

- 1 RULES FOR BMFA 60-INCH PYLON RACING CLASS
Original author: Mike Shellim (2001 UK league coordinator)
- 1.1 It is intended the rules will be incorporated into the BMFA handbook during 2001.
- 1.2 Only those clauses which are new or modified from the existing BMFA 60 Inch Pylon rules are included.
- 1.3 Please send any comments to mike@rc-soar.com

- 2 History:
- 2.1 25/10/2000 - first draft
- 2.2 28/10/2000 - added nose radius rule
- 2.3 01/11/2000 - provision for wing fixing
- 2.4 03/11/2000 - relaxed rules on spars (SAS wings) and external stiffeners (RPV Cyclone). Spars may be located anywhere and wooden sub-spars may be used.
- 2.5 08/11/2000 - relaxed restrictions on fuselage longerons (Cyclone) and spars (Enigma).
- 2.6 30/11/2000 - corrected typos.
- 2.7 21/12/2000 - added sections on Scoring and Launching.
- 2.8 20/01/2001 - added clarification on radio installation.
- 2.9 25/01/2001 - reformatted.
- 2.10 26/02/2001 - clarified section 4.3.2 on Longerons.
- 2.11 04/03/2004 - changes to 4.6.1 to allow ballast to be mounted in the wing up to the 15% chord line (Moth 60).
- 2.12 13/06/2005 - typo fixed (2.11) and clarification of ballast location restrictions (4.2.2)
- 2.13 13/10/2005 - amended EPP cladding on fuselages to allow models with stub booms e.g. Half-pipe (4.3.1).
Reduced minimum thickness of EPP at nose to 1.5 inches, in line with US Sportsman 60 rules (4.3.3).
Amended ballast location rules (4.6.1).
Added 'no relaunch' rule (6.1.3).
- 2.14 24/03/2009 - laminating film permitted as soft covering (3.5) (Steve Clarke)

- 3 DEFINITIONS
- 3.1 Centre Section
the portion of the wing extending up to 3 inches either side of the centre-line.
- 3.2 D-Box
the portion of a wing panel from the extreme leading edge to the 25% chord line.
- 3.3 EPP
any foam which returns to its previous state following a moderate deformation. Note: at the time of writing this only includes genuine EPP foam but the definition may change as new materials become available.
- 3.4 Deformable Foam
foams which deform on impact (not necessarily resiliently) examples: blue or white foam, EPP or similar man-made material.
- 3.5 Soft Covering
flexible covering material, e.g. heatshrink film, mylar, laminating film up to 175 microns total thickness (including adhesive layer), cross weave tape, vinyl tape. The following are *not* included: ply, balsa, plasticard, epoxy and polyester resins, varnishes.
- 3.6 Flexible Adhesive
any adhesive tape, spray or paint which dries to a flexible state. Examples: double-sided tape, 3M 77, Spraymount, Copydex. The following are *not* included: epoxy and polyester resins, varnishes.

