

1. INTRODUCTION

1.1. Model aircraft flying provides enjoyment for many. It can also create noise, some of it unavoidable, which is not part of that enjoyment and may annoy or disturb others. The purpose of this Code of Practice is to describe how such annoyance or disturbance may be minimised so that the activity may be pursued in a reasonable and considerate manner and co-exist peacefully with other pursuits.

1.2. This voluntary Code of Practice does not in itself define or describe offences or have the force of law. It is intended to be of assistance to local authorities, district courts and planning tribunals in the exercise of their powers and functions under the provisions described in the following paragraphs, and in reaching formal agreement with model flying clubs on methods of noise control. The Code of Practice cannot however override any restrictions or requirements imposed under those provisions.

1.3. This document shall not preclude a noise control officer or any other person from taking enforcement action under the noise control provisions of the Resource Management Act 1991.

2. USE OF THIS DOCUMENT

2.1. This Code of Practice contains guidelines which, if followed, should ensure that undue disturbance is avoided in most circumstances. Its terms are not intended as hard-and-fast rules to be applied to every site; local circumstances differ, and more stringent or less stringent controls may be appropriate in individual cases or on the same site over the years.

(a) Where a site has been lawfully used for model aircraft flying for some years without causing complaint, the Resource Management Act allows for that use to continue unless circumstances such as the character and intensity of use increases significantly and disturbance is caused as a result.

(b) Where complaints have been received about existing sites, the code is intended to guide local authorities, model flyers and others on the way in which intensity and manner of use may be adopted to allow the use to continue, if possible, without causing further disturbance.

(c) Where the use of a new site is contemplated, the code may be use to determine, before use starts, what constraints may be necessary to avoid a nuisance. In both this case and that of an existing site which has caused complaints, it is recommended that the model flyers, the local authority and the near neighbors of the site should discuss, in the light of this code, any limits or restrictions which might he necessary to prevent undue disturbance

being caused by noise. Prior consultation on site selection and use can, in most cases, avoid future conflicts and misunderstandings. Since clubs can often exert very effective control over the type and manner of operation of model aircraft on a site, it is recommended that, wherever possible, those wishing to operate model aircraft should join or form a club to arrange their activities responsibly. Such clubs should then be given every encouragement to concentrate their activities on the most suitable-sites.

3. DEFINITIONS:

3.1. In this Code the following definitions apply:

(a) 'The Act' The Resource Management Act 1991. Words and expressions that are defined in the Act have the same meaning in this Code unless otherwise defined in a particular context.

(b) 'Model aircraft' There are many types of model aircraft and several of these are either silent or powered by rubber or electric motors, noise from which is insignificant. This Code is not concerned with them and in it the expression 'model aircraft' means only a flying machine which owing to its size, is not capable of carrying a human being and which, being powered by an internal combustion engine, can give rise to a significant noise.

(c) 'Noise measurement' and 'dB(A)' These refer to sound measured by means of equipment complying with compliance IEC specification type 1 but at least type 2 specification (for sound-level meters), using the A-weighted response and with the noise meter set to fast response. Details of the appropriate method of measurement are given later.

(d) 'Noise-sensitive premises' Any premises, including surrounding gardens etc., used as a dwelling, hospital or similar institution, school in school hours in term time or at other times when in use), or place of worship (during recognised times and days of worship or used for any other purposes likely to be effected by an increase in sound level).

(e) 'Flying site' Any premises used for flying of model aircraft.

(f) 'Point of launch' The position of the operator, in the case of controlled models, or the point at which the model is released for flight in the case of free flight models.

(g) 'Free flight model' A model whose flight path is predetermined but which is not under the direct control of any person during its flight.

(h) 'Controlled model' A model whose flight path is under the direct control of the operator at all times.

(i) 'Muffler' A device which, when fitted to a model aircraft engine, has the effect of significantly reducing the noise emitted.

4. GENERAL

4.1. It is not the concern of the Code to go into detail of the various types of powered model aircraft. They may, however, be divided broadly into two types:

(a) 'Limited engine-run', where the engine runs for a short time, seldom more than 10 seconds, to raise the model into the air, the rest of the flight being silent as the model glides down. These models are normally of the free flight type.

