

MODEL AERONAUTICAL ASSOCIATION OF AUSTRALIA



CLOSE FIELDS OPERATION POLICY AND PROCEDURE

MOP008

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This Policy and/or Procedure forms part of the MAAA Manual of Procedures. This entire document is for the use of all classes of members of the MAAA in the conduct of activities associated with the MAAA and is not be used for any other purpose, in whole or in part, without the written approval of the MAAA Executive.

Shading of text identifies changes to the previous version.

CLOSE FIELDS OPERATION POLICY AND PROCEDURE

1. PURPOSE

The purpose of this Policy and Procedure is to:

- a. State the MAAA requirements for minimum separation between flying fields and other sites utilising model radio control frequencies.
- b. Define the procedure that must be followed to allow for situations where more than one model flying location is within this distance, whether due to the requirements of a competition or some other special requirement. The definition of more than one location includes when multiple flight lines are in use or more than one club is operating on the same site.

2. SCOPE

This Policy and Procedure applies to all existing and proposed radio control model flying sites of Clubs and those of individual Affiliated Members of the MAAA.

The Policy and Procedure also covers the operation of model radio control frequencies within the minimum separation between flying fields for any use of radio control frequencies by individuals and groups that are not affiliated with the MAAA.

3. POLICY

The MAAA has a number of policies that are applicable to the spacing of flying sites under normal operating practices. The principle policy is:

All new fields registered with the MAAA or a State/Territory Association shall maintain a distance of at least 4 km between their transmitter site and any other transmitter site operating on model radio control frequencies.

It should be noted that the policy requiring 4 km spacing between flying sites is equally applicable to the spacing between an individual MAAA Affiliated Member operating radio control equipment and registered radio control model flying fields.

This MOP modifies the Policy stated above. The MAAA would prefer that all flying fields have the 4 km separation, but there may be exceptional circumstances where the 4 km for either fields, or flight lines, cannot be met. No State Association shall register a field if there is a currently registered field within 4 km of a proposed new site, unless exceptional circumstances exist.

If there are exceptional circumstances then either:

- a. A single event is being held with a common organiser that requires more than one flight line, in which case either the Common Frequency Control or the Split Frequencies detailed in this Procedure shall be followed. It is the responsibility of the organiser to arrange this and ensure that the method is correctly applied.

- b. Or a Close Field Agreement between the parties, as outlined in this procedure, shall be in place prior to operation on any new site.

In the case of any new field being proposed for registration, it is the responsibility of the applicant to satisfy the State Association that the minimum separation of 4 km from any currently registered site has been complied with, or that an Agreement is in place.

In the event that an application for the registration of a Flying Field is approved and the information contained in the application is subsequently found to be false or incorrect, then the approval will be deemed to be null and void and the applicant immediately advised in writing that no further operations are to continue at that site.

In the event of there being sites within 4 km, not operating under the umbrella of the MAAA, that are known to be radiating model radio control frequencies, then the MAAA has no direct power to interfere. Examples of these include sites for model surface and water craft, or model aircraft being flown by other than MAAA Affiliate Members. Under these circumstances, it is required that the principle of this policy be applied in order to obtain an agreement that protects the frequencies being used for model aircraft from being simultaneously used at those sites. If this cannot be achieved, then radio control model aircraft flying is prohibited by the MAAA, as interference of sufficient severity to cause loss of control of aircraft and a subsequent crash may occur.

4. CLOSE FIELD OPERATIONAL PROCEDURE

4.1 Introduction

The MAAA policy on locations of radio control model flying fields is defined in Section 3. The distance specified was determined as a result of a theoretical study based on the probability of interference being generated between the sites, assuming that normal variations in signal strengths apply. The result is supported by practical experience and tests over many years. If this distance is reduced and transmitters are operated on the same frequency, then the probability of interference, assuming that there are no special operating conditions, quickly increases to an unacceptable level. This distance requirement is for the safety of both the aircraft and third parties that may be affected should it become out of control.

As well as the technical aspects for close field operations, there are also other factors that must be considered as part of the negotiations. As these will vary for every individual situation it is not possible to define absolute parameters on what the requirements should be. Considerations will include noise, visibility of flying at another site, possibility for overlapping flying, and the type and size of the models being flown. A satisfactory environment for all participants must be considered but, in all cases, safety of the public, the participants and the models must not be compromised.

This document identifies four operating procedures that can enable safe operation of fields with less than the 4 km separation:

- (1) Common Frequency Control
- (2) Split Frequencies
- (3) Time Sharing
- (4) 2.4 GHz only operation at one or more sites

These methods are detailed below.

