



FAI Sporting Code

*Fédération
Aéronautique
Internationale*

Section 4 – Aeromodelling

Volume F3 Radio Control Pylon Racing Model Aircraft

2020 Edition Version 2

Effective 1st June 2020

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VOLUME F3 PYLON RACING

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Exact layout and numbering to follow

5.3 CLASS F3E: RC ELECTRIC POWERED PYLON RACING AEROPLANES**5.3.1 Definition of Radio Control Pylon Racing Aeroplanes**

Model aircraft in which the propulsion energy is provided by an electric motor and in which the lift is obtained by aerodynamic forces acting on the supporting surfaces, which, except for the control areas, must remain fixed in flight. The power pack for the electric motor may not have any fixed connection to the ground or another model aircraft in the air

5.3.2 Technical Specifications of Pylon Racing Aeroplanes

5.3.2.1 There is no requirement for the competitor to be the builder of the model. Refer C.5.1.2. in *CIAM General Rules*.

5.3.2.2 A model aircraft may not be used by more than one competitor.

5.3.2.3 Each competitor may process and use a maximum of three models in a contest. The competitor may combine the parts of the model aircraft during the contest, provided the resulting model aircraft conforms to the rules and that the parts have been checked before the start of the contest. There is no limit to the number of used motors and batteries.

5.3.2.4 For the identification of models, the contest director may supply coloured stickers to the competitors to be applied on the wing surfaces. These wing stickers shall have the following properties:

- i) Width between 75 and 100 mm; length equal to local wing chord.
- ii) Thickness maximum 0.1 mm.
- iii) Total weight of stickers maximum 3 grams.
- iv) Adhesive strength more than 0.5 N/mm².
- v) Water resistant.
- vi) Sufficiently flexible to follow all wing shapes.
- vii) Bright colour (fluorescent recommended); two highly different colours have to be available.
- ix) The ability to be peeled off without damaging wing surfaces.
- x) The stickers must be positioned at the outer half of either the left or the right wing on the top and bottom sides.

5.3.2.5 Weight of model

Minimum weight ready to fly: 1,000 g

Maximum surface loading 65 g/dm²

5.3.2.6 If ballast is used it must be permanently and safely affixed.

5.3.2.7 Augmented stability systems and similar.

See CIAM General Rules 2020 for such systems.

In F3E augmented stability systems are allowed **(Exact formulation to follow, based on text in CGR)**

5.3.2.8 CIAM general rule CGR C.18.4 b) about the nose radius of a spinner does not apply to F3E.

5.3.3 Power source

a) The power source shall consist of any kind of rechargeable batteries (or secondary cells), the maximum no load voltage must not exceed 21Volts (max. tolerance +0.2 Volts). In case the voltage is measured, this shall be done at the moment the preparation time for the pilot starts. After the measurement has been taken, the pilot is allowed 5 minutes preparation time before he is called to the start.

If the model aircraft carries more than the allowed number of cells as power source for the motor or the voltage exceeds this voltage, the competitor is disqualified from that heat.

b) Battery type: any type of battery with a maximum of 5 cells in series. Cells in parallel are not permitted.

Minimum weight of battery pack: 200 g

Maximum weight of battery pack: 400 g

The weight of battery includes soldering, insulation, cables and connectors.

Connector type must be 6 mm bullet. (conformity with EDIC document, Annex 1)

c) Mechanical or chemical modification of the individual cells, e.g. to reduce their weight, is not allowed except that insulation sleeves of individual cells may be changed.

Agenda Item 14.8 a)

F3 Pylon Racing Volume with F3E**5.3.4 Motor stop**

The pilot must be able to stop the energy supply to his motor, on the ground or in the air, by radio control within five seconds of command.

The radio system used to control the aircraft shall be equipped with a fail safe. This fail safe shall be set to shut off the energy supply to the motor if radio signal is lost.

5.3.5 Energy limiter**5.3.5.1 General**

a) Limitation of energy will be by an electronic limiter that stops the motor: max 1000 Wattmin.

b) The energy limiter is located in the electric circuit between the battery and the motor.

c) The energy limiter shall be of an EDIC approved type.

5.3.5.2 Technical Specifications of the energy limiter.

These are written in Annex 1. Energy limiter in F5D, From SC4_Vol_EDIC , par 2.2, 2.3 and 2.4.

See Annex A1 for full explanation and approval procedure of the energy limiters.

5.3.5.3 Use of limiters in competition

The organizer can use two systems of use of limiters. Only one of these two systems can be used in one contest.

The organiser must decide which of these systems he will use and indicate this clearly in the invitation.

1: Every competitor uses his own limiter

2: The organizer provides for every competitor 2 limiters, these will be drawn by competitors either every day or before every round. The organizer will provide information in the invitation for the competition how this will be done.

5.3.5.4 Procedure for limiter checking, malfunction of limiter

The general procedure of limiter and logger checking follows Section C.12, Model Processing, in *CIAM General Rules*.

5.3.5.4.1 Processing of Energy Limiters

a) The organiser of an event has to provide equipment for energy limiter processing. The competitor must have the ability to check his limiters prior to and during the contest.

b) The organiser will check if the limiter/logger is correctly connected to RX, LiPo pack and ESC. There must not be any type of "jumper" or any other electronic component present in the 0V (ground) RX cable between the BEC, the Limiter and the Receiver " or on the current sensor.

5.3.5.4.2 Malfunction of energy limiter

a) Limiter/logger provided by the organiser: The competitor will have a reflight. This is the case when the energy limiter is measured outside the tolerance of +2/-0%. In case of negative tolerance the competitor can choose not to have a reflight and keep his result.

b) Limiter/logger of the competitor: Disqualification for that round in case the 1000Wmin +2% is exceeded. No penalty or reflight will be given in case the energy limitation is measured to be less.

5.3.5.4.3 Infringement of energy limitation

If an infringement of energy limitation rules occurs the result of that round is discarded.

5.3.6 Technical checks and safety requirements

a) At registration of the model aircraft before the competition, the Technical Officer may carry out technical checks either at his own discretion or at the request of the competitor to check if the models comply with the technical specifications. However, under all circumstances during the competition, it is the competitor's responsibility to ensure that entire model aircraft complies with the technical specifications in 1.2-1.4

b) During the competition all measuring equipment will be at the disposal of competitors to check their model aircraft if they wish to.

c) After a race, the Technical Officer may take any model aircraft for inspection (*CIAM General Rules* C.12 d)).

d) If the model aircraft is not according to the technical specifications in 1.2- 1.4 the competitor shall be disqualified from the competition. The penalties for not properly functioning or other

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infringements of energy limiters are described in par. 1.5.

- e) The Contest Director has the right to request any competitor to make a flight to demonstrate the airworthiness of his model aircraft.
- f) Safety inspections of all aircraft before or during registration and at random as a pre-flight check during the competition shall be conducted by the contestant under the supervision of the Technical Officer.

The list of checks should include the following:

- i) Electric safety of battery and its connections.
 - ii) Push/pull rods or cables, control horns, and servo leads shall be installed in such a way that they will not become disconnected in flight. Clevises shall be physically held closed by short pieces of fuel tubing or similar material. Metal clevises shall be protected from deterioration of the threads due to vibration by means of a lock nut, thread treatment such as Loctite ® or Vibra-tite ®, or a similar method. Ball links shall be tight.
 - iii) All mounting screws of the motor shall be in place and secure.
 - iv) Control surfaces shall be firm on the hinge line without excessive play.
 - v) Wings, if removable, shall be securely attached to the fuselage with bolts or machine screws.
 - vi) The aircraft shall be free of stress cracks and any other indications of structural damage.
 - vii) Proper functioning of the motor stop by fail safe.
 - viii) Proper fixation of ballast.
- g) If a model aircraft does not comply with the technical of safety items during a pre-flight check, the Technical Officer will not allow it to fly in the race.

