

**Acoustic survey report –
London Biggin Hill Airport/
Darrick Wood environs**

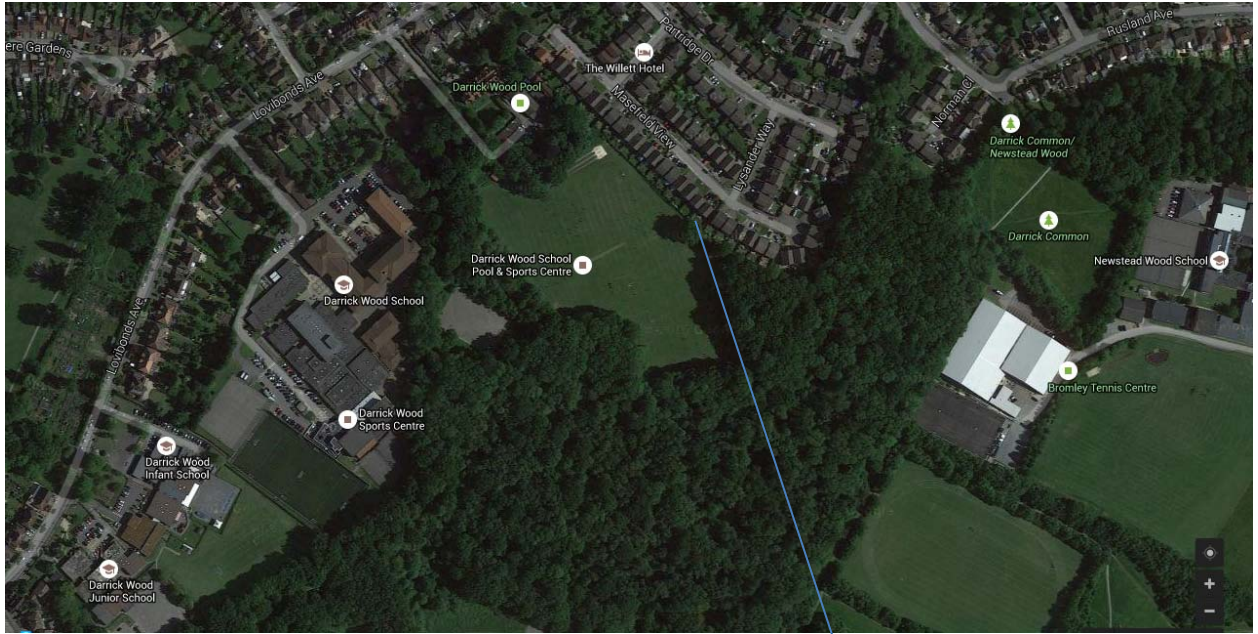
**Dr Hedley Pugh
Chartered Environmental Health Officer
London Borough of Bromley Scientific Services Department
8th September 2015**

1.0 Introduction

- 1.1 Historically the London Borough of Bromley has been in receipt of complaints over noise from aircraft using London Biggin Hill Airport (LBHA) albeit the overall numbers have declined in recent years.
- 1.2 Following the recent submission by LBHA to extend the hours of operation, the number of complaints has increased. Many of the complaints relate to aircraft which are perceived to be both noisy and fly over the Darrick Wood environs with particular reference to Farnborough Park.
- 1.3 The Scientific Services Department has been instructed to undertake basic acoustic measurements within the Darrick Wood environs to determine the general noise climate.

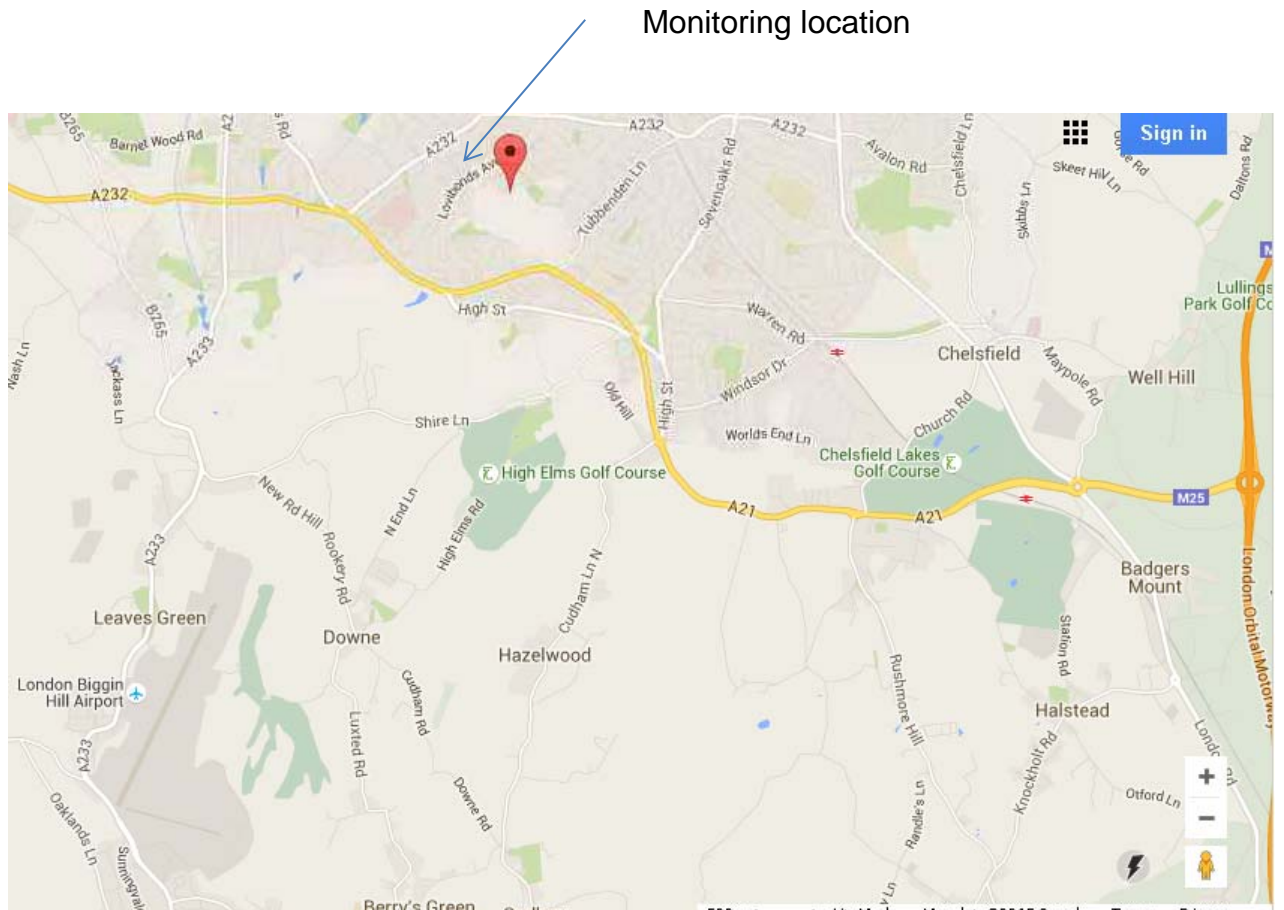
2.0 Noise measurement

- 2.1 A noise monitor was deployed adjacent to Stables End Road and the curtilage of Darrick Wood School - Grid reference TQ443651 see Figure 1. Figure 2 shows the monitoring location relative to LBHA. Unattended monitoring was undertaken between the 23rd July and 2nd August 2015. Further attended monitoring was implemented on the morning of 18th August 2015.
- 2.2 All instrumentation, conforming to IEC 61672 type one, was positioned in an open area at the monitoring location. The measurement microphone was fixed vertically to a tripod and positioned in a clearing away from all reflecting objects. Measurements were obtained using the 'F' time weighting and 'A' weighting frequency network with the measurements transferred to the proprietary software package NOREVIEW for analysis.
- 2.3 To supplement the unattended monitoring, and help establish the subjective noise impact of aircraft associated with LBHA, a log sheet was provided to a complainant in the vicinity of the monitoring location for completion. LBHA also provided detail of all relevant movements over the Darrick Wood environs for the measurement duration.