4.2 Common Frequency Control Method

This is the safest procedure, whereby all the sites or flight lines use a single common frequency control position, for example a single Silvertone© type keyboard. In order to be successful, the keyboard should be placed at a location where it is easily accessible to all fliers and the necessary level of supervision can be applied. In order to comply with the MAAA Frequency Directive (MOP 013), it is almost certain that operation under these conditions would be limited to a minimum frequency spacing of 20kHz.

If the parties agree to this procedure, there is no requirement for any involvement of the MAAA but the State Association(s) has to be informed in the event that it is across two or more separate sites.

4.3 Split Frequencies

4.3.1 General

An acceptable alternative to the common frequency control method is to divide or split the frequency band(s), whether it be the 29 MHz, 36 MHz or 40 MHz frequency band, between the sites. This may be on the basis of frequency sets or individual frequencies. Each individual arrangement requires written authority from the State Association after acceptance by the MAAA Executive before it can be implemented as covered by 5.1.6.

If a frequency band is divided in any manner, there has to be a separation of at least 20kHz at the point where there is a change of the use of the band to another site, whether it be a block of frequencies or a single frequency. For example, if the highest frequency of one set is 36.310 MHz, the lowest frequency permitted to be used in the next set at another site is 36.330 MHz. Under no circumstances shall 36.320 MHz be available for use in this situation.

It is not reasonable to define within this procedure, criteria for the number of frequencies that will be available at the different sites. The manner in which the frequency band(s) is to be split up will depend on local circumstances and should be subject to local negotiation and agreement. Because of the non available frequency between sets of frequencies, it is desirable that the number of separate sets used between the sites be kept to a minimum. The exact split will depend on many factors and these may include inconvenience and disruption to existing operations, size of clubs, potential for expansion of the clubs, number of people flying at any one time, hours of operation, existing practices and actual frequency usage.

Any new operation should consider the costs of changes to members of an existing operation and if those costs can be partly or wholly offset. These should also be considered when negotiating an agreement.

4.3.2 Keyboard

If any of the 29 MHz, 36 MHz, or 40 MHz frequency bands are shared between two or more fields, either by use of individual frequencies or by splitting the band(s), the use of a Silvertone© type keyboard/s is mandatory for these bands. The keyboard/s shall be set up so that the frequencies which are in use at the other site(s) are not available for use.

In the example in 4.3.1, the second site would have the frequencies from the start of the agreed set of frequencies to 36.320 MHz blocked, noting that a 20kHz key should be able to be inserted in 36.330 MHz.

If it is a temporary measure for only a short duration, this can be achieved by inserting normal frequency keys provided that they are clearly marked and some method is used to ensure that they cannot accidentally fall out. A nominated person shall be responsible for ensuring that the requirement is complied with during the period of use. Clear and highly visible signage must also be provided at the keyboard advising that the “blanked out” frequencies must not be used in any circumstances.

If a split band agreement is for an extended period, then the keyboard shall be semi-permanently modified to make the frequencies unavailable, by either blocking the appropriate keyboard slots or permanently fixing keys in place. The keyboard shall be clearly and highly visibly marked to explain the frequencies available for use and the reasons why there is a restriction.

Similarly, if the 27 MHz frequency band is shared, then whatever type of keyboard is used, it must be set up so that the frequencies in use at the other site(s) are not available.

If a particular band (i.e. 29 MHz, 36 MHz, 40 MHz) is only used at one field, it is highly desirable that the other field has a fully blanked out keyboard for that band. In any event, there must be signage noting that this band is not available. If this is a permanent arrangement, then clear and highly visible signage informing members that the frequency band must not be used under any circumstances, and the reasons why there is a restriction, is acceptable.

4.4 Time Sharing

4.4.1 General

Whilst in most cases it is likely that clubs will not want to be restricted to only being able to use their facilities at specific times and/or will find it hard to agree on mutually acceptable restrictions, time sharing the use of the total available spectrum is an allowed option. This is only to be considered on the basis that a site is operating or not operating. It is not acceptable from a risk management perspective to have both sites operating but changing the operating frequencies over time. Each individual arrangement requires written authority from the State Association after acceptance by the MAAA Executive before it can be implemented as covered by 5.1.6.

In any agreement there must be a period of at least an hour during which neither site is operating during the change over from one site operating to the other operating to enable a safe changeover period. It is mandatory that this period should under no circumstances be regarded a period into which the operations can overrun.

Prior to entering into an agreement under this clause, all parties shall ensure that they have the backing of all persons who will be covered by it. In the case of clubs, they are required to carry out whatever process is needed under their rules to ensure that they can enforce the agreement on their members.

4.4.2 Documentation/Signage

Before any agreement can be implemented all persons covered by it must be informed in writing by the individual or club that signed the agreement as to the content of the agreement. This shall state the full terms of it and advise that any individual shall be subject to discipline by the club, the State Association(s), the MAAA or any other statutory body that that has controlling influence on the sites, if they do not comply. All new members are required to receive similar notification in writing.