5.3.7 Competitors

- a) A race team shall consist of a pilot and a caller. All pilots must be accompanied by a caller for reasons of safety. The caller may be the team manager, another competitor from the same national team or a third party. In all cases the caller must be the holder of an FAI licence, not necessarily issued by the NAC of the pilot, and must have paid an entry fee.
- b) Each pilot and mechanic/caller shall be registered as a team from the beginning of the competition through to its end. In special cases (injury, illness or the like) the caller may be changed during the competition, but only with permission of the contest director.
- c) Notwithstanding b) above, the pilot or caller of one race team may act as the caller in one or more race teams of his national team. However, once registered, pilot/caller roles may not be interchanged in a race team nor may a caller registered with one national team act as a caller for any other national team with the following exception: In case a national team consists of only one competitor the caller may be a member of another national team. A caller can operate in this case in only one other national team than his own national team.
- d) In each race, the caller must release the model aircraft at the start and give the pilot verbal information regarding the flying course of his model aircraft and any official signals.
- e) Electronic communication with the pilot of any kind shall be prohibited.
- f) There will be no pilots' helpers at any of the pylons.
- g) The Contest Director has the right to request any competitor to make a flight to demonstrate his ability to fly the aircraft around the course

5.3.8 Helmets

- a) All officials, competitors and callers on the racecourse must wear a crash helmet with a properly fastened chin strap. Helmets must be worn during practice and during the competition.
- b) During the competition, any pilot or caller not wearing an appropriate helmet will disqualify that team from the heat.
- c) During practice, any pilot or caller not wearing an appropriate helmet will not be permitted to fly and if already flying will be instructed to land immediately and will not be permitted to fly again until both members of the team are wearing helmets.

5.3.9 Transmitter and frequency check

- a) For transmitter and frequency checks see *CIAM General Rules C.16.2. Spread spectrum (2.4 GHz) technology may be used and if all competitors do, then C.16.2.2 may not apply.*
- b) Heats shall be arranged in accordance with the radio frequencies in use to permit simultaneous flights, taking into account that frequency will not follow frequency.

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- c) Each competitor has to supply two different frequencies, separated by a minimum of 20 kHz, which he must be able to use on all his model aircraft entered in the competition.

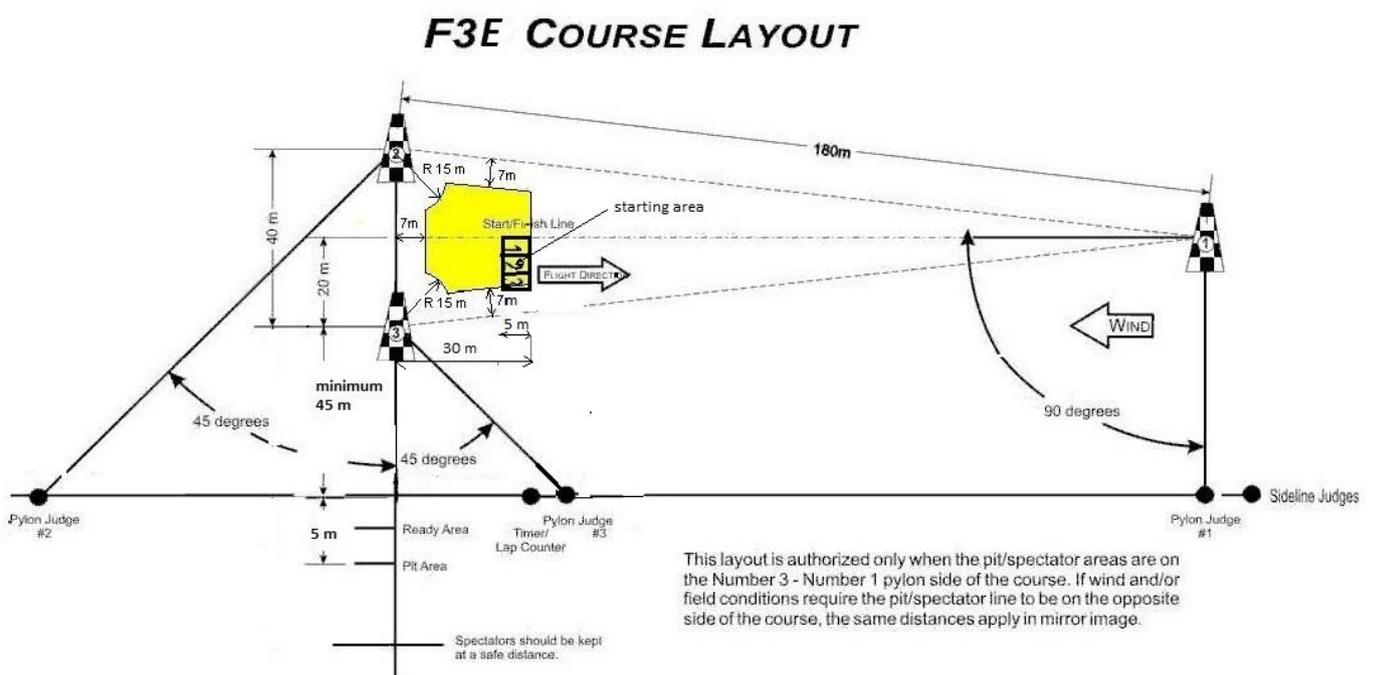
5.3.10 Race Course, Distance and Number of Rounds

- a) The race course is a triangle with sides of 40 metres, 180 meters and 180 metres, marked by 3 pylons. In this triangle an area in the shape of, and to the dimensions and location as shown on the diagram at the end of this paragraph, is specified, wherein, for reasons of safety, all pilots, callers and the Starter have to stay during a race. This area will be called the pilot's area.

Three starting lanes are defined. These are approximately 3 meters wide and extend from 5 meters behind the start/finish line to the start/finish line. The No 1 starting lane is closest to pylon # 2.

- b) For the race course and starting area lay-out, see the diagram on the next page. The race course specification may be modified in the interest of safety or to suit existing field conditions if as long as safety is not compromised and subject always to strict compliance with rule 5.3.10.a.
- c) Annex 5Q gives guidelines for the lay-out and organisation of the flying site in order to achieve maximum safety for competitors, judges and spectators.
- d) The pylons should have a minimum height of 4 m and should not exceed 5 m in height.
- e) Pylons shall be made of a rigid material at least 70mm in diameter at any point. The pylons must be finished in a bright colour in order to enhance visibility.
- f) The race is over 10 laps with an individual nominal length of 400 m and total nominal flying distance of 4000 m.
- g) The race starts at the start-finish line. The race is terminated at the start -finish line 10 full laps later.
- h) The number of rounds will be announced by the organiser before the start of the competition with a minimum of 3 and a maximum of 15. Because of weather conditions or other important reasons, the number of rounds may be reduced during the competition, but only after consultation with the team managers or the competitors in an early a stage as possible. See also A.5V.5 and A.5V.6.
- i) Each competitor will have a minimum of 20 minutes preparation time between flights in different rounds or before a reflight in the same round to allow his motor to cool down. This 20 minutes period starts when the competitor exits the course or the after flight processing

F3E RACE COURSE LAYOUT (5.3.10a and 5.3.10.b)



5.3.11 Race from Start to Finish

- a) Annex 5R describes the duties of the Contest Director, Starter, Judges and other personnel.
- b) Annex 5T describes the draw of races.
- c) A maximum of three model aircraft per heat will be allowed.
- d) All pilots and callers (and the Starter) have to stay within the pilots' area (see race course layout in 5.2.7.16b). If the pilot or the caller intentionally steps out of this pilot's area with both feet (to be judged by the Starter) then this will be penalised as an infringement. The Starter will take care that pilots are sufficiently separated and will take preventive action if a collision between pilots or their transmitter antennas is likely to occur.
- e) Starting positions in all races will be determined by draw with the No.1 lane being closest to No 2 pylon.
- f) The Race Starter is in charge of each heat. The Starter will ensure that all competitors and race officials are ready to commence. Each Timekeeper and Pylon Judge will have a signal of a distinctive colour. The Starter will arrange for each model aircraft to be identified by the Timekeepers and Pylon Judges before the start of any heat. A radio operation check from each competitor, judged by the Starter will be made prior to starting engine(s).
- g) A 10 seconds period will be allowed after the starter has made sure everyone is ready to go. The race starts immediately after the 10 seconds period. No competitor shall be permitted to take off once the first model aircraft has passed the start/finish line heading from N^o. 1 to N^o. 2 pylon on the first lap, and no time shall be given him for that heat.
- h) All take-offs will be hand launched by the caller. No mechanical device may be used to assist the aircraft to take-off.

Only hand pushing is permitted. Other throwing techniques, like discus throw type are forbidden.

Before and during launch the caller is, for safety reasons, not allowed outside his take-off lane which is defined as the lane of given width (appr 3 meter) , between the start line and 5 meters behind the start line, see 1.10 race course lay-out.