Monitoring location

Figure 1 – Monitor Location Grid Reference TQ443651



Monitoring location

Figure 2 – Monitoring location relative to the airport

3.0 Noise measurement results

3.1 Figure 3 below provides an example of the noise history trace during passage- by of an aircraft associated with LBHA. The Figure shows a steady increase to a maximum value followed by decay as the aircraft travels onwards. To assist in the analysis of single aircraft events identified in the noise log sheet two metrics are considered namely maximum noise level (L_{AMAX}) and sound exposure level (SEL).

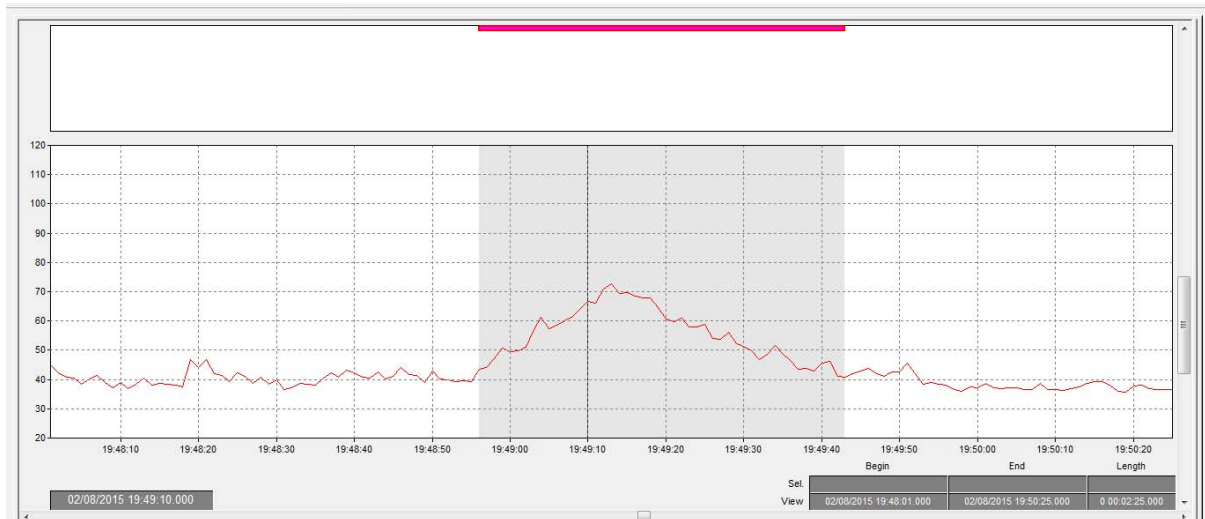


Figure 3 - Maximum noise level L_{AMAX} corresponding to a single aircraft movement associated with LBHA

- 3.2 The L_{AMAX} is the maximum A weighted noise level reached during a noise event. As an aircraft approaches the monitoring location the noise detected will rise above the ambient noise levels. The closer the aircraft becomes so the louder the aircraft noise is until it is directly overhead, corresponding to L_{AMAX} . Then as the aircraft passes over so the noise level diminishes until the aircraft is beyond the envelope of detection and the sound level settles back to the ambient level. It should be noted the 'A' refers to standard 'A' weighting of audible frequencies to reflect the response of the human ear.
- 3.3 The SEL value is the integration of the acoustic energy contained within an event, i.e. an aircraft approaching then passing over, compressed to a one second time period. Both maximum noise level and duration for a given event are imbedded within the SEL calculation.
- 3.4 During the monitoring the noise levels varied continuously throughout the hours of measurement. To be able to present the data it is necessary to describe the total noise level statistically in terms of a measure of the average noise level throughout the hour which is known as the continuous equivalent noise level, L_{Aeq} .
- 3.5 In addition a further statistical percentile L_{A90} is considered which is the noise level exceeded for 90% of the measurement period. This value is commonly used as an indicator for background noise level at a given location.

4.0 Analysis of the noise monitoring survey results

4.1 Table 1 summarises the returned complaint log sheet comments together with the recorded L_{AMAX} and SEL values for the event/time identified by the complainant for the period 23rd July to 2nd August 2015.

Table 1 Unattended L_{AMAX} and SEL values for the period 23rd July to 2nd August 2015 for aircraft movements identified by the complaint log sheets associated with LBHA

Date	Time	Plane as identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
23/7/15	06:57	Piaggio P180 Avanti	NOISY – (TAKE OFF or Pass By Airport)	Departure runway 03	Not available	Not available	Data excluded
	08:34	Cirrus SR22	VERY QUIET	Visual approach runway 21	Not available	Not available	Data excluded
	08:44	Gulfstream 4	EXTREMELY NOISY - (conversation not possible)	ILS approach runway 21	Not available	Not available	Data excluded
	12:16	Gulfstream 3	VERY NOISY	ILS approach runway 21	Not available	Not available	Data excluded
	12:20	Gulfstream 5	NOISY	ILS approach runway 21	Not available	Not available	Data excluded
	12:30	Piper PA28R	VERY QUIET	Visual approach runway 21	58.5	59.8	12:31 taken
	12:35	Global 5000	VERY NOISY	ILS approach runway 21	51.1	62.7	Correlation
	12:37	Cessna 152	VERY QUIET	Circuit training	59.2	67.3	Correlation
	12:39	Piper PA28	VERY QUIET	Circuit training	47.4	57.6	correlation
	13:11	Citation 560XL	VERY NOISY	ILS approach runway 21	67.0	75.2	Correlation
	13:15	Falcon &X	EXTREMELY NOISY	ILS approach runway 21	-	-	Poor correlation Data excluded
	15:37	Piaggio P180 Avanti	EXTREMELY NOISY	ILS approach runway 21	56.5	72.5	15:38 taken

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
24/7/15	08:42	Piaggio P180 Avanti	EXTREMELY NOISY – (on F/P 21 to land)	ILS approach runway 21	70.5	80.8	08:29 taken
	08:59	Piaggio P180 Avanti	EXTREMELY NOISY – (on F/P 21 to land again - may have circled)	ILS approach runway 21	72.5	82.6	08:56 taken
	09:09	Citation 560XL	VERY NOISY	ILS approach runway 21	52.1	65.4	Correlation
	09:23	Piaggio P180 Avanti	NOISY – (plane not visible at TAKE OFF to NNE)	Departure runway 21	60.0	71.4	correlation
	10:26	Piaggio P180 Avanti	VERY NOISY – (Take off or fly over - Observed at Poll Hill, flew toward Shoreham)	Departure runway 21	66.3	70.9	Correlation
	15:07	Piaggio P180 Avanti	EXTREMELY NOISY	ILS approach runway 21	74.6	83.8	15:04 taken

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
25/7/15	09:05	Citation 525	OK	ILS approach runway 21	53.2	55.9	Difficult to identify event from trace
	09:13	Lear Jet 45	OK	ILS approach runway 21	62.1	76.3	Correlation
	09:20	Bombardier CRJ2	VERY NOISY	ILS approach runway 21	71.3	80.0	09:22 taken
	09:25	Citation 560XL	EXTREMELY NOISY	ILS approach runway 21	60.1	71.8	Correlation
	09:34	Citation 500	EXTREMELY NOISY	ILS approach runway 21	57.3	68.6	Correlation
	09:47	Citation 750	OK	ILS approach runway 21	63.8	65.5	Correlation

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
26/7/15	10:11	TBM 850	VERY NOISY	ILS approach runway 21		-	Poor correlation Data excluded
	11:18	No movement identified	VERY NOISY		-	-	Poor correlation Data excluded
	11:45	Lear Jet 45	OK	ILS approach runway 21	59.7	68.8	Correlation
	12:00	TBM 850	OK	ILS approach runway 21	55.8	67.8	correlation
	12:37	Citation 525	OK	ILS approach runway 21	54.6	64.4	Correlation
	12:48	Gulfstream 5	OK	ILS approach runway 21	63.8	72.2	12:46 taken
	14:18	Hawker 800	VERY NOISY	ILS approach runway 21	69.9	79.2	14:15 taken
	15:46	Global 6000	VERY NOISY	ILS approach runway 21	67.2	73.8	Correlation

