

SCALE NEWS

THE NEWSLETTER OF THE BMFA SCALE TECHNICAL COMMITTEE

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This newsletter is mainly a rules update, to make sure we all know what's happening through this season and at the Nationals. As you will see from Ian's words below, the Technical Committee have sorted out entry qualifications for the Nationals, to try and keep the numbers to manageable proportions. Chris Allen has produced some good provisional rules for a Stand-off Scale class, which it is hoped will eventually replace the old Clubman class at the Nationals, and encourage more people to try building their own models. The class will be tried out at Barkston on 5th June.

Thanks to Tony Bull and the Flying Druids the competition on 8th May (originally scheduled for Bulford) will now be at the excellent Rollestone flying site. The gate to the site is on the A360, West of Amesbury and East of Shrewton. Coming from the East, fork right off the A303 at Stonehenge, then straight on at next cross roads to join the A360. The gate to the flying site track is then in a very short distance, on the left. This is one of the best flying sites I know – large, flat mown grass square, with clear space around on all sides.



Now over to Ian Pallister.....

QUALIFICATION REQUIREMENTS FOR THE NATIONALS

As I outlined in the last Newsletter, the constraints on flight line availability and buoyant interest in Scale flying at the Nationals have forced the Tech Committee to review how we can fairly apply a cap on the number of entries. There just aren't enough hours on the day to accept every entry and expect everyone to fly a full schedule of manoeuvres. After much head scratching and soul searching we have come up with a formula that, whilst inevitably not pleasing everyone, at least should give everyone an equal opportunity to compete.

The first inevitable outcome is that competitors will no longer be allowed to enter both F4C and Flying Only: you must choose one or the other. Dave Knott, as R/C Contest Manger, has analysed the results from the past 2 seasons and we have accepted his proposals to set a qualifying standard to enter Flying Only at the Nationals. We accepted the premise that entries in F4C should not be restricted and every effort will be made to ensure that they fly a full schedule. There will be occasions where exceptions have to be made due to extreme weather etc at the CD's discretion but, if manoeuvres have to be dropped, Flying Only will be targeted first. We will also only accept entries from overseas competitors if they are or have in the past been a member of their own National F4C team.

For Flying Only this year, entries will only be accepted from competitors who have achieved a qualifying score of 80% of the normalised flight score on at least 2 occasions in the past 2 seasons (ie from and including the Nats 2009) or 90% of the normalised flight score in one competition. Dave Knott has a list of those who have already qualified (which is the vast majority of regular scale competition flyers) and this will be published and updated after each event on the BMFA Scale website. Those who have yet to qualify will have until the Osbournby event on 31 July to gain the appropriate scores. That is 8 opportunities in various parts of the country. We think this is fair. The aim is not to discourage new blood from getting a chance at the Nationals; indeed, new faces are essential for the long-term viability of the sport. However, the need to participate in competitions before the

Nationals should, over time, help to improve overall standards of flying. We would also hope that some will take the step up to F4C (perhaps through the new Standoff Scale class) to make way for others in Flying Only. Time will tell if this works and we may have to raise the bar or revisit the process entirely if this does not solve the numbers issue.

For those not familiar with the normalising of scores, 100% is awarded to the top placed flyer at each event and the remaining scores are converted to a percentage of this score. This process has been used for team selection for many years and takes into account the variable weather conditions at each event. Take a look at last year's results on the website and all should become clear.

NEW STANDOFF SCALE CLASS

We have also now agreed the rules for the provisional Standoff Scale Class and we are indebted to Chris Allen for much hard work to square the circle and come up with rules that take in both ends of the building spectrum whilst not being overly complicated. This is no mean feat bearing in mind the muddled thinking that has made such a mess of F4H! The rules and associated Judges' Guide, Declaration and Score Sheet are printed here in their entirety and will be formally published on the BMFA Website. A notice will also be placed in the BMFA News and hard copies will be available on request from the Leicester office. You will see that the degree of prefabrication accounts for up to 15% of the marks but accuracy and realism remain paramount. The declaration form is detailed but not complex and this is the key to fairly assessing and rewarding originality and effort.

We will hold a trial event concurrent with Flying Only at the Midland Area Festival of Flight on 5 June. This will be run as a concurrent Flying event: ie all flights will be judged together and a single set of normalised scores produced for team selection purposes. However, those who wish to may have their models statically judged to the new Standoff schedule to produce a separate result in Standoff Scale. ie, on this occasion it is possible for the same model to win both classes. If the feedback is positive we will look to formalise the rules for inclusion in next year's rule book and, if numbers permit, bring it in as a new Nationals class. At this stage we have not agreed any requirement or rules for 'promotion' out of this class to F4C or the banning of past winners, which is what led to the demise of the old Clubman Class at the Nationals. The only prohibition is those models that have previously placed in the top 3 in F4C at the Nationals, and this will apply at the trial event,

CANCELLATION OF EUROPEAN CHAMPIONSHIPS

Many of you will be aware by now that the Romanian Modelling Federation reluctantly took the decision to cancel the planned European F4C Championships due to lack of entries. This was always on the cards as many regular International competitors were not prepared or could not afford to make the journey. We were not immune from this and, on behalf of the Scale TC I am indebted to Mick Reeves, Richard Crapp, Dave Toyer and Team Manager, Neil Tidey, for being prepared to stand up and be counted. The UK was one of only 4 countries to make a provisional entry and I am sure that this has not gone unnoticed by the International authorities. Where we go from here in future with the European Championships remains to be seen. However, I don't think that next years' World Championships in Spain will suffer the same fate and we look forward to a hotly-contested team trial later in the season.