- i) The Model aircraft shall be launched within 2 meters of the start line on the starting signal (flag drop or light signal) at one-second intervals with timing commencing at the starting signal for that particular model aircraft.
The caller must launch the model within +/-45° of the given launch direction.
- ii) In case of tail wind the course direction should be changed, if possible. If this is not possible due to physical or time constraints and when there is a strong tail wind (>5 m/s) the starter can decide a 180° change of take off direction at least 10 minutes before the first heat of a round. This direction of launch shall be continued for that complete round.
In this case the take-off area will be mirrored to the start-line and safe positions of the pilots will be secured by the starter.
- i) An early start (the model passing the start line before the starting signal) or a start in a wrong direction will be penalised as an infringement.
- j) After the starting signal is given, any contact between model aircraft shall be considered a collision and the model aircraft involved must land immediately. If a competitor fails to stop racing immediately after the collision, then he will be disqualified from that round,
- k) If j) above occurs, and the Contest Director is of the opinion that the aircraft is still airworthy, or the competitor has an airworthy reserve model aircraft, then the competitor shall be entitled to a second opportunity to record a score in that round.
- l) All laps are to be flown counter-clockwise with turns to the left.
- m) Over-flying the sideline shall be considered dangerous and will be penalised as an infringement (to be judged by the sideline judge).
- n) Persistent flying below the top of the pylons shall be considered dangerous. After passing the first pylon on the first lap of the race, low flying is considered persistent when the model aircraft flies below the height of three consecutive pylons. Below a pylon height means that any part of the model is below the pylon height. This will be judged by the timekeeper and N^o 1 pylon judge. An infringement will be given after confirmation by both parties. A dedicated official may be used for this purpose.
- o) Cutting a pylon (to be judged by the pylon judges or the sideline judge) be penalised as an infringement.

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- p) In the event of a malfunction of the timing, lap counting, signalling or other such equipment which is the responsibility of the organisers, any competitor(s) affected by such malfunction shall be given the opportunity to record a score for that round.
- q) If during the race, the Starter or the sideline judge considers any model aircraft to be flying erratically, dangerously, or so uncontrolled as to endanger pilots, callers or course officials, the Starter shall instruct the pilot to land immediately. The pilot shall be disqualified from that heat or the Contest Director may disqualify him from the competition.
- r) At the completion of the 10 laps, the Starter must immediately instruct the competitor to remove his aircraft from the course and to stop the energy supply to his motor within 10 seconds. If he does not do this within 10 seconds after the Starter's command, the competitor shall be disqualified for that flight (to be judged by the Starter). In certain circumstances the Starter may allow a competitor to continue to fly for a short time, e.g to allow the limiter to be emptied to have no limiter surprises at landing.

If there is a need to continue to fly for a short time after the end of the race this must be announced to the Starter. Only two straight runs (e.g. for trimming the model) will be accepted.

- s) At the completion of a heat, all aircraft must be landed in an area designated by the Contest Director. No pilots or callers may enter the designated landing area until all aircraft have completed landing to a full stop. Contravention of this rule, to be judged by the Starter, shall incur disqualification from the heat.
- t) After the power supply to all motors has stopped, the pilots and callers may leave the pilots' area and move to positions (to be advised by the Starter before the race starts) close to, but not inside, the designated landing area from where they may land their models.
- u) After the starting signal (flag drop or light signal) and before the power supply to the engine stops, the loss of any part of the model aircraft, except as a result of a collision where 5.2.17 l) applies, disqualifies the competitor for that flight.
- v) The race is finished, when all models have landed and have come to a full stop.

5.3.12 Timekeeping and Judging

Annex 5R describes the duties of timekeepers and judges.

- a) All officials (timekeepers, lap counters and pylon judges) must stay at a minimum distance of 45 m outside the course as drawn on the F3E course lay-out in 1.10.
- b) Flight timers and lap counters: Each competitor shall be assigned one officer during each heat. This officer will time the competitor's aircraft for the required ten laps. In doing so he will count the laps flown and advise the pilot when he has completed the necessary 10 laps. He will keep the recorded time on his timing device until he has entered the time on the score sheet under the supervision of the Starter.
- c) On the start/finish line an electronic activated signal will be provided for each competitor. The No 1 pylon judges will operate these signals. These judges shall signal the competitor when the competitor's aircraft has passed the No 1 pylon. The pylon judges will be located on the course as described in the race course layout diagram (5.2.16 (b)). Each pylon judge will have a distinctive colour allocated, and the Starter will arrange for each model aircraft to be identified by the allocated pylon judge before the start of every heat.
- d) The judges' signals will be off as the aircraft reach midcourse between No. 3 and No. 1 pylons, or earlier. At the instant the model aircraft draws level with the No. 1 pylon the pylon judge will switch his signal on. When the model aircraft draws level with the No.1 pylon on the way back the signal is switched off. When a pylon cut has been made the signal will flash on and off 5 times or another signal will be activated to inform the competitor about the pylon cut.
- e) At the No 2 and No 3 pylons, the pylon judges will place themselves in a position in accordance with the race course layout diagram (5.2.16 (b)) to the pylon they are judging.
- f) The judges at No 2 and No 3 pylons will record a cut pylon infringement.
- g) Two sideline judges will be posted near the No 1 pylon judges on the spectator side of the racing course. The sideline judges will record as an infringement any over-flight of the sideline and any flight below the height of the pylon.
- h) A sideline judge will be posted in front of the pit area on the spectator side of the racing course. The sideline judges will record as an infringement, any over-flight of the pit or spectator areas.
- i) At the end of each race the sideline and pylon judges will inform the Starter of any infringement by any competitor.

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5.3.13 Infringements and Penalties

- a) For reasons of clarity, all infringements that are mentioned in the rules, the judges that are judging them and the corresponding penalties are summarised in the table overleaf.
- b) See paragraph 1.16 Scoring and Classification, for the effects of disqualification and infringements on a competitor's score.
- c) Only the Contest Director may disqualify a competitor from the competition.

Table of Infringements & Penalties			
Paragraph	Subject	Judged & Applied By	Penalty
5.3.3.a) 5.3.3.b)	Battery has more than 21.2 Volts no load voltage or more than 5 cells.	Technical Director	DQ from heat
5.3.5.4.2.b)	limiter/logger of the competitor: 1000Wmin +2% is exceeded	Technical Director	DQ from heat
5.3.5.4.1.b) 5.3.5.4.3	Infringement of energy limitation	Technical Director	DQ from heat
5.3.6.d)	At after-race processing, model aircraft is not according to technical specifications 5.3.2	Technical Officer, Contest Director	DQ from competition
5.3.6.e) 5.3.7.g)	Cannot prove airworthiness of model aircraft or capability of pilot	Contest Director	DQ from competition
5.3.6	Model aircraft does not pass pre-flight check	Technical Officer, Contest Director	DQ from heat
5.3.8.b)	Not wearing of helmets (pilot/caller)	Starter	DQ from heat
5.3.9.c)	Not having multiple frequencies (if not using 2.4GHz)	Contest Director	DQ from competition
5.3.11.d)	Pilot or caller intentionally stepping out of the pilots' area with both feet	Starter	1 infringement
5.3.10.g)	Too late start	Starter	DQ from heat
5.3.11.h.i)	Caller outside starting lane before and during launch.	Starter	1 infringement
5.3.11.h.i)	Launch more than 2 meter from start line	Starter	1 infringement
5.3.11.h.i)	Launch more than +/-45° of the given launch direction.	Starter	1 infringement
5.3.11.j)	Too early start	Starter	1 infringement
5.3.11.o)	Flying outside safety line	Sideline Judge	1 infringement
5.3.11.p)	Flying below pylon height	Sideline Judge Pylon Judge	1 infringement
5.3.11.q)	Pylon cut	Pylon Judge	1 infringement
5.3.11.s)	Erratic, dangerous or uncontrolled flying	Starter, Sideline Judge,	DQ from heat
5.3.11.s)	Erratic, dangerous or uncontrolled flying	Contest Director	DQ from competition
5.3.11.t)	Failing to stop engine within 10 seconds from Starter's command	Starter	DQ from heat
5.3.11.u)	Landing outside designated landing area	Starter	DQ from heat

5.3.11.u)	Pilot or caller entering the landing area before all model aircraft have landed and stopped	Starter	DQ from heat
5.3.11.w)	The loss of any part of model aircraft	Starter, Sideline Judge	DQ from heat