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
27/7/15	08:26	Piaggio P180 Avanti	EXTREMELY NOISY	ILS approach runway 21	77.7	87.0	08:23 taken
	10:19	Pilatus PC12	OK	ILS approach runway 21	57.0	69.9	Correlation
	10:27	Citation 560XL	VERY NOISY – (dropped to <i>NOISY</i> category, after turn manoeuvre)	ILS approach runway 21	57.9	71.9	Correlation
	13:18	Bae 146	VERY NOISY	ILS approach runway 21	59.0	72.6	13:19 Taken
	13:31	Piper PA28R	OK	ILS approach runway 21	59.1	66.7	Correlation
	15:15	Piaggio P180 Avanti	VERY NOISY- (flying WNW to ESE over Locksbottom or Airport)	Departure from runway 21	63.6	74.9	Correlation
	15:15	Piper PA 30	VERY QUIET	ILS approach runway 21	-	-	Contradiction with times Data excluded
	16:08	Piper PA 28	QUIET	Visual approach	69.0	77.3	Correlation
	16:12	Citation 525	VERY NOISY	ILS approach runway 21	60.1	73.3	Correlation
	16:19	Piaggio P180 Avanti	VERY NOISY	ILS approach runway 21	72.8	83.1	16:16 taken
	17:14	Citation 525	OK	ILS approach runway 21	57.9	71.1	Correlation

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
28/7/15	10:14	Citation 510	QUIET	ILS approach runway 21	55.3	67.5	Correlation
	10:20	Beech 200	OK	ILS approach runway 21	65.9	76.3	Correlation
	10:33	Beech 350	OK	ILS approach runway 21	60.3	70.0	Correlation
	10:38	Citation 560XL	OK	ILS approach runway 21	63.8	73.5	Correlation
	10:50	Piper PA28	VERY QUIET	Visual approach	62.7	73.4	10:51 taken
	11:53	Beech 200	NOISY	ILS approach runway 21	68.4	76.0	Correlation
	11:55	Lear Jet 55	NOISY	ILS approach runway 21	56.8	70.2	Correlation
	12:17	Piaggio P180 Avanti	EXTREMELY NOISY	ILS approach runway 21	-	-	Poor correlation data excluded
	12:27	No movement identified	QUIET – (passing F/P 21 E to W - not landing)		52.0	61.9	Correlation
	13:30	Pilatus PC12	NOISY	ILS approach runway 21	58.4	70.2	Correlation
	15:24	Citation 560XL	VERY NOISY	ILS approach runway 21	66.2	73.4	Correlation
	16:47	Piper PA27	OK	Visual approach	66.5	71.4	16:46 taken

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
29/7/15	19:05	Lear Jet 45	VERY NOISY	ILS approach runway 21	72.7	80.1	Correlation
	19:08	Citation 560XL	VERY NOISY	ILS approach runway 21	67.0	75.9	Correlation
	19:11	Falocn 10	OK	ILS approach runway 21	55.3	57.8	Correlation
	19:13	Piper PA28	VERY QUIET	Circuit training	49.3	57.4	Correlation

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
30/7/15	13:16	Citation 510	VERY QUIET	ILS approach runway 21	47.0	61.6	Correlation
	14:17	Hawker 800	NOISY	ILS approach runway 21	68.4	75.1	14:16 taken
	14:34	Beech 200	OK	ILS approach runway 21	51.2	57.2	Correlation
	14:40	Citation 560XL	OK – (Take Off)	Runway 03 departure	55.2	65.2	Correlation
	14:44	CASA 295	OK	Runway 03 departure	47.5	53.8	14:33 taken
	15:13	Mooney 20T	VERY QUIET	Visual approach	52.5	64.6	Correlation
	15:48	Citation 525	VERY NOISY	ILS approach runway 21	61.2	66.7	Correlation
	16:14	Hawker 800	VERY NOISY	ILS approach runway 21	66.0	74.5	16:10 taken
	16:39	Citation 560XL	OK	ILS approach runway 21	46.1	55.6	Correlation
	17:23	Gulfstream G280	VERY NOISY	ILS approach runway 21	65.8	74.5	17:20 taken
	18:44	Gulfstream 4	VERY NOISY – (Deviation – well East to land)	ILS approach runway 21	56.9	61.3	Correlation

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
31/7/15	07:36	Piper PA31	VERY QUIET	Visual approach	55.5	56.9	Correlation
	08:48approx	Piaggio P180 Avanti	VERY NOISY	ILS approach runway 21	51.5	66.2	Correlation
	09:33	Citation 500	OK	ILS approach runway 21	53.7	64.8	Correlation
	10:38	Citation 560XL	NOISY	ILS approach runway 21	63.1	71.3	Correlation
	10:41	Citation 510	OK	ILS approach runway 21	45.7	59.8	Correlation
	10:53	No movement identified	VERY QUIET		47.8	56.1	Correlation
	10:58	Cirrus SR20	VERY QUIET	ILS approach runway 21	51.8	61.3	Correlation
	11:22	Citation 560XL	VERY NOISY	ILS approach runway 21	59.1	64.7	Correlation
	11:40	Challenger 600	VERY NOISY	ILS approach runway 21	63.5	66.9	Correlation
	11:50	Citation 510	NOISY	ILS approach runway 21	57.7	63.6	Correlation
	11:51	Piper PA28	VERY QUIET	Visual approach	51.7	60.2	Correlation
	13:06	Lear Jet 31	QUIET	ILS approach runway 21	52.0	60.5	Correlation
	15:27	Liberty XL2	VERY QUIET	Visual approach	45.0	55.5	Correlation
	18:23	Piper PA28	VERY QUIET	Circuit training	49.7	59.0	Correlation

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
1/8/15	14:27	No movement identified	NOISY – (would disturb sleep – No Silencer)		48.0	63.7	Correlation
	15:04	Gulfstream 5	OK	ILS approach runway 21	47.1	59.8	Correlation
	15:21	Piper PA34	OK	Visual approach	51.4	58.3	Correlation
	15:40	Lear Jet 45	NOISY	ILS approach runway 21	66.7	71.2	Correlation
	16:20	Piper PA28	QUIET	Visual approach	50.7	64.7	Correlation
	16:23	Piper PA28R	VERY QUIET	Visual approach	56.8	67.8	16:22 taken
	16:25	No movement identified	VERY QUIET – (Take off or fly over)		52.7	62.5	Correlation
	16:33	Piper PA28	VERY QUIET	Visual approach	50.3	62.1	Correlation
	16:34	Piper PA28	VERY QUIET	Visual approach	50.3	62.3	Correlation
	16:48	Piper PA28	VERY QUIET	Visual approach	57.9	64.1	Correlation
	16:52	Grumman AA5	QUIET- (Take off or fly over)	Visual approach	55.5	66.4	16:51 taken
	17:04	Piper PA28	VERY QUIET	Visual approach	53.8	63.8	17:03 taken
	17:27	Citation 510	NOISY	ILS approach runway 21	66.5	70.3	Correlation
	17:35	Citation 510	OK	ILS approach runway 21	60.4	66.9	Correlation

Date	Time	Plane identified by LBHA	Subjective assessment by resident	LBHA comment	LMAX dB	SEL dB	Notes
2/8/15	09:03	Falcon 2000	VERY NOISY	ILS approach runway 21	66.7	76.5	09:00 taken
	09:10Approx	Cessna 152	VERY QUIET	Circuit training	45.7	57.2	09:10 taken
	09:32	Bolknow 209	VERY QUIET	Circuit training	44.9	52.3	Correlation
	10:51	Beech 90	QUIET	ILS approach runway 21	45.2	50.0	Correlation
	11:31Approx	Beech 400	NOISY	ILS approach runway 21	65.7	73.1	Correlation
	11:49	Piper PA28	VERY QUIET	Circuit training	52.6	62.5	Correlation
	11:51	Cessna 152	VERY QUIET	Visual approach	52.9	59.6	Correlation
	12:33	Challenger 600	VERY NOISY	ILS approach runway 21	66.2	75.6	Correlation
	14:13	Gulfstream G150	NOISY	ILS approach runway 21	82.7	84.8	Correlation
	14:17	Hawker 800	NOISY	ILS approach runway 21	70.7	79.8	Correlation
	14:19	Cessna 152	VERY QUIET	Visual approach	-	-	Numerous events noted unable to identify movement
	14:25	Falcon 2000	VERY NOISY	ILS approach runway 21	75.8	80.4	Correlation
	15:35	Pilatus PC12	NOISY	ILS approach runway 21	54.1	64.3	Correlation
	16:11	Hawker 800	NOISY	ILS approach runway 21	58.6	70.0	Correlation
	16:37	Citation 560XL	VERY NOISY	ILS approach runway 21	52.7	60.3	Correlation
	18:06	TB10	OK	ILS approach runway 21	54.9	63.1	Correlation
	18:11	Citation 560XL	VERY NOISY	ILS approach runway 21	56.4	66.2	Correlation
	18:42	Global 5000	EXTREMELY NOISY	ILS approach runway 21	58.1	61.3	Correlation
	18:49	Citation 560XL	VERY NOISY	ILS approach runway 21	57.9	66.7	18:50 taken
	19:10	Citation 525	VERY NOISY	ILS approach runway 21	60.8	66.2	Correlation
	19:48	Beech 90	OK	ILS approach runway 21	46.8	54.5	Correlation