SCALE INDOOR NATIONALS

Finally, could I repeat my plea for helpers and judges for the Scale Indoor Nats at Nottingham on Sunday 1 May. It's a fun day out if you want to try something smaller! Static judges particularly welcome. Don't worry if you've not done it before; we will pair you with an experienced indoor judge. Call or email me if you would like to give it a go.

My new model is more or less ready for the season. Let's hope there are plenty more emerging from sheds after the winter!



R/C STAND-OFF SCALE RULES

1. The contest will be run to BMFA R/C Scale (FAI class F4C) rules with the following exceptions.

2. **Scoring**

One third of the marks are available for Static, two thirds for Flight.

Normally two rounds will be flown and the final score will be the sum of the two flight scores and the static score. If one round is flown the flight score will be doubled, if three rounds are flown the best two flight scores will be used.

3. **Eligibility**

No competitor may enter both F4C and this new class. No model which has previously been placed in the top three of an F4C competition, including repaints and rebuilds, will be permitted in the new class. A model may be entered in Flying Only or the new class.

The requirement for the entrant to have constructed his own model (6.1.1) is waived but as a minimum requirement the colour and markings must be applied by the competitor.

4. **Static Judging**

All static judging is carried out at a distance of 5 metres. Each of the following aspects will be awarded a mark out of 10 by each Judge and the following k-factors will apply: -

Side View	K=15
Front View	K=15
Plan View	K=15
Originality of design & construction (see note i)	K=15
Colour and Markings Accuracy	K=15
Colour and Markings Complexity	K=5
Realism (see note ii)	K=20

Notes:

(i) Originality of design & construction - is an assessment of the amount of work the competitor has built in to the model to achieve scale accuracy.

(ii) Realism is a subjective judgement of the scale impression of the model and fidelity to the documentation; taking into account the surface finish, texture, weathering and any detail that is noticeable at 5m.

5. **Documentation**

The documentation required is the same as the current minimum for F4C and similar penalties for failure to comply will be applicable. (Paragraph 6.1.12.1 refers). There is no requirement for close up or detail photographs. Proof of colour may be in the form of original paint samples, colour photographs or colour illustrations published in books, magazines or on kit boxes. Published descriptions are also acceptable when accompanied by examples of similar colours used on other aircraft types. Authenticated colour chips will not be a requirement for proof of colour.

6. **Declaration**

The competitor must complete and sign the declaration at ANNEX (TBA); certifying that he has applied the colour and markings. The competitor must also complete the declaration questionnaire which is required by the Static Judges. If an incorrect declaration is subsequently revealed, the competitor may be disqualified from the contest. The competitor may also use photographs or sample material in support of the declaration.

R/C STAND-OFF SCALE - JUDGES GUIDE – Static Judging

As with other scale classes, before judging commences all the models entered should be reviewed in order to superficially grade the standard of realism of the models in relation to each other. It is particularly important in this class that judges should avoid any close up examination of the models during this initial evaluation.

1. **Scale Accuracy**

Side view, Front view and Plan view. - Para 6.1.12.2 and 6.1.12.3 apply

2. **Originality of Design & Construction**

The judge must evaluate the extent to which the Competitor has contributed to the Scale Accuracy irrespective of the Scale accuracy marks awarded. This is achieved by examination of the Competitors Declaration and any supporting evidence presented by the Competitor and if necessary questioning the Competitor. It is important to ensure that the competitor is not rewarded for outline accuracy which is achieved by the use of commercially available moulded or pre-cut parts. Neither should the competitor be penalised for using proprietary items which do not impact outline accuracy.

The following should be used as a guide:

- Scratch built models entirely designed and built by the competitor 10 points
- Models built from a kit or a published plan based on a built-up structure which may include pre-cut parts and some proprietary items. 5-9 points
- Models built from a kit based on a moulded/grp fuselage and veneered foam or grp flying surfaces. 2-4 points
- Typical ARTF – moulded or built-up and covered structure 0-2 points

A maximum of 10 points should only be awarded to a model which is entirely scratch built and declared as such by the competitor. Conversely a model which has been assembled ‘straight out of the box’ should score a zero.

3. **Colour and Markings Accuracy**

Camouflage colour schemes should show the correct pattern and the correct degree of merging of the shades. Check the position and size of marking, insignia numbers and lettering. Up to 5 points should be awarded for primary colour accuracy and up to 5 points for secondary colours and markings.