5.3.14 Scoring and Classification

- a) The flight of each model aircraft shall be timed by a lap counter/timekeeper with a timing device measuring to at least 1/100th of a second). Timing shall start when the starting signal is given to the individual competitor.
- b) The lap counter/timekeeper stops his timing device after ten laps have been completed by the competitor and, supervised by the Starter, records the elapsed time from the timing device on the competitor's score sheet.
- c) At the completion of each heat, the pylon and side-line judges shall notify the Starter as to which model aircraft, if any, have had infringements recorded against them. The Starter then advises the lap counters/timekeepers assigned to those aircraft who will record the total number of infringements for each competitor on his score sheet.
- d) The score sheets are then processed by a scorekeeper who:
 - i) for one infringement, will add 1/10th of the flyer's time for ten laps to give the corrected time;
 - ii) for two or more infringements, will give a score of 200.
- e) Points shall be awarded after each race as follows: The competitor's score shall be his corrected time in seconds and hundredths of a second. If the competitor fails to complete his flight or is disqualified his score shall be 200.
- f) The winner of the event is the competitor who has accumulated the lowest score after the conclusion of all heats. If four or more rounds are flown, each competitor's worst (highest) score shall be discarded. If eight or more rounds are flown, each competitor's worst (highest) two scores shall be discarded. If twelve or more rounds are flown, each competitor's worst (highest) three scores shall be discarded.
- g) If the time permits and there is no frequency conflict, ties shall be broken by a fly-off race. Otherwise, the best single race score shall be considered in resolving a tie.

5.3.14.1 Team Classification

To establish the scores for the international team classification, add the final individual scores of the members of the team. Teams are ranked according to the lowest numerical score to highest, with complete three-competitor teams ahead of two-competitor teams which in turn are ranked ahead one-competitor teams (*CIAM General Rules C.15.6.2 a) ii*). In a case of a team tie, the team with the lower sum of place numbers, given in order from the top, wins. If still equal, the best individual placing decides.

5.3.14.2 Awards

Awards will be given in compliance with *CIAM General Rules C.15.6*. Callers will be awarded with diplomas only.

ANNEX F3E.A1

Energy limiters, EDIC document.

SC4_Vol_EDIC_19 Effective 1st January 2019

Section 3 – F5D Energy Limiter V 1.0

Initial Publication: 01 July, 2016

https://www.fai.org/sites/default/files/documents/sc4_vol_edic_19.pdf

ANNEX F3E A2**GUIDELINES FOR AIRFIELD LAY-OUT, SAFE AND UNSAFE AREAS
AND POTENTIAL LANDING AREAS****F3E.A2.1 OBJECTIVE**

- a) This Guide is intended to specify guidelines for the organisation of F3E international contests, for the benefit of both the organisers and the competitors. It is emphasised that these are recommendations and they do not have the same status as the binding regulations in the FAI Sporting Code unless they concern any regulation in that Code.
- b) Since this Guide will be widely distributed and should be regarded as the standard for F3E international competitions, organisers should avoid confusion by announcing in advance any changes from this Guide that may be necessary to suit local circumstances as long as those changes are not in contravention of the any of the regulations in the Sporting Code.
- c) This Guide is primarily applicable to World and Continental Championships, but parts of it may be useful for open international competitions.

F3E.A2.2 Diagrams 1 and 2 give the ideal competition site layout for F3E in order to attain maximum safety for competitors, race course personnel and spectators.

F3E.A2.3 The local situation may require that a different, but as safe as possible, layout has to be applied subject always to strict compliance with F3E rule 1.10. Two orientations are drawn for the airfield lay-out, one with N° 1 pylon at the right side as seen from the pits and the other one with N° 1 pylon at the left side.

F3E.A2.4 The diagrams are partly based on an assessment of ground impact in a number of major Pylon Racing competitions. Such assessment should continue as a standard routine to inform the F3 Pylon Racing Subcommittee, which, for safety reasons, may lead to modifications of the preferred airfield layout in the future.

F3E.A2.5 The Contest Director or Starter will designate the landing area. The competitors shall be informed of the landing area before the start of the competition and if necessary (eg by changing wind conditions) by the Starter before a race starts. The landing area should have in any case sufficient distance to the pits and the judges.

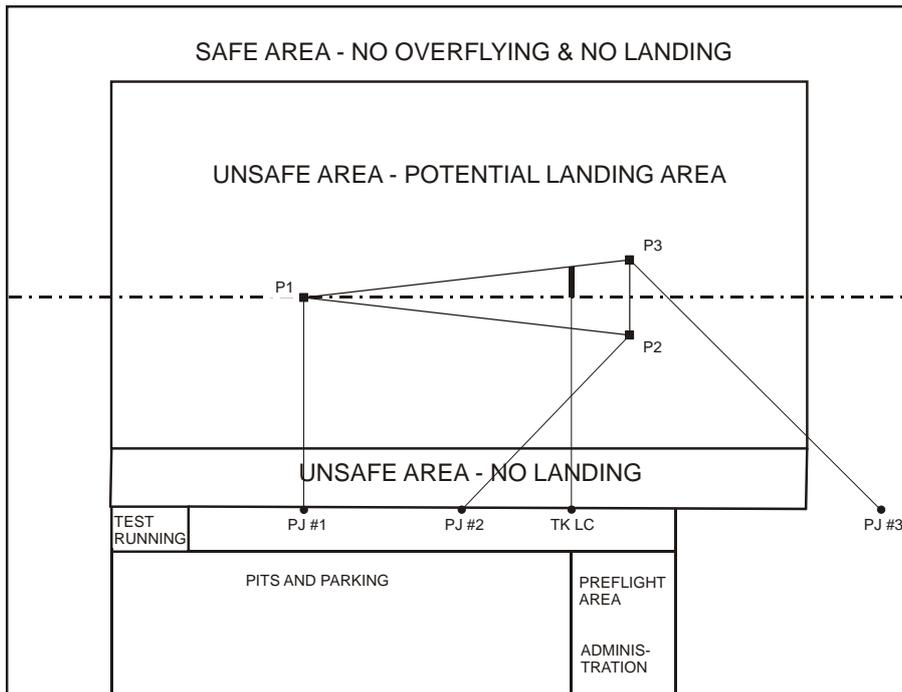
F3E.A2.6 Diagrams 1 and 2 show how a landing area can be defined.

Note: refer to the diagram at 1.10 for the pilots' area.

In the case that the area around the race course is of poor quality for landing and there is a tarmac strip inside the triangular race course, landing may take place on this tarmac strip. In this case all pilots and callers must go to a safe position designated by the Starter, outside the triangle, before the first model aircraft lands.

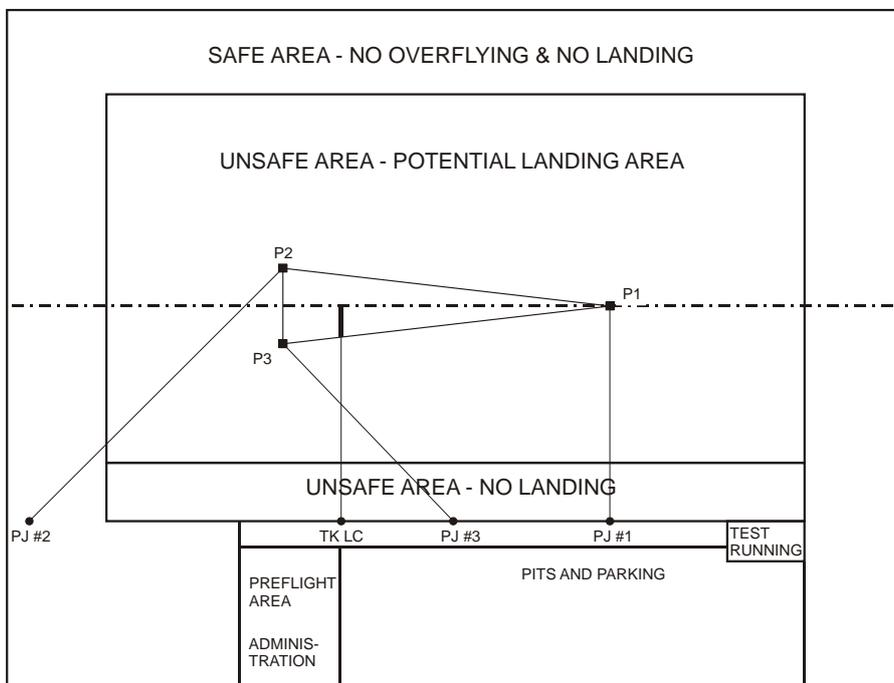
Diagrams 1 and 2 appear overleaf.