(b) 'Continuous engine run', where the engine may run for the duration of the flight and the model is controlled. The method of control may be flying the model on lines ('control line aircraft') in which case quite small premises such as recreation grounds and playing fields will allow adequate space. Alternatively, the control may be by radio and those models ('radio controlled aircraft') range over a greater area and are commonly flown from large recreation grounds, parks and similar public spaces as well as private premises. They can, however, be operated from quite small areas.

4.2. Model aircraft with continuous engine runs are in general more likely to give rise to a disturbance than types with limited engine run because the engine operates for longer periods.

5. OPERATING GUIDELINES FOR REDUCING NOISE

5.1. The most effective and fundamental way of avoiding disturbance is to cut down the noise at source. Like other internal combustion engines, those in model aircraft create a certain amount of unavoidable noise. It is possible however to reduce unnecessary noise by use of a properly designed muffler. The engines used are all basically the same and may normally be fitted with a muffler without undue reduction of operating power.

5.2. It is recommended that:

(a) Model aircraft should be fitted with a muffler, wherever this is practicable, also should be fitted with soft engine mounts, and a propeller that minimises noise from this source, consistent with satisfactory performance. The exception being the case of competitive flying as described in (b)(i) and (b)(ii) below.

(b) The exception referred to in sub-paragraph (a) is a case where:

- (i) the operator is taking part in regional, national or international competitions; or
- (ii) the operator holds a current competition licence issued by MFNZ and is practising for competitive purposes at times and on sites approved by MFNZ; or, where distance, natural or other barriers or a high ambient noise level make a noise nuisance highly unlikely.

5.3. Where substantial disturbance is caused by operating unmuffled model aircraft at any site, unmuffled flying should not be permitted to continue. Provided that intolerable disturbance would not be caused, muffled flying could be allowed to continue from the site at least for an experimental period agreed to by all parties to see whether it could continue, having regard to the nature of its surroundings, without causing a nuisance.

5.4. In the event of a noise complaint being received, the club operating at the site should immediately consult the complainant and seek a solution to his or her concerns.

5.5. Each club operating on a site should appoint a site manager whose responsibility shall be to ensure that the site is managed so as to eliminate the possibility of noise complaints and to see that the site is operated in a responsible and sensible manner.

5.6. All sites should be operated so as to achieve a sound level not exceeding 50dB(A) at the nearest residential or sensitive site boundary. Measurement and assessment of noise at the nearest residential boundary should be in accordance with New Zealand Standards NZS 6801:1991 and NZS 6902:1991.

6. REDUCING NOISE AROUND SENSITIVE PREMISES

6.1. Because of the technical limitations on controlling noise emitted from individual model aircraft, additional precautions may be necessary to limit the model flying noise heard by neighbours.

The following factors are relevant:

- (a) separation distance
- (b) times of operation
- (c) numbers of model aircraft in operation simultaneously
- (d) manner in which the model aircraft are flown
- (e) barriers between flying sites and noise sensitive premises

It is recommended that the combination of these factors appropriate to a site should be agreed between the local authority and those representing the model flyers. Not all sites will need requirements or restrictions under all these heads. Wherever possible, local practical tests should be made by the local authority and the model flyers in order to determine reasonable limits for the overall noise from a site, these then being translated into limits on emission from each model, the number of models flown at one time, and the minimum distance from noise-sensitive premises.

6.2. If circumstances change, it may be appropriate to review and amend the terms of the agreement, for example where the emission levels of models decrease markedly, or where a new or different club assumes responsibility for model flying from a site.

6.3. Separation distance. Even when muffled, a model aircraft may still sound noisy, and should not be flown too close to noise-sensitive premises. The minimum distance from such premises at which a model aircraft should be flown depends on the exact nature of the premises and the surroundings.

(a) Where no direct supervision (e.g. clubs) of flying is possible, it is recommended that the following should apply:

(i) the point of launch of control line and model aircraft with a limited engine run should not normally be closer to any noise-sensitive premises than 300 metres;

(ii) the point of launch of radio controlled models with continuous engine run (which ranges over a greater area) should not normally be nearer to any noise-sensitive premises than 500 metres;

(b) Where more detailed supervision and control may be exerted (e.g. by clubs) and other factors – (e.g. noise emission levels) can be varied to compensate if necessary, separation distances may be more flexible and be related to the time of day and type of surroundings. However, model aircraft should only very exceptionally be allowed to fly closer to any noise-sensitive premises than 200 metres.

