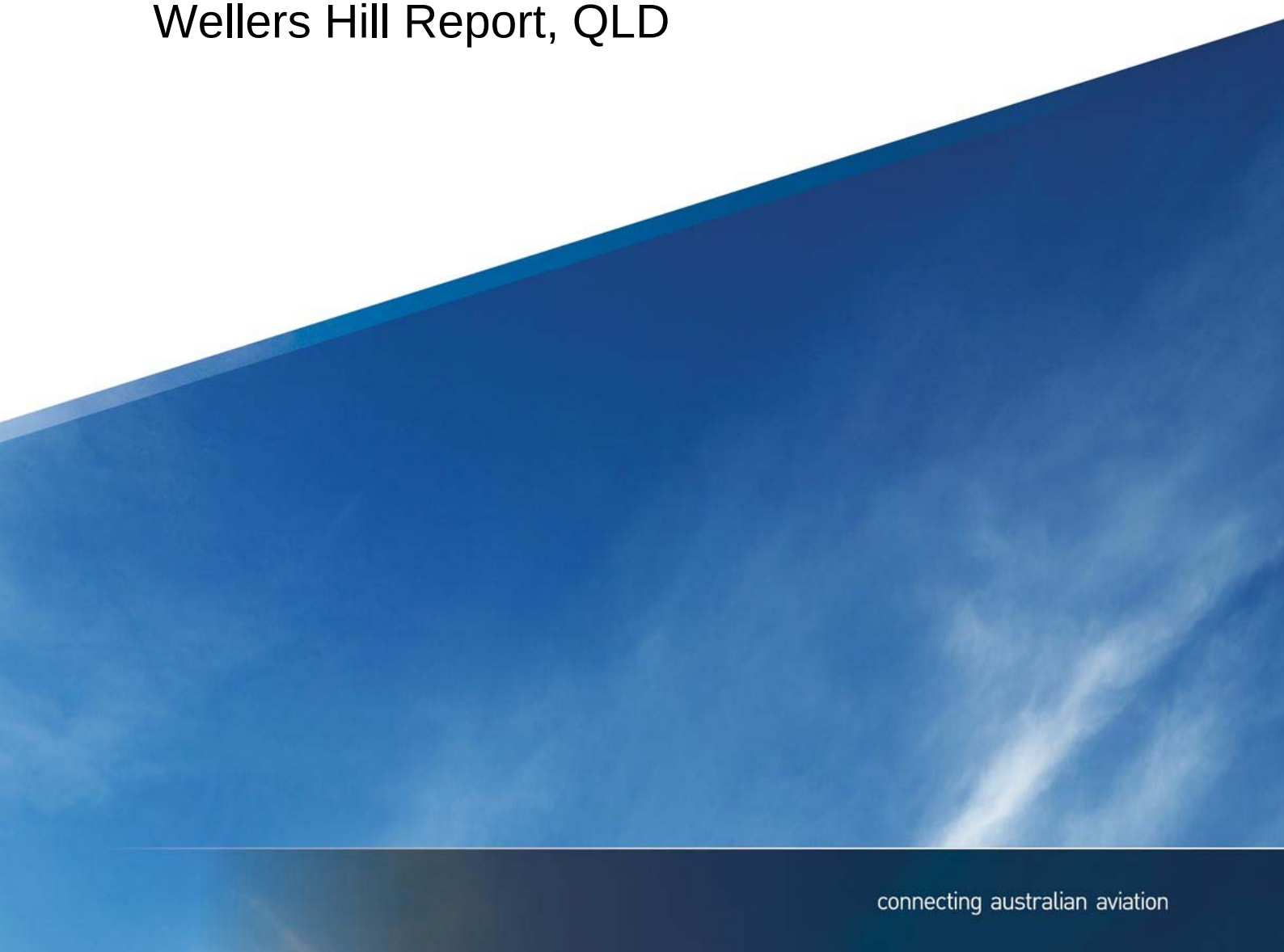
Short Term Monitoring Program

Wellers Hill Report, QLD



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Version Control

Version 1: 25 Feb 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
LAmax	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 a 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/

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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Deployment Purpose

Short term noise monitoring was conducted at Wellers Hill 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 Wellers Hill during October and November 2013.