4.2 Whilst the complainant log reports plane movement by type the information provided by LBHA is considered more accurate and reported. A summary of all the unattended monitoring data is given at Appendix 1

4.3 To make allowances for minor reporting errors, i.e. when the time logged by the complainant does not respond precisely to the recorded noise log, events close by on the time line are considered and reported accordingly. However when no suitable event is identified the data is excluded.

4.4 From Table 1 the L_{AMAX} based upon the complainant's log ranged from 45.0 dB (Recorded on 31st July at 15:27 due to a 'Liberty XL2' on visual approach) to 82.7 dB

(recorded on 2nd August at 14:13 due to a 'Gulfstream G150' on ILS approach runway 21). The SEL values range from 52.3 dB (recorded on 2nd August at 09:32 due to a 'Bolknow 209' on circuit training) to 87.0 dB (recorded on 27th July at 08:48 due to a Piaggio P180 Avanti on ILS approach to runway 21).

- 4.5 Specifically concern has been raised in respect of the operation of the Piaggio Avanti type airplanes from LBHA. Table 2 summarises the measurements for the Piaggio Avanti movements identified during the monitoring period.

Table 2 Unattended L_{AMAX} and SEL for Piaggio Avanti type airplanes

Date	Time	Plane as identified by LBHA	LBHA comment	LMAX dB	SEL dB
23/7/15	15:37	Piaggio P180 Avanti	ILS approach runway 21	56.5	72.5
24/7/15	08:42	Piaggio P180 Avanti	ILS approach runway 21	70.5	80.8
	08:59	Piaggio P180 Avanti	ILS approach runway 21	72.5	82.6
	09:23	Piaggio P180 Avanti	Departure runway 21	60.0	71.4
	10:26	Piaggio P180 Avanti	Departure runway 21	66.3	70.9
	15:07	Piaggio P180 Avanti	ILS approach runway 21	74.6	83.8
27/7/15	08:26	Piaggio P180 Avanti	ILS approach runway 21	77.7	87.0
	15:15	Piaggio P180 Avanti	Departure from runway 21	63.6	74.9
	16:19	Piaggio P180 Avanti	ILS approach runway 21	72.8	83.1
31/7/15	08:48approx	Piaggio P180 Avanti	ILS approach runway 21	51.5	66.2

- 4.6 During initial observations numerous airplanes from 'other' London airports were noted to frequently pass over the monitoring location. It was not possible to introduce a trigger by level to filter these additional movements without potentially losing data from the movements associated with LBHA. Consequently all environmental noise was monitored. Figure 4 serves to highlight the difficulty with the approach in that whilst the trace shows significant changes in level for the period 04:30 to 05:30 for the 24th July the variation in this case is probably attributable to the dawn chorus.

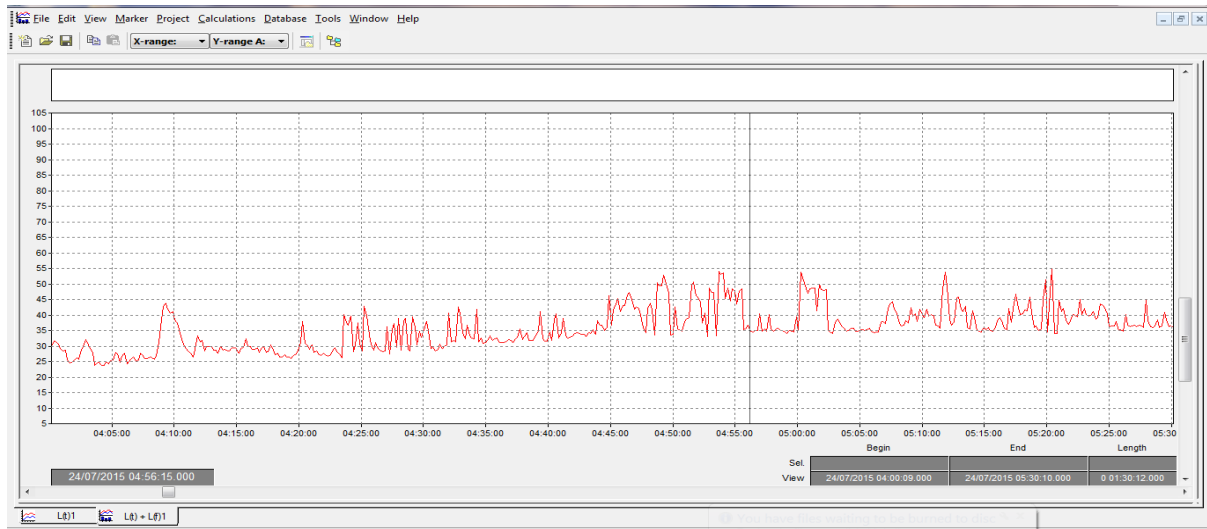


Figure 4 - Noise levels for 04:30 to 05:30 for the 24th July showing the potential impact of the dawn chorus on early morning measurements.

4.7 To attempt to overcome the issues highlighted above additional attended monitoring was undertaken on the 18th August 2015. The results are given in Appendix 2 and summarised in Figure 5. However no movements attributable to LBHA were identified during the attended monitoring. Figure 5 serves to highlight the significant variation in noise levels due to numerous airplane movements from other airports which regularly pass the monitoring location with a corresponding L_{AMAX} up to 82.1dB recorded for the monitoring period.

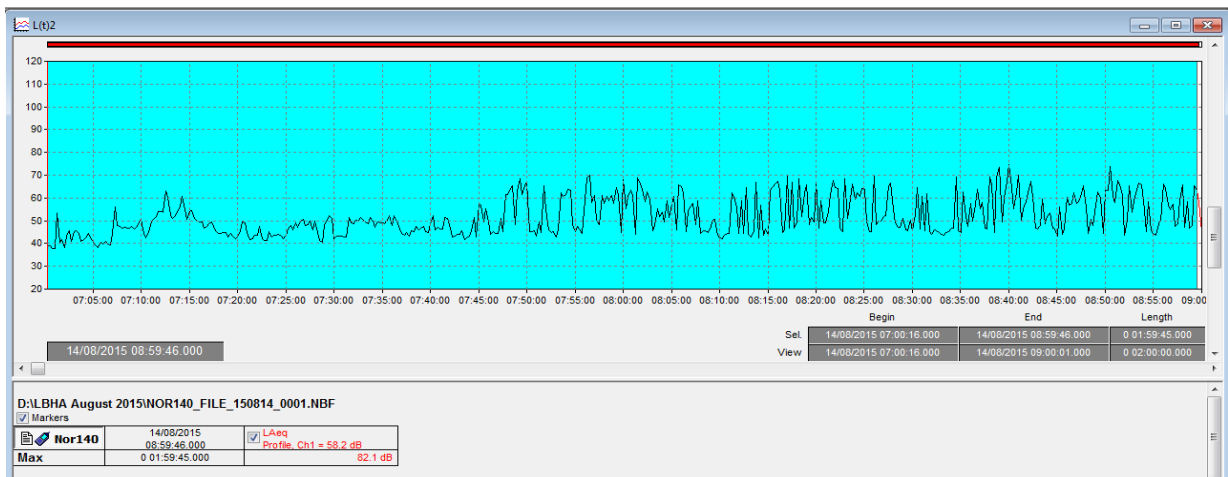


Figure 5 Attended sound levels for the 18th August 2015 for aircraft movements associated predominately from London Airports other than LBHA.