In addition to individual notification, if the operating sites are not co-located such as to ensure that it is impossible for one to operate without all other sites being unambiguously aware of it, a permanent sign or signs shall be put in place so that every person who attends the sites shall be reasonably made aware of the restrictions on operations. This shall as a minimum contain the hours of operation, the disciplinary warning and any other information from the agreement that is considered necessary for its safe implementation. The proposed wording for the signage must be included within the proposed agreement when it is submitted for the approval process.

4.5 2.4 GHz only operation at one or more sites

If one (or more sites) are only operating in the 2.4 GHz Band the MAAA does not place any specific frequency related restrictions on the operations. However clubs should consider the guidance given in MOP 058 with regard to interference.

The administrative requirements to document the situation and audit the compliance, covered where applicable in Section 5, still need to be followed even if no additional restrictions are agreed by the clubs.

If limiting the number of 2.4 GHz equipment at any site is agreed then, as there are too many variables to specify a single method, a satisfactory method of advising and controlling this must be part of the agreement.

In the event that, for example, one club is operating only on 2.4 GHz and is within 4 km of two other clubs then the close field agreement has to involve all three clubs. However if the two clubs that operate on other frequencies are further than 4 km apart then the agreement only needs to cover 2.4 GHz operations and not those in other frequency bands.

5. PROCEDURE AND APPROVAL

This section outlines the procedure for seeking approval for two or more clubs, or an individual member, to operate flying fields with a separation distance of less than 4 km. In general terms this will involve the preparation of a Close Field Agreement, which is to be signed by both clubs and forwarded to the State Association for consideration. In each case, the State Association will assess the proposed arrangement and the agreement for compliance with this policy, including the exceptional circumstances surrounding the preparation of the agreement and any technical requirements. Once satisfied that all the requirements are complied with, the State Association will endorse the agreement, including any comments, and forward full details of the proposed Close Field Operation Agreement to the MAAA Executive. This shall include the recommendation that it be accepted.

5.1 Proposed New Flying Site within 4km of an Existing MAAA Registered Flying Field

In proposing a new flying site, the club or individual shall consider the desirability of minimising disruption to an existing club's registered flying site.

5.1.1 The club proposing the new flying site must seek an Agreement with the club that operates the existing registered flying site in relation to the method of sharing the frequencies or time sharing operations.

The following details and information are to be included in a Close Field Agreement:

- a. Details as to why the agreement covers an exceptional circumstance.
- b. The location of both the existing flying field and the proposed flying field accurately plotted on an appropriate map (eg Lands Department or similar).
- c. A statement from the Club wishing to set up the new flying field that it has received the land owner's permission and has satisfied the local council's requirements.
- d. The intended duration of the agreement.
- e. The details of the Clubs involved in the agreement.
- f. In the event of frequency sharing arrangement, the detail of the arrangement to be put in place and the manner in which the frequency control keyboard(s) will be operated.
- g. In the case of time sharing, full details of the proposed hours of operation at each site together with details of how the arrangement will be implemented and enforced.
- h. Provision within the Agreement for State Association endorsement and MAAA approval.

5.1.2 The Close Field Agreement is to be signed and dated by the clubs named on the agreement prior to it being forwarded to the State Association for the approval process.

5.1.3 The State Association(s) will consider the proposal, which must comply with the requirements of this procedure. If needed, they will seek technical assistance, for example from the MAAA Technical Radio Subcommittee or their own representative on it.

5.1.4 If the State Association is of the opinion that all the criteria for an agreement under this Policy has been satisfied, the State Association shall endorse the proposed agreement and forward it to the MAAA Executive with a recommendation that the Close Field Agreement be approved.

5.1.5 The MAAA Executive is to be provided with all information relevant to the proposed Close Field Agreement. There is to be sufficient detail to enable the MAAA Executive to consider the proposal and ensure that there will be no adverse effect on the MAAA insurance cover. The MAAA Executive is to be provided with any additional information that it requires for an informed decision to be made.

5.1.6 The MAAA Executive will return the approved or rejected Close Field Agreement to the State Association following assessment of the proposal by them. Once this is received by the State Association, the State Association is to advise the

parties in writing as to whether or not approval has been issued and include a copy of the approved or rejected agreement.

5.1.7 If the Close Field Agreement has been approved, a visual inspection of all affected flying fields, to ensure that all frequency control or time sharing arrangements have been correctly set up, will be conducted by the representatives of each of the Clubs and the State Association before implementation.

5.1.8 Until this Approval process has been completed, including the site inspections, no flying shall take place within 4 km under any circumstances.

