

Short Term Monitoring Program
South Dingley Village, VIC

Version Control

Version 2: 11 May 2015	
Page	Summary
4 and 5	Update of dot point 8 (page 4) regarding contribution of community noise on captured events. Deletion of Table 1 (page 5) and addition of dot point 9 (page 4).

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	Pre-set 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.

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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.

Deployment Purpose

Short term noise monitoring was conducted at South Dingley Village 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 South Dingley Village 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.

Deployment Monitoring Period

21/10/14 12:00 am – 20/01/2015 12:00 am

Environmental Monitoring Unit (EMU) Details

Location	St Mark's Primary School, Dingley Village VIC 3172
Latitude	37° 59' 10.96"S
Longitude	145° 7' 43.87"E
NMT Altitude	82 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

Moorabbin Airport Noise and Flight Path Monitoring System Improvement Program (NFPMS)

Aircraft movements from Moorabbin Airport have been visible in the Melbourne component of Airservices Noise and Flight Path Monitoring System (NFPMS) for many years. For example flight tracks in and out of Moorabbin Airport can be seen in WebTrak. The NFPMS was originally setup to monitor operations at major airports and relied upon obtaining the details of the operations from a lodged flight plan.

Moorabbin Airport is a General Aviation airport with a high proportion of operations relating to training schools. As a result, the majority of movements at Moorabbin Airport do not have a detailed flight plan and therefore there is limited data captured by the NFPMS.

Recently Airservices has developed new capability within the NFPMS to determine movement details in the absence of lodged flight plans at Moorabbin. This improved capability has been trialled since October 2014 and the short term monitoring included in this document has benefitted from the improved NFPMS at Moorabbin.

South Dingley Village Findings

- The noise monitor was located in Dingley Village 3 km to the east of Moorabbin airport.
- 20,678 movements flew through the capture zone during the reporting period. 20,052 of these were Moorabbin operations.
- 46% of total operations that flew through the capture zone (as shown in figure 2) were local touch and go operations, including circuits, from Runway 17L.
- There were a total of 9,682 correlated noise events above 60 dB(A). These were most common during the weekday and weekend hours of 10:00 am, 11:am and 3:00 pm.
- 35 correlated noise events over 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 one to 222, with an average of 111 events daily.
- 132 noise events over 75 dB(A) were recorded during the reporting period. This occurred four times during the hours of night (11:00 pm to 6:00 am).
- The vast majority of operations at Moorabbin Airport are general aviation (GA) aircraft. The most common, during the period reviewed, being the Piper Cherokee Warrior (PA-28-161). There are also a few arrivals and departures of regular passenger transport.

A breakdown for common general aviation aircraft types is given in Table 2 and 3.

- The loudest correlated aircraft noise event with a max level of 80.7 dB(A) was a propeller departing from Runway 17L.

Correlated events as high as 107.1 dB(A) were recorded during the reporting period however upon review of a sample of recorded noise events, it was identified that community noise contributed to an extent not anticipated at this site. Community activities including construction, mowing and traffic can cause such events to be recorded on the monitor.

At this site, community noise cannot readily be separated from aircraft noise events. A proportion of correlated noise events captured at this monitor would not accurately reflect the true aircraft noise.

- The average LAmax for this monitor was 63.5 dB(A).
- The correlation summary for all movements was 55%. This is considered an improvement on similar studies conducted at secondary airports.

For more information please refer to Figure 1, Figure 2 and Tables 1-2 on page 5.