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

Deployment Monitoring Period

21/10/2013 12:00 am – 18/11/2013 12:00 am

Noise Monitoring Terminal (NMT) Details

Location	Wellers Hill School, Wellers Hill, QLD 4121
Latitude	27° 31' 33.97" S
Longitude	153° 2' 49.73"E
NMT Altitude	262 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	48.0 dB(A) to 60.0 dB(A) depending on time of day

Wellers Hill Findings

- For more information please refer to Figure 1, Figure 2 and Table 1 on page 4.
- The noise monitor was located in Wellers Hill 15 km to the south west of Brisbane airport.
- 4,438 movements flew through the capture zone during the reporting period. 4,294 of these were Brisbane operations.
- 78% of total operations that flew through the capture zone (as shown in figure 2) were Runway 01 Jet Arrivals.
- 3,838 correlated noise events exceeded 65 dB(A), 140 of these occurred during the hours of night.
- The number of correlated noise events exceeding 65 dB(A) in any one day ranged from 7 to 249.
- Residents of Wellers Hill experienced noise events that exceed 75 dB(A) during the hours of day and night. This occurred 112 times during the reporting period.
- The loudest correlated aircraft noise event with a max level of 90.7 dB(A) was a Sikorsky H-60 operating from RAAF Base Amberley.
- The correlation summary for all movements was 94%. This is considered a good result based on reviews of fixed noise monitoring terminals nationally.