4.8 To provide context to the noise events identified in Table 1 for LBHA movements against the prevailing noise climate data for the 2nd August 2015 is considered in detail. Figure 6 displays the noise climate, i.e. L_{Aeq} , at the monitoring location by hour of the day for the 2nd July together with L_{90} values. Figure 6 also displays the level attributable to aircraft noise to LBHA by hour. This is calculated by combining the aircraft noise events during the monitoring period and deducting this from the total

noise to give the residual noise you would expect if the noise events from LBHA are removed. Figure 6 highlights for the 2nd August 2015 the impact from LBHA airplane movements on the $L_{Aeq, 1hr}$ are negligible at the monitoring location.

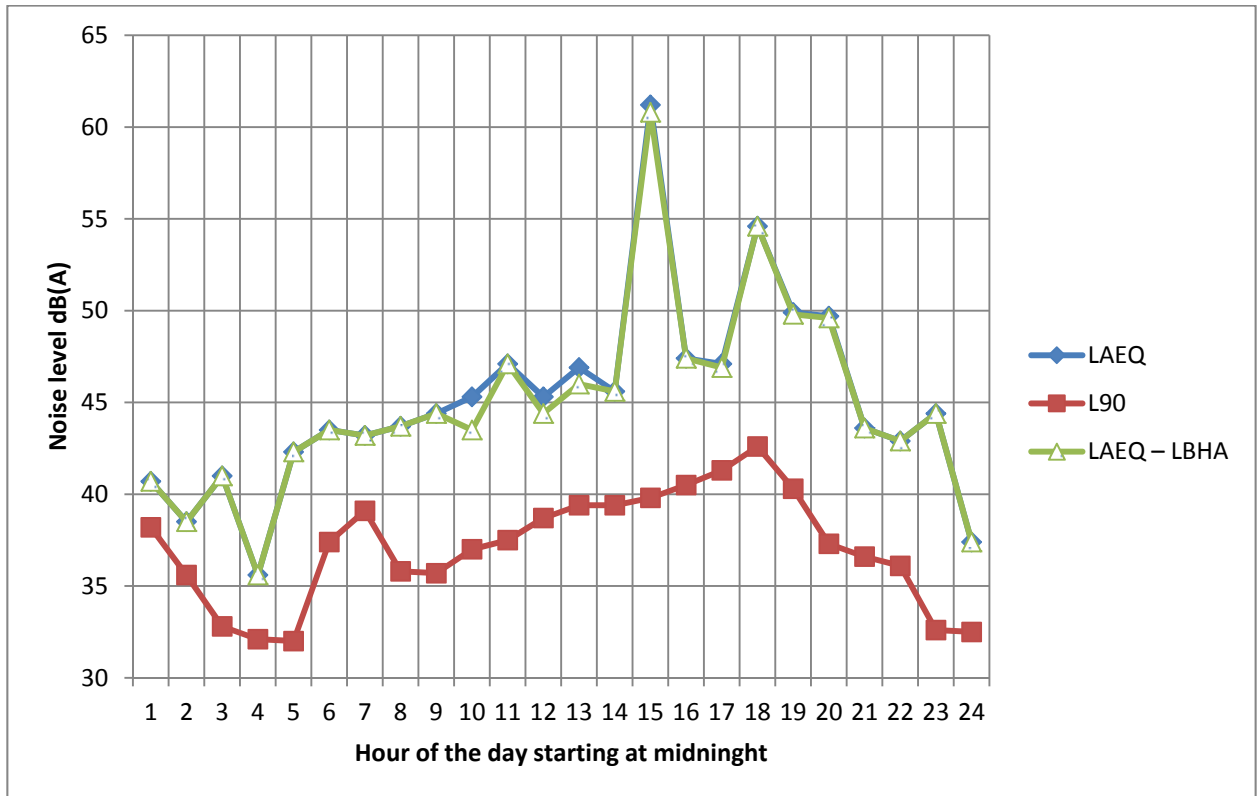


Figure 6 - Noise climate for the 2nd August 2015 showing average values for each hour of the day i.e. midnight to midnight

5.0 Summary and conclusion

- 5.1 This report details the results from the unattended/attended acoustic surveys undertaken within the Darrick Wood environs. Given the limited duration of the survey and methodology i.e. the majority of the monitoring was unattended, only a single monitoring location was used and no psychoacoustical factors were considered any conclusions drawn should be treated with caution.
- 5.2 The results show general correlation between the measured levels, in terms of both L_{AMAX} and SEL, and the subjective complainant comments. However a number of anomalies are reported within Table 1 in which the adverse comments do not correspond directly with measured levels. These anomalies may result from web based flight information services which may not always reflect the reality at the receptor location. They may also reflect the fact that subjective impressions of noise generated by individual aircraft events may vary, randomly, over time.
- 5.3 For all daytime movements reported the corresponding measured SEL values, i.e. Table 1, fall below 90dB - This includes all Piaggio Avanti type airplane movements i.e. Table 2. Whilst there is no daytime SEL threshold for comparison 90dB SEL night time (as measured outdoors) is often regarded as the sound level required to awake an average person from sleep.
- 5.4 The third schedule of the 1991 lease between the Council and the airport stipulates precise noise limits for aircraft allowed to use the airport. In essence this equates to ICAO Annex 16 Chapter 3 noise limits. No evidence has been presented to Council to substantiate airplanes other than those compliant with the lease requirements are in operation at the airport.
- 5.5 Concern has been raised regards noise from the Piaggio Avanti type airplane using the airport. The Piaggio Avanti is certified to ICAO Annex 16 Chapter 6 which is considerable more stringent than Chapter 3 and remains compliant with the terms of the lease.
- 5.6 The third schedule of the lease contains further provisions in terms of not permitting 'excessively noisy' movements (paragraph f) which is intended to limit the noise effects in the local community. In respect of the Piaggio Avanti type airplane Table 2 highlights single movement L_{AMAX} ranges from 51.5 to 77.7 dB. When the upper value is compared to either the maximum L_{AMAX} given in Table 1 (i.e. 82.7 dB recorded on 2nd August at 14:13 due to a 'Gulfstream G150' on ILS approach runway 21) or more significantly the L_{AMAX} recorded during the attended monitoring period (i.e. up to a maximum 82.1dB) due to general air traffic excluding movements at LBHA, the Piaggio Avanti would be deemed acceptable.
- 5.7 When considering the general noise climate within the Darrick Wood environs, Figure 6, airplanes operating from LBHA have little overall impact. A similar conclusion is reached when the $L_{AMAX} = 82.1$ dB for the attended monitoring period (i.e. no LBHA movements) is compared to the greatest $L_{AMAX} = 82.7$ dB from Table 1. Of particular note is the low average number of L_{AMAX} events from LBHA per hour compared to the high frequency (which at times can be every minute highlighted by the numerous peaks shown in Figure 5) of events noted from 'other' airports which have significant potential to have adverse effects.

- | 5.8 Whilst it is acknowledged the noise characteristic of the Piaggio Avanti type airplane may be considered distinctive the third schedule of the lease is silent in respect of character.
- 5.9 On the basis of the findings of this report, subject to the limitations set out in paragraph 5.1, presently no justification is presented to the London Borough of Bromley Scientific Service Team to make recommendation for consideration to be given to prescribe or ban the use of any of the airplanes identified in Table 1 on the basis that they are 'excessively noisy'.
- 5.10 Finally it should be noted the proposed Noise Monitoring and Track Keeping System (MTKS) would address many of the limitations of this report. Whilst beyond the current scope consideration should be given to undertaking monitoring at a number of locations before final selection for the MTKS.

Appendix 1 Summary of unattended noise monitoring by hour.