Diagram 1 – F3E Site Layout 1
N° 1 pylon at left side as seen from pits



F3D Competition Site Layout - Left

Diagram 2: F3E Site Layout 2
N° 1 pylon at right side as seen from pits



F3D Competition Site Layout - Right

ANNEX F3E A3

GUIDELINES FOR THE DUTIES OF FAI JURY, CONTEST DIRECTOR, JUDGES AND OTHER OFFICERS

F3E.A3.1 OBJECTIVE

- a) This Guide is intended to specify guidelines for the organisation of F3E international contests, for the benefit of both the organisers and the competitors. It is emphasised that these are recommendations and they do not have the same status as the binding regulations in the FAI Sporting Code unless they concern any regulation in that Code.
- b) Since this Guide will be widely distributed and should be regarded as the standard for F3E international competitions, organisers should avoid confusion by announcing in advance any changes from this Guide that may be necessary to suit local circumstances as long as those changes are not in contravention of the any of the regulations in the Sporting Code.
- c) This Guide is primarily applicable to World and Continental Championships, but parts of it may be useful for open international competitions.

F3E.A3.2 FAI International Jury

- a) Observation of the competition in general including the standards of judging and handling of official protests.
- b) For the appointment and specific duties of the FAI international Jury refer to *CIAM General Rules*.
- c) The members of the FAI Jury are invited to and, should be present at, each team managers' meeting, each briefing of the judges, the opening and awards ceremonies.

F3E.A3.3 Contest Director (CD) (1)

- a) The Contest Director is the "general manager" of the competition. During a racing event, an unforeseen situation may arise that requires immediate action. Therefore, the CD is authorised to initiate any special procedure that he deems necessary to rectify a situation that may be considered unsafe.
- b) Any protest shall be handed to the CD. Protest procedures are described in *CIAM General Rules* C.20.
- c) The CD will assign the landing area.
- d) The CD is the person responsible for the draw for the heats. The FAI Jury or a member thereof will be present when the draw takes place.

F3E.A3.4 Starter (1) (+ Assistant Starter if necessary (1))

- a) The Starter acts for the CD in all matters arising on the racecourse. Unless overruled by the CD, the Starter's actions and decisions concerning the start, finish, and operation of each heat are final.
- b) The Starter's primary duties are to signal the start and finish of each heat, co-ordinate the efforts of the other racecourse workers, and to transmit the scores and times from each heat to the Assistant Starter or scorekeeper. The Starter should be equipped with the following:
 - (i) a clipboard containing the draw of the heats;
 - (ii) a signal flag, preferably one bearing the classic black-and-white chequerboard pattern;
 - (iii) a walkie-talkie or headset radio.
- c) A helpful accessory is a large starting clock with a clearly visible sweep hand.
- d) The Starter should stand ahead and to the right of the starting line, as viewed from the pilots' standing area facing No 1 pylon. When the pilots have reached their assigned positions on the starting line, the Starter should direct the pilots or callers to hold up the aircraft one by one, so that all the racecourse workers can clearly see and identify them. The Starter should then communicate (via a coloured flag or a walkie-talkie) a unique identifying colour for each aircraft.
- e) The Starter will check if all pilots and callers are wearing helmets.
- f) After identifying the aircraft, the Starter should ask the pilots to make sure their transmitters and receivers are turned on and functioning properly. He should ask to see a "wiggle" of confirmation from one of the control surfaces on each aircraft and get confirmation that everyone is ready to start.
- g) After that, the Starter announces the start of the 10 seconds period for starting
- h) The closest model aircraft to be started first. The Starter shall give the starting signal (flag drop or light signal) at one second intervals pointing with his finger to the aircraft that is next to start. Timing commences at the starting signal for that particular model aircraft. Any model that is not ready to start at the starting signal will not affect the Starter's sequence of actions.

- i) During the race the Starter will judge whether the pilots and callers stay inside the pilots' area. If a pilot or caller intentionally steps out of this area with two feet the Starter will give a penalty.
- j) The Starter will take care that pilots are sufficiently separated and will take preventive action if a collision between pilots or their transmitter antennas is likely to occur.
- k) The Starter should call the competitor's colour or racing number and "up and out" to any pilot who appears to have double-cut or who is otherwise disqualified.
- l) After the finish of each aircraft, the Starter will inform each competitor that his race has finished. This means that the pilot has been given the command to shut off his engine and has 10 seconds in which to comply. If the pilot fails to shut off his engine within the 10 seconds and he has not been given express permission by the Starter to continue to fly, then he will be disqualified for that heat.
- m) The Starter judges the landing procedures and will disqualify competitors that land outside the designated landing area and any pilots or callers that enter the landing area before the last model aircraft has stopped.
- n) At the end of the race, the Starter will collect the scores, all infringements and race times from the officers and convey them to the Scorekeeper. Any disputes concerning the number of laps flown, times, cuts, etc, should be resolved promptly at the conclusion of the heat.
- o) Since the Starter has many duties, an Assistant Starter may be necessary. The Assistant Starter will be under the full authority of the Starter. His duties will be allocated by the Starter.

F3E.A3.5 Timekeepers/Lap Counters (3)

- a) The job of each time-keeper/lap counter is to follow one aircraft, to the exclusion of all others, for the duration of the heat and to accurately record the elapsed time and laps completed for that one aircraft. Ideally, the time-keeper/lap counter's eyes should never leave his assigned aircraft between the time it is held up for identification on the starting line and the time the Starter gives it the chequered flag at the end of the heat.
- b) Standard equipment for the time-keeper/lap counter consists of a stopwatch and a hand-held clicker or similar device for counting laps. At least one of the timekeepers/lap counters should also be provided with a walkie-talkie, headset radio, or other means of communication with the Starter on the racecourse.
- d) Each timekeeper/lap counter should start his stopwatch for his assigned aircraft at the start signal from the Starter.
- e) Each timer/lap counter should record a lap completed each time his assigned aircraft crosses the start/finish line.
- f) On the pilot's last lap, the timer/lap counter should watch for the aircraft to cross the start/finish line and stop the stopwatch at the instant it does so.
- g) If the stopwatches are capable of a "split" function, it is a good idea to get all lap times. This may help in case of protests for timing errors.
- h) If electronic timing and lap counting are available, they can be used instead of the manual system as described above.

F3E.A3.6 No1 Pylon Judges (3)

- a) Like the timekeepers/lap counters, the N^o. 1 pylon judges each watch one assigned aircraft, to the exclusion of all others, for the duration of the heat.
- b) The primary job of each N^o. 1 pylon judge is to signal the pilot when his aircraft has completed the required distance to the N^o 1 pylon and can, therefore, turn without cutting.
- c) The secondary job of each N^o 1 pylon judge is to notify the N^o 1 pylon chief judge if the aircraft turns before getting to the pylon.
- d) N^o 1 pylon judges are stationed on the sideline, looking directly out (ie. perpendicular to the sideline) toward N^o 1 pylon.
- e) A N^o 1 pylon judge's standard equipment consists of:
 - i) a colour-coded signal light and shutter, both of which have a sufficiently fast response time (< 0.05 s) or a flag with which to signal a turn;
 - ii) some form of indicator with which to signal a cut.
- f) As viewed from the sideline, it is not possible for an aircraft to both complete the required distance to the N^o 1 pylon and also to cut inside the N^o 1 pylon on the same turn. Therefore, if a judge has signalled the pilot that he has completed the distance, then a cut should not be called.

