

The 2007 BMFA Member's Handbook
Corrections and Additions
(Combined Issues 1 & 2)
January 2007, April 2008

Page 20, Column 1, Aerials, Add New Paragraph (e).

A point that is often overlooked, even by experienced flyers, is that the placement of 2.4 GHz receiver aerials is much more critical than for 35 MHz equipment. You must read the manufacturers installation instructions very carefully and take note of the information they are giving you. If you don't take care to do this you may find yourself flying equipment that is low on airborne range simply because the aerial configuration you have set up is inefficient.

If you do not have the original instructions, visit the manufacturer's website and download the information from there. (April 2008)

Page 21, Column 2, Paragraph (x), Glider Failsafes. Change to read -

Glider Failsafes for Models Weighing 7 to 20 kg

(x) The requirement in CAP 658 to use and set failsafes applies to these silent flight models too, although obviously the 'setting of throttle' does not apply. You should remember that the reason that the CAA requires failsafes is to prevent flyaways, not to deliberately crash the model, and you should set the controls of your model with this in mind. Application of spoilers, 'crow' brakes or even rudder and elevator to spin the model might be appropriate. (Jan 2007)

Page 23, Column 2, Pegboard Recommendations. Add new Initial paragraph

It is highly recommended that all club pegboards are clearly marked with the GPS co-ordinates of the flying field. This will enable emergency services to find your location easily in the event of a serious

incident, even in isolated areas. (April 2008)

Page 28, Column 1, After para (g), add new section 'A SAFER FLYING FIELD AND YOU'

When you arrive at a flying field and before you start flying, we recommend that you take a few moments to consider the surroundings and the flights you will be making.

Think **S.W.E.E.T.S.**

S - Sun

W - Wind

E - Eventualities

E - Emergencies

T - Transmitter Control

S - Site Rules

Sun – Where is the sun in relation to where you will be flying? Will it affect your flight patterns? What actions will you take if you accidentally fly 'through' the sun? Should you be wearing sunglasses? Remember that low sun in winter can be a particular problem.

Wind – Consider the wind strength and direction. How will this affect your flights? Will you have to modify your normal take-off and, especially, your landing patterns? From your local knowledge, will there be any turbulence with 'this' wind direction and strength? And how bad might it be?

Eventualities – What will you do if you hear or see a full size aircraft or helicopter flying at low level near the field? What if the landing area is suddenly obstructed when you are on finals to land? What will you do if a nearby footpath or bridle path suddenly has walkers or horses on it?

Emergencies – You may have an engine cut at any part of a flight so consider where your deadstick landings might be safely made and which ground areas you should definitely avoid. How will you warn other field users if you have an emergency?

Transmitter Control – Is the site pegboard in operation? If not, why not? Where has the pegboard been placed? Are you

familiar with the system and understand how it works?

Site Rules – Are there any specific site rules you should be aware of? Most importantly, where are the no-fly zones or dead airspace areas on the site?

The answers to most of these questions are contained within these Safety Codes and your local Club rules but you will be making the final decisions as to whether flights can be made safely. If conditions are poor or a site is unsuitable remember that a decision not to fly can be both valid and sensible.

We would also recommend that you review the sections on the sun and wind throughout the day as they obviously change over time and this may affect some of the decisions you will be making. (April 2008)

Page 28, Column 2, Radio Control Flying Safety, Paragraph (p).

‘Radio Control at your Club’ should read ‘Radio Control and your Club’. (April 2008)

Page 28, Column 2, Heading ‘PRE FLYING SESSION CHECKS’.

Rename to ‘PRE FLYING SESSION MODEL CHECKS’ (April 2008)

Page 34, Column 1, Heading ‘Charging Rate’

Delete

Charging Rate: To find the maximum charge rate of the battery, you simply divide the ‘C’ rating by 10 and then multiply by the capacity.

A 10C x 700 mAH battery will simply be 1 x 700 mA (0.7 amps) maximum safe charge rate.

A 10C x 2200 mAH battery will be 1 x 2200 mA and will take 2.2 amps maximum safe charge rate.

A 20C x 1500 mAH battery will be 2 x 1500 mA which gives 3 amps maximum safe charge rate.

Note that the higher the ‘C’ rating, the

quicker the battery can be charged.

However, for longer battery life, you can always charge at less than the maximum allowed but do not go higher. If the battery comes off the charger anything other than slightly warm, you are charging at too high a rate.

