



Ardmore Airport Limited

Noise Management Plan




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i	Contents	08/11/10			
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PART ONE					
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AMENDMENT RECORD SHEET

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Noise Management Plan

PART ONE

POLICY

Part 1 - Policy

1.1 Introduction

This plan has been developed by Ardmore Airport Ltd in consultation with Ardmore Residents Action Group (now Ardmore Residents and Ratepayers Association (ARRA)) and other stakeholders

This plan is an integral adjunct to the Ardmore Airport designation (“the Designation”) and Ardmore Aerodrome zone contained in the Papakura District Plan (“the Plan”). The overall document describes the policy, standards and procedures used for the management of noise generated from airport activities.

1.2 Objectives of the NMP

- Provides the basis for ongoing noise management and mitigation at Ardmore.
- Establishes the Ardmore Airport Noise Consultative Committee (AANCC) which replaces the Environmental Working Group (EWG)
- Defines roles and responsibilities in relation to airport noise management.
- Provides a repository of agreed noise abatement procedures.
- Emphasis is on working together co-operatively, sharing information and reaching decisions by consensus and agreement.

1.3 Roles and responsibilities of the organisations involved:

- **AAL** (Ardmore Airport Limited, also referred to as “Ardmore Airport Authority”) is the owner of the airport and has sole responsibility for its safe and efficient operation, administering the AANCC, developing noise abatement procedures for consideration of the AANCC, promulgating agreed procedures, investigating complaints and non-compliance and reporting on these matters to the AANCC, keeping AANCC and PDC informed of airport activity and developments that may affect noise.
- **Auckland Council** (formerly **PDC** (Papakura District Council)) has a role as the agency responsible for District Plan implementation and compliance, resource management issues, implementing land use controls to mitigate noise, and representing the views of the wider community.
- **ARRA** (Ardmore Residents and Ratepayers Association) (formerly **ARAG** (Ardmore Residents Action Group)) has a role as the representative body of the airport neighbourhood residents, to advise AAL of residents’ concerns, to provide advice and input on noise abatement measures developed by AAL, to assist AAL to communicate to ARRA’s wider membership AAL’s initiatives on noise management and information on airport activity/developments, to review noise performance indicators (including results of complaints and non-compliance investigations) tabled by AAL.
- **AFOG** (Ardmore Flight Operations Group). Has a role as the representative body that undertakes a consultative role in coordination of resident operators flying activities in accordance with the Ardmore Airport Operations Manual.
- **UNICOM** (Universal Communication Service). Has a role as the contracted service located in the control tower that monitors and records flying operations and provides traffic advisory services within airport mandatory broadcast zone (MBZ).
- **NZCAA** (New Zealand Civil Aviation Authority). Ex officio representative of the statutory body that promulgates regulations and maintains safety oversight of aviation and related activity in New Zealand.

- **University of Auckland.** Ex officio representative with a role limited to matters that may impinge on the activities of the University research site located near the airport on Mullins Road.

1.4 Membership

Membership of the Ardmore Airport Noise Consultative Committee (AANCC) will comprise the following:

- An Independent chair
- 2 ARAG representatives
- 2 AFOG representatives
- 2 AAL representatives
- 2 Auckland Council representatives – one each from the Papakura and Franklin (Wairoa subdivision) local boards
- 1 Unicom representative (Ex officio – to provide input on noise abatement procedures and complaint logging)
- 1 University of Auckland representative (ex officio) until University of Auckland research site issues are resolved.
- 1 CAA representative (ex officio)
- One representative of each body represented, plus the chair constitutes a meeting quorum

1.5 Meeting frequency

- ANCC meetings will be held every 3 months, called by AAL.

1.6 Ardmore Fly Friendly Programme (refer section 3.6)

Fly Friendly is a voluntary in-flight programme initiated by AAL, promulgated via the AIP (Aeronautical Information Publication for airmen) and supported by AANCC. The awareness programme to be supported by collateral publicly displayed posters, signs, and bumper stickers. Separate publications, such as Ardmore based company's operations manuals and the AAL operations manuals to also reflect the Fly Friendly programme in a consistent manner.

1.7 Amendment control of the NMP

- Responsibility of AAL in accordance with the Document Amendment procedures.

1.8 Document Amendment

The Noise Management Plan is a controlled document and as such the responsibility for any amendment and distribution rests solely with Ardmore Airport Limited. Any amendment to the Noise Management Plan will only be approved after discussion and consensus by the AANCC. Where possible, any exemption/dispensation to the NMP that is non-safety related is to be approved in advance after discussion and consensus reached by the AANCC. The exception being where the exemption/dispensation requested is a short notice safety related matter. In that event Ardmore Airport Limited is delegated full approval authority

Any request for amendment action may be made by any holder of this document using the form in Appendix I and sending the completed form by post, fax or email to:

**The Chief Executive
Ardmore Airport Limited
PO Box 72-253
Papakura 2244**
Facsimile: (09) 298 6213
Email: admin@ardmoreairport.co.nz

Noise Management Plan

PART TWO

PROTOCOL

Part 2 – AANCC Protocol

2.1 Introduction

This section defines the protocol under which the Ardmore Airport Noise Consultative Committee operates. The protocol is based on New Zealand best practice for airport noise committees in managing airport noise issues on an ongoing basis.

2.2 Meeting arrangements

- All meetings to be held at AAL offices, with AAL providing secretarial services.

2.3 Meeting agenda

All meetings will be structured under the following general agenda headings:

- Apologies
- Open items from previous minutes.
- Correspondence in/out
- Update from Auckland Council on any resource consent applications or private plan changes that may affect the airport, e.g. subdivision proposals.
- Any noise related agenda items from members for discussion.
- AAL report to committee covering:
 - Compliance with DP rules e.g. numbers of EMJ movements.
 - Complaints – new and those open and still under investigation
 - Complaint trends
 - Significant changes in airport activity/new aircraft types
 - Upcoming events that may affect noise
 - Any update on noise mitigation procedures published to pilots
- AAL to be responsible for minutes

2.4 Data to be presented at meetings

As indicated in the pro-forma agenda.

- Complaint investigation review procedure
 - The responsibility for investigating complaints is the sole responsibility of AAL. The AANCC will review complaint trends and the outcome of investigations undertaken by AAL.
- Non-compliance investigation review procedure
 - Non-compliance with District Plan rules – AAL investigates in liaison with PDC within an AANCC agreed timeframe.
 - Non-compliance with noise abatement procedures to be investigated by AAL as outlined in the noise complaint action form attached as Appendix F.
- A copy of the AAL noise complaint register and noise complaint action form are included as Appendix F. These forms are available for residents.

Noise Management Plan

PART THREE

NOISE ABATEMENT PROCEDURES

Part 3 - Operations Noise Abatement Procedures

3.1 Introduction

This Part of the document outlines those procedures and rules governing day-to-day operations at Ardmore Airport with respect to the responsible management of noise generated by the airport's activities. Included are such operational restrictions considered necessary to minimise the impact of the noise on the airport's neighbours and wider community.

The procedures contained herein have been developed subsequent to extensive consultation with affected parties, including ARAG (now ARRA) and the Civil Aviation Authority of NZ, to achieve the best practicable solutions which do not compromise operational flight safety or unnecessarily impede the commercial viability of the Airport as a major regional aviation resource.

Amendments to these procedures may be required from time to time to accommodate changes to the CAA Rules; revised airspace; introduction of new aircraft types or operating practices; or, airport development where these changes will impact on the effectiveness of the noise mitigation. Any such amendments are subject to the requirements specified in Part One paragraph 1.7 and 1.8

3.2 Responsibilities

In administering this Noise Management Plan, AAL shall adopt the best practicable options including but not limited to management procedures and operational controls to reduce the exposure of the community to noise from Aircraft and Airport activities.

To the extent of the remedies available to AAL, it shall be the responsibility of AAL to ensure that all Aircraft observe the conditions relating to flight operations contained in this Noise Management Plan. Furthermore, AAL to encourage airport users to adopt best practice and/or new technology to mitigate noise levels.

3.3 General Flight Operations

All Flight Operations at Ardmore Airport are to comply with the District Plan Noise Rules, Ardmore Airport Designation, Civil Aviation Rules, the AIP (Aeronautical Information Publication) and the Ardmore Airport Limited Operations Manual. Operations with respect to noise abatement may be found in the AIP section AD Ardmore pages, CAA Rules Part 93G(Ardmore) and Part 2.0 of the Operations manual.

All pilots are required to operate in accordance with the "Fly Friendly" programme as contained in the Ardmore Airport Operations Manual paragraphs 1.2 through 1.6 and reiterated in this document - paragraph 3.10.

Maximum noise levels, restricted flight hours and noise abatement procedures specific to Fixed Wing or Helicopter operations are specified below.

