RAAF BASE WILLIAMTOWN

BASE AIRCRAFT NOISE MANAGEMENT PLAN

Approved by:

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AMENDMENT CERTIFICATE

AL	Date	Change	Signature
1	Nov 19	Various – Refer change bars	

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RAAF BASE WILLIAMTOWN AIRCRAFT NOISE MANAGEMENT PLAN

References:

A. Environment Impact Statement for the Flying Operations of the F-35A - 2014
B. Approval Decision for the Flying Operations of the F-35A - 2015
C. Hawk Lead-In Fighter Environment Impact Statement - 2002
D. Consent conditions for the Hawk Lead-In Fighter - 2003

Introduction

1. Aircraft noise is an unavoidable consequence of Air Force operations and training. The impact of aircraft noise affects communities in different ways. Air Force has an obligation to reduce the effects of aircraft noise on local communities to the maximum extent possible, whilst achieving operational and training outcomes for Government. Consequently, aircraft noise is managed locally by personnel who know and understand community concerns.

2. RAAF Base Williamtown Base Aircraft Noise Management Plan (BANMP) informs and aims to improve public understanding of aircraft noise management strategies in the vicinity of RAAF Base Williamtown (WLM).

3. Located 30 kilometres north of Newcastle, RAAF Base WLM is Australia's premier fighter base. It is the home base for the tactical fighter element of Air Combat Group (ACG), and the Airborne Early Warning and Control (AEW&C) element of Surveillance and Response Group (SRG).

4. RAAF Base WLM is responsible for the Salt Ash Air Weapons Range (SAAWR) which is located approximately 6km to the north-east of the base. SAAWR is used for air-to-surface gunnery and bombing training.

5. The primary users of SAAWR are ACG flying squadrons which include F/A-18A/B Classic Hornets, the Hawk 127 Lead-In Fighter, PC-21 and F-35A.

Background and scope

6. The BANMP has been raised in compliance with the Air Force Aircraft Noise Management Strategy. The BANMP applies to all flying and ground operations involving Air Force aircraft, civil-registered aircraft leased by the Air Force, Defence contracted aircraft operated by external service providers and foreign military aircraft operating from RAAF Base WLM.

7. Newcastle Airport Propriety Limited (NAPL) is located on the southern area of RAAF Base WLM and all civilian Regular Public Transport (RPT) and approved operator aircraft are required to comply with the RAAF Base WLM BANMP. All noise related RPT complaints are managed by NAPL.

Description of standard aircraft operations

8. RAAF aircraft permanently based at RAAF Base WLM include:

a. F/A-18A/B Classic Hornet dual jet engine, single and twin seat fighter aircraft

b. F-35A single jet engine fighter aircraft

c. BAE Hawk 127 single jet engine, twin seat lead in fighter training aircraft

d. Boeing E-7A twin turbofan engine, AEW&C aircraft[1]

e. Pilatus PC-21 single turboprop engine, twin seat training aircraft

f. Learjet 35/36 two pilot, 10 passenger, twin turbofan engine training support aircraft

g. Sikorsky S-70 and Augusta Westland AW139 turbo shaft helicopters operated by Canadian Helicopter Corporation for Search And Rescue (SAR).

9. Normal flying operations for military aircraft are from 8:00am to 10:00pm Australian Eastern Standard Time (AEST) and up to 11:00pm during Australian Eastern Daylight Time (AEDT). Night flying can be conducted at SAAWR until 9:00pm AEST and 10.30pm AEDT. Night flying is restricted to the minimum required to achieve training targets. Flying before and after these hours can occur, including on weekends, without notice.

10. RAAF Base WLM maintains an airfield curfew from 10:00pm to 6:00am daily for civilian RPT aircraft movements. RAAF Base WLM is available 24 hours each day for all emergency services aircraft (Careflight, Westpac Rescue, NSW Air Ambulance, Royal Flying Doctors, NSW Rural Fire Service, NSW Police, etc) and these aircraft are authorised to land during curfew hours.

11. The average number of military aircraft movements is 285 per week.

12. The average number of civilian RPT flights is 418 movements per week. Late arrival dispensations are provided on occurrence.

13. RAAF Base Williamtown utilises six primary training areas indicated at Figure 1. To reduce localised noise impacts, aircraft are dispersed across different training areas to achieve a fair distribution of noise across local communities. The majority of training (~70%) is conducted in the Eastern Training Area located overwater.

