



The British Model Flying Association

MODEL FLYING

An introduction booklet for

LOCAL AUTHORITIES

MODEL FLYING – SOME GUIDELINES

These guidelines are for the benefit of organisations outside the immediate sphere of the sport of model flying, such as local authorities, private landlords, regional Sports Councils etc. They are given as an indication of the average needs of today's sport model flyer.

A. **CONTROL LINE (C/L) MODELS**

These will mostly be powered by internal combustion (i.c) engines and are all permanently attached to lines by which the operator controls the movements thus the aircraft are confined entirely to a circle of radius equal to the line length – which is normally about 15 meters and sometimes up to 22 meters.

The requirements for control line models are therefore very small geographically and can be 'slotted in' in various odd places. Their requirements are more determined by noise considerations (see later).

B. **RADIO CONTROL (R/C) MODELS**

For an initial analysis, radio-control models need to be considered under two headings, **POWERED** and **GLIDERS**.

- (i) **POWERED** – (i.e. internal combustion engines, electric motors & gas turbines)

For landing, take-off and including the associated parts of the flight up to a flying height of say 15 feet, a clear, substantially level, area of roughly the size of a football pitch is adequate. A circular area of about 75 meters diameter would be ideal to cater for all wind directions but various shapes and sizes are adequate in practice. Within this area (determined more closely by the wind direction on the day) common sense suggests that people who are not spectators should be kept clear. In practice however this is rarely a problem because potential problems are usually fully self-evident to both flyers and others and the model flyers in particular will not normally operate at low level in the presence of casual walkers etc.

Beyond this landing/take-off area, power driven models can and do operate further afield whilst at a substantial height. They rarely extend beyond about 350 meters laterally from the operator and generally are caused to operate at an angle no less than about 20 degrees above the horizontal i.e the further away they are flown the higher the operator likes the model to be. These factor are to be self-controlling because the operator can have difficulty in assessing

distances and altitudes at long distances and therefore naturally keeps the model in a convenient angular relationship to himself. It also means that the area over-flown need not be clear but should be substantially flat.

With power driven models the B.M.F.A recommends that they are not flown directly above homes, organised games etc, unless at a very great height. This is partially a safety precaution but mainly a public-relations precaution i.e we prefer to keep a low profile and not flaunt our interest unnecessarily. Above organised games the main reason is the distraction it can cause and hence unnecessary intrusion. Noise also needs to be considered and again this will be covered later.

Finally, helicopters tend not to be operated as far from the operator as fixed-wing models but to a first approximation the above requirements will cater for both types.

(ii) GLIDERS

There are two basic types of radio controlled glider flying: Slope Soaring and Flat-Field Soaring. The latter needs a site very similar to power driven R/C models except that they tend to be operated further away and higher than powered models and also we find it unnecessary to recommend that they should avoid direct overflying of houses, games etc, mainly because they are silent and rarely cause distraction.

The former type, Slope Soarers, require, as the name implies, a substantial slope to operate from. Models are hand launched from the top of the slope into wind and normally operate a short way out from the slope and above the level of the top of the slope. They land back at the top of the slope normally. This is a very popular branch of model flying and its nature makes it almost impossible for it to cause problems to others in any way.

The slope usually needs to be at least 25 meters ~~75 feet~~ higher than the surrounding land and facing the wind. West facing slopes are the most desirable in the U.K., foot access to the top of the slope is, of course, necessary.

C. FREE FLIGHT MODELS

The majority of free flight models are silent. A few free flight aircraft are powered by i.c engines but the noise nuisance is minimal due to the short engine runs employed to achieve a flying height – typically 10 seconds.

The path of any free flight aircraft will be in an area downwind of the point of launch; unlike R/C aircraft it is certain that none will land upwind of the launch point. The flight adjustments are made prior to launch and free flight aircraft are automatically stable, like a self-righting dinghy.

Because of wind direction determining the launch point on a particular day, no fixed launch area is needed. Nobody is likely to launch free flight aircraft upwind of say, a building or organised game.