3.4 Maximum Noise levels from any Aircraft

3.4.1 Aircraft operated at Ardmore Airport from 1 July 2004

With the exception of aircraft specified in 3.4.2 and 3.4.3 below, aircraft operated at Ardmore Airport from 1 July 2004 must not exceed a single event noise level of 115 dBA SEL measured at a point on runway centerline 1700 meters forward of the commencement of the takeoff roll.

To confirm compliance with this rule AAL will require, for aircraft with noise outputs that have the potential to exceed this maximum level, a certificate from acoustic consultants approved by AAL.

3.4.2 Aircraft based at Ardmore Airport on 31 August 2004.

Aircraft based at Ardmore Airport on 31 July 2004 are permitted to continue operating at their current noise levels. The Hawker Hunter aircraft based at Ardmore at 31 August 2004 will be permitted up to a maximum of 58 movements per annum out of the limit of 180 EMJ movements per annum specified in paragraph 3.6(b).

3.4.3 Aircraft restored at Ardmore Airport

From 1st September 2004 aircraft that are brought to Ardmore Airport for maintenance/restoration, that have the potential to exceed the maximum noise level specified in 3.4.1 are permitted to operate for the sole purpose of undertaking **essential** flight checks and departure from Ardmore Airport.

Approval for these operations must be obtained from AAL at least 48 hours prior to operations being conducted.

Any such operations approved by AAL will not exceed a total of 16 takeoffs, being 4 takeoffs per aircraft, for 4 individual aircraft, for the purpose of initial flight check, rectifying any defects, obtaining an airworthiness certificate and departing Ardmore.

These takeoffs and subsequent landings are included in the total number of 180 EMJ movements per annum specified in paragraph 3.6(b).

3.5 Restricted Flight Hours

The following restricted flight hours apply to specific aircraft operations from the Ardmore Aerodrome zone:

- 3.5.1 Circuit training and scheduled flights are not permitted between the hours of 10.00pm (extended to 10:30pm in daylight saving) and 7.00am New Zealand Local Time (NZLT) Mon-Sat and 8:00pm Sunday night to 7:00am Monday morning.
- 3.5.2 Ex Military Jet Aircraft operations are not permitted between the hours of 8.00pm and 7.00am New Zealand Local Time (NZLT)
- 3.5.3 Aerobatic Flight within Ardmore MBZ is only permitted as approved under 3.7.12, with a maximum of 12 hours total per annum, and shall be conducted between the hours of 9.00am to 4.00pm Monday to Saturday and 9.00am to 12.00 noon on Sunday NZLT.
- 3.5.4 Extended helicopter hover training practice shall only take place in the hover practice areas identified in appendix E2 between the hours of 8.00am and 7.00pm Monday to Friday and 9.00am and 1.00pm on Saturdays NZLT, provided that hover training may take place on Saturdays between 1.00pm and 5.00pm NZLT and on Sundays between 9.00am NZLT and 4.00pm NZLT where the activity takes place no closer than 150m from the external boundaries of the Aerodrome.
- 3.5.5 Variations to the night training restricted hours may be approved under **limited** circumstances by the AANCC, **but in no case will operations be permitted after 11:00pm NZLT**. Operators requesting an extension must apply at least 48 hours in advance to AAL.

3.6 Ex-Military Jet Aircraft Movements

Except as permitted by AAL for the purpose of Airshows, Ex Military Jet Aircraft movements shall be restricted to:

- (a) 170 movements per calendar year averaged over a three year period; and
- (b) 180 movements in any one calendar year; and
- (c) 10 movements in any one seven day period; and
- (d) No simultaneous or parallel takeoffs.

3.7 Fixed Wing Noise Abatement Procedures

- 3.7.1 Each pilot-in-command of a fixed wing aircraft **departing** from **any** runway at Ardmore (including overshoot or touch & go maneuvers) shall **track runway heading** until at or above **600 feet AMSL** prior to commencing a turn in any direction; and, **reduce power** to the **minimum required for climb out** as soon as safely practical.
- 3.7.2 Each pilot-in-command of a fixed wing aircraft **arriving** at Ardmore with the intention of conducting a landing, touch & go or overshoot, shall establish the aircraft on the final approach track at or above **600 feet AMSL** prior to continuing descent.
- 3.7.3 All pilots-in-command of aircraft with **noisy characteristics** are to use **full runway** length for take off and reduce to climb power as soon as safety permits.
- 3.7.4 Simulated **forced landing practice** within the MBZ may only be conducted from overhead the airport to the runway in use and each pilot-in-command of an aircraft conducting such exercises must comply with the other noise abatement procedures prescribed herein.
- 3.7.5 Simulated **engine failure after take-off** for single engine fixed wing aircraft shall take place within 20 degrees either side of the extended centreline of the runway and the exercise completed **by not below 400 feet AMSL** unless the aircraft remains above the runway throughout and after the exercise returns to 600 feet AMSL or above as quickly as possible.
- 3.7.6 All pilots-in-command of fixed wing aircraft are to use their **best endeavors** to achieve a minimum height on takeoff of **600ft AMSL** at the Airport Boundary. In giving effect to this condition an Aircraft shall commence its take-off to utilise the maximum available runway possible unless the Aircraft is able to achieve the height in a shorter distance.
- 3.7.7 All pilots-in-command of fixed wing aircraft arriving to or departing from Ardmore Airport shall remain at or above 1100 feet AMSL except when undertaking an Aircraft Movement, or for reasons of safety or weather limitations.
- 3.7.8 Night flying fixed wing circuit height shall be **1300 feet AMSL** or as prescribed by CAA.

3.7.9 The above requirements **apply to all** aircraft using the runways whether they are conducting glide approaches, asymmetric circuit/approach training, normal circuits, simulated engine failures after take off or Simulated Forced Landing practice to the airfield.

3.7.10 Low-level passes are only permitted over Ardmore Airport:

- (i) At the annual air shows (refer Appendix A); or
- (ii) In an emergency when a visual inspection of undercarriage status is requested by the pilot prior to landing with an 'unsafe' undercarriage indication in the cockpit.

3.7.11 Formation rejoins over Ardmore Airport are only permitted at or above 1100 feet AMSL.

3.7.12 Except as permitted during an Airshow, aerobatic flights shall only be undertaken within the aerobatic flight hours limitations set out in 3.5.3 provided they are:

- (i) Approved at least 48 hours in advance by the Airport Authority.
- (ii) Conducted not below the pilot's individual approval level and any part of the flight conducted below 1100 feet AMSL is contained within the Airport Boundary.

3.8 Helicopter Noise Abatement Procedures

3.8.1 Helicopters arriving or departing the Ardmore Mandatory Broadcast Zone (excluding TLOF circuits) shall either:

- (i) Conform with the fixed wing circuit joining procedures, including heights and minimum speeds; or,
- (ii) Use the Arrival/Departure Sectors as promulgated in the Visual Flight Guide (VFG) and shown in Appendix E1. Helicopters operating within the Arrival/Departure Sectors are to remain at or **between 600 feet and 800 feet AMSL** unless within the designated descent segments (within 250 metres of the airfield boundary). Descent **not below 300 feet** AMSL to the airfield boundary is permitted within the designated descent segments as shown in appendix E2.

3.8.2 **Any pilot-in-command of a** helicopter operating within the Helicopter Arrival/Departure Sectors shall **not** operate below the minimum heights for VFR flights specified in CAR Part 91.311 and is to avoid over-flying **any** buildings as a courtesy to occupants.

3.8.3 Each pilot-in-command of a helicopter using the South Eastern Arrival/Departure Sector shall use their **best endeavors to avoid the Auckland University** , as shown in Appendix E, except in an emergency.

- 3.8.4** The **aiming point** on the South East apron is **not available** for air transport operations or solo flights by student pilots.
- 3.8.5** Helicopters with **noisy characteristics** should use **take off techniques** to achieve the **maximum height** possible prior to crossing the airfield boundary consistent with the minimum heights specified in 3.4.1 above where safety permits.
- 3.8.6** Helicopter extended hover training practice on Ardmore Airport shall only take place in accordance with paragraph 3.5.4.
- 3.8.7** Helicopters arriving or departing Ardmore Airport during the **Ardmore Airport Restricted Flight Hours (refer Appendix A)**, shall conform to the fixed wing circuit and joining procedures including heights and minimum speeds.