14. Where possible, RAAF Base WLM will advise the local community of non-routine flying events. This is not always possible due to changes in weather conditions or operational restrictions, which may require aircraft to operate over land training areas more frequently. Members of the public can access information regarding planned and non-routine flying via the Williamtown Flying Operations web site.

15. RAAF Base WLM has a single runway (see diagram in Annex A) 12/30 aligned south-east/north-west. Raymond Terrace is north-west of RAAF Base WLM, close to the aircraft routes for Runway 30 departures and Runway 12 arrivals. Runway 12 is serviced by an Instrument Landing System used to guide pilots to a safe landing in poor weather.

16. Preferred runway use is determined primarily by wind direction and is stipulated by Air Traffic Control (ATC) to ensure safety of flight. When ATC is not active, pilots determine the most suitable runway by examining the wind conditions from weather reports and also wind socks located at the airfield.

[1] E-7A aircraft generate similar noise levels of normal domestic Boeing 737 aircraft.

Variations to standard aircraft operations

17. The most common foreseeable variation to the regular flying schedule at RAAF Base Williamtown is visiting aircraft from other Bases. At times, aircraft may operate outside normal airfield operating hours with approval granted by the Williamtown Air Base Executive Officer. Attempts will be made where possible to advertise changes to the community. Defence has an extensive range of aircraft with differing engine configurations including:

a. F/A-18F Super Hornet, twin jet engine

b. EA-18G Growler, twin jet engine

c. C-17A Globemaster III, four turbofan engines

d. Boeing B737 Business Jet, two turbofan engines

e. C-130J Hercules, four turboprop engines

f. C-27J Spartan, two turboprop engines

g. CL604 Challenger, two turbofan engines

h. P-8A Poseidon, two turbofan engines

i. P-3C Orion, four turboprop engines

j. B350 King Air, two turboprop engines

k. Various single and multi-rotor aircraft, single and twin turboshaft engines

l. Visiting aircraft types from International Defence Forces.

18. Unforeseeable variations (caused by inclement weather and aircraft serviceability issues) will occur from time to time. Noise control minimisation measures will be implemented as required where possible.

Williamtown noise minimisation

19. RAAF Base WLM maintains guidelines such as Base Standing Instructions and Range Standing Instructions, designed to provide a baseline for aircraft operations on Defence managed lands. These instructions are adhered to by all operators. Some of these instructions are designed to reduce noise impacts from aircraft operations. Air Combat Group (ACG) also has Standing Instructions which provide the basis for aircraft operations flown by all ACG aircrew. These include:

a. **Fly Neighbourly procedures.** ACG has developed fly neighbourly practices and guidance for subordinate units, including those that will operate the F-35A. The policy provides specific guidance for RAAF Base Williamtown, however a summary of the main generic noise management guidelines are as follows:

(1) Noise management is a briefing item for all flying. ACG aircrew conduct operations with due cognisance of the impact of noise on communities and residents under or in the vicinity of the flight path.

(2) Departure and arrival measures include:

i. The majority of departures to the north should occur over Grahamstown Dam and out over Medowie State Forest and Conservation Area.

ii. Pilots should not fly over Medowie below 1066m (3500 ft), and where practical avoid direct over flight of Medowie, Tanilba Bay, Lemon Tree Passage and Raymond Terrace.

iii. Jet aircraft will climb quickly to, or descend from 762 metres (2500 ft) at the 3.7km (2 nm) limit from the base, so there should be a decrease in noise levels for people living under the flight paths in and out of the Base.

(3) Noise abatement procedures are adhered to within 10 nautical miles (18.5 kilometres) of the airfield which complements extant local procedures.

(4) Low level coastal transits are flown such that all aircraft remain at least 1nm (1.8 kilometres) off shore in the vicinity of urban areas. The exception to this is coastal corridors near the Airbase – whereby aircraft are required to conduct coastal transits to assist airspace management and as directed by Air Traffic Control.