- 3.7 Secondary Flying Surface
flying surface other than the wing. e.g. fin, tailplane, canard.
- 4 MODEL SPECIFICATIONS
- 4.1 General
- 4.1.1 Maximum wing span is 60 inches
- 4.2 Wing Structure
- 4.2.1 Any material may be used in the Centre Section (note the EPP nose rule 4.3.3. must be observed for flying wings).
- 4.2.2 The D-Box of each wing panel must be constructed from EPP except at Centre Section, Spars and ballast (subject to 4.6.1). No local reinforcement of the leading edge is permitted.
- 4.2.3 The portion of the wing between the D-Box and the trailing edge or false trailing edge must be constructed from Deformable Foam except at the Centre Section and the Spars.
- 4.2.4 Spars: no restrictions.
- 4.2.5 Control surfaces: no restrictions.
- 4.2.6 The entire structure may be covered using a Soft Covering only and bonded using a Soft Adhesive only. No other materials may be used to sheath the structure.
- 4.3 Fuselage
- 4.3.1 A 'cladding section' is defined for the fuselage. All exposed areas within the cladding section must be clad using EPP, to a minimum thickness of 1/4 inch at every point, except in the area of the Longerons (4.3.2). The cladding section extends from the nose to 5 inches forward of the rear of the fuselage. For models with tail surfaces, the rear of the fuselage is taken as the location of the leading edge of the rear-most tail surface.
[Example 1: on a model with tailplane and fin, with the fin behind the tailplane, the cladding must extend from the nose to five inches forward of the leading edge of the fin. Example 2: a model with a fin supported by a short boom, and no tailplane. If the section of boom between the wing and the leading edge of the fin is less than 5 inches, the boom does not require any EPP cladding at all.]
- 4.3.2 Longerons are permitted for stiffening the fuselage. They may be embedded in the outer EPP layer but must not protrude beyond the outer surface. Longerons may be used to support local strengthening members e.g. ballast- and wing-mounting plates. They must be regular (e.g. square, round) in section. For safety reasons the forward end of each longeron must be located at least 2 1/2 inches from the nose of the model.
- 4.3.3 The section of the fuselage from the tip of the nose to 1.5 inches back must be solid EPP.
- 4.3.4 External reinforcement is permitted for wing and tailplane fixing e.g. to provide support for wing dowels.
- 4.3.5 The entire structure may be covered in a Soft Covering only, bonded using a Soft Adhesive only. No other materials may be used for covering.
- 4.4 Secondary flying surfaces.
- 4.4.1 The following materials are permitted in the construction of the secondary surface: balsa, correx, deformable foam. No other material may be used in the structure except for local reinforcement.
- 4.4.2 Soft Coverings may be used, bonded using a Soft Adhesive.
- 4.4.3 Control surfaces: as 4.2.5

- 4.5 Radio Installation
4.5.1 Radio control equipment including batteries must be mounted securely internally, and may be positioned anywhere except the nose area (see 4.3.3).

- 4.6 Ballast
4.6.1 Ballast and balance weight must be mounted internally. If mounted in the wing, no part of the ballast or enclosing tube may lie forward of the 15% or 1.5 inch chord line, whichever is the lesser. Note: the pilot is responsible for ensuring that any ballast carried is within the structural limits of the model.

5 THE COURSE

- 5.1 The recommended length of the course shall be 70 m. 10 laps (20 legs) shall be flown to give a total race distance of 1400 m.
5.2 The length of the course may be varied at the CD's discretion, with the agreement of the competitors. If the course length is changed, the CD may also optionally alter the number of laps flown to restore the total distance travelled to 1400 m.

6 FLYING RULES

6.1 Launching

- 6.1.1 The CD shall call out the start of the thirty second launch period, during which time the models may be launched and the pilots attempt to gain height.
6.1.2 A countdown will be given during the launch period at ten second intervals for the first twenty seconds, and at one second intervals for the last ten seconds.
6.1.3 Relaunches are not allowed after the end of the launch period.
6.1.4 After thirty seconds have elapsed and not before, the models may cross Base A in the direction of Base B to start the race.

6.2 Penalties

- 6.2.1 A zero score shall be given to any pilot colliding with another model as a result of deliberate intent. A second infringement will result in disqualification.

7 SCORING

- 7.1 In each event, the pilot's overall score is decided partly by the heats and partly by a knockout-tournament.

7.2 Heats

- 7.2.1 The winner in each heat gets N points for a first, N-1 for a second, N-2 for a third and so on, where N=(max number of flyers per heat). For example, if the heats are run with a maximum of four flyers, the winner of each heat receives four points, irrespective of whether two, three or four flyers compete in that particular heat.
7.2.2 Failure to finish receives a zero.
7.2.3 At the end of the heats, the scores of each pilot are added, and the flyer with the most points is awarded 50 league points, second place gets 49, third gets 48 and so on.

7.3 Knockout Tournament

- 7.3.1 The knock out tournament is also worth 50 points, and is seeded on the basis of the heats so that top flyers in the heats do not meet until the final.
- 7.3.2 The maximum league points per event is therefore 100 points for winning both the heats and the final.