3.9 Banner Towing Operations (All aircraft)

- 3.9.1** All pilots-in-command of aircraft conducting banner towing operations to/from Ardmore Airport shall comply with the standard noise abatement procedures pertaining to their aircraft type and detailed above. Additionally when dropping a banner on the airfield:
- (i) Fixed wing aircraft shall maintain not below 600 feet AMSL on the final approach track until within the airfield boundary prior to dropping the banner on the active grass runway.
 - (ii) Helicopters shall avoid over-flying any dwelling and maintain not below 600 feet AMSL until within the airfield boundary prior to dropping the banner in their designated drop area.
 - (iii) All Banner-towing operators shall ensure they have two-way radio communications between the aircraft, the banner recovery party and Unicom throughout their operation (Take-off, pick up, drop and recovery).

3.10 The "Fly Friendly" Programme

To complement the Fixed Wing Noise Abatement Procedures, the "Fly Friendly" programme has been introduced to Ardmore Airport to effect long term change in pilot culture and operational procedures for the benefit of the environment and airport neighbors.

The "Fly Friendly" programme has been introduced to Ardmore Airport to effect long term changes in pilot culture and operational procedures for the benefit of the environment and airport neighbors. The programme is an integral part of student curricula for all training organisations at Ardmore and includes the operational staff of those establishments. Once the airport company is satisfied an organisation meets the criteria for participation in the programme a certificate is issued to the applicant company. The holder of a company certificate is then able to issue pilots with their own certificate once they have been given the instruction module and have demonstrated their understanding and compliance with the principles.

The main principles and aims of the programme are outlined below.

3.10.1 Aim

The aim of the Fly Friendly programme is to promote a harmonious relationship between aviation activities and the environmental interests of the airport's neighbors.

3.10.2 Purpose

The purpose of the programme is to limit the impact of flying activities on the community and neighbors living in the vicinity of Ardmore Airport and the Ardmore General Aviation area.

The programme has been formulated with the assistance of Ardmore flying organisations, the Civil Aviation Authority of NZ, Papakura District Council, and representatives of the local community.

The programme documentation provided to participants is included for information in Appendix D.

3.10.3 Overall Concept

Ardmore Airport is the busiest aerodrome in the country (in air traffic movement volume). Many of people flying at Ardmore do not hold full pilot licenses as they are under training. In such an environment it is inevitable there may be delays, frustration or financial penalties. The contribution of all will assist in achieving maximum safety and efficiency but requires all parties to exhibit tolerance, a co-operative attitude and the highest standards of airmanship.

REMEMBER
“QUIET FLYING IS GOOD BUSINESS”

To this end we ask those using Ardmore to adhere to the following ethics:

- Show patience and tolerance towards other operators and pilots
- Clearly explain intentions and clarify if requested
- Be considerate to all other users and local residents by exhibiting a professional attitude and a high level of airmanship
- Do not direct insults or unkind words to other operators and pilots
- Listen out before transmitting
- Be considerate of local residents and practice ‘Fly Friendly’.

Noise Management Plan

PART FOUR

COMPLAINT PROCEDURES & NON-COMPLIANCE

Part Four – Complaint Procedures & Non-Compliance

4.1 Introduction

Complaints regarding noise generated from Ardmore Airport or airport activities shall be directed to Ardmore Airport Authority (Ardmore Airport Limited). This will require Auckland Council, or any of the individual aircraft servicing or operating companies, or private aircraft owners (or any other associated party) to also refer complaint information to the Airport Authority offices.

The Ardmore Airport Authority shall undertake to keep a log of all such complaints. The log shall specify the time, date, and nature of the complaint, together with investigations carried out and any remedial steps taken. The Ardmore Airport Authority may use the noise level information recorded by the airport noise monitoring system to investigate complaints. Other measurements may be initiated by the Airport Authority, or carried out by others. (In all cases the Airport Authority is to be kept informed of measurements being carried out).

Nothing in this part of the plan shall limit the responsibilities of the Auckland Council in carrying out its duties with respect to Section 327 of the Resource Management Act 1991.

4.2 Complaint Handling Procedures

All complaints are to be logged in the sequentially numbered Complaints Register shown in Appendix F' once the details of the complaint have been recorded as specified below. The register will be used by Ardmore Airport Authority as the statistical basis for trend analysis and reporting purposes. Unless otherwise agreed to by any complainant, personal details of the latter will remain confidential.

4.2.1 Telephone

When receiving a complaint over the telephone the person taking the details will not offer any opinion concerning the complaint other than to assure the complainant that, once all the relevant information has been recorded, the matter will be referred to the senior management of Ardmore Airport Authority for investigative action. Details of each individual complaint are to be recorded on the appropriate form. A sample of this form is shown in Appendix 'F'.

4.2.2 Written

In a similar manner to receiving a telephone complaint the details contained in any written complaint are to be entered on to the appropriate form shown in Appendix 'F'.

4.2.3 Investigation

Investigation of all complaints is to be conducted by the Airport Authority as soon as practicable after the complaint is received and, where aircraft operations are concerned, preferably within the 24 hour period immediately following receipt of same. The latter is essential for ensuring the accuracy of information and 'pilot in command' recall of details of the incident in question.

Investigative actions and/or findings are to be recorded in the appropriate section of the Complaints Form. If in the opinion of the investigating officer the complaint is of such a nature as indicates non-compliance with the Civil Aviation Rules, then the complaint is to be referred under CA Rule Part 12 to the Investigation Branch of the CAA for further action. (See Paragraph 4.2 below).

4.2.4 Reporting

All complaints including investigation results are to be regularly reviewed by the Airport Authority Senior Management who will reserve the right to require additional investigative action or measures be taken to ensure the issues concerned are satisfactorily resolved. The Airport Authority is required to analyse complaint levels, types and trends on a month-by-month basis to ascertain the need for more generic corrective actions or changes to airport operations.

In giving effect to the results of any investigation proving an identified and legitimate transgression, the Airport Authority shall take the following course of action:

- 1st offence - consult with the operator to resolve and rectify the problem and advise the committee of any action taken
- 2nd offence - advise the operator in writing that, unless the issue is immediately resolved continued use of the facility by either the pilot and/or the aircraft concerned may be subject to restrictions.
- 3rd offence - The Airport Authority will take action to prevent the transgressor from further offence by either:
 - a. Imposing restrictions on the hours of operation of the offending aircraft; or,
 - b. Imposing operational restrictions the way the aircraft operates to/from the airport; or,
 - c. Requesting the Civil Aviation Authority to take legal action under the CA Rules; or,
 - d. Withdrawal of the right to operate the aircraft from the airport; or,
 - e. Any combination of the above as may be deemed necessary to preserve the interests of the Airport and the community.

4.2.5 Follow-up actions

Where considered necessary or requested by the complainant, the Airport Authority will write to or otherwise communicate with the originator of a complaint to advise the outcome of a particular incident. It is understood that complaints concerning breaches of the CAA Rules and forwarded to the Civil Aviation Authority may only be reported back to the originator at the discretion of the CAA. (Reference CAR Part 12.61 & 63) If such is the case it is suggested the originator contact the Civil Aviation Authority direct to obtain feedback:

4.3 Non Compliance

In the process of investigating any complaint in which the investigating officer believes there has been a breach of the CAA Rules then the incident is to be reported in accordance with CAR Part 12 and form CA005 completed, actioned and filed with the Safety Investigation and Analysis Unit of the Civil Aviation Authority of New Zealand. A copy of this form is included in Appendix 'F'

**Safety Investigation and Analysis Unit
Civil Aviation Authority of New Zealand
PO Box 31 441
Lower Hutt 6315
Telephone (04) 560 0400**

4.4 Miscellaneous

As a matter of course all complaints or non-compliance reports concerning aircraft operating outside the Ardmore Mandatory Broadcast Zone will either be forwarded to the Civil Aviation Authority of New Zealand or the Local Authority in whose area the incident occurred. The Ardmore Airport Authority does not accept responsibility for investigating any incident or complaint related to the conduct of flight or the actions of any Pilot in Command or aircraft operator outside this area. For information purposes only a map of the Ardmore Mandatory Broadcast Zone is shown in Appendix 'E'.

Noise Management Plan

PART FIVE

APPENDICES

Part Five - Appendices

<u>Appendix</u>	<u>Description</u>
A	District Plan Noise Rules
B	Designation Noise Rules
C	Noise Contour Locations
D	Fly Friendly
E1	Ardmore Mandatory Broadcast Zone
E2	Helicopter Hover Training Areas
F	Ardmore Airport Complaints Register and Complaints Action Form
G	CA005 Occurrence Report
H	Definitions
I	Document Amendment Request
J	References

Appendix A - District Plan Airport Noise Rules

Introduction

The following rules have been copied from the Operative District Plan, effective from 27th September 2010.