(5) These noise abatement departure procedures are cancelled in the event of air traffic management directions or unsuitable weather conditions. In these circumstances standard visual or instrument departure and arrival procedures apply, as safety remains the primary consideration.

b. **Aircraft engine maintenance ground operations.** Post-aircraft maintenance may require installed engine ground testing across all power settings. This particular type of testing is performed during the day wherever possible, but may at times be during the evening for operational reasons. The following time restrictions apply to all fast jet engine runs at RAAF Base WLM:

(1) Between 0700hr to 2200hr - no restrictions

(2) Between 2200hr and 2359hr, any engine runs are not to exceed a 75% power setting with sustained 75% run durations of no longer than 20 minutes with a 15 minute break between runs

(3) Ground idle runs can be carried out until 2359hr with no set duration

(4) Squadron B-shift ENGO / B-shift COORDs will be responsible for the validity and approval of all runs after 2200hr (ie required to bring the aircraft up as serviceable for the morning flying).

(5) Hornet flight-line only: For engine runs above 75% N2 and less than 80% N2 on the Hornet flightline a time limit of 3 minutes total applies

F-35A noise management

20. **Departure power settings.** As a condition of operating the F-35A at WLM, Air Force has agreed to restrict departure power settings to the maximum extent possible in order to limit noise to affected communities. A lower engine thrust setting may also be used to reduce noise emissions. The guidelines for Engine Thrust Request (ETR) settings during departures by F-35A include:

a. Either military thrust (100% ETR) or afterburner during takeoff and initial climb. Where possible military thrust is to be used, except when additional thrust is required for operational or safety reasons, such as heavy-weight operations and adverse runway surface conditions. It is anticipated that approximately 20% of F-35A takeoffs at RAAF Base Williamtown will require afterburner, and

b. Following initial climb, when safe to do so, a reduced ETR setting will be selected, IAW with EIS conditions of consent, once the aircraft has reached a safe flying speed and altitude.

21. Enclosure 1 contains details on the way in which F-35A operations will comply with the EPBC 2010/5747 Conditions of Approval.

Low flying

22. Low flying is defined as flight below 500 ft (152m) over a non-built up area or 1,000 ft (304m)' over a built up area, above obstacles within 968 ft (600m).

23. Designated low flying training areas are north of Williamtown and are named the Eastern and Western Low Flying Areas and Western Training Area. Refer to the Williamtown Flying Operations web site for more details.

24. Aircraft are approved to operate down to 150' (45m) AGL to support effective weapon employment training on SAAWR.

RAAF Base Williamtown Airspace

25. In addition to the SAAWR, aircraft operating from RAAF Base Williamtown utilise nearby General Flying Training Areas (GFTAs) and Low Flying Areas (LFAs) for training and exercises. The locations of the local training areas are shown in Figure 1.