- g) When the aircraft are held up for identification before the beginning of the heat, the N° 1 pylon judge for each lane should flash or waggle the turn signal device to indicate recognition of his assigned aircraft.
- h) After launch, and after his assigned aircraft crosses the start/finish line on each succeeding lap, each N° 1 pylon judge should do as follows:
 - i) If the signal device is a flag, hold the flag aloft so that it is clearly visible as the aircraft approaches, then drop it smartly the instant the aircraft intersects the imaginary vertical plane established between the positions of pylon judges N^{os} 1 and 2 on the sideline. (See F3E race course layout, 1.10)
 - ii) If the signal device is a shutter or light, activate it crisply at that same instant and hold it in the open or “on” position and close it or switch it to “off” again when the model aircraft crosses the imaginary vertical plane established between the positions of pylon judges N^{os} 1 and 2 in the other direction.
- i) If the cut signal indicator is simply a continuous flashing or waving of the signal device then a N° 1 pylon judge must be sure to flash or wave, as appropriate, for at least several seconds and communicate the cut to the N° 1 pylon chief judge. If he agrees that it is indeed a cut, then the chief judge will notify the Starter. Signalling continues as before.
- j) A turn is legitimate (ie there is no cut) if any part of the aircraft goes past the pylon. If there is any doubt about a possible cut, then the pilot should be given the benefit of the doubt.

F3E.A3.7 N° 1 Pylon Chief Judge (1)

- a) The N° 1 pylon chief judge is stationed with the N° 1 pylon judges and should be equipped with a walkie-talkie or headset. The chief judge communicates aircraft identification information to the N° 1 pylon judges at the beginning of each heat, confirms any cuts called by the N° 1 pylon judges and relays cut information to the Starter.
- b) Other than the Starter, the N° 1 pylon chief judge should be the most experienced worker on the racecourse.

F3E.A3.8 N^{os} 2 & 3 Pylon Cut Judges (3 + 3)

- a) The primary job of the N^{os} 2 & 3 pylon cut judges is to watch their assigned aircraft in each heat and relay any cut information to the Starter.
- b) Standard equipment for the cut judges includes a chair and sunshade; a walkie-talkie or headset; a notepad or dry-erase board on which to note colour schemes and other aircraft identification information for each heat.
- c) Each of the cut judges may also be equipped with an ordinary transmitter antenna, fishing rod, or thin dowel mounted vertically on a stand or stake in front of his chair to help judge whether the aircraft are staying outside the imaginary vertical line extending above the pylon.
- d) The N^{os} 2 & 3 pylon cut judges should be positioned on the sideline, looking out toward their respective pylons at an angle sufficient to see whether the aircraft are cutting the pylons. (See the F3E course layout, 1.10)
- e) When the aircraft are held up for identification before the beginning of the heat, the N^{os} 2 & 3 pylon judges for each lane should indicate recognition of the assigned aircraft.
- f) The judge may simply put a check mark his notebook or dry-erase board during the race, and then report to the Starter the total number of cuts recorded for his assigned aircraft at the end of the heat.
- g) If electronic means are used for cut judging, this information will be recorded automatically by the computer system.
- h) A turn is legitimate (ie. there is no cut) if any part of the aircraft goes outside and around the pylon.
- i) If there is any doubt about a possible cut, then the pilot should be given the benefit of the doubt.

F3E.A3.9 Sideline Judges (3)

- a) The sideline judges each follow their assigned model aircraft and are tasked to monitor low flying around the pylons and any flying over the sideline.
- b) Additional to their task could be to judge whether a model aircraft is flying erratically or dangerously and to inform the Starter so that he may instruct the pilot to land the model aircraft.
- c) Since this type of judging has strong subjective elements and the decisions of these judges will lead to penalties or disqualification it is necessary that these judges are trained and experienced people and that judging standards are established, and consensus about judging attained, before the start of the competition.

F3E.A3.10 Scorekeeper (1)

- a) The scorekeeper collects recorded heat times, infringements and disqualifications. He calculates the scores and enters them on a master list, scoreboard or computer as the contest progresses.

- b) The scorekeeper should be equipped with a walkie-talkie or other means with which to communicate with the Starter.
- c) The scorekeeper may be the same person who assists the CD in making the draw for the heats.

F3E.A3.11 Technical Officer (1)

- a) This officer (and his assistant(s)) is responsible for the duties described in paragraph 5.2.3.
- b) If he finds that models do not conform to technical specifications he will report this to the CD who will decide if the competitor should be disqualified for the competition. If a model aircraft does not pass the pre-flight safety check, then it will not be permitted to fly in that race unless the necessary modifications are made to the Technical Officer's satisfaction before the next race. During the pre- or post-flight check, the Technical Officer will also check the FAI stickers and stamps on the models that will be, or were, flown in a heat. He will write the identification numbers on the starting list. He will also check the identification marks on engines and on the silencers. If numbers and marks are not present or they do not match the numbers and marks of the competitor, the competitor will not be permitted to fly in that heat and the Technical Officer will report these facts to the Contest Director.

F3E.A3.12 Safety Officer (1)

- a) The duty of this officer is to monitor safety and record all race accidents, crashes and other situation that are potentially dangerous and report to the CIAM F3 Pylon Racing Subcommittee.
- b) He may also assist the CD in safety matters.

F3E.A3.13 Pit Boss (1)

- a) The Pit Boss calls up the pilots by heats to prepare and place their aircraft in the Ready Area. A public address system is helpful in this task. The Pit Boss should, if possible, be equipped with a walkie-talkie to communicate with the Starter.

F3E.A3.14 Transmitter Impound Supervisor (1)

- a) This person should be provided with a large rack or folding table, protected from the sun and rain, on which to collect and safeguard the contestants' transmitters.
- b) Transmitters should only be handed back to those pilots who are on their way to the Ready Area. When returned to the Impound after each heat, the transmitters should be checked to ensure that they are switched off.
- c) The Transmitter Impound supervisor shall operate a spectrum analyser or other adequate radio monitoring equipment for the purpose of detecting radio interference.
- d) He must be equipped with a walkie-talkie or headset to enable him to communicate with the Starter and the Pit Boss...
- e) In the case of detection of potential interference he shall immediately notify (by walkie-talkie or head set) both the Pit Boss and the Starter.
- f) The Transmitter Impound Supervisor may also be one of the people who helped with registration, inspection, or setting up the matrix.

F3E.A3.15 Emergency - First Aid (1)

At least one qualified medical attendant should always be available on the site when flying is permitted. An ambulance & crew must be available.

F3E.A3.16 Combination of Functions

- a) The complete set of officers as listed totals 29. For many organisations it will be hard to arrange this number of judges and helpers.
- b) It is possible to combine some of the functions for smaller competitions. For example:
 - i) One judge for each of the Nos 2 & 3 pylons is acceptable. In this case, these judges would need a notebook in which to write down pylon cuts and associated aircraft colours.
 - ii) The number of sideline judges could be reduced to one who would observe the flying over the sideline and look out for any dangerous or erratic flying by any of the three competitors. Low flying near the pylons could be judged by the pylon judges.
 - iii) The Technical Officer could also be the Safety Officer
 - iv) The Scorekeeper could be one of the Timekeepers
 - v) The N° 1 Pylon Chief Judge could be one of the N° 1 Pylon Judges
 - vi) The Pit Boss could also be the Scorekeeper, Transmitter Impound Supervisor and/or Fuelling Station Supervisor.
- c) The minimum number of personnel combining functions is 17-19.

ANNEX F3E A4 TECHNICAL EQUIPMENT

F3E.A4.1 OBJECTIVE

- a) This Guide is intended to specify guidelines for the organisation of F3E international contests, for the benefit of both the organisers and the competitors. It is emphasised that these are recommendations and they do not have the same status as the binding regulations in the FAI Sporting Code unless they concern any regulation in that Code.
- b) Since this Guide will be widely distributed and should be regarded as the standard for F3 international competitions, organisers should avoid confusion by announcing in advance any changes from this Guide that may be necessary to suit local circumstances as long as those changes are not in contravention of the any of the regulations in the Sporting Code.
- c) This Guide is primarily applicable to World and Continental Championships, but parts of it may be useful for open international competitions.

Other than the equipment specifically required by the FAI Sporting Code, it is strongly recommended that the following technical equipment is provided by organisers:

F3E.A4.2 Spectrum Analyser

- a) See *CIAM General Rules C.16.2.5* regarding equipment to detect radio interference.
- b) During the competition the spectrum analyser shall be operated by the Impound Supervisor and during any practice sessions by the Safety Officer

F3E.A4.3 Public Address (PA) Systems

A PA system that may be used for addressing both the competitors (calling them for flights, etc) and spectators.

F3E.A4.4 Model Processing.

- a) A means of effectively marking registered models.
- b) Spare FAI model aircraft specification certificates and stickers.
- c) Equipment for processing batteries and energy limiters
- d) Equipment to accurately weigh models, measure models and compute the projected area, both on and off the flying site. A computer running an appropriate program for the latter measurements is recommended.