6.14.9 ARDMORE AERODROME ZONE SOUND EMISSIONS

6.14.9.1 Sound Emissions – Air Noise Boundary /Inner Control Boundary and Outer Control Boundary

The Aerodrome shall be managed to ensure that noise emissions from Aircraft Movement shall not exceed L_{dn} 65 dBA outside the Air Noise Boundary and L_{dn} 55 dBA outside the Outer Control Boundary as shown on Maps C5-C7, D4-D7, E4 and E5 when calculated as stated in NZS6805:1992 Airport Noise Management and Land Use Planning as a 3 month rolling logarithmic average using the FAA Integrated Noise Model (INM) and records of actual aircraft operations.

The following operations are excluded from compliance with this rule:

- (a) Aircraft landing in an emergency;
- (b) Emergency flight operations; and
- (c) One Airshow per calendar year as defined under Rule 6.14.9.7.
- (d) Use of sealed runways 07/25 for maintenance purposes for seven days per calendar year.

Explanation

Council considers that it is important to ensure that the effects associated with aircraft operational noise are managed, as far as practicable, at the source of these emissions. As described at 6.14.2 above, the noise contours define the locations at which the maximum sound exposure, expressed in L_{dn} dBA, must not be exceeded. This rule places a requirement on aircraft operations associated with the Aerodrome to comply with this limit specified at the Air Noise Boundary and Outer Control Boundary.

6.14.9.2 Maximum Noise Level from any Aircraft

Except for aircraft listed in (a) and (b) below, the maximum permissible noise level from any aircraft operating from the Aerodrome shall not exceed SEL 115 dBA at the measurement point specified as: on runway centre line; 1700 metres from commencement of the take-off roll.

(a) Aircraft based at the Aerodrome on 1 July 2004. The Hawker Hunter aircraft based at the Aerodrome on 1 July 2004 will be permitted up to maximum of 58 movements per annum out of the limit of 180 movements per annum specified in Rule 6.14.9.4(b)

(b) Aircraft brought to the Aerodrome for maintenance/restoration that have the potential to exceed the maximum noise level specified in 6.14.9.2 are permitted to operate for the sole purpose of undertaking essential flight checks and departure from the Aerodrome. Any such operations will not exceed a total of 16 takeoffs per annum. These takeoffs and subsequent landings are included in the total number of 180 Ex-military jet movements per annum specified in paragraph 6.14.9.4(b).

To confirm compliance with this rule, Council may request the Airport Authority to provide a certificate from a person with appropriate acoustic qualifications for aircraft with noise outputs that have the potential to exceed the maximum permissible noise level.

Such certificate shall be provided to Council within 6 weeks of the request and shall confirm that the aircraft complies with the requirements of Rule 6.14.9.2 above.

Explanation

To control the single event noise exposure to the local community Council considers that it is important to set a maximum permissible noise level for aircraft operating from the Aerodrome. The maximum SEL noise level is based on noise measurements of existing aircraft at the Aerodrome. However, any new aircraft operated from Ardmore must comply with the maximum SEL noise level.

This provision allows Council to request a certificate confirming compliance with the maximum permissible noise level.

6.14.9.3 Restricted Flight Hours

The following restricted flight hours apply to specific aircraft operations from Ardmore Aerodrome:

(a) Circuit training and scheduled flights are not permitted between the hours of 10.00pm (extended to 10.30pm in daylight savings) and 7.00am New Zealand Local Time (NZLT) Monday – Saturday **and** between the hours of 8.00 pm Sunday night and 7.00pm Monday morning.

(b) Ex Military Jet Aircraft operations are not permitted between the hours of 8.00pm and 7.00am New Zealand Local Time (NZLT).

(c) Jet aircraft that do not meet the International Civil Aviation Organisation noise standard contained in ICAO Annex 16, Volume 1, Chapter 3 or the equivalent „Stage 3“ United States Federation Aviation Administration noise limits contained in CFR 14 Part 36, are not permitted to operate between the hours of 10.00pm and 7.00am New Zealand Local Time (NZLT)

(d) Except as permitted by Rule 6.14.9.7 Aerobatic Flight over the Aerodrome shall be limited to a maximum of 12 hours per annum and shall be conducted between the hours of 9.00am to 4.00pm Monday to Saturday and 9.00am to 12.00 noon on Sunday New Zealand Local Time (NZLT).

(e) Hover training practice shall only take place between the hours of 8.00am and 7.00pm Monday to Friday and 9.00am and 1.00pm on Saturdays New Zealand Local Time (NZLT) provided that hover training may take place on Saturdays between 1.00pm and 5.00pm NZLT and on Sundays between 9.00am NZLT and 4.00pm NZLT where the activity takes place no closer than 150 metres from any external boundary of the Aerodrome. Notwithstanding the above, no hover training practice shall take place on Public Holidays.

(f) Variations to the restricted hours on night training under clause (a) of this rule may be approved under limited circumstances by the Ardmore Airport Noise Consultative Committee, but in any event, operation will not be permitted after 11.00m New Zealand Local Time (NZLT)

Explanation

This rule has been included after extensive consultation between the Airport Authority and local residents in order to minimise disturbance during noise sensitive hours. This rule together with Rules 6.14.9.1 and 6.14.9.2 and the Noise Management Plan will have the effect of minimising noise from aircraft during noise sensitive hours.

6.14.9.4 Ex-Military Jet Aircraft Movements

Except as permitted by Rule 6.14.9.7, Ex Military Jet Aircraft movements shall be restricted to:

- (a) 170 movements per calendar year averaged over a three year period; and
- (b) 180 movements in any one calendar year; and

- (c) 10 movements in any one seven day period.
 (d) No simultaneous or parallel take-offs

Explanation

The purpose of this rule is to safeguard against any potential for significant increases in annual and weekly Ex Military Jet Aircraft movements due to noise emission space becoming available within the Air Noise Boundary in the event of an unlikely significant reduction in General Aviation activity.

6.14.9.5 General Sound Emissions

- i) For a period of six (6) months from the date this rule becomes operative sound emissions from sources, other than Aircraft Movement, Aircraft Taxiing, Aircraft Engine Testing, and one Airshow per calendar year as defined under Rule 6.14.9.7, shall be restricted to the following limits set out in Table 1 measured at or within the boundary of any residential zone or at or within the notional boundary of any residential dwelling existing as at 19 September 2001 (and which is not under the ownership of the Airport Authority).

TABLE

1

Monday to Friday 0700 – 2200 Saturday 0700 – 1700	L ₁₀ 55 dBA except that a level of L ₁₀ 67 dBA will be permitted for a maximum period of 20 minutes in any one day
All other times Additionally, every day 2200 – 0700	L ₁₀ 45 dBA L _{max} 75 dBA

- ii) From the date 6 months after this rule becomes operative, sound emissions from sources other than Aircraft Movement, Aircraft Taxiing, Aircraft Engine Testing, and one Airshow per calendar year as defined under Rule 6.14.9.7 shall be restricted to the following limits set out in Table 2 measured at or within the boundary of any residential zone or at or within the notional boundary of any residential dwelling existing as at 19 September 2001 (and which is not under the ownership of the Airport Authority)

TABLE 2

Monday to Friday 0700 – 2200 Saturday 0700 – 1700	L ₁₀ 55 dBA
All other times Additionally, every day 2200 – 0700	L ₁₀ 45 dBA L _{max} 75 dBA

Notes to Tables 1 and 2:

- Measurements shall be taken at or within the boundary of any residential zone or at or within the Notional Boundary of any residential dwelling.
- Measurement and assessment of noise shall be in accordance with the standards prescribed in NZS6801: 1991 Measurement of Sound and NZS 6802:1992 Assessment of Environmental Sound.
- The noise shall be measured using a sound level meter complying with the international standards IEC 651 (1979) Sound level meters Type 1 and IEC 804 (1985) Integrating-averaging sound level meters Type 1

Explanation

Given the level of activity within the Ardmore Aerodrome Zone associated, for example, with the servicing of aircraft, there is potential for adverse noise effects. The noise limits specified in Table 2 take effect 6 months after the provision becomes operative to provide a transitional period for those industries based at the Aerodrome to achieve compliance. The noise limits are based on the guidelines contained in New Zealand Standard 6802:1992 – Assessment of Environmental Noise. The provisions have been included to protect residents within close proximity to the Aerodrome from noise generated by activities other than those exceptions specified in the rule.

6.14.9.6 Engine Testing

- i) All aircraft engine testing undertaken within the Ardmore Aerodrome Zone shall be restricted to the following noise limits set out in Table 3 below measured at or within the boundary of any residential zone or at or within the notional boundary of any dwelling existing as at 19 September 2001 (and which is not under the ownership of the Airport Authority):

TABLE 3

7am - 10pm (7 day rolling average)	Leq 55 dBA
10pm – 7am (7 night rolling average)	Leq 45 dBA and L _{max} 75 dBA

- ii) Aircraft engine testing is required to be undertaken within the appropriate engine testing enclosure, where it is safe to do so.
- iii) Ten testing sessions per year undertaken between 9.00am and 4.00pm Monday to Friday are exempt from the requirements of Rules 6.14.9.6 (i) and (ii) (a session being a series of engine test events carried out on the same day with a total duration of no more than 20 minutes).