Calculation interval (absolute time)	23/07/2015 1	Effective duration	LAeq	L 10.0%	L 90.0%	Max: LAF(max)
23/07/2015 13:00:00.000 - 23/07/2015 13:59:59.999		0 01:00:00.000	49.6 dB	48.2 dB	39.1 dB	75.7 dB
23/07/2015 14:00:00.000 - 23/07/2015 14:59:59.999		0 01:00:00.000	58.9 dB	62.2 dB	40.3 dB	90.6 dB
23/07/2015 15:00:00.000 - 23/07/2015 15:59:59.999		0 01:00:00.000	55.4 dB	55.1 dB	41.2 dB	87.4 dB
23/07/2015 16:00:00.000 - 23/07/2015 16:59:59.999		0 01:00:00.000	45.7 dB	47.9 dB	39.9 dB	69.7 dB
23/07/2015 17:00:00.000 - 23/07/2015 17:59:59.999		0 01:00:00.000	62.2 dB	66.7 dB	39.8 dB	87.5 dB
23/07/2015 18:00:00.000 - 23/07/2015 18:59:59.999		0 01:00:00.000	50.2 dB	48.2 dB	38.7 dB	76.0 dB
23/07/2015 19:00:00.000 - 23/07/2015 19:59:59.999		0 01:00:00.000	61.3 dB	66.1 dB	40.2 dB	86.5 dB
23/07/2015 20:00:00.000 - 23/07/2015 20:59:59.999		0 01:00:00.000	46.7 dB	46.5 dB	39.0 dB	73.7 dB
23/07/2015 21:00:00.000 - 23/07/2015 21:59:59.999		0 01:00:00.000	45.8 dB	46.7 dB	38.9 dB	74.4 dB
23/07/2015 22:00:00.000 - 23/07/2015 22:59:59.999		0 01:00:00.000	44.0 dB	46.4 dB	37.5 dB	62.0 dB
23/07/2015 23:00:00.000 - 23/07/2015 23:59:59.999		0 01:00:00.000	40.2 dB	41.3 dB	33.9 dB	66.1 dB
24/07/2015 00:00:00.000 - 24/07/2015 00:59:59.999		0 01:00:00.000	34.0 dB	35.7 dB	30.6 dB	61.0 dB
24/07/2015 01:00:00.000 - 24/07/2015 01:59:59.999		0 01:00:00.000	33.4 dB	32.4 dB	28.0 dB	56.7 dB
24/07/2015 02:00:00.000 - 24/07/2015 02:59:59.999		0 01:00:00.000	29.3 dB	31.4 dB	25.7 dB	48.3 dB
24/07/2015 03:00:00.000 - 24/07/2015 03:59:59.999		0 01:00:00.000	30.2 dB	32.9 dB	23.8 dB	54.6 dB
24/07/2015 04:00:00.000 - 24/07/2015 04:59:59.999		0 01:00:00.000	40.1 dB	41.1 dB	26.2 dB	65.9 dB
24/07/2015 05:00:00.000 - 24/07/2015 05:59:59.999		0 01:00:00.000	43.4 dB	46.0 dB	34.6 dB	68.6 dB
24/07/2015 06:00:00.000 - 24/07/2015 06:59:59.999		0 01:00:00.000	47.1 dB	51.2 dB	35.8 dB	65.0 dB
24/07/2015 07:00:00.000 - 24/07/2015 07:59:59.999		0 01:00:00.000	45.7 dB	49.9 dB	37.0 dB	65.4 dB
24/07/2015 08:00:00.000 - 24/07/2015 08:59:59.999		0 01:00:00.000	51.4 dB	52.4 dB	35.6 dB	77.4 dB
24/07/2015 09:00:00.000 - 24/07/2015 09:59:59.999		0 01:00:00.000	48.4 dB	51.9 dB	38.6 dB	72.2 dB
24/07/2015 10:00:00.000 - 24/07/2015 10:59:59.999		0 01:00:00.000	52.2 dB	55.3 dB	43.5 dB	79.7 dB
24/07/2015 11:00:00.000 - 24/07/2015 11:59:59.999		0 01:00:00.000	55.0 dB	57.0 dB	46.6 dB	78.7 dB
24/07/2015 12:00:00.000 - 24/07/2015 12:59:59.999		0 01:00:00.000	55.7 dB	57.9 dB	51.1 dB	70.0 dB
24/07/2015 13:00:00.000 - 24/07/2015 13:59:59.999		0 01:00:00.000	57.8 dB	60.2 dB	53.6 dB	70.6 dB
24/07/2015 14:00:00.000 - 24/07/2015 14:59:59.999		0 01:00:00.000	55.0 dB	57.5 dB	48.4 dB	69.5 dB
24/07/2015 15:00:00.000 - 24/07/2015 15:59:59.999		0 01:00:00.000	56.8 dB	60.0 dB	47.0 dB	78.3 dB
24/07/2015 16:00:00.000 - 24/07/2015 16:59:59.999		0 01:00:00.000	64.0 dB	66.2 dB	46.4 dB	82.1 dB
24/07/2015 17:00:00.000 - 24/07/2015 17:59:59.999		0 01:00:00.000	60.2 dB	63.5 dB	49.2 dB	71.7 dB
24/07/2015 18:00:00.000 - 24/07/2015 18:59:59.999		0 01:00:00.000	51.8 dB	54.1 dB	43.1 dB	75.2 dB
24/07/2015 19:00:00.000 - 24/07/2015 19:59:59.999		0 01:00:00.000	61.3 dB	65.3 dB	43.2 dB	80.9 dB
24/07/2015 20:00:00.000 - 24/07/2015 20:59:59.999		0 01:00:00.000	50.6 dB	54.3 dB	42.3 dB	68.9 dB
24/07/2015 21:00:00.000 - 24/07/2015 21:59:59.999		0 01:00:00.000	48.8 dB	52.7 dB	41.4 dB	66.2 dB
24/07/2015 22:00:00.000 - 24/07/2015 22:59:59.999		0 01:00:00.000	46.2 dB	49.9 dB	39.9 dB	62.1 dB
24/07/2015 23:00:00.000 - 24/07/2015 23:59:59.999		0 01:00:00.000	52.5 dB	58.6 dB	38.8 dB	69.6 dB
25/07/2015 00:00:00.000 - 25/07/2015 00:59:59.999		0 01:00:00.000	53.6 dB	56.4 dB	49.4 dB	70.1 dB
25/07/2015 01:00:00.000 - 25/07/2015 01:59:59.999		0 01:00:00.000	51.2 dB	54.2 dB	45.6 dB	73.0 dB
25/07/2015 02:00:00.000 - 25/07/2015 02:59:59.999		0 01:00:00.000	56.6 dB	59.5 dB	50.3 dB	71.5 dB
25/07/2015 03:00:00.000 - 25/07/2015 03:59:59.999		0 01:00:00.000	53.5 dB	56.9 dB	46.3 dB	70.7 dB
25/07/2015 04:00:00.000 - 25/07/2015 04:59:59.999		0 01:00:00.000	51.4 dB	54.6 dB	43.3 dB	75.1 dB
25/07/2015 05:00:00.000 - 25/07/2015 05:59:59.999		0 01:00:00.000	49.4 dB	52.7 dB	38.2 dB	72.6 dB
25/07/2015 06:00:00.000 - 25/07/2015 06:59:59.999		0 01:00:00.000	48.7 dB	51.5 dB	43.1 dB	70.0 dB
25/07/2015 07:00:00.000 - 25/07/2015 07:59:59.999		0 01:00:00.000	50.6 dB	53.1 dB	45.9 dB	74.0 dB
25/07/2015 08:00:00.000 - 25/07/2015 08:59:59.999		0 01:00:00.000	51.6 dB	54.3 dB	46.8 dB	67.7 dB
25/07/2015 09:00:00.000 - 25/07/2015 09:59:59.999		0 01:00:00.000	56.1 dB	59.2 dB	49.0 dB	73.8 dB
25/07/2015 10:00:00.000 - 25/07/2015 10:59:59.999		0 01:00:00.000	53.2 dB	55.8 dB	47.1 dB	74.0 dB
25/07/2015 11:00:00.000 - 25/07/2015 11:59:59.999		0 01:00:00.000	54.8 dB	58.0 dB	47.1 dB	79.1 dB
25/07/2015 12:00:00.000 - 25/07/2015 12:59:59.999		0 01:00:00.000	53.3 dB	55.8 dB	45.4 dB	76.6 dB
25/07/2015 13:00:00.000 - 25/07/2015 13:59:59.999		0 01:00:00.000	54.1 dB	56.0 dB	43.2 dB	77.8 dB