D **NOISE**

Firstly, we rarely find it necessary to recommend any restrictions on silent models – and nowadays ‘silent’ includes most electric powered models as well as gliders and free flight models. Generally speaking, silent models are also relatively slow-moving and extremely stable and, all in all, are totally unobtrusive. We therefore trust that any noise restrictions need not be extended to silent models.

Having cleared this simple but important point the subject of model aircraft noise has had a great deal of attention and, indeed, the Department of the Environment has issued a Code of Practice specifically on this one subject – the contents of which are endorsed by the B.M.F.A and incorporated into our Member’s Handbook.

Essentially we advocate three basic types of control over noise: suppression at source, distant separation, time restrictions. So, the society is very active in advising sensible restrictions on various sites around the country and we will be happy to assist in any case concerning noise.

Some general comments on the subject are appropriate:

(i) **Suppression at source**

We have a B.M.F.A recommendation that ALL R/C i.c powered models shall be fitted with effective mufflers (except on the very smallest engines) and nowadays it tends to be rare to see one without. In addition we recommend that the noise levels should be suppressed to at least to D.o.E. Noise Code limit – and most clubs have noise meters and many have strict club rules ensuring compliance.

(ii) **Distance Separation**

Assuming noise level restrictions exist then the D.o.E Noise Code recommendations on distances are a further effective means which would generally support. Broadly, ideally a circle of radius 500 meters (with the R/C i.c powered aircraft taking-off at the center) is required to be free of legitimate noise-sensitive location (300 meters radius with radius with control-line models)

(iii) **Time Restrictions**

In practice we often find these the most effective means of reaching amicable agreements with local residents and we see no reason for not introducing them if the need be. During weekdays the use of the land by all users is usually relatively light and haphazard. Accordingly we tend to recommend restrictions to say, two or three evenings only. The weekends need careful and detached consideration. Apart from occasional special events we would advocate fairly tight restrictions on Sunday hours and perhaps slightly less on a Saturday. Typically:

Saturday: 09:30 to 17:00

Sunday: 10.00 to 12.30 plus 14.00 to 17.00

If noise – sensitive areas are within about 500 meters of the nominal take-off point the above is recommended.

D. **MEANS OF REGULATION**

There are two ways in which effective regulations have proved to work in practice. One is by Bylaw (or equivalent) and the other by Club responsibility. Either or both can be used. In fact local authorities are sometimes content to rely on good liaison with the local clubs and to get them to make club rules incorporating the required restrictions, it depends on the circumstances but it does work in many cases. As a bare minimum it loses nothing to give this method a trial. If it doesn't prove effective then it is usually the model flyers who will press you to bring in a Bylaw to formalise the restrictions, because the clubs own control over all modellers using a site might prove not to be as strong as they would wish.

Either way, this Association is strongly in favour of sensible restrictions which permit reasonable but controlled access for noise producing models. We are sure that the local clubs will share our view and would be only too willing to assist in achieving these.

G. **INSURANCE**

Individual Membership of the B.M.F.A includes the cover of a Third Party Public Liability Insurance with a limit for any single incident of £25M. this is provided for approximately £10.00 a head which reflects our members very low accident rate.

The B.M.F.A Policy also provides public liability cover for its affiliated clubs and offers valuable indemnities to site owners/administrator/Local Authorities/Ministry of defense etc which protects against claims which may be made on them as a result of model flying activity permitted on the site.

The policy held is provided by Mitsui Sumitomo Insurance Group Ltd & QBE Insurance (Europe)LTD. Copies of the policy are available from the B.M.F.A on request. Detailed enquiries may be made of our brokers:

**DOODSON BROKING GROUP LTD
CENTURY HOUSE
PEPPER ROAD
HAZEL GROVE
CHESHIRE
SK7 5BW**

H. **THE ASSOCIATION**

The British Model Flying Association is the working title of the Society of Model Aeronautical Engineers Ltd which was established in 1922 with a mandate from the Royal Aero Club to control and regulate the sport of model flying in the United Kingdom. The B.M.F.A is linked via the R.Ae.C to the Federation Aeronautique Internationale, the world body for all sports aviation. Over 800 affiliated clubs comprise the majority of the Association's 36,000 strong membership.

The administrative headquarters are situated in Leicester and enquiries should be addressed to

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