Explanation

This rule recognises that there is operational necessity for testing aircraft engines as a core function of the Aerodrome, while limiting the potential for adverse effects on the amenity of surrounding residences, particularly at night. The rule allows up to 10 tests per year during working hours for engines with particularly noisy characteristics.

6.14.9.7 Airshow

Notwithstanding anything to the contrary in Rule 6.14.9.2, one Airshow within the MBZ shall be permitted within any calendar year based on the following limitations:

- i) The flying programme for the Airshow shall be limited to a period of not more than 3 days plus 2 specified days' practice, with alternate days if unable to practice because of poor weather conditions.
- ii) The hours permitted for the Airshow and practices shall be between the hours as specified in Table 4:

Table 4

Monday to Thursday inclusive	0700 – 2000
Friday and Saturday	0700 – 2000 (except that one only of these days may extend to 2200)
Sunday	0700 – 1830

- iii) Practice for the Airshow shall be permitted only in the 2 weeks preceding the Airshow.
- iv) The noise and environmental aspects of the flying programme for the Airshow and Airshow practice ("the flying programme") shall be reviewed by Council, which may request changes necessary to avoid unreasonable noise exposure on the community.
- v)_ The flying programme shall be submitted to the Council no later than 90 days prior to the Airshow taking place. Both the Council and the Airport Authority are to consult with each other as to the noise issues and proposed changes to the flying programme. Comments are to be provided by Council within 10 working days of receipt of the proposed flying program.

Explanation

Annual Airshows at the Aerodrome are an integral part of the aerodrome operations and provide social and economic benefits to the local and wider community. The rule provides for annual Airshows at Ardmore to continue with limitations on the show duration and practice times and requires the Airport Authority and Council to work together to achieve best practice noise management.

6.14.9.8 Noise Management Plan

As from the date this rule becomes operative, the operation of the Aerodrome shall be in accordance with the current Ardmore Aerodrome Noise Management Plan. With the exception of those provisions contained in Appendix A of that Plan, the Ardmore Aerodrome Noise Management Plan shall be reviewed on a 12 monthly basis or as necessary to ensure Best Practicable Options in terms of noise management are achieved, in accordance with the document amendment procedures contained in that Plan.

Explanation

Council recognises that there are many aspects of aerodrome operations which are best controlled through a Noise Management Plan as opposed to specific rules due to potential conflict with other regulations and the need to allow aspects of Aerodrome operations to be continually modified and improved in response to industry changes and to achieve best practice noise management. The objectives of the Noise Management Plan are to:

- (a) Provide the basis for ongoing noise management and mitigation at the Aerodrome;
- (b) Establish the Ardmore Airport Noise Consultative Committee, as set out in the Noise Management Plan, which replaces the Environmental Working Group;
- (c) Define roles and responsibilities in relation to airport noise management;

- (d) Provide a repository of agreed noise abatement procedures;
- (e) Encourage the parties to work together co-operatively, sharing information and reaching decisions by consensus and agreement

6.14.9.9 Affected Dwellings

The Airport Authority shall, if so required by the owners of the Affected Dwellings defined in (ii) below, pay for any remedial or supplementary works that are considered necessary to ensure that the internal acoustic environment of habitable rooms in those dwellings does not exceed a maximum of L_{dn} 40 dBA with all external doors and windows closed as the result of aircraft movements represented in the Air Noise Boundary noise contour as shown on District Plan Maps. Where compliance with the design level relies on doors and windows being closed, alternative approved mechanical ventilation in accordance with the Building Code shall be provided. This rule is subject to the following:

- i) Notice of such requirement must be given in writing to the Registered Office of the Airport Authority within 3 months of the receipt by the owners of written notice from the Airport Authority advising the owners of the operative date of this rule and the rights conferred by this rule.
- ii) The Affected Dwellings are deemed to be those existing habitable dwellings located within the L_{dn} 65dBA Air Noise Boundary contour as at 19 September 2001. In any case where any existing habitable dwelling is in the course of completion, extension or repair as at 19 September 2001, then the notice to the Airport Authority referred to above must be given within 3 months following the date on which the dwelling is certified as complete by the Council pursuant to the Building Act 2004, or the date of written notice from the Airport Authority advising the Owners of the operative date of this rule, whichever is the later.
- iii) For the purposes of this rule engineers with appropriate qualifications appointed by the Airport Authority and engineers with appropriate qualifications appointed by Council shall act as the certifiers for the purpose of determining the nature and extent of the remedial or supplementary works required pursuant to this rule and their determination shall bind the Airport Authority, the Council and the Owners respectively in relation to their various interests pursuant to this rule.

Subject to the foregoing, the obligations of the Airport Authority under this rule shall not extend to any subsequent structures, alterations or additions to any of the Affected Dwellings commenced after 19 September 2001.

Explanation

This rule has been included to allow those persons living within the Air Noise Boundary to seek compensation from the Airport Authority to ensure that the internal acoustic environment of habitable rooms in those dwellings does not exceed a maximum of L_{dn} 40 dBA with all external doors and windows closed.

6.14.9.10 Monitoring

The Airport Authority shall be responsible for monitoring and reporting of noise (without limiting Council's powers) associated with the Aerodrome and flight activity. Such monitoring shall include:

- i) Calculation of aircraft noise as stated in NZS6805: 1992 (s1.4.2.2) using the FAA Integrated Noise Model (INM) and records of actual aircraft operations and calculated as a 3 month rolling logarithmic average. The results of this calculation together with underlying inputs shall be reported to the Council annually. The INM Study is to be developed by a recognised user of the INM with strict adherence to the policies and procedures specified in the INM User's Guide. An executable version of the Study shall be provided to Council via CD-ROM or other suitable electronic means. The use of substitution or surrogate aircraft within the model will be notified in the reporting procedure and will be as agreed between the Airport Authority and Council experts. The INM model used to assess compliance is to the version used to develop the District Plan contours. The contours may be updated with later versions of the INM in future reviews of the District Plan. When the calculated 3 month average reaches L_{dn} 64.5 dBA, physical noise monitoring shall be carried out at reasonable intervals until such time as compliance with Rule 6.14.9.1 is demonstrated.
- ii) Physical noise monitoring shall be undertaken for a period of no less than one month within one year of the date of this rule becoming operative. Physical noise monitoring shall be undertaken for a period of no less than one month every two years following the initial physical noise monitoring. The results and underlying inputs of this monitoring shall be provided to the Council within 6 weeks of the monitoring being undertaken.
- iii) The recording of Ex Military Jet Aircraft movements on a monthly basis with any records kept to be provided to Council in collated form within 48 hours upon request by the Council.
- iv) The administration and logging of all engine testing activity, with records to be provided to Council in collated form within 48 hours upon request by the Council.
- v) Further such contingency monitoring as required by the Council if the Council becomes aware of significant changes to Aerodrome operations.

Noise from the following operations shall be excluded from the compliance calculations set out in i) to iii) above:

- a. Aircraft landing in an Emergency;
- b. Emergency Flight operations; and,
- c. One airshow per year as defined under Rule 6.14.9.7.

Appendix B - Designation – Ardmore Aerodrome

Introduction

Designation 222 is operative for Ardmore Aerodrome and states the following:

10. ARDMORE AIRPORT SOUND EMISSIONS

The aerodrome shall be operated in compliance with rule 6.14.9 Ardmore Aerodrome Zone Sound Emissions of the Papakura District Plan (Urban Section), including any subsequent amendments.

11. BEST PRACTICABLE OPTION

In administering the conditions of this designation, the Airport Authority shall adopt the best practicable options including, but not limited to, management procedures and operational controls to reduce the exposure of the community to noise from aircraft and aerodrome activities.