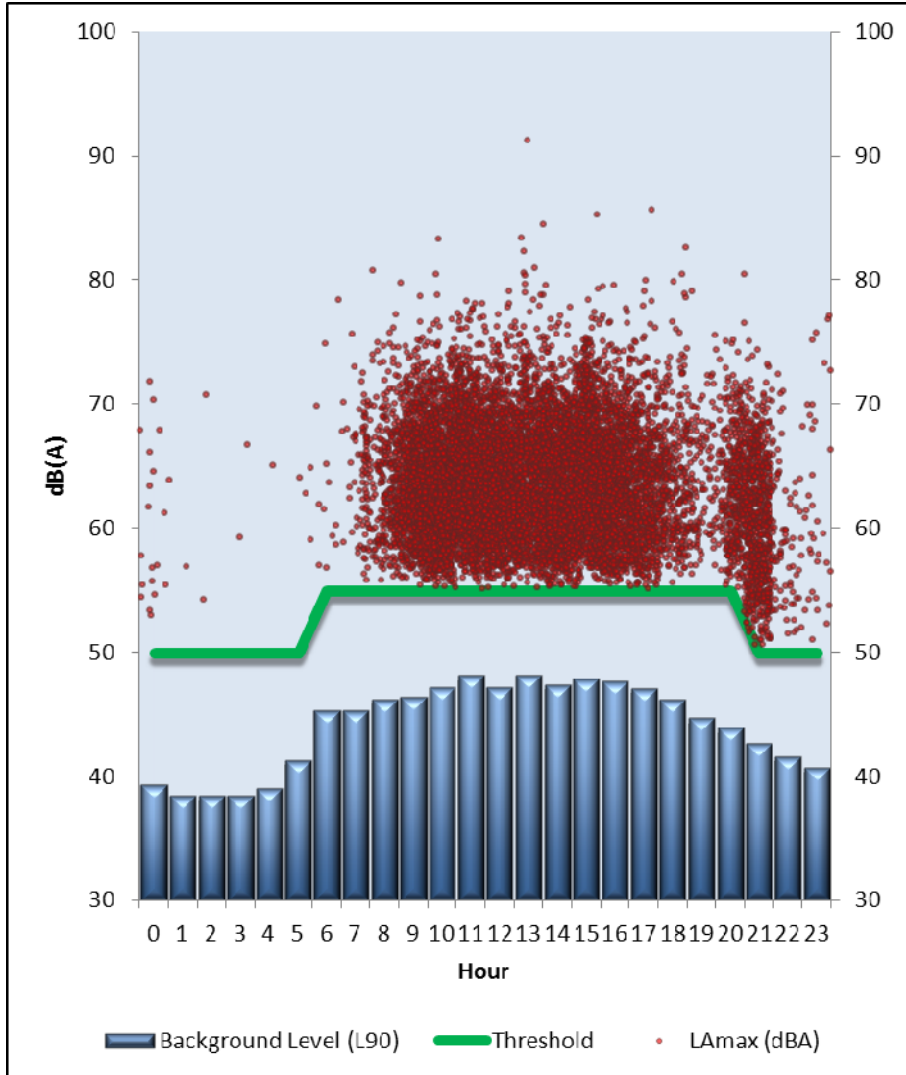


FIGURE 1: DINGLEY VILLAGE NOISE SUMMARY
21/10/2014 12:00AM – 20/01/2015 12:00AM

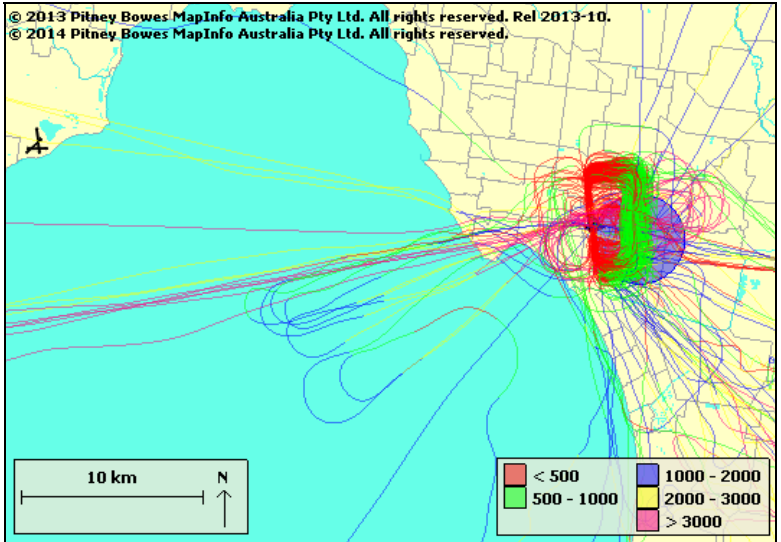


FIGURE 2: OPERATIONS THAT TRAVERSED DINGLEY VILLAGE ON 10/12/2014

TABLE 1: TOP 4 AIRCRAFT TYPE RECORDED AT MOORABBIN AIRPORT, 3-9 NOVEMBER 2014

Aircraft Type	Airport	Arrivals	Departure	Touch & Go	All Movements
PA-28-161	Moorabbin	14%	14%	31%	22%
172S	Moorabbin	10%	9%	15%	12%
152	Moorabbin	3%	3%	13%	8%
Light Sports Aircraft	Moorabbin	6%	6%	9%	7%
Total Movements (3/11/14-9/11/14)	Moorabbin	724	715	1321	2760

TABLE 2: TOP 4 HELICOPTER TYPE RECORDED AT MOORABBIN AIRPORT, 3-9 NOVEMBER 2014

Aircraft Type	Airport	All Helicopter Movements
269C-1	Moorabbin	21%
R44 II	Moorabbin	16%
206B	Moorabbin	12%
AS.350BA	Moorabbin	10%
Total Helicopter Movements (3/11/14-9/11/14)	Moorabbin	228