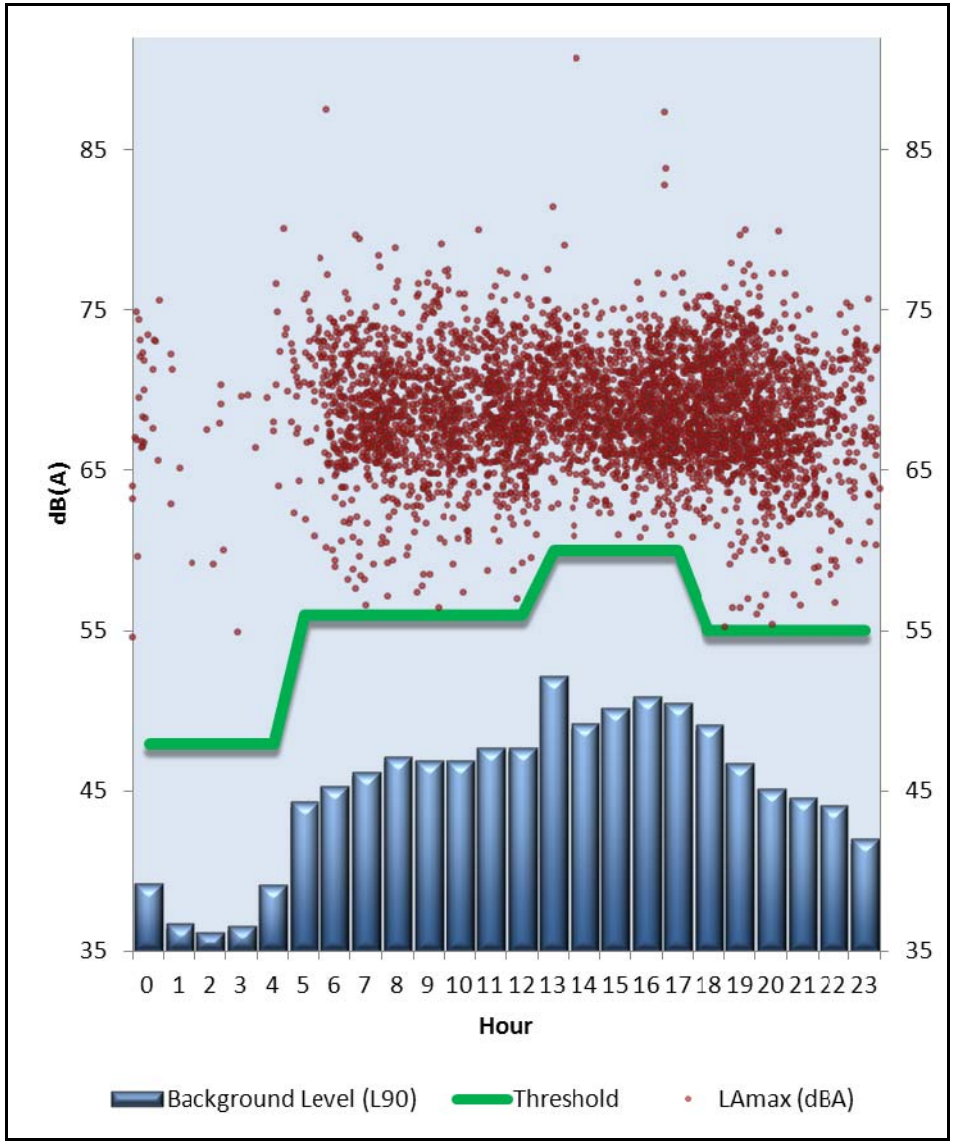

FIGURE 1: WELLERS HILL NOISE SUMMARY
21/10/2013 12:00AM – 18/11/2013 12:00AM

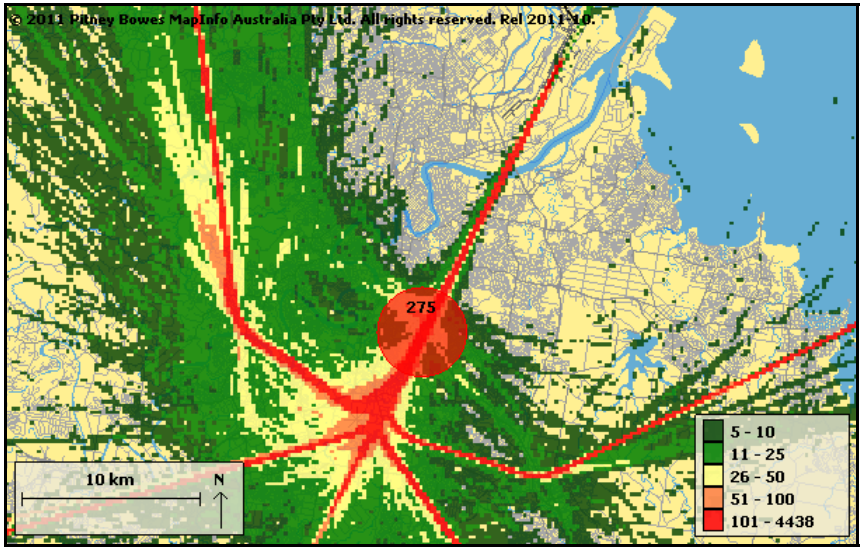

FIGURE 2: OPERATIONS THAT TRAVERSED WELLERS HILL

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

Aircraft Type	Airport	Operation Type	RWY	No. Correlated Noise Events	LAmax dB(A)		Highest No. CNE in One Day
					Average	Maximum	
Boeing 737-800 (J)	BNE	A	01	1679	68.9	87.5	98
Airbus A320 (J)	BNE	A	01	508	70.9	83.8	33
Boeing 767-300 (J)	BNE	A	01	281	70.3	75.8	19
Bombardier Dash 8-400 (T)	BNE	A	01	226	65.9	74.3	24
Airbus A330-300 (J)	BNE	A	01	147	71.7	80.0	10
Embraer 190 (J)	BNE	A	01	147	67.8	77.1	12
Bombardier Dash 8-300 (T)	BNE	A	01	134	65.5	72.9	16
Boeing 717 (J)	BNE	A	01	127	68.4	74.2	10
Boeing 737 (J)	BNE	A	01	72	68.0	77.8	6
Airbus A330-200 (J)	BNE	A	01	68	72.3	79.0	6
Fokker 100 (J)	BNE	A	01	68	66.5	77.5	7

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