25/07/2015 14:00:00.000 - 25/07/2015 14:59:59.999	0 01:00:00.000	47.6 dB	49.4 dB	42.2 dB	72.2 dB
25/07/2015 15:00:00.000 - 25/07/2015 15:59:59.999	0 01:00:00.000	50.6 dB	52.3 dB	42.9 dB	77.0 dB
25/07/2015 16:00:00.000 - 25/07/2015 16:59:59.999	0 01:00:00.000	48.7 dB	49.6 dB	41.6 dB	80.8 dB
25/07/2015 17:00:00.000 - 25/07/2015 17:59:59.999	0 01:00:00.000	56.0 dB	56.4 dB	38.1 dB	84.4 dB
25/07/2015 18:00:00.000 - 25/07/2015 18:59:59.999	0 01:00:00.000	62.8 dB	67.9 dB	37.1 dB	86.6 dB
25/07/2015 19:00:00.000 - 25/07/2015 19:59:59.999	0 01:00:00.000	61.1 dB	66.7 dB	38.1 dB	86.0 dB
25/07/2015 20:00:00.000 - 25/07/2015 20:59:59.999	0 01:00:00.000	44.2 dB	45.1 dB	39.0 dB	68.6 dB
25/07/2015 21:00:00.000 - 25/07/2015 21:59:59.999	0 01:00:00.000	44.3 dB	46.1 dB	39.4 dB	68.5 dB
25/07/2015 22:00:00.000 - 25/07/2015 22:59:59.999	0 01:00:00.000	42.5 dB	43.7 dB	39.5 dB	59.8 dB
25/07/2015 23:00:00.000 - 25/07/2015 23:59:59.999	0 01:00:00.000	41.7 dB	43.5 dB	38.9 dB	58.2 dB
26/07/2015 00:00:00.000 - 26/07/2015 00:59:59.999	0 01:00:00.000	40.2 dB	41.5 dB	37.2 dB	63.9 dB
26/07/2015 01:00:00.000 - 26/07/2015 01:59:59.999	0 01:00:00.000	39.0 dB	40.0 dB	36.0 dB	66.5 dB
26/07/2015 02:00:00.000 - 26/07/2015 02:59:59.999	0 01:00:00.000	35.5 dB	37.2 dB	32.9 dB	55.9 dB
26/07/2015 03:00:00.000 - 26/07/2015 03:59:59.999	0 01:00:00.000	34.5 dB	37.0 dB	30.9 dB	52.7 dB
26/07/2015 04:00:00.000 - 26/07/2015 04:59:59.999	0 01:00:00.000	39.3 dB	40.9 dB	32.8 dB	61.8 dB
26/07/2015 05:00:00.000 - 26/07/2015 05:59:59.999	0 01:00:00.000	40.5 dB	43.8 dB	34.7 dB	63.7 dB
26/07/2015 06:00:00.000 - 26/07/2015 06:59:59.999	0 01:00:00.000	48.1 dB	46.0 dB	37.5 dB	78.0 dB
26/07/2015 07:00:00.000 - 26/07/2015 07:59:59.999	0 01:00:00.000	46.3 dB	48.0 dB	39.8 dB	70.4 dB
26/07/2015 08:00:00.000 - 26/07/2015 08:59:59.999	0 01:00:00.000	50.1 dB	52.2 dB	43.0 dB	77.9 dB
26/07/2015 09:00:00.000 - 26/07/2015 09:59:59.999	0 01:00:00.000	55.8 dB	59.5 dB	44.6 dB	74.3 dB
26/07/2015 10:00:00.000 - 26/07/2015 10:59:59.999	0 01:00:00.000	61.5 dB	64.2 dB	53.3 dB	78.2 dB
26/07/2015 11:00:00.000 - 26/07/2015 11:59:59.999	0 01:00:00.000	57.5 dB	60.2 dB	49.7 dB	82.6 dB
26/07/2015 12:00:00.000 - 26/07/2015 12:59:59.999	0 01:00:00.000	50.5 dB	51.6 dB	45.5 dB	70.8 dB
26/07/2015 13:00:00.000 - 26/07/2015 13:59:59.999	0 01:00:00.000	53.1 dB	55.2 dB	48.5 dB	73.2 dB
26/07/2015 14:00:00.000 - 26/07/2015 14:59:59.999	0 01:00:00.000	56.9 dB	57.2 dB	50.9 dB	93.3 dB
26/07/2015 15:00:00.000 - 26/07/2015 15:59:59.999	0 01:00:00.000	54.9 dB	57.2 dB	50.3 dB	74.7 dB
26/07/2015 16:00:00.000 - 26/07/2015 16:59:59.999	0 01:00:00.000	54.2 dB	56.0 dB	48.6 dB	82.2 dB
26/07/2015 17:00:00.000 - 26/07/2015 17:59:59.999	0 01:00:00.000	51.6 dB	53.1 dB	47.1 dB	73.6 dB
26/07/2015 18:00:00.000 - 26/07/2015 18:59:59.999	0 01:00:00.000	50.9 dB	51.0 dB	46.2 dB	72.3 dB
26/07/2015 19:00:00.000 - 26/07/2015 19:59:59.999	0 01:00:00.000	54.6 dB	52.4 dB	45.0 dB	79.2 dB
26/07/2015 20:00:00.000 - 26/07/2015 20:59:59.999	0 01:00:00.000	49.9 dB	51.8 dB	45.8 dB	74.4 dB
26/07/2015 21:00:00.000 - 26/07/2015 21:59:59.999	0 01:00:00.000	50.1 dB	51.8 dB	44.0 dB	79.1 dB
26/07/2015 22:00:00.000 - 26/07/2015 22:59:59.999	0 01:00:00.000	47.3 dB	49.7 dB	42.6 dB	74.8 dB
26/07/2015 23:00:00.000 - 26/07/2015 23:59:59.999	0 01:00:00.000	46.0 dB	48.5 dB	41.1 dB	65.2 dB
27/07/2015 00:00:00.000 - 27/07/2015 00:59:59.999	0 01:00:00.000	48.1 dB	50.8 dB	41.3 dB	71.8 dB
27/07/2015 01:00:00.000 - 27/07/2015 01:59:59.999	0 01:00:00.000	46.2 dB	49.5 dB	40.7 dB	63.7 dB
27/07/2015 02:00:00.000 - 27/07/2015 02:59:59.999	0 01:00:00.000	47.9 dB	51.5 dB	40.5 dB	68.4 dB
27/07/2015 03:00:00.000 - 27/07/2015 03:59:59.999	0 01:00:00.000	51.6 dB	55.8 dB	40.9 dB	65.7 dB
27/07/2015 04:00:00.000 - 27/07/2015 04:59:59.999	0 01:00:00.000	46.0 dB	48.9 dB	40.3 dB	70.6 dB
27/07/2015 05:00:00.000 - 27/07/2015 05:59:59.999	0 01:00:00.000	49.3 dB	51.4 dB	43.1 dB	79.5 dB
27/07/2015 06:00:00.000 - 27/07/2015 06:59:59.999	0 01:00:00.000	49.9 dB	52.7 dB	45.6 dB	72.4 dB
27/07/2015 07:00:00.000 - 27/07/2015 07:59:59.999	0 01:00:00.000	53.7 dB	55.1 dB	47.7 dB	81.6 dB
27/07/2015 08:00:00.000 - 27/07/2015 08:59:59.999	0 01:00:00.000	56.1 dB	57.3 dB	48.0 dB	79.6 dB
27/07/2015 09:00:00.000 - 27/07/2015 09:59:59.999	0 01:00:00.000	50.5 dB	53.6 dB	45.7 dB	66.9 dB
27/07/2015 10:00:00.000 - 27/07/2015 10:59:59.999	0 01:00:00.000	52.7 dB	54.6 dB	45.6 dB	75.4 dB
27/07/2015 11:00:00.000 - 27/07/2015 11:59:59.999	0 01:00:00.000	50.3 dB	51.9 dB	44.1 dB	72.2 dB
27/07/2015 12:00:00.000 - 27/07/2015 12:59:59.999	0 01:00:00.000	54.0 dB	56.9 dB	46.9 dB	73.2 dB