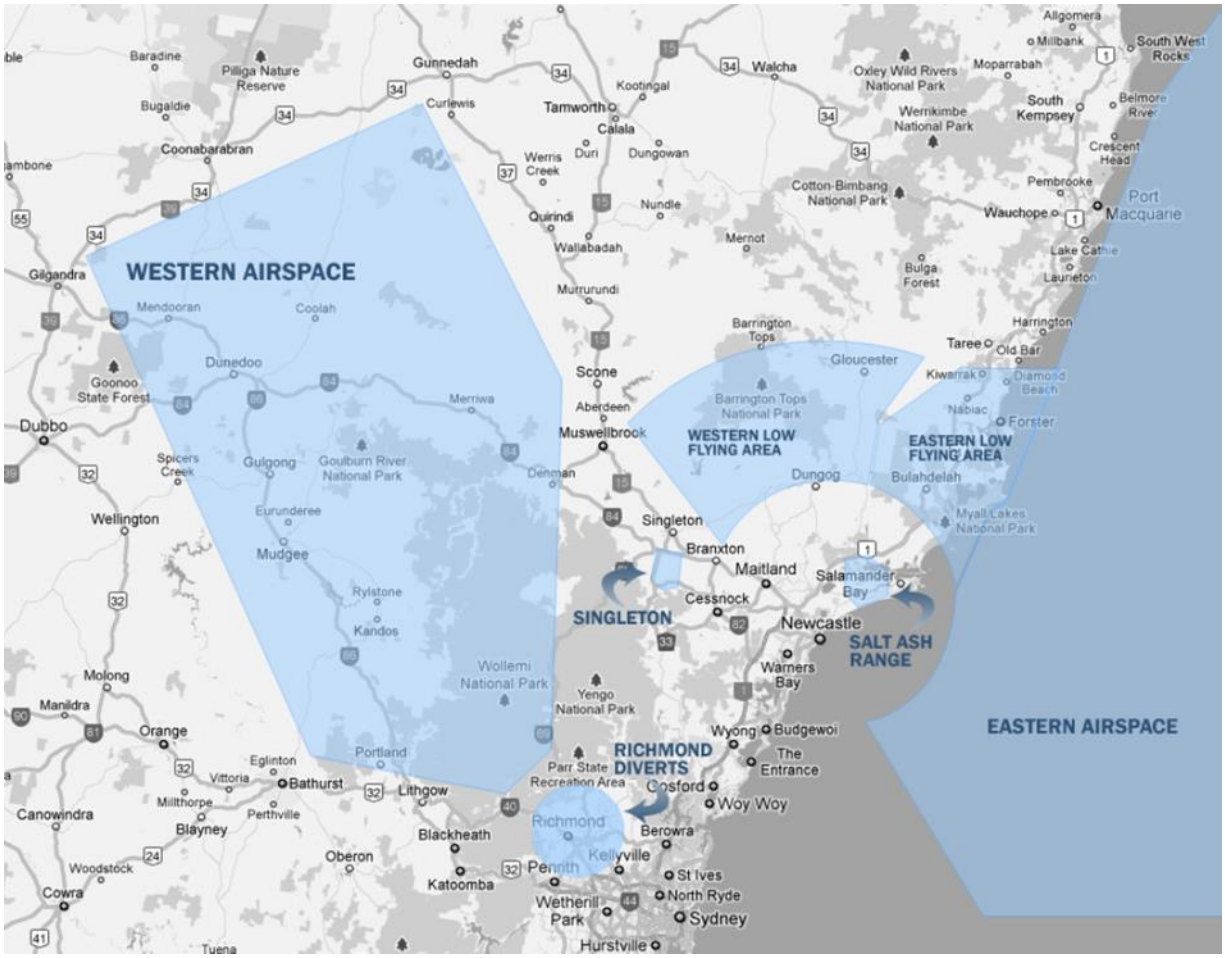

Figure 1: RAAF Base Williamtown Airspace

Working with Community

26. Residents should consider the Australian Noise Exposure Forecast (ANEF) map for RAAF Base Williamtown, which provides information about aircraft noise exposure. ANEF maps provide a forecast of anticipated noise for a future period, for that location. The ANEF does not show every flight path and homeowners with properties outside of the ANEF map zones may still experience aircraft noise. The Noise and Flight Path Monitoring Systems (NFPMS) has been developed to provide a more accurate and useful record of flight paths of all aircraft and noise events. The Environmental Impact Statement for the F-35A aircraft, which will commence flying as from December 2018 should also be referred to for additional information regarding noise exposure.

27. RAAF Base Williamtown communicates regularly with the local council and community about on base operations in a variety of formal and informal means. The Williamtown Advisory Group is an important mechanism for local interaction and discussion in relation to aircraft noise. The RAAF Base Williamtown and Salt Ash Air Weapons Range flying operations web site provides details.

28. RAAF Base Williamtown makes all attempts to advise local communities of non-routine flying operations via Media Releases, social media, Williamtown Flying Operations web site, a 1800 number, and emails to local registered community residents. Annex B provides the Air Force Fly Neighbourly Policy.

29. Advance publication of flying activities over the SAAWR are provided in the Port Stephens Examiner at least twice each year. Media Releases and advisories are issued in the weeks prior to SAAWR flying activities.

Noise monitoring

30. Defence operates Noise and Flight Path Monitoring Systems (NFPMS) to provide the community information about aircraft noise associated with military operations. The NFPMS website can be accessed at this link Noise and Flight Path Monitoring System. On this site, RAAF Base Williamtown has an interactive and accessible database which can be used to develop reports of aircraft flight paths and volume of aircraft traffic. The site also provides details of the monitoring station locations around RAAF Base Williamtown. The stations are not located in training areas outside the immediate Williamtown area.

31. The NFPMS was developed by Defence to provide a public record of flying activity at RAAF Base Williamtown and SAAWR. The NFPMS allows individuals to gain an understanding of all flying activity in the vicinity of the Base. Defence uses the data to publish a monthly report of fast jet flying activity, and all aircraft flight activity.

