

Short Term Monitoring Program

Diggers Rest, VIC

Version Control

Version 1: 18 June 2015	
Section	Summary

Glossary of Terms

A	Arrivals
Background noise level (L90)	The sound level in dB(A) that is exceeded 90% of the time
Correlated Noise Event (CNE)	A noise event correlated to an aircraft operation that flew through the capture zone
Correlation Summary	Percentage of captured aircraft operations correlated with noise events recorded by the noise monitor
D	Departures
Day	6:00am to 11:00pm
EMU	Environmental Monitoring Unit
H	Helicopters
LAm _{ax}	Maximum sound level in dB(A)
Local	Operation that departs and arrives at the same airport. Local movements include circuits and training flights.
Movement	An aircraft operation, such as an arrival or departure
Night	11:00 pm to 6:00 am
NFPMS	Noise and Flight Path Monitoring System
Noise Event	A noise that exceeds the threshold sound level for longer than the threshold time that is set
O	Overflight i.e. an aircraft movement that flew over the area but did not arrive or depart from the airport of concern
T	Local Operation (Departure and Arrival)
Threshold	Determined level on noise monitor that triggers a noise event when exceeded

For further information on the metrics used in this report refer to Australian Standard 1055.1–1997 “Acoustics – Description and measurement of environmental noise”.

Airservices Noise Monitoring Program

Information about Airservices noise monitoring program is available on the Airservices website, including reports of the noise and operational data collected by the Noise and Flight Path Monitoring System, as well as fact sheets about topics related to aircraft noise. The website is available at: www.airservicesaustralia.com/aircraftnoise/

Contact Us

To lodge a complaint or make an enquiry about aircraft operations, you can go to WebTrak (www.airservicesaustralia.com/aircraftnoise/webtrak/) use our online form (www.airservicesaustralia.com/aircraftnoise/about-making-a-complaint/) telephone 1800 802 584 (freecall) or 1300 302 240 (local call –Sydney) fax (02) 9556 6641 or write to, Noise Complaints and Information Service, PO Box 211, Mascot ACT 1460.

© Airservices Australia. All Rights Reserved.

This report contains a summary of data collected over the specified period and is intended to convey the best information available from the NFPMS at the time. The system databases are to some extent dependent upon external sources and errors may occur. All care is taken in preparation of the report but its complete accuracy cannot be guaranteed. Airservices Australia does not accept any legal liability for any losses arising from reliance upon data in this report which may be found to be inaccurate.

Deployment Purpose

Short term noise monitoring was conducted at Diggers Rest to focus on noise events associated with early turn departures that fly directly overhead of residents, off Runway 27.

The purpose of this report is to provide a technical summary of the recorded aircraft noise and operational data collected at Diggers Rest during October 2014 to January 2015.

An explanation of terms used within this report can be found in the Glossary on page 2 of the report.

A detailed review of early turn departures off Runway 27, for the Diggers Rest EMU will be tabled at the August 2015 [Melbourne Airport CACG](#) (was raised at the May 2015 CACG) and summarised in the Q2 2015 Melbourne [ANIR report](#).

Deployment Monitoring Period

21/10/14 12:00 am – 19/01/2015 12:00 am

Environmental Monitoring Unit (EMU) Details

Location	Private Residence, Crinnion Rd, Diggers Rest VIC 3427
Latitude	37° 37' 12.90" S
Longitude	144° 44' 15.47" E
EMU Altitude	698 ft above mean sea level
Capture Zone	2.5 km radius with 8,000 ft (above ground level) height for noise data capture
Threshold Settings	50.0 dB(A) to 55.0 dB(A) depending on time of day

Diggers Rest Findings

- The noise monitor was located in Diggers Rest 11.2 km to the north-west of Melbourne airport.
- 2,381 movements flew through the capture zone during the reporting period. 2,279 of these were Melbourne operations.
- 59% of total operations that flew through the capture zone (as shown in figure 2) were Runway 34 Arrival operations.
- There were a total of 843 correlated noise events above 60 dB(A). These were most common during the weekday hours of 08:00 am and 9:00 am.
- 54 correlated noise events exceeded 60 dB(A) occurred during the hours of night (11:00 pm to 6:00 am).
- The number of correlated noise events exceeding 60 dB(A) in any one day ranged from zero to 40, with an average of nine events daily.
- 17 noise events that exceeded 75 dB(A) were recorded during the reporting period. This occurred one time during the hours of night (11:00 pm to 6:00 am).
- The loudest correlated aircraft noise event with a max level of 79.5 dB(A) was an A320 arriving onto Runway 34.
- The correlation summary for all movements was 63%. This is a lower correlation than the fixed Environmental Monitoring Units in Melbourne.