F3E.A4.5 Race Equipment

1 starting flag.

1 stopwatch for the Starter.

A 1 minute clock clearly visible for pilots and callers, and preferably also for the timekeepers, for indication of the one-minute engine start period.

Flags or some other means of identifying the individual prior to the race at the starting position and at the timekeepers' and pylon judges' positions.

A system to provide the competitors with information of the number of laps flown and which can be easily identified by the teams and the spectators.

3 sets of pylon cut indicators, clearly visible for competitors and the Starter, and preferably also for timekeepers, pylon and sideline judges.

F3E.A4.6 Time-keeping and Judging

3 stopwatches + 2 reserve stopwatches registering at least 1/100 sec.

3 manually operated lap counters + 2 reserve lap counters

Score sheets

The complete time-keeping, lap counting and judging equipment may be replaced by a computer-based electronic system with multiple displays as have been used in the 2003

F3E.A4.7 Secretariat

The Secretariat should be housed in a building or caravan, but preferably not in a tent.

Computer with scoring program and printing equipment or electronic calculators.

Spare stopwatches.

Scoreboard with felt pens or means of displaying the competition results to the competitors and the public.

Valid Sporting Code for the year in question.

Rules displayed in the FAI language (English) and in the national language.

ANNEX F3E.A5

GUIDELINES FOR THE DRAW FOR RACES

F3E.A.5.1 OBJECTIVE

- a) This Guide is intended to specify guidelines for the organisation of F3E international contests, for the benefit of both the organisers and the competitors. It is emphasised that these are recommendations and they do not have the same status as the binding regulations in the FAI Sporting Code unless they concern any regulation in that Code.
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F3E.A.5.2 The main principles of the draw are specified in *CIAM General Rules C.16.2.6*.

F3E.A.5.3 The draw has to take into account that a pilot or caller may act as a caller in more than one race team.

It is convenient if a computer program is used to make the random draw, taking into account, in this order:

- (a) The required frequency distance of 20 kHz.
- (b) That one person may act in two national race teams. In case this cannot be avoided in a specific heat, a pilot may be permitted to use a different caller for that heat, but only if that caller has been registered as part of that national team before the competition began.
- (c) That a heat should comprise different nationalities in one heat (unless impossible).
- (d) The maximum of difference in the composition of the heats. This means that a competitor will have the technically maximum number of other pilots he flies with in the competition. The NMPRA matrix computer-aided system provides such a draw.
- (e) That a single or two-up heat gives a certain advantage to a competitor; therefore single or two-up heats should be kept to a minimum and equally distributed amongst the competitors. The system of draw shall have sufficient flexibility to fill up races with reflights, so that a minimum number of single or two-up races need be flown.
- (f) If the number of competitors is not divisible by 3, then the draw needs to be made in such a way that, the last race will have one or two open places. Reflights can be used as a fill in as long as frequencies allow this. If the last race is a single race and there are no reflights to fill up, then the last two races shall be flown as two-up races.
- (g) A reasonable time between heats has to be allowed for each competitor.

F3E.A.5.4 The complete draw (except modifications due to reflights) shall be done before the competition starts (*CIAM General Rules C.16.2.6*). If the Contest Director has reasons to make substantial changes in the draw, this shall be reported in a team managers' meeting.

ANNEX F3E.A6

GUIDELINES FOR PRACTICE FLYING

F3E.A.6.1 OBJECTIVE

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- b) Since this Guide will be widely distributed and should be regarded as the standard for F3E international competitions, organisers should avoid confusion by announcing in advance any changes from this Guide that may be necessary to suit local circumstances as long as those changes are not in contravention of the any of the regulations in the Sporting Code.
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F3E.A.6.2 In accordance with *CIAM General Rules C.16.1*, a practice day prior to the competition must be scheduled. During any practice, no more than four aircraft and eight or sometimes nine people (pilots, callers plus, sometimes, the practice Safety Officer) may be on the race course for safety reasons. Two aircraft may be in the air at any given time.

F3E.A.6.3 It is strongly recommended, that unofficial practice sessions are supervised by the Safety Officer.

F3E.A.6.4 This officer may apply a system for assigning practice flights to assure a fair distribution of the available practice time to all pilots present. He can do this by using a list where the pilot can add his name. Only after the pilot has returned from his practice flight may he add his name again at the end of the list.

F3E.A.6.5 The Safety Officer will ensure that not more, but preferably not less, than 4 pilots and 4 callers go on the race course at the same time to speed up the rate of practice flying. He shall permit only two aircraft to be in the air at the same time.

See also F3E A.6.3

ANNEX F3E A7 GUIDELINES FOR ORGANISERS

F3E.A.7.1 OBJECTIVE

- a) This Guide is intended to specify guidelines for the organisation of F3E international contests, for the benefit of both the organisers and the competitors. It is emphasised that these are recommendations and they do not have the same status as the binding regulations in the FAI Sporting Code unless they concern any regulation in that Code.
- b) Since this Guide will be widely distributed and should be regarded as the standard for F3E international competitions, organisers should avoid confusion by announcing in advance any changes from this Guide that may be necessary to suit local circumstances as long as those changes are not in contravention of the any of the regulations in the Sporting Code.
- c) This Guide is primarily applicable to World and Continental Championships, but parts of it may be useful for open international competitions.

F3E.A.7.2 SITE

- a) For race course lay-out see 1.10 ; for site lay-out see Annex F3E A2.
- b) Other aspects affecting the suitability of a site include (not in order of priority):
 - a) The ease of access for competitors arriving by road, public transport or international ports and airports.
 - b) The availability of adequate official accommodation for all competitors, team managers, officials, and at least some supporters and helpers.
 - c) The time taken to travel between this official accommodation and the flying site (ideally this should be less than 30 minutes in normal (for the area) traffic conditions).
 - d) The availability of local hotels and camp sites for additional supporters.
 - e) The possibility of parking vehicles at the flying site.
 - f) Local practice facilities if the flying site is unavailable prior to the start of official practice.
 - g) The organiser must survey the site of any competition scheduled to be held in order to determine possible cases of radio interference that would affect any competitors. Any such possibilities must be reported as early as practicable to CIAM and the National Airport Controls (NACs). Frequency bands or specific frequencies which have been shown to be reasonably free from interference at the site of the competition need also be reported.
- c) When proposing a site in a Championships bid to CIAM, the National Airport Control must give a detailed description of all the aspects discussed above.
- d) It should be arranged for a CIAM representative from another country to visit the flying site and facilities (preferably at the same time of year as the Championships are scheduled to be held). This person may be a member of the CIAM Bureau, the Chairman or a member of the F3 Pylon Racing Subcommittee, a CIAM Delegate, or a member of the FAI Jury at a recent F3D/E Championship. In the case of CIAM Delegates or CIAM Bureau members, the chosen representative should have recent F3E knowledge. The CIAM representative should discuss the site with internationally known and respected modellers who fly the F3E class and may have regularly used the proposed site.
- e) The accommodation facilities must be described and the entry fee stated, split into an obligatory part and a part for food and accommodation (*CIAM General Rules C.15.5*). These fees should be justified to CIAM by including an estimated income and expenditure budget for the Championship (*CIAM General Rules C.15.4*).
- f) CIAM should be given a detailed summary of weather conditions at the time and place of the proposed event, compiled by the official meteorological organisation of the host country and covering such aspects as the wind speed and direction throughout the day, the range of temperatures, sunshine and rainfall. Note that the decision on a submission of a bid to host a Championship is normally decided at the CIAM Plenary Meeting two years in advance of the event (*CIAM General Rules C.15.3*).
- g) Well in advance of the event, **but not before agreement at the CIAM Bureau meeting in the November/December prior to the championship**, information (Bulletin 1) should be sent by the organisers to the FAI office with a request for distribution to the National Airport Controls and members of the CIAM Bureau. Bulletin 1 should be sent by the Organisers direct to the FAI Jury of that Championship. The information should include a description of the site and any special features, with maps showing the location of the flying field, the accommodation and arrival registration point relative to roads and local towns plus a detailed map of the flying field with its entrances and any restricted access areas.