7. TIMES OF OPERATION

7.1. The hours of flying have an important bearing on the likelihood of disturbance; the type of model is less important since it is the existence of the noise rather than its intensity, or degree of continuity, which causes disturbance, if the hours of operation are unreasonable. Generally the points of launch and closest approach of model aircraft should not be as near to noise-sensitive premises as suggested in 6.3. at the times of day and days in the week when people consider that they have a particular right to peace and quiet in and around their homes; special problems may arise at weekends when noise from model flying may conflict with other quieter pastimes.

7.2. The times of day and days of the week when any model flying noise is unacceptable will differ between areas and are a matter for local determination. In general however it is recommended that where detailed control of numbers and separation distances is not possible, or is inadequate to avoid substantial disturbance at the more sensitive times, flying should not be allowed outside the hours of 9am to 7pm on weekdays and 10am to 5pm on Sundays and statutory holidays. Longer hours may be possible in the evening if control can be exercised, e.g. by a club or site owner, and disturbance would not be caused.

7.3. If more than one site is available within reasonable distance, annoyance suffered by any individual may be minimised by alternating use between the sites; e.g. using one on Saturday and the other on Sunday. It should be borne in mind that some sites may be available to model flyers only at times when other users having higher priority do not require the land (e.g. industrial premises or airfield) and this may in itself curtail the available time for flying. To be reasonably fair, limits on flying time may in such cases need to be more flexible, if this is possible without causing disturbance.

8. NUMBERS OF MODEL AIRCRAFT IN OPERATION SIMULTANEOUSLY

8.1. Two model aircraft each emitting the same level of noise may, if flown together, produce an overall noise level up 3 dB(A) above that of the individual aircraft. The disturbance caused may be greater than is apparent from this simple change, owing to increased variations in sound level. If a particular type of model cannot reasonably avoid being near the limit recommended in 5.6, it should be operated by itself unless the site is well protected, or remote, or its surroundings are insensitive to noise. Where the site is not so situated, more than one noisy model should be flown only if the distance from noise sensitive-premises can be increased.

9. BARRIERS BETWEEN FLYING SITES AND NOISE-SENSITIVE PREMISES

9.1. Topographical Features such as hills can afford protection against sound, as can large buildings. Where it is possible, and on balance likely to lessen disturbance, flying sites should be chosen to take advantage of these, and less stringent minimum distances may then be practicable without risking undue disturbance. It should be noted however that belts of trees, unless dense and wide, have little attenuating effect on noise.

10. MODEL AIRCRAFT NOISE IN OTHER NOISE-SENSITIVE AREAS

10.1. People may be disturbed by noise from model aircraft in the countryside as well as indoors or in their own gardens, and the peace and quiet of rural areas should be respected. In addition there may be some urban open spaces, such as ornamental parks or children's play areas, where model flying would be inappropriate and should not take place at all. Nature and wildlife reserves, country parks or other countryside areas where people go to relax in quiet and peaceful surroundings, should also be avoided by model flyers. Preferably, model flying in country areas should be confined to specified locations where suitable provisions have been or can be made with the agreement of local farmers or landowners, and where the risk of disturbance is relatively slight.

10.2. Most animals whether wild or domesticated, are probably not unduly worried by model aircraft noise, it can however be distressing to some at sensitive times, for example to mares when in foal, sheep at lambing time or birds in the nesting season. It is recommended that model flying clubs or representatives should discuss with the owners of surrounding land, or local wildlife preservation bodies, any times and places where animals are likely to be unusually sensitive and would benefit from a temporary suspension or reduction of model flying activity.

11. MAJOR EVENTS

11.1. From time to time major flying events are held, which are of interest to large numbers of participants and spectators. It is likely that such an event will mean a temporary intensification of use of a site. In considering the desirable scale and frequency of such events at any site, the organisers and the local authority will be able to use the provisions of paragraphs 6 to 9 of this Code of Practice as a guide. It should be borne in mind that higher levels of noise resulting from occasional short intensification of use, may be more acceptable than the same levels of noise would be if they arose regularly and frequently. If the site is well chosen and prior consultation with the local authority and local community takes place, serious disturbance need not be caused.

11.2. The organisers should ensure that unnecessary noise is kept to the minimum where disturbance is possible, and should limit ground running of engines, which can add appreciably to the overall noise level.

11.3. The organisers of any projected major model flying event should notify the local authority in advance of their intention to hold the event, they should also be expected to publicise it locally well in advance, giving a clear estimate of the date, time and expected duration of the event.