4. **Colour and Markings Complexity**

This complexity score is a combination of the number of colours used, and the extent of markings and how they are distributed on the model. i.e. whether applied to a flat or curved surface, on fabric or solid surfaces etc. Paragraphs 6.1.12.4 and 6.1.12.5 provide additional guidance. A matrix similar to that shown below should be used as a guide.

Secondary Colours (markings etc)	Number of Primary Colours				
	1	2	3	4	5
1	1.5 - 2	2.5 - 4	3.5 - 5	4.5 - 6	5.5 - 7
2	2 - 2.5	3 - 4.5	4 - 5.5	5 - 6.5	6 - 7.5
3	2.5 - 3	3.5 - 5	4.5 - 6	5.5 - 7	6.5 - 8
4	3 - 3.5	4 - 5.5	5 - 6.5	6 - 7.5	7 - 8.5
5	3.5 - 4	4.5 - 6	5.5 - 7	6.5 - 8	7.5 - 9
6	4 - 4.5	5 - 6.5	6 - 7.5	7 - 8.5	8 - 9.5
7	4.5 - 5	5.5 - 7	6.5 - 8	7.5 - 9	8.5 - 10

N.B. The variation depends on the complexity of boundary between colours and the number and complexity of markings.

From this matrix, assuming adequate documentation, examples are:

An aeroplane having one primary colour (say doped fabric) with RAF roundels and a serial number in black would score (1 primary + 4 secondary) = 3 - 3.5 dependent upon extent of numbering.

An aeroplane with two-colour camouflage topsides, a third primary colour underneath, RAF roundels, squadron markings in sky, and additional detail in yellow would score (3 primary with camouflage pattern + 5 secondary) = 7 marks

5. **Realism**

Judges should consider how well the model captures the character of the full size aircraft. If the subject aircraft is ‘factory fresh’ or an unblemished museum example, then the model should be in a similar pristine condition.

Alternatively if the photograph of the subject aircraft shows worn or damaged surfaces and weathered paintwork, then this should be reflected in the model. Judges should be careful to avoid penalising omission of details which are not clearly visible at 5 metres.

BMFA R/C STAND-OFF SCALE - COMPETITORS DECLARATION FORM

Competitors Name:	BMFA Number	Model Name:	
Competitors are to indicate YES or NO by circling the appropriate boxes below			
Do you consider your aircraft to be non-aerobatic ? (Rule 6.3.7 refers) If YES give reasons below or on a separate sheet.	YES	NO	
Is your model fitted with any automatic attitude or motion stabilisation devices (e.g. gyro) ?	YES	NO	
If you wish to choose Optional Demonstrations 6.3.7.P or Q (Flight function by subject aircraft) then indicate here and give full details of your manoeuvres on a separate sheet.	YES	NO	

With the exception of any parts identified below, was the airframe of this model designed and built entirely by you	YES	NO
Was this model built from a kit ?	YES	NO
If Yes, state kit manufacturer's name:		
Was this model built from a commercial model aircraft plan ?	YES	NO
If Yes, state designer's name:		
Indicate any of the following major airframe items supplied as part of a kit or not made by you.		
Moulded or built up Fuselage	YES	NO
Pre-formed or built up wing panels	YES	NO
Pre-formed or built up tail parts	YES	NO
Moulded canopy	YES	NO
Moulded Cowlings	YES	NO
Undercarriage Assembly	YES	NO
The following parts are not made by me (e.g. wheels, tyres, propeller etc. but excluding R/C equipment):-		
I certify that I applied the surface finish and the markings to this model and the answers to the above questions are correct.		
Signature.....		

Note- The competitor may submit photographs or samples in support of the declaration.



BMFA STAND-OFF SCALE STATICSCORE SHEET



Name BMFA no. Event Date

Aircraft
.....

Scale

MINIMUM DOCUMENTATION REQUIREMENTS	TICK IF OK
If the minimum documentation is not provided penalties as listed in 6.1.12.1 may apply.	
At least 3 photos (or printed reproductions) showing the whole of the full size aircraft, including at least one showing the actual subject aircraft .	
Scale drawing(s) of the full size aircraft showing at least the Side View, Upper Plan View and Front End View. Min 250 mm span / fuselage Max 500 mm span / fuselage	
Proof of colour (one of the following): 1. Coloured Photograph. 2. Published Coloured Drawing. 3. Published Description accompanied by examples of similar colours used on other aircraft types 4. Original paint samples.	
The exact name and aircraft designation of the prototype and the scale to which the model is built. A statement of the prototype's airspeed. A signed Stand-off Scale Competitor's declaration form. Any claim for non-aerobatic eligibility	

<u>Fidelity to Scale</u>	<u>K</u>	<u>Score</u>	<u>Remarks</u>
Scale Accuracy - side view	15		
Scale Accuracy - front end view	15		
Scale Accuracy - upper plan view	15		
Originality of Design & Construction	15		
Colour & Markings Accuracy	15		
Colour & Markings Complexity	5		
Realism	20		

Judges Notes

Judge's signature.....