Replace with

Charging Rate: The generally accepted level of charge of a Li-Po battery is 1C. Therefore, the maximum charge rate of a battery will be found by dividing the capacity of the battery by 1 hour. In other words, you simply note the capacity of the battery in mAH, remove the ‘H’ and you will have the maximum charge rate in mA.

A 700 mAH battery will be 700 mA (0.7 amps) maximum charge rate.

A 1500 mAH battery will be 1500 mA (1.5 amps) maximum charge rate.

A 2200 mAH battery will be 2200 mA (2.2 amps) maximum charge rate.

Note that this is only a guide and that many dedicated Li-Po chargers (which you MUST be using) will only allow you to select the number of cells to be charged (and hence the charging voltage). The charging current will then be regulated automatically.

However, if you can set the charge current then, for longer battery life, you can always charge at less than the maximum allowed but do not go higher. If the battery comes off the charger anything other than slightly warm, you are charging at too high a rate. (April 2008)

Page 35, Column 2, Models Between 7kg and 20kg, Section (a), 4th Paragraph.

Article 87 should read Article 98. (April 2008)

Page 39, Column 2, The BMFA Safety Code for Model Flying Displays, Section (b).

Second Paragraph

Article 64 should read Article 74.

Article 63 should read Article 73.

Third Paragraph

Article 85 should read Article 98. (April 2008)

Page 45, Column 2 plus all of Page 46. Section 'Area Chief Examiners'

Remove entire section and replace with:

Area Chief Examiners

(Fixed Wing, Helicopter and Silent Flight)

The Achievement Scheme is run at Area level by Area Chief Examiners who are persons nominated by Area Committees and ratified by Areas Council as Area Chief Examiners.

A sufficient number of Area Chief Examiners should be maintained by each Area to ensure good geographic coverage for their clubs.

The principal duty of an Area Chief Examiner is to test applicants for the post of Examiner and to promote and maintain the standards of the R/C Achievement Schemes by example and by visiting clubs that require their services.

They are also non-voting officers of their Area Committee and are required to liaise with their Area Scheme Co-ordinator and to submit an annual report to the Area AGM.

It is important to note that Area Chief Examiner status is an appointment, not a qualification and is subject to annual re-ratification.

Area Chief Examiner Eligibility

Area Chief Examiners must be senior members of the BMFA and may be appointed for fixed-wing, helicopter, silent flight or any combination of the three and all Area Chief Examiner ratings will be shown on the individual's BMFA membership card.

They must have long term knowledge and experience of any discipline for which they are appointed for and must also have full knowledge of the BMFA Safety Codes

All Area Chief Examiner candidates must have held an Examiner rating in the discipline for which they are to be appointed for at least two years.

The initial Areas Council ratification ends on December 31st of that year. After that, Area Chief Examiner appointments are for a period of one year only, from January 1st to December 31st. The appointment may be renewed by the appropriate Scheme Controller annually at the request of the appropriate Area Committee.

How an Area Appoints an Area Chief Examiner

The first step is for the Area to decide that an Area Chief Examiner is needed and then to decide on a suitable candidate.

Before the presentation of a potential candidate to an Area meeting for ratification, a consultation with the appropriate Scheme Controller is required by the Area Achievement Scheme Co-ordinator so that the candidate's experience within the Achievement Scheme can be properly appraised by the Area.

The vote to put the candidate forward is then taken at an Area meeting and, for the candidate to be successful, the voting **MUST** show at least two thirds of those present and eligible to vote to be in favour of the candidate. The Area should note that there is a requirement that the candidate provide a CV to go with the proposal.

The proposal form raised by the Area is then passed to the BMFA office, usually by an Area Achievement Scheme Co-ordinator.

Immediately on receipt, the BMFA Office will check the proposal form to see that the Area voting was correct, that the required CV is present, that the candidate has been an Examiner in the requested discipline for the required length of time and that the required consultation with the Scheme Controller has taken place.

If all is correct, the proposal will be added to the agenda of the next available Areas Council meeting and a copy will be sent to the appropriate National Controller.

The National Controller will pass to the BMFA Leicester Office for inclusion with the proposal any comments about the candidate's record of activity within the Scheme and any recommendations to

Council on the suitability of the candidate that he feels are necessary. This must be done by the National Controller as soon as possible after receiving his copy of the proposal.

At the Areas Council the proposal is voted on and, if successful, the candidate becomes a full Chief Examiner for his Area.

Retaining Area Chief Examiner Status

There are two conditions for remaining an Area Chief Examiner which must be fulfilled each year.

One of these is that you are a current BMFA member.

