

# **Short Term Monitoring Program**

## **Maddington, WA**

## Version Control

Version 1: 7 November 2014	
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
H	Helicopters
LAm <sub>ax</sub>	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
NMT	Noise Monitoring Terminal
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/](http://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/](http://www.airservicesaustralia.com/aircraftnoise/webtrak/)) use our online form ([www.airservicesaustralia.com/aircraftnoise/about-making-a-complaint/](http://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 NSW 1460.

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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 can not 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.

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## Deployment Purpose

Short term noise monitoring was conducted at Maddington following recommendations made by the community.

The purpose of this report is to provide a technical summary of the recorded aircraft noise and operational data collected at Maddington between July and September 2014.

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

## Deployment Monitoring Period

07/07/2014 12:00 am – 29/09/2014 12:00 am

## Noise Monitoring Terminal (NMT) Details

Location	Maddington Primary School, Albany HWY, Maddington, WA 6109
Latitude	32° 3' 17.13" S
Longitude	115° 59' 13.24"E
NMT Altitude	66 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	49.0 dB(A) to 59.0 dB(A) depending on time of day

## Maddington Findings

- For more information please refer to Figure 1, Figure 2 and Table 1 on page 4.
- The noise monitor was located in Maddington 12 km to the south of Perth airport.
- 6,954 movements flew through the capture zone during the reporting period. 6,649 of these were Perth operations.
- 54% of total operations that flew through the capture zone (as shown in figure 2) were Perth Runway 21 Departures.
- 4,860 correlated noise events exceeded 65 dB(A), 544 of these occurred during the hours of night.
- The number of correlated noise events exceeding 65 dB(A) in any one day ranged from one to 117.
- Residents of Maddington experienced 280 correlated noise events that exceed 75 dB(A) during the reporting period.
- The loudest correlated aircraft noise event with a max level of 86.8 dB(A) was a Runway 21 Antonov An-124 Ruslan departure.
- The correlation summary for all movements was 81%. This is considered a good result based on reviews of fixed noise monitoring terminals nationally.