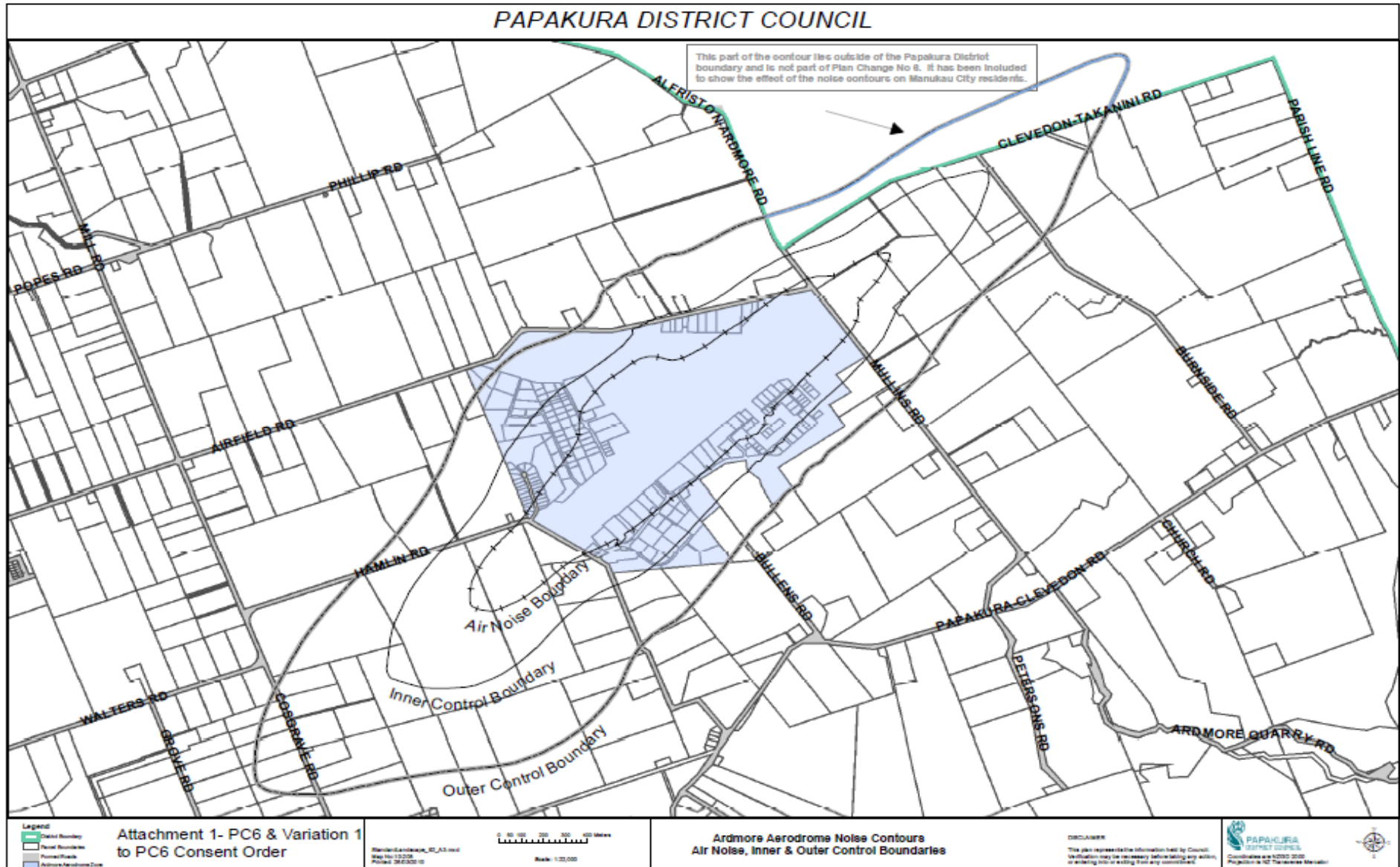
12. NOISE MANAGEMENT PLAN

The operation of Ardmore Aerodrome shall be in accordance with the Ardmore Airport Limited Noise Management Plan. With the exception of those provisions contained in Appendix A of that Plan, the Ardmore Airport Noise Management Plan shall be reviewed on a 12 monthly basis, or as necessary to ensure best practicable options in terms of noise management are achieved, in accordance with the document amendment procedures contained in that Plan.

13. MONITORING

The Airport Authority shall be responsible for the monitoring of noise associated with the aerodrome and flight activity. Such monitoring shall include all matters detailed in Rule 6.14.9.10 of the Papakura District Plan (Urban Section), including any subsequent amendments.

Appendix C – Air/Noise Contours



Appendix D – Fly Friendly Brochure & Certificate

The Fly Friendly Concept

Ardmore Airport is the busiest aerodrome in the country (in Air Traffic movement volume). Many of the people flying here do not hold full pilot licences as they are in training. In such an environment it is inevitable there may be delays, frustration or financial penalties. The contribution of all will assist in achieving maximum safety and efficiency but requires all parties to exhibit tolerance, a co-operative attitude and the highest standards of airmanship.

To this end we ask all those who use Ardmore to adhere to the following ethics:

- Show patience and tolerance towards other operators and pilots
- Clearly explain intentions and clarify if requested
- Be considerate to all other users and local residents by exhibiting a professional attitude and a high standard of airmanship
- Do not direct insults or unkind words to other operators or pilots
- Listen out before transmitting
- Be considerate of local residences and practice "Fly Friendly"

Aircraft Parking

Aircraft should be parked clear of:

- ▲ Operational and manoeuvring areas
- ▲ Access points to buildings
- ▲ Fuel installations
- ▲ Roads and Car parks

COMPLAINTS

Perceived transgressions of the "Fly Friendly" policy may be reported to the Ardmore Airport Authority and due investigation will ensue to encourage pilots to comply. Infringements of CAA Rules will be referred to CAA for appropriate action.

Fly Friendly

Quiet flying is good business



PARTNERS IN THE COMMUNITY

Fixed Wing Aircraft

Pilots are to observe the following:

- No Circuit training after 2230 local time or prior to 0700.
- Houses and farm buildings should not be used as reference points for training or other manoeuvres.
- On simulated forced landings, glide approaches and simulated engine failure after take off, keep flight paths away from buildings.
- Aircraft with noisy characteristics are to use full runway length for take off and reduce to climb power as soon as safety permits.
- Engine run ups and propeller checks at night are to be conducted away from aerodrome boundaries where possible.
- Night cross country flight routes, particularly over Auckland City, should be varied.
- Mobile engine test bed operations only permitted in specified areas between those times specified in the Ardmore Noise Management Plan unless specifically approved by Ardmore Airport Ltd.
- Power settings and flight profiles should be planned for minimum noise levels consistent with safety.

Aircraft Parking

Aircraft should be parked clear of:

- Operational & in use enroute areas
- Access points to buildings
- Fuel installations
- Roads & Car parks



FLY FRIENDLY PROGRAMME

The Fly Friendly Programme is an integral part of the new era at Ardmore Airport.

The aim is to promote an harmonious relationship between aviation activities and the environment by containing the impact of aircraft operations on our community and neighbours. Fly Friendly will become part of each trainee pilot's flight planning and flying skills and a certificate will be awarded by the Ardmore Airport Authority upon completion of the course

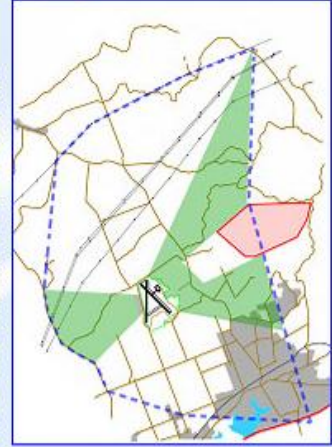


Helicopter

Pilots are to observe the following:

- No circuit training after 2230 local time or prior to 0700.
- Houses and farm buildings should not be used as reference points for training and other manoeuvres.
- Hover training is only permitted in those areas designated for this purpose.
- Sling load training is only permitted with the approval of the land owner over whose property the exercise is to be conducted.
- Helicopters arriving or departing the airfield are to observe the Northern and southern lanes designated for that purpose avoiding residences and farm buildings.
- Power settings and flight profiles should be in accordance with the manufacturer's specifications for minimum noise levels consistent with safety.
- Helicopters with noisy characteristics should use take off techniques to achieve a minimum height of 400 ft AGL at the airfield boundary where safety permits.

HELICOPTER ARR/DEP SECTORS





T HIS IS TO CERTIFY THAT

Have demonstrated their commitment to the principles of "Fly Friendly" by including the requirements for environmentally aware flying practices into their training curriculum as a mandatory subject for all pilots trained within this institute and all flying staff who operate under their management. The above named are therefore declared a certificated participant in the "Fly Friendly" programme.

Quiet flying is good business

Signed this day of 19.....