The other is that you are ratified by your Area each year at the Area's AGM and then confirmed by the appropriate National Scheme Controller.

If either of these is not done then you will lose your Chief Examiner appointment and your status on the membership database will be changed.

If your membership lapsed then you will be credited a 'B' certificate.

If you are not ratified by your Area then your status will depend on whether you are accepted by a club as an Examiner. If so then you will be credited with an 'E'. If not then you will be credited with a 'B'.

Regaining Chief Examiner status on re-joining or being re-ratified by your Area is not automatic and will be subject to the normal process of ratification by Areas Council.

Area Chief Examiner's Area Of Operation

Chief Examiners operate within the Area for which they are ratified. If a Chief Examiner is

(a) requested to operate in another Area for any reason or

(b) asked to test Examiner candidates from a club in another Area

He **must** liaise with that Area's Achievement Scheme Co-ordinator before taking any further action. (April 2008)

Page 53, Column 2, The 'B' Certificate (Helicopter)

Seventh Paragraph (b) Perform one hovering 'M'.

Remove Paragraph and replace with

(b) Perform one 4-point pirouette

Add new paragraph (c) and renumber following paragraphs as required.

(c) Perform one pilot's pirouette (April 2008)

Page 68, Column 1, Section 5, The 2.4 GHz Band. Various Paragraphs Changed – Section to now read -

Identification will be by a single black ribbon.

This is a worldwide Industrial/Scientific/Medical (ISM) band, similar in scope to the 27 MHz band.

There are two currently available types of equipment. One uses spread spectrum technology and does not operate on a fixed frequency. There are 80 channels available and each set uses two channels during operation. They automatically set themselves to a pair of unused frequencies when switched on. Operation is constantly self monitored and the set will move to an unused frequency if any interference is detected.

The other technology in use is frequency hopping which operates in a similar manner to mobile 'phones.

All should be self regulating when it comes to selecting frequencies to use and the two different operating systems will co-exist with each other. Consequently, no direct frequency control is required for the band. (Jan 2007)

Page 68, Column 2, Frequency Bands Overview, 2.4 GHz. Change Paragraphs to read -

The **2.4 GHz** band is useable for most regular R/C applications. The band is used by many computer applications such as wireless networking and Bluetooth devices but the method of operation of the R/C

equipment in this band means that the possibility of interference from such devices is extremely low. (Jan 2007)

Page 69, Column 1, R/C Equipment Type Approval. Add new Note (c),

From December 2006, 2.4 GHz radio equipment has been available that is suitable for general R/C use, including model aircraft. This equipment is subject to the regulations of CE marking, just the same as 35 MHz and 27 MHz sets, and you should take care that the equipment you are using carries a valid CE mark otherwise you may become personally liable for the legality of it's operation. (Jan 2007)

Page 69, Column 2, Add New Section 'Grey Imports'

There is a small but increasing trend, driven in many cases by the ease of internet shopping, for flyers to directly import equipment from sources outside the EU for their own use. All frequency bands are affected by this and sets on both 35 MHz and 2.4 GHz are especially involved.

Now most of us are not familiar with EU and UK law on this subject but you should consider the following very carefully.

It is a fact that the onus for making sure that the equipment meets EU standards rests not on the manufacturer but on the original importer into the EU. This applies whether the equipment carries a real or bogus CE mark or no CE mark at all.

This means, of course, that equipment bought through the normal model shop chain is warranted to be legal by the major importers who do the original importing into the EU. However, if you have imported equipment directly from outside the EU for your own use then you are personally responsible for it's legal operation within the UK.

This is extremely important to you as a user because you may inadvertently find yourself in serious trouble if you are involved in an incident.

Just to take two instances;

(1) The application of bogus CE marks to equipment manufactured and supplied from certain parts of the far east is not unknown. If you have one of these sets you have no idea whether it is legal to operate or not.

(2) The USA and Canada have higher power limits for 2.4 GHz equipment than we do and it is known that most Spectrum sets sold there have been built to take advantage of these higher powers. If you have personally imported a set from the USA then it will almost certainly be illegal to operate in the UK unless it has been recalibrated by the official importers. (April 2008)

Page 74, Column 1, Third Paragraph, Change Paragraphs to read -

The **2.4 GHz** band is for general model use in the UK. The equipment uses spread spectrum or frequency hopping technology and does not operate on a fixed frequency. The band is also used by many computer applications such as wireless networking and Bluetooth devices. (Jan 2007)

Chris Bromley, FSMAE

BMFA Technical Secretary

9th April, 2008