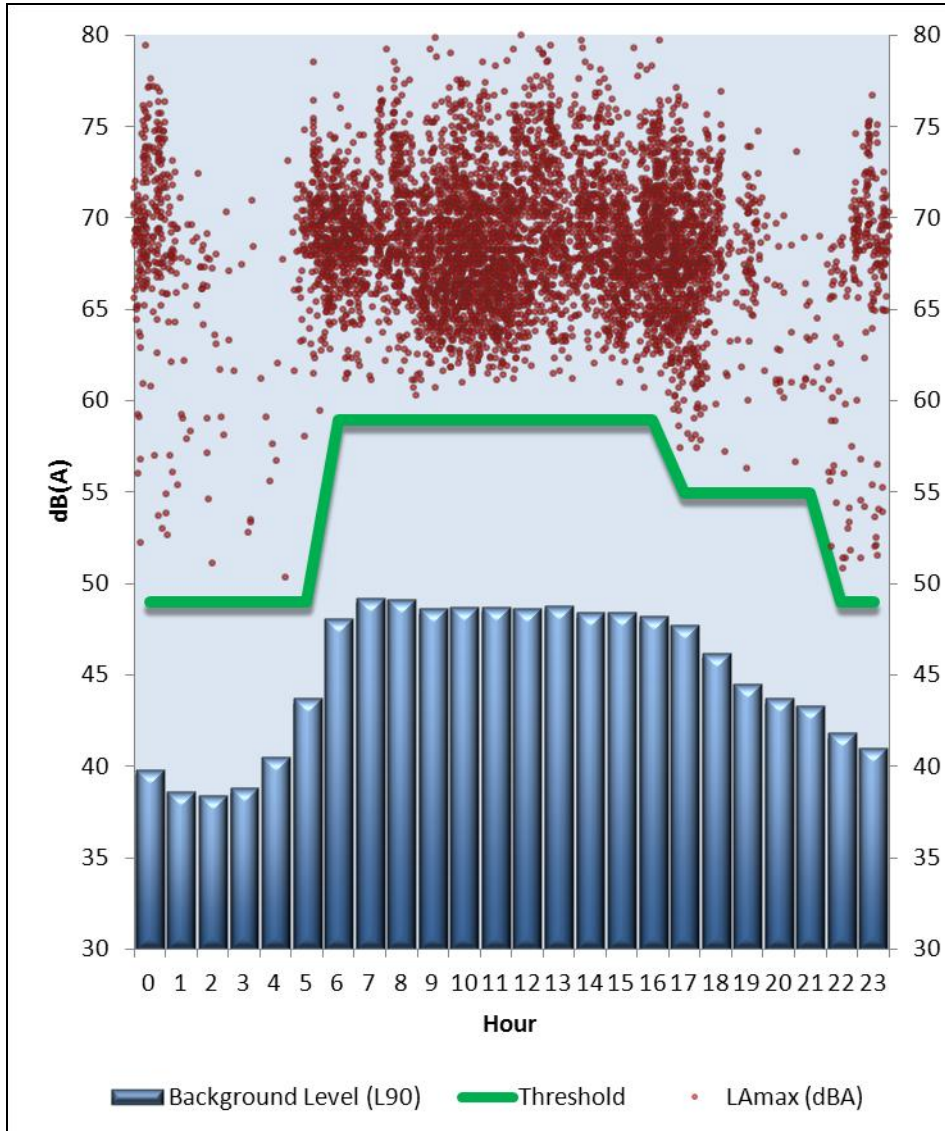


FIGURE 1: MADDINGTON NOISE SUMMARY  
07/07/2014 12:00AM – 29/09/2014 12:00AM

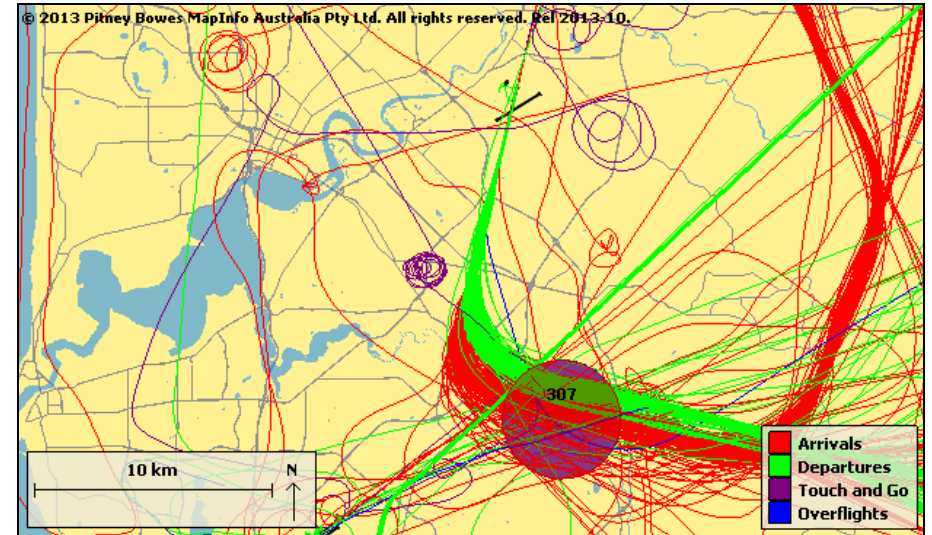


FIGURE 2: INDICATIVE TRACK PLOT OF OPERATIONS THAT TRAVERSED MADDINGTON  
(03/08/2014 12:00AM – 10/08/2014 12:00AM)

TABLE 1: TOP 10 MOST CORRELATED AIRCRAFT TYPES OVER THE MADDINGTON NOISE MONITORING TERMINAL

Aircraft Type	Airport	Operation Type	RWY	No. Correlated Noise Events	L <sub>Amax</sub> dB(A)	
					Average	Maximum
Airbus A330-200 (J)	Perth	D	21	867	72.4	80.8
Boeing 737-800 (J)	Perth	D	21	844	69.7	84.8
Boeing 737-800 (J)	Perth	A	03	496	67.8	81.6
Fokker 100 (J)	Perth	A	03	455	66.2	81.1
Fokker 100 (J)	Perth	D	21	434	68.5	83.4
Airbus A320 (J)	Perth	D	21	351	67.5	73.6
Airbus A330-200 (J)	Perth	A	03	305	72.4	84.6
Boeing 717-200 (J)	Perth	A	03	230	67.1	79.8
Boeing 717-200 (J)	Perth	D	21	143	66.0	77.1
Embraer E190 (J)	Perth	D	21	142	69.8	75.2

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