Chief Executive



ARDMORE
on the move



T HIS IS TO CERTIFY THAT

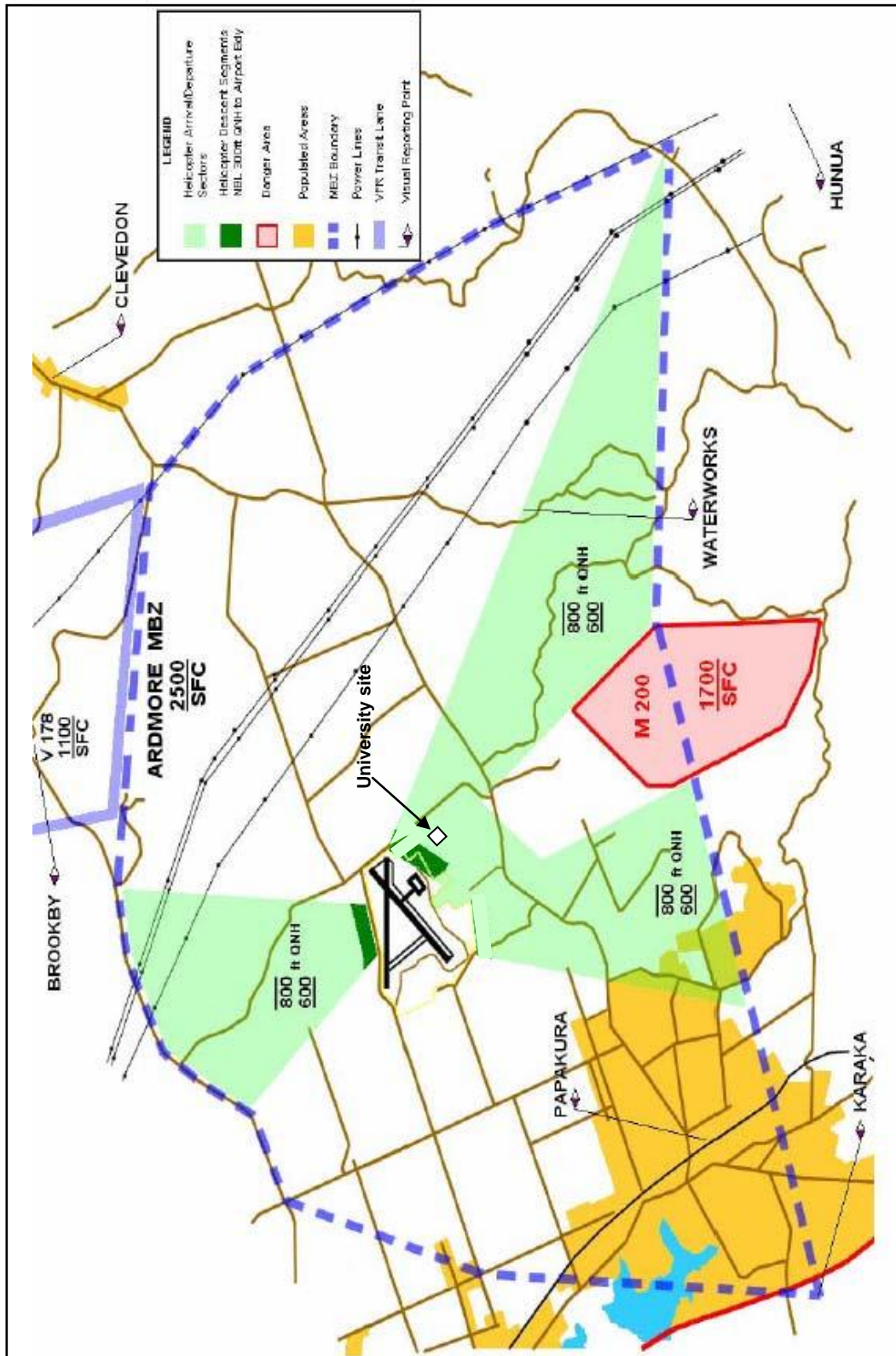
Having satisfied the Ardmore Airport Company that their knowledge and understanding of the principles of "Fly Friendly", and, Ardmore Airport's requirements for environmentally aware flying practices at Ardmore, the above named are therefore declared a certificated participant in the "Fly Friendly" programme.

Signed this day of 19.....

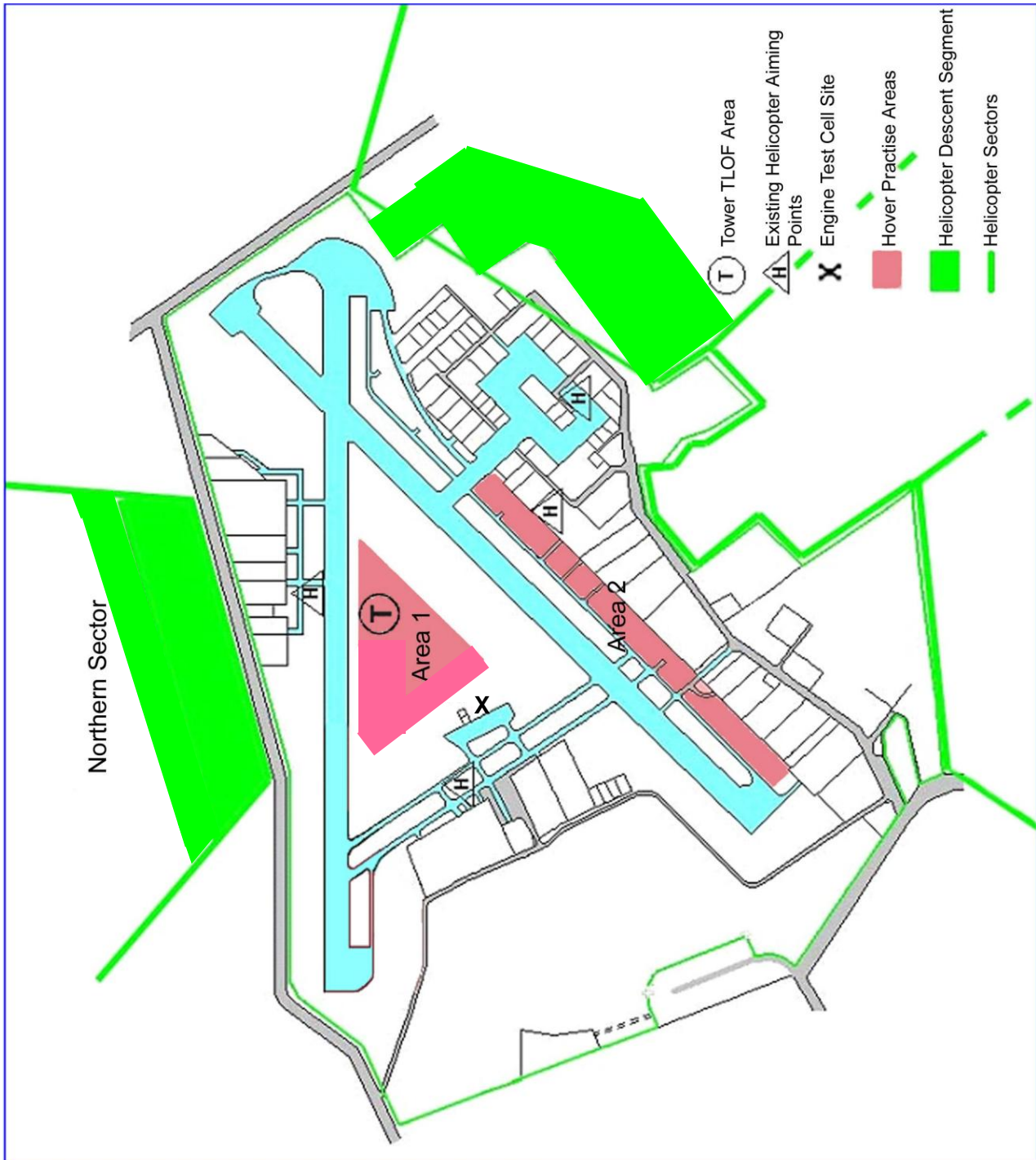
Chief Executive



Appendix E1 – Ardmore MBZ



Appendix E2 - Helicopter Hover Training Areas



**ARDMORE AIRPORT LIMITED
COMPLAINT ACTION FORM**

(To be completed by the recipient of any complaint either by telephone, facsimile or verbal with as much detail as is available)

<u>Complainant</u>	Name:.....	Company
	Address	
	
Phones:	Hm:.....	Bus:..... Mob:.....
Date:...../...../.....	Time:.....(Local Time)	
Nature of Complaint		
Date of Occurrence	Time:(Local or UTC)	
Where		
Details:		
.....		
.....		
.....		
.....		
.....		
Follow up Action Taken		
.....		
.....		
<u>Recommendations:</u>		
.....		
.....		
.....		
<u>Close Out Actions</u>		
Operations Manager <i>Signature</i>	
CEO: <i>Signature</i>	Date:/...../.....	

Appendix G – Form CAA 005

CIVIL AVIATION AUTHORITY OF NEW ZEALAND

Form CAA 005

Appendix H - Definitions

AAL means Ardmore Airport Limited

Aerobatic Flight (CAR Part 1) -

- (1) An intentional maneuver in which the aircraft is in sustained inverted flight or is rolled from upright to inverted or from inverted to upright position; or,
- (2) Manoeuvres such as rolls, loops, spins, upward vertical flight culminating in a stall turn, hammerhead or whip stall, or a combination of such manoeuvres

Aerodrome means Ardmore aerodrome and has the same meaning as **Airport** as defined below.