Agenda Item 14.8 a)

F3 Pylon Racing Volume with F3E**F3E.A.7.3 PRACTICE** (CIAM General Rules C.16.1)

- a) The fact that some teams prefer to arrive several days in advance for practice flying should be taken into account. It is highly recommended that the competition site or any suitable area in the neighbourhood is open for practice flying and ordered practice fuel available.
- b) During the contest it should be possible to perform practice flights on the competition site contest area or on another suitable place close to it. Whenever the site is not used for the competition rounds, the competition site should be open for test flights under the supervision of the Safety Officer.
- c) See also Annex F3E A6.

F3E.A.7.4 TIMETABLE

- a) The time of year for the contest should be chosen so that the flying conditions, temperature and weather may be expected to be agreeable for the majority of competitors.
- b) It is highly desirable that two unofficial practice days in addition to the official practice day is provided before the competition begins.
- c) A suggested schedule for World and Continental Championships is as follows:
 - (i) Before the official day of registration, 1 – 3 days of unofficial practice, controlled by an officer to ensure safe flying and fair use of the race course (See also Annexes F3E A2 and F3E A6). This practice should be used to train the pylon judges, the sideline judges (to attain consensus over criteria for judgement of dangerous or erratic flying) and the timekeepers. These practice days should also be used to bring the flying site into full operation, which may cause the unofficial or free practice to be interrupted.
 - (ii) The first official day of championships is for arrival and registration of the teams by the team managers. On this day unofficial practice may be continued. The location of the registration office should signposted and also be indicated on a map included in one of the bulletins. At registration the team manager should be given all relevant information for his team members, such as competitors' numbers, ID cards, meal tickets, banquet tickets, accommodation details & maps, schedules including the team slots for processing and official practice, lists of participants and souvenir bags and any other information that may be available.
 - (iii) The second day is for official practice and model aircraft processing. During the official practice it is recommended that the full race organisation, including all officials, all racing and timing equipment is present and in use. The Starter and Safety Officer will be in charge of the safety of the official practice session. The official practice schedule showing the team slots will facilitate the smooth running of the official practice.
 - (iv) 3 days of competition then follow, with 3 – 6 rounds per day, with the closing ceremony and banquet on the last day.
 - (v) It is recommended that the number of rounds for a World or European Championship should not be more than 15. For international competitions the number of rounds should be not less than 6. The number of rounds shall be announced by the organiser at the team managers' meeting before the start of the competition. If weather conditions or other reasons require a reduction in the number of rounds per day, then an extra day of competition may be added or a team manager meeting will be held to agree the reduced number of rounds. Such a decision has to be taken as early as possible, but with a minimum of five more rounds still to be flown after the decision, since a late decision may affect the fairness of the competition.
 - vi) The published timetable should include the expected start & finish times of the rounds. As well as the schedule for flying, the timetable should also include the time and place of:
 - the meeting of the organisers with the team managers (known as the team managers meeting) after arrival;
 - the opening ceremony, at a time not infringing upon model aircraft processing or practice periods;
 - the ceremony for the presentation of FAI or CIAM medals, appropriate trophies, FAI diplomas and any organiser trophies to the winners.
 - (vii) Copies of the timetable included in a Bulletin (distributed at least 2 months in advance in the process outlined in F3E.A6.2.g)) should be supplied as hand-outs via the team manager, to all participants upon arrival at the event.

F3E.A.7.5 TEAM MANAGERS MEETINGS

- a) Usually on the evening of the official registration there will be a meeting of the team managers with the organisers, the FAI Jury and the Judges with the following (minimum) agenda:
 - i) Welcome of teams by the Contest Director.
 - ii) Introduction of FAI Jury, Starter, Judges and other officials.
 - iii) Urgent problems involving lodgings, transport or feeding of competitors

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- iv) Draw for the flying order.
 - v) Local rules.
 - vi) Comments from the FAI Jury President on any new rules or flight procedures that the Jury feels should be emphasised.
 - vii) Comments from other Judges or Jury members about interpretation of rules or general competition procedure
 - viii) Time table
 - ix) Questions from team managers.
- b) At the request of the FAI Jury, the organiser or at least three team managers, additional team managers meetings may be held as requested or in the evening before each competition day.

F3E.A.7.6 INTERPRETERS

It is advisable that interpreters are available at all stages of World and Continental Championships to allow communication between the main officials, team managers and the FAI Jury. An essential minimum is to ensure that these three categories of personnel are able to communicate with each other in English or the second official language specified for the Championships. The smooth running of the event is aided by also supplying interpreters for teams who are unable to converse in either of the official languages.

F3E.A.7.7 CEREMONIES

- a) It is desirable to keep all ceremonies short and readily understood.
- b) Opening Ceremony
- i) The key elements of an opening ceremony are the introduction of the teams and welcoming remarks by the organisers and the President of the FAI Jury. Depending on the number of teams it may not be desirable to play the anthem of each country. If requested to do so, the team managers should have brought recordings of their national anthem. For any country that does not bring an anthem and for competitors from countries that are only temporary members of the FAI, then the FAI anthem should be played.
 - ii) At the beginning of the opening ceremony, as soon as the teams are in their places, the FAI anthem is played and the FAI flag raised. At the end of the ceremony, the President of the FAI Jury will declare the Championship open, and the national anthem of the organising country is played.
- c) Awards Ceremony (*CIAM General Rules C.15.7*)
- i) The award ceremony should be separate from any closing banquet, so that it may be attended by all participants regardless of whether or not they attend the banquet.
 - ii) The key preparation for the prize giving is to have all the trophies, medals and diplomas available for presentation, with the diplomas completed with the winners' names.
 - iii) There should be a rostrum or other central area or stage for presentations to the individual and team winners which allows suitable views for photographers.
- d) Closing Ceremony
- i) The award ceremony is followed by the closing ceremony which will include closing remarks by the organisers and the President of the FAI Jury.
 - ii) At the end of this ceremony, the FAI anthem is played, and the FAI flag presented, as a symbol, to the team manager or representative of the next organising country.
- e) Closing Banquet
- In planning any closing banquet it should be remembered that the main enjoyment of participants is meeting one another and talking together. To assist in this, it is not desirable to provide major special performers or speeches or loud music for the dinner.

F3E.A.7.8 PROCEDURES FOR MODEL AIRCRAFT PROCESSING

- a) Model aircraft processing must be carried out according to *CIAM General Rules C.10, C.11 & C.12*.
- b) There are three phases to processing:
- first phase - before the competition begins;
 - second phase - random checks during the competition;
 - third phase - after the provisional results.
- c) First phase processing – before the competition begins:
- Checks for:
- Specification certificate
 - Wing, tail & surface areas
 - Wingspan

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- Weight of model aircraft incl battery
- Fail-safe
- Check the Olympic identification mark
- Check the model aircraft identification code
- Check the FAI sticker

Notes:

- i) Confirmation of the FAI sticker check should be shown by marking across the edge of the sticker and the model aircraft with an indelible special symbol or stamp of the organisation. If a stamp is used it is essential that it is with permanent ink which does not wipe off under the effect of rain, model aircraft fuel or lubricants.
 - ii) The identifying letters or number (unique code) on the models of each competitor should be identified in each race and recorded with the race times for that competitor. Note that if a competitor is from a country that is a temporary member of the FAI, then on all entry, flying and results listings, "FAI" should be used as his three-character identification mark and not those of his nation.
- d) To facilitate the smooth running of the first phase processing, a schedule should be established with equal slots for each competitor.
- e) If a competitor wishes to register a further model aircraft, then he must present to the organiser the corresponding specification certificate for the new model aircraft. The time and place for any additional model aircraft checking that a competitor may request should be clearly communicated via the team managers.
- f) Second phase: random checking of models during the competition.
- i) The models to be checked should be chosen at random and it should be done in such a manner so as not to inconvenience or hinder competitors. Models should be impounded immediately after a flight and should be checked as soon as possible thereafter. The results of these checks should be recorded. Advance notice of the check should not be given.
 - ii) Note that these checks are in addition to the model aircraft identification checks that the Technical Officer makes before each flight.
- g) Third & final phase - after the provisional results
- i) For the check of the characteristics of all the model aircraft used by the competitors placing first, second and third, it is prudent to impound at least the fourth place model aircraft as well, for processing in the case of any disqualification in the first three.
 - ii) It may be that the re-checking can be carried out at the flying site if good facilities are available there for accurate measurements, otherwise the models should be impounded at the flying site and taken to an alternative site for processing. In this case the pilot may accompany his model aircraft as long as he is not, at any time, left unattended with the model aircraft.
 - iii) Check of the Energy limiter, and battery properties.