5.2 MAAA Flying Site within 4 km of radio control models, not operating under the umbrella of the MAAA.

Any MAAA Club operating within 4 km of any radio control model site has to be certain that its operations will not be compromised by the other site. This applies equally if the other field is not operated under MAAA Policies, whether it is being used by model surface and water craft, or other model aircraft.

5.2.1 The MAAA Club operating the flying site must seek an agreement with the club/organisation/individual(s) operating the other site in relation to the method of either sharing the frequencies, ensuring that the same frequency bands are not used, or time sharing of operations.

The following details and information are to be included in a Close Field Agreement:

- a. The location of both the existing flying field and the proposed flying field accurately plotted on an appropriate map (eg Lands Department or similar).
- b. The intended duration of the agreement.
- c. The details of the clubs/organisation/individuals involved in the agreement.
- d. In the event of frequency sharing arrangement, the detail of the arrangement to be put in place and the manner in which the frequency control keyboard(s) will be operated.
- e. In the case of time sharing, full details of the proposed hours of operation at each site together with details of how the arrangement will be implemented and enforced.
- f. Provision within the agreement for State Association endorsement and MAAA approval.

5.2.2 The Close Field Agreement is to be signed and dated by the clubs/organisations/individual(s) named on the Agreement prior to it being forwarded to the State Association for the approval process.

5.2.3 The State Association(s) will consider the proposal, which must comply with the requirements of this procedure. If needed, they will seek technical assistance, for example from the MAAA Technical Radio Subcommittee or their own representative on it.

5.2.4 If the State Association is of the opinion that all the criteria for an agreement under this Policy has been satisfied, the State Association will endorse the proposed agreement and forward it to the MAAA Executive with a recommendation that the Close Field Agreement be approved.

5.2.5 The MAAA Executive is to be provided with all information relevant to the proposed Close Field Agreement. There is to be sufficient detail to enable the MAAA Executive to consider the proposal and ensure that there will be no adverse effect on the MAAA insurance cover. The MAAA Executive is to be provided with any additional information that it requires for an informed decision to be made.

5.2.6 The MAAA Executive will return the approved or rejected Close Field Agreement to the State Association following assessment of the proposal by them. Once received by the State Association, the State Association is to advise the parties in writing as to whether or not approval has been issued and include a copy of the approved or rejected agreement.

5.3 Facilitated Outcome

In the event that a club wishes to establish a flying field within 4 km of an existing club's flying field and an amicable agreement cannot be reached, the appropriate State Association(s) will move to facilitate/mediate a resolution that both recognises the interests of the existing club and the needs of the new club to provide flying facilities for its members. The State Association(s), in its role as facilitator/mediator, will also take into account the 'bigger picture' needed to maintain a critical number of model flying field facilities to support both existing and potential participants in the sport.

Where a facilitated agreement cannot be reached, the State Association(s) will make an independent determination based on individual submissions from each of the clubs involved in the proposal and the State Association. The advice of the MAAA Executive may be obtained under these circumstances in order to obtain a further independent view. This determination shall be submitted to the MAAA Executive for approval and, if approved, shall be binding on all parties as though it had been mutually agreed.

In the event that a club or an individual(s) establishes a new flying site within 4 km of an existing club's flying field without an agreement in place, the State Association(s) is to be notified immediately. The State Association(s) will investigate the matter and take appropriate action to cease the unauthorised operation of the flying site.

5.4 General Requirements

The State Association shall review the operation of the Agreement annually. This review will consider the effectiveness of the Agreement and the justification for both the Agreement and the basis for the allocation of frequencies.

If any club that is a party to a Close Field Agreement, does not re-register with the State Association by the 1st of July in each calendar year, the agreement will be considered to have lapsed and a new agreement will have to be negotiated if the use of both flying fields is intended to continue.

6. SAFETY RESPONSIBILITY

It is emphasised that the sharing of the frequency bands or the time of operation imposes a discipline on the parties to the agreement (clubs and individuals), and all the users must ensure that the requirements are strictly complied with. Any breakdown in the approved discipline carries with it the risk of serious accidents caused by mutual interference generated between the separate operations.

To ensure the safe and proper operation of the Close Field Agreement, each party shall conduct at least one random audit of the other's operations every six months. This shall be recorded.

In the event of non-compliance to the agreed procedure the relevant State Association(s) shall be advised immediately. Depending on the circumstances the State Association(s) will either:

- a. Convene an immediate meeting of the parties to resolve the non-compliance or;
- b. Write to the club/individual responsible for the non-compliance asking them to "show cause" why the Close Field Agreement should not be terminated and their flying field should not be de-registered. Operations at the flying field responsible for the non-compliance will be immediately suspended until the "show cause" has been satisfied and the non-compliance issues resolved.

Failure to comply with the MAAA Policy or the requirements of this procedure shall be considered a serious breach of MAAA Rules.