AIP means the New Zealand Civil Aviation Authority “**Aeronautical Information Publication.**”

AGL means above ground level (Note: for the purposes of this document, AGL refers to height above airfield elevation which in the case of Ardmore Airport is 111 feet AMSL)

Aircraft in terms of the Civil Aviation Act 1990, means any machine that can derive support in the atmosphere from the reactions of the air otherwise than by the reactions of the air against the surface of the earth.

Aircraft Engine Testing Noise means noise from aircraft engine(s) undergoing testing for the purposes of engine maintenance and does not include normal operational aircraft engine run-ups. (ie: aircraft warming up prior to take-off) or any noise generated by the taxiing or towing of aircraft to or from the designated engine testing location.

Aircraft Movement means one aircraft take-off, landing, touch-and-go, or missed approach. A "Touch-and-go" shall be deemed to be two aircraft movements

Air noise Boundary is a composite line formed by the outer extremity of the 65 dBA Ldn noise contour.

Airport means Ardmore Airport defined by land contained within the airport boundary.

Airport Authority means Ardmore Airport Limited or any person appointed in place of Ardmore Airport Limited as the requiring authority for Ardmore Airport pursuant to section 180 of the Resource Management Act 1991.

Airport Boundary means the boundary of the land designated by the airport authority for airport purposes.

Airshow means an Aviation Event as prescribed under CAR Part 91.703 and referred to in clause 2.1.7 below.

Altitude the vertical distance of a level, a point, or an object considered as a point, measured from mean sea level.

AMSL means above mean sea level.

AFOG means the Ardmore Flight Operations Group

ARAG means the Ardmore Residents Action Group Inc now called ARRA

ARRA means the Ardmore Residents and Ratepayers Association (formerly ARAG)

Ardmore Airport Noise Consultative Committee (AANCC) means the consultative forum established by AAL to consider the noise issues surrounding the operation of Ardmore Airport.

Ardmore Airport Noise Contours means those Noise Contours derived in accordance with New Zealand Standard 6805:1992 at or adjacent to Ardmore Airport.

Auckland Council took over from 8 Councils, amalgamating the Auckland Region into one Council on 1st November 2010. PDC was one of the Council's replaced by this body.

Aviation Event in this document means an event to be conducted below the minimum safe heights prescribed under CAR Part 91.703 that is -

- (1) An air race or practice for an air race; or,
- (2) An aerobatic competition; or,
- (3) Aerobatic training or practice.

Best practical option in relation to an emission of noise means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to:

- (a) The nature of the emission and the sensitivity of the receiving environment to adverse effects; and,
- (b) The financial implications and the effects on the environment of that option when compared with others; and,
- (c) The current state of technical knowledge and the likelihood that the option can be successfully applied.

CAA means the Civil Aviation Authority of New Zealand.

CAR means Civil Aviation Rule

Circuit Training means the use of the Fixed Wing Circuit or the Helicopter Circuit for training purposes

Congested area (CAR Part 1) in relation to a city, town, or settlement means any area which is substantially in use for residential, industrial, commercial or recreational purposes.

Council means Papakura District Council

Curfew means those hours or times during which specific flight or other activities are restricted or subject to specific Airport Authority approval. e.g.: Night circuit training or ex military jet aircraft operation.

dba is a measurement of sound pressure level which has its frequency characteristics modified by a filter so as to more closely approximate the frequency bias of the human ear.

Director means the Director of the Civil Aviation Authority of New Zealand.

Ex-Military Jet aircraft means any Fixed wing aircraft designed for military purposes propelled other than by a propeller.

Extended Centreline means the centreline of any runway (grass or seal) extended in the direction of take-off or back along the Final Approach track.

Fixed Wing Circuit means that pattern, located on the southern side of the airport flown by fixed wing aircraft for the purpose of sequencing themselves to or from runways 03/21 and/or 07/25 grass.

Fly Friendly refers to the specific voluntary programme of good flying practices promoted by AAL with the aim of improving in-flight pilot behaviour and promoting harmony between airport users and surrounding land.

GA means General Aviation

General Aviation is defined by the Civil Aviation Authority (CAA) as all aviation activity at civil aerodromes other than regular passenger flights scheduled by international and domestic airlines.

Helicopter Arrival and Departure Sectors means those lanes depicted in the NZ Visual Flight Guidelines for use by arriving or departing helicopters (refer Appendix E).

Helicopter Circuit means that pattern located on the northern side of the airport flown by helicopters.

Helicopter Designated Descent Segment means that area within the Northern Helicopter Arrival and Departure Sector extending 250m from the Airfield Boundary (refer Appendix E2).

INM means the FAA Integrated Noise Model

L₁₀ means the noise level, which is equalled or exceeded for 10% of the measurement period. L₁₀ is an indicator of the mean maximum noise level and is used in New Zealand as the descriptor for intrusive noise (in dBA).

L_{dn} (Day/Night Level) means the day night noise level which is calculated from the 24 hour L_{eq} with a 10-dBA penalty applied to the night-time (2200-0700 hours) L_{eq}.

L_{max} (Maximum sound pressure level) means the maximum sound pressure level measured during the sampling period.

L_{eq} (Time-average sound level) means the time averaged noise level (on a logarithmic, energy basis).

Low Level Pass means any aircraft flight below 600 feet AMSL not being an aircraft movement or flight activity authorised by the Ardmore Airport Noise Management Plan.

MBZ means that area denominated under Civil Aviation Rules as the Ardmore Mandatory Broadcast Zone or MBZ

Notional Boundary means a line 20 metres from the façade of any rural dwelling or the legal boundary where this is closer to the dwelling.

NZDT means NZ daylight time: that time during which daylight saving is in effect.

NZLT means NZ local time: time referenced regardless of whether daylight saving is in effect.

NZST means NZ standard time: the time reference used when daylight saving is not in effect.

NZS 6805:1992 refers to the New Zealand Standard NZS 6805: 1992 "Airport Noise Management and Land Use Planning"

Obstacle Limitation Surfaces (OLS) means those defined areas about and above an aerodrome intended for the protection of aircraft in the vicinity of an aerodrome. Such surfaces for Ardmore Airport Runways are depicted in both the Papakura and Manukau City district plans.

PDC or Papakura District Council. This Council was amalgamated with 8 other Council's to form the Auckland Council on 1st November 2010.

QNH is an altimeter sub-scale setting to obtain elevation when on the ground. That is to say height above mean sea level.

Operational Controls means those procedures and systems recognised by the Civil Aviation Authority of NZ as empowering to the Airport Authority under the Civil Aviation Act 1990-, Civil Aviation Rules and the Airport Authorities Act 1966, to manage and run the Airport and Airport operations.

Outer Control Boundary is a composite line formed by the outer extremity of the 55 dBA Ldn noise contour.

Scheduled Flight means freight or passenger flights that are established on a permanent timetable basis.

SEL (Sound Exposure Level) means the A-weighted sound level which if maintained constant for a period of 1 second, would convey the sound energy as is actually received from a given noise event.

$$SEL = 10 \log \int_{t_1}^{t_2} \left[\frac{P_{A(t)}}{P_0} \right]^2 dt$$

where: p is in pascals and t in seconds
 p_0 is the reference sound pressure of 20 micropascals

TLOF means Helicopter Touch Down and Lift Off area

UTC means the Coordinated Universal Time or reference to the old GMT (Greenwich Mean Time).

Appendix I - Document Amendment Request

<p>TO: The Chief Executive</p> <p style="margin-left: 20px;">Ardmore Airport Ltd PO Box 72-253, Papakura, 2244 Auckland</p>	<p>FROM: _____</p> <p style="margin-left: 40px;">_____</p> <p style="margin-left: 40px;">_____</p>
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I/We wish to request an amendment to the following Section(s) of the Noise Management Plan as listed below:

1.	
2.	
3.	
4.	
5.	
6.	

Reasons for the request are as follows:

1.	
2.	
3.	
4.	
5.	
6.	

Suggested wording *(Use separate sheet(s) as required:*

1.	
2.	
3.	
4.	
5.	

Appendix J - References

Airport Authorities Act 1966
Ardmore Airport Operations Manual
Civil Aviation Act 1990
Civil Aviation Rules & Advisory Circulars (as applicable)
Manukau City Council district plan (as applies to Ardmore Airport)
NZ Aeronautical Information Publication (NZAIP) and Supplements
NZS 6805:1992 - NZ Standard for Management of Airport Noise & Land Use Planning
NZ Visual Flight Guide (NZ VFG) & associated Maps & Charts
Papakura District Council district plan (as applies to Ardmore Airport)
Resource Management Act 1991