For more information please refer to Figure 1, Figure 2 and Table 1 on page 4

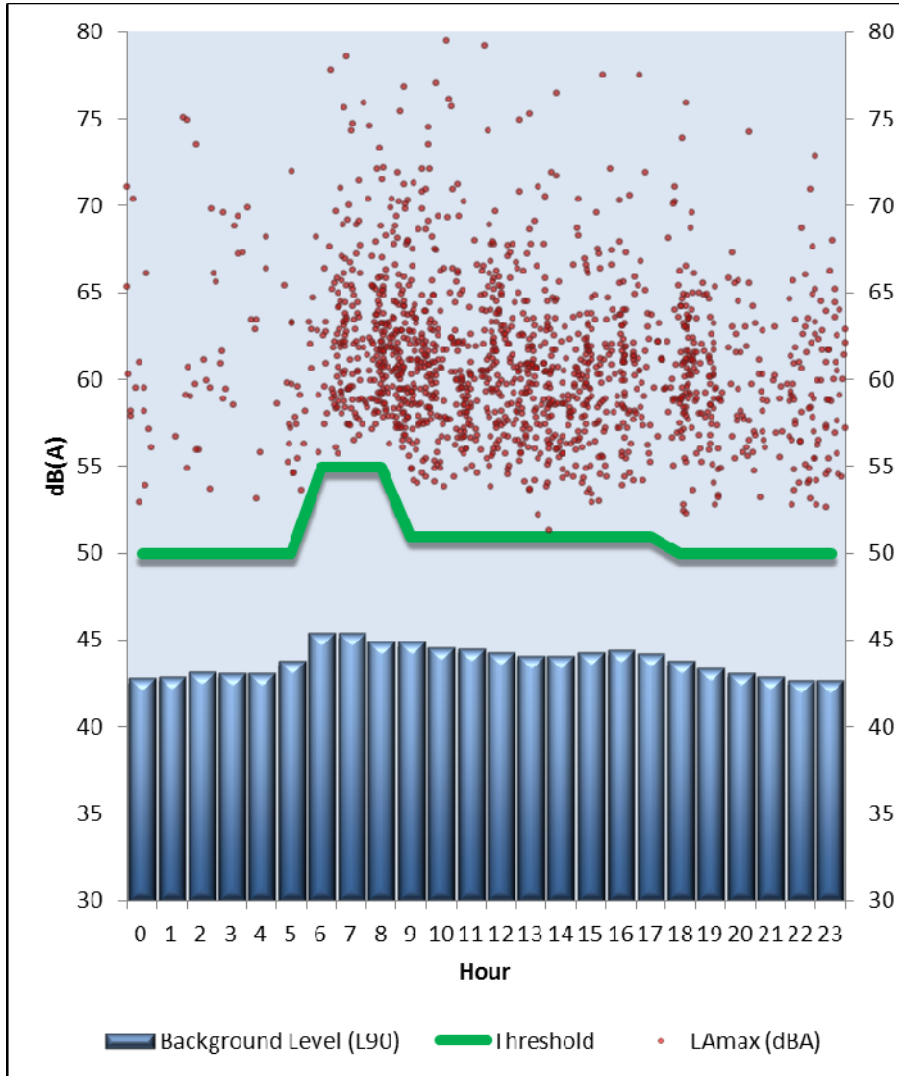


FIGURE 1: DIGGERS REST NOISE SUMMARY
21/10/2014 12:00AM – 19/01/2015 12:00AM

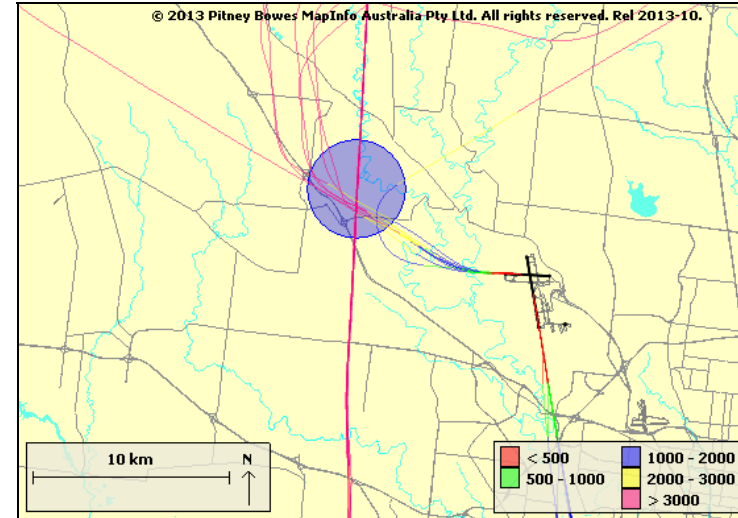


FIGURE 2: OPERATIONS THAT TRAVERSED DIGGERS REST ON 10/12/2014

TABLE 1: TOP 10 MOST CORRELATED AIRCRAFT TYPES OVER THE DIGGERS REST ENVIRONMENTAL MONITORING UNIT

Aircraft Type	Airport	Operation Type	RWY	No. Correlated Noise Events	L _{Amax} dB(A)	
					Average	Maximum
Boeing 737-800 (J)	Melbourne	A	34	265	60.4	77.5
Saab SF340 (T)	Melbourne	D	27	225	60.8	77.0
Airbus A330-300 (J)	Melbourne	A	34	162	61.4	76.1
Airbus A320 (J)	Melbourne	A	34	143	59.0	79.5
DHC Dash 8D (T)	Melbourne	D	27	108	61.1	77.5
Airbus A330-200 (J)	Melbourne	A	34	79	62.0	75.4
Boeing 777-300ER(J)	Melbourne	A	34	60	59.8	73.5
Boeing 787-800 (J)	Melbourne	A	34	49	60.1	72.1
Aerospatiale ATR72-600(T)	Melbourne	D	27	38	63.6	69.7
Airbus A321 (J)	Melbourne	A	34	28	58.5	64.0

Aircraft Category: Jet (J), Turboprop (T), Propeller (P), Helicopter (H), Unknown (U)
Operation Type: Arrival (A), Departure (D), Local Operation (T), Overflight (O)