32. An example of the interactive NFMPS quarterly report for RAAF Base Williamtown at Figure 2.

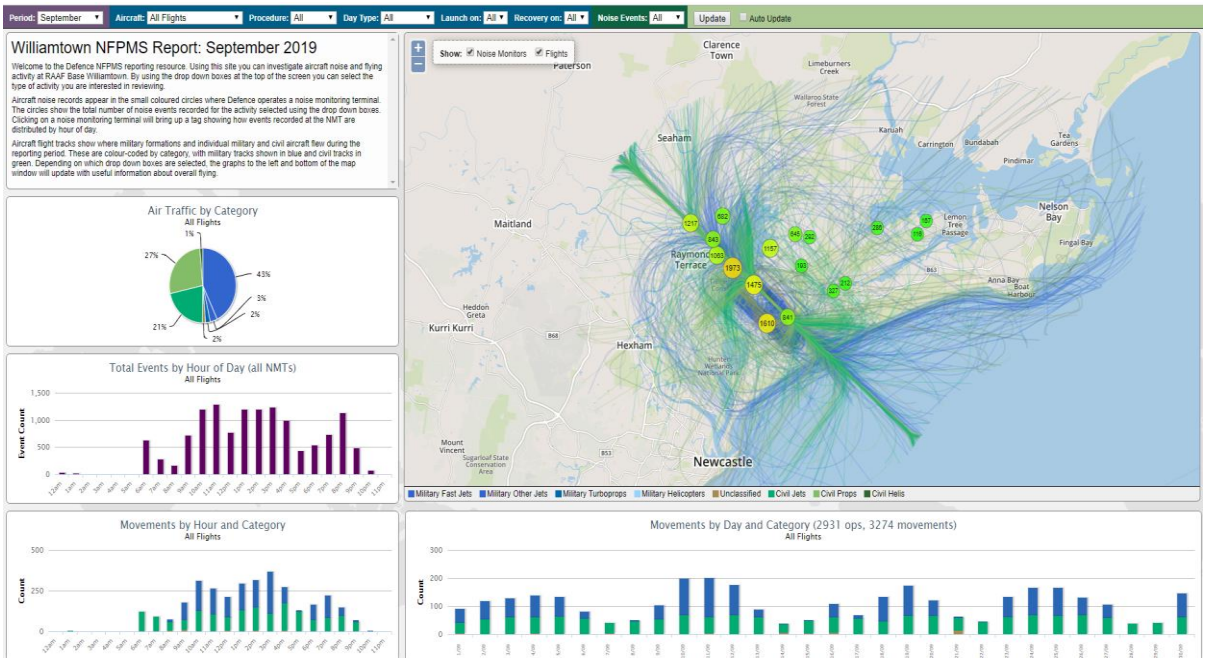

Figure 2: RAAF Base Williamtown NFPMS November 2018 Report

Noise complaints

33. Complaints regarding Air Force aircraft noise should be made to the Noise telephone line on 1800 033 200 or submission of an Aircraft noise complaint/enquiry form.

34. On receipt of a noise complaint, a Defence member will initiate an investigation to determine the occurrence and likely operating Squadron. Contact will be made to the

complainant to provide information on the nature of the operations to the query. Complaints relating to civilian aircraft will be directed to Newcastle Airport.

35. All completed investigations are forwarded to Air Force Head Quarters Aircraft Noise/Environment, Canberra for further vetting. Noise complainants are able to contact the Aircraft Noise Ombudsman web site or:

Aircraft Noise Ombudsman
GPO Box 1985
Canberra City ACT 2601

Or email ano@ano.gov.au

Review and update process

36. This document will be reviewed annually.

Annexes:
A. Williamtown Noise Abatement Procedures
B. Air Force Fly Neighbourly Policy

Enclosure:
1 Compliance with Condition 3 for EPBC Approval 2010/5747 (F35A)

ANNEX A TO
G13423393

WILLIAMTOWN NOISE ABATEMENT PROCEDURES

1. The following procedures apply to all fast jet operations from RAAF Base Williamtown. The safe operation of the aircraft should not be compromised in attempts to adhere to noise abatement procedures. Poor weather, emergencies and specific Air Traffic Control restrictions are examples where aircrew may make deliberate decisions to operate their aircraft in contravention to the guidelines below. However, aircrew should make a clear distinction between variation from these guidelines due to valid external factors and variation due to convenience.

