (2) points will be awarded per second flight time.

It is in flown in groups of 4 to 8 and the raw score converted to Pro Mille “normalized.”

8.2 review of landing:

The distance between of the tip of the fuselage and the marked point on the ground is measured after the stop of the model. Depending on the distance, the following points are awarded:

to distance in meters	points	to distance in meters	points	to distance in meters	points
0.20	100	1.80	92	9.00	60
0.40	99	2.00	91	10.00	55
0.60	98	3.00	90	11.00	50
0.80	97	4.00	85	12.00	45
1.00	96	5.00	80	13,00	40
1.20	95	6.00	75	14.00	35
1.40	94	7.00	70	15.00	30
1.60	93	8.00	65	15.00>	0

For the landing, the participant receives zero points if

(a) he performs a plug-in landing (definition see item 7.d).

(b) the model loses parts on landing or

(c) the model is no longer airworthy after landing.

(d) the model still has not landed at the end of the working time

(e) the model touches the pilot or his helper

(f) the model is touched or taken away by the pilot or his assistant after the landing and before the official measurement.

ZERO points for the entire task (flight and landing) will be awarded, if

(a) the model lands outside of the landing perimeter established by the Organizer prior to the competition.

(b) the model still has not landed 30 seconds after the end of the working time.

9 final ranking:

The final score of the competition is determined by the precedence of the final rounds for the participants of the “fly-off” and for the remaining participants by the ranking of the preliminary rounds. If the final round is not flown, the ranking of the flown preliminary rounds is the final score of the entire competition.

10. Notes for the competition

Each participant is flying at their own risk and liability, he has to prove a valid insurance cover. Claims against the organiser, the organisers and the participants themselves are excluded.

The maximum total length of the high start-up (depends on the respective space), is to be indicated in pre-competition announcements.

The maximum flight time is proportional to the total length of the high start (see point 6).

With this message, the subscriber agrees to undergo the flight regulations and the rules in all points.

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