2. The departure and arrival procedures apply in visual approach/departure conditions only. They do not apply to Standard Instrument Departures, SAAWR departures, Instrument Meteorological Conditions (IMC) or Special Visual Flight Rules (VFR) operations, or when given specific ATC directions. Nor do they relax the requirements to avoid SAAWR if directed.

3. RAAF Base Williamtown flying operations generally require aircraft to track direct to their assigned training area or transit corridor once they are clear of the circuit area. Primarily dependent on weather conditions, aircraft will be given either a visual departure, or a Standard Instrument Departure (SID).

4. **Departures.** The following departure procedures should be followed:

a. **Runway 12.** Climb straight ahead to 3 nautical miles (nm) (5.56km)or 2,500 ft (762m) AMSL (whichever comes first) prior to turning for departure heading. The intent is to avoid Banksia Grove and then conduct the majority of the departure over water.

b. **Runway 30:**

(1) Gate 1-6, Hunter Corridor, and northerly departures in general. Climb straight ahead to 2nm (3.7km). The intent is to fly over Grahamstown Dam and turn to departure gate once above 3,500 ft (1066m) AMSL or upon reaching the northern shore of the dam. This should ensure aircraft turn to departure gates either north of Medowie or overfly Medowie not below 3,500 ft (1066m) AMSL. To achieve this either fly the above track visually from 2nm (3.7km) or at 2nm turn heading 360°, at 5nm (9.26km) or 3,500 ft(1066m)AMSL (whichever comes first) turn right to departure heading.

(2) Gate 7, Nowra 5, and southerly departures in general. Climb straight ahead to 2nm (3.7km). At 2nm, turn left to departure heading. Where possible, avoid delays to the left turn to minimise overflight of Raymond Terrace.

c. For either runway, be established on outbound track direct to gate (if applicable) by 10nm (18.2km).

d. Aircrew may request, or ATC may direct, cancellation of noise abatement departure procedures due traffic management or weather considerations. In these circumstances standard visual departure procedures apply.

5. **Recoveries.** Where practical avoid direct overflight of Medowie, Tanilba Bay, Lemon Tree Passage and Raymond Terrace. In general, where possible, aircraft should not fly below 2,500’ (760m) AMSL until through the Initial Point (IP).

6. The intent on aircraft Recoveries is to allow visual recoveries via Initial and Pitch at altitudes down to 1,500ft (457m) AMSL where required due to weather. There is no intent to increase the number of instrument recoveries that are flown as this is counterproductive to reducing noise levels.

7. **Circuit procedures.** Aircrew will avoid extending downwind Runway 12 over Raymond Terrace if practical.

8. **SAAWR.** The following concepts apply to operations at SAAWR:

a. Where appropriate, the number of passes flown as SAAWR is to be minimised. This particularly applies to low angle profiles.

b. Where practical, formations of four at SAAWR should occur on high angle bombing missions, and low angle profiles where practicable.

c. Aircrew are to ensure only domestic recoveries are flown, with minimum power settings and nose up as sensible to minimise noise.

ANNEX B TO
G13423393

AIR FORCE FLY NEIGHBOURLY POLICY

1. Air Force is working with local communities near airbases, training areas and air weapons ranges to reduce noise impacts whilst balancing operational and training requirements.

2. Air Force commits to undertake flying operations in a manner which is considerate of our local communities, whilst maintaining safe operation of our aircraft and achieving the required levels of capability. Guided by these principles Air Force will:

a. comply with published airfield noise abatement procedures

b. use appropriate runway length for departures to maximise height over local communities

c. minimise the use of afterburner on fast jets during take-off and minimise noise during climb out

d. limit the speed of aircraft over populated areas

e. minimise flight over residential areas and other noise sensitive buildings such as hospitals, schools and farming communities

f. avoid low flying over known noise sensitive areas such as livestock yards

g. minimise flying late at night or early in the morning

h. include aircraft noise awareness in pilot training and familiarisation

i. notify local communities of major exercises or other non-routine training and flying activities such as flying displays.

3. To further minimise noise at some bases Air Force will:

a. limit continuous circuit training at night and on weekends and public holidays

b. use satellite airfields for repetitive aircraft circuits

c. vary flight paths to share noise

d. consider continuous descents to reduce noise

e. implement local engine run-ups procedures

f. minimise jet or turbo prop engine testing at night.

4. Refer to the Defence Aircraft Noise web site for all details.