27/07/2015 13:00:00.000 - 27/07/2015 13:59:59.999	0 01:00:00.000	55.9 dB	59.3 dB	47.6 dB	76.4 dB
27/07/2015 14:00:00.000 - 27/07/2015 14:59:59.999	0 01:00:00.000	55.8 dB	59.3 dB	46.5 dB	79.8 dB
27/07/2015 15:00:00.000 - 27/07/2015 15:59:59.999	0 01:00:00.000	57.1 dB	60.2 dB	48.3 dB	76.0 dB
27/07/2015 16:00:00.000 - 27/07/2015 16:59:59.999	0 01:00:00.000	56.5 dB	59.8 dB	47.6 dB	75.7 dB
27/07/2015 17:00:00.000 - 27/07/2015 17:59:59.999	0 01:00:00.000	52.6 dB	55.7 dB	45.0 dB	70.5 dB
27/07/2015 18:00:00.000 - 27/07/2015 18:59:59.999	0 01:00:00.000	53.6 dB	56.5 dB	47.1 dB	72.2 dB
27/07/2015 19:00:00.000 - 27/07/2015 19:59:59.999	0 01:00:00.000	51.4 dB	53.4 dB	43.9 dB	75.5 dB
27/07/2015 20:00:00.000 - 27/07/2015 20:59:59.999	0 01:00:00.000	47.0 dB	49.5 dB	42.8 dB	66.7 dB
27/07/2015 21:00:00.000 - 27/07/2015 21:59:59.999	0 01:00:00.000	45.8 dB	48.3 dB	40.9 dB	65.6 dB
27/07/2015 22:00:00.000 - 27/07/2015 22:59:59.999	0 01:00:00.000	50.4 dB	53.3 dB	41.5 dB	76.7 dB
27/07/2015 23:00:00.000 - 27/07/2015 23:59:59.999	0 01:00:00.000	48.4 dB	52.2 dB	40.0 dB	67.1 dB
28/07/2015 00:00:00.000 - 28/07/2015 00:59:59.999	0 01:00:00.000	49.5 dB	52.7 dB	42.0 dB	68.4 dB
28/07/2015 01:00:00.000 - 28/07/2015 01:59:59.999	0 01:00:00.000	53.2 dB	56.8 dB	44.6 dB	73.6 dB
28/07/2015 02:00:00.000 - 28/07/2015 02:59:59.999	0 01:00:00.000	47.8 dB	51.0 dB	41.8 dB	64.2 dB
28/07/2015 03:00:00.000 - 28/07/2015 03:59:59.999	0 01:00:00.000	50.2 dB	52.6 dB	41.3 dB	72.8 dB
28/07/2015 04:00:00.000 - 28/07/2015 04:59:59.999	0 01:00:00.000	50.9 dB	54.7 dB	39.4 dB	65.0 dB
28/07/2015 05:00:00.000 - 28/07/2015 05:59:59.999	0 01:00:00.000	52.6 dB	55.5 dB	45.8 dB	67.3 dB
28/07/2015 06:00:00.000 - 28/07/2015 06:59:59.999	0 01:00:00.000	51.5 dB	54.9 dB	45.3 dB	68.3 dB
28/07/2015 07:00:00.000 - 28/07/2015 07:59:59.999	0 01:00:00.000	52.5 dB	55.9 dB	47.0 dB	72.9 dB
28/07/2015 08:00:00.000 - 28/07/2015 08:59:59.999	0 01:00:00.000	55.1 dB	58.3 dB	48.3 dB	74.1 dB
28/07/2015 09:00:00.000 - 28/07/2015 09:59:59.999	0 01:00:00.000	55.6 dB	59.2 dB	49.3 dB	74.1 dB
28/07/2015 10:00:00.000 - 28/07/2015 10:59:59.999	0 01:00:00.000	56.0 dB	59.6 dB	48.9 dB	71.4 dB
28/07/2015 11:00:00.000 - 28/07/2015 11:59:59.999	0 01:00:00.000	55.8 dB	59.6 dB	48.1 dB	75.3 dB
28/07/2015 12:00:00.000 - 28/07/2015 12:59:59.999	0 01:00:00.000	62.9 dB	60.2 dB	47.0 dB	95.5 dB
28/07/2015 13:00:00.000 - 28/07/2015 13:59:59.999	0 01:00:00.000	53.7 dB	56.6 dB	47.2 dB	76.6 dB
28/07/2015 14:00:00.000 - 28/07/2015 14:59:59.999	0 01:00:00.000	53.4 dB	56.7 dB	46.7 dB	70.9 dB
28/07/2015 15:00:00.000 - 28/07/2015 15:59:59.999	0 01:00:00.000	52.6 dB	55.5 dB	45.9 dB	73.1 dB
28/07/2015 16:00:00.000 - 28/07/2015 16:59:59.999	0 01:00:00.000	51.4 dB	54.9 dB	45.1 dB	70.7 dB
28/07/2015 17:00:00.000 - 28/07/2015 17:59:59.999	0 01:00:00.000	51.5 dB	54.0 dB	45.0 dB	72.3 dB
28/07/2015 18:00:00.000 - 28/07/2015 18:59:59.999	0 01:00:00.000	49.9 dB	51.8 dB	42.4 dB	76.7 dB
28/07/2015 19:00:00.000 - 28/07/2015 19:59:59.999	0 01:00:00.000	49.4 dB	52.0 dB	42.5 dB	74.3 dB
28/07/2015 20:00:00.000 - 28/07/2015 20:59:59.999	0 01:00:00.000	49.2 dB	51.1 dB	42.6 dB	69.6 dB
28/07/2015 21:00:00.000 - 28/07/2015 21:59:59.999	0 01:00:00.000	46.3 dB	47.5 dB	39.7 dB	70.3 dB
28/07/2015 22:00:00.000 - 28/07/2015 22:59:59.999	0 01:00:00.000	43.0 dB	45.5 dB	39.9 dB	58.8 dB
28/07/2015 23:00:00.000 - 28/07/2015 23:59:59.999	0 01:00:00.000	44.7 dB	46.9 dB	37.8 dB	63.0 dB
29/07/2015 00:00:00.000 - 29/07/2015 00:59:59.999	0 01:00:00.000	40.1 dB	41.5 dB	35.3 dB	66.3 dB
29/07/2015 01:00:00.000 - 29/07/2015 01:59:59.999	0 01:00:00.000	39.0 dB	41.0 dB	34.1 dB	57.3 dB
29/07/2015 02:00:00.000 - 29/07/2015 02:59:59.999	0 01:00:00.000	36.6 dB	39.1 dB	32.4 dB	50.8 dB
29/07/2015 03:00:00.000 - 29/07/2015 03:59:59.999	0 01:00:00.000	34.3 dB	36.4 dB	31.0 dB	53.4 dB
29/07/2015 04:00:00.000 - 29/07/2015 04:59:59.999	0 01:00:00.000	41.0 dB	42.2 dB	34.2 dB	61.4 dB
29/07/2015 05:00:00.000 - 29/07/2015 05:59:59.999	0 01:00:00.000	44.3 dB	46.9 dB	39.9 dB	63.0 dB
29/07/2015 06:00:00.000 - 29/07/2015 06:59:59.999	0 01:00:00.000	48.2 dB	49.8 dB	43.9 dB	75.4 dB
29/07/2015 07:00:00.000 - 29/07/2015 07:59:59.999	0 01:00:00.000	49.1 dB	49.6 dB	43.9 dB	78.2 dB
29/07/2015 09:00:00.000 - 29/07/2015 09:59:59.999	0 01:00:00.000	49.0 dB	51.2 dB	44.3 dB	67.9 dB
29/07/2015 10:00:00.000 - 29/07/2015 10:59:59.999	0 01:00:00.000	49.4 dB	51.4 dB	43.6 dB	80.9 dB
29/07/2015 11:00:00.000 - 29/07/2015 11:59:59.999	0 01:00:00.000	47.7 dB	49.6 dB	43.2 dB	78.1 dB
29/07/2015 12:00:00.000 - 29/07/2015 12:59:59.999	0 01:00:00.000	51.5 dB	52.7 dB	44.1 dB	76.0 dB
29/07/2015 13:00:00.000 - 29/07/2015 13:59:59.999	0 01:00:00.000	48.9 dB	49.3 dB	41.1 dB	78.8 dB
29/07/2015 14:00:00.000 - 29/07/2015 14:59:59.999	0 01:00:00.000	47.0 dB	49.6 dB	41.9 dB	67.5 dB
29/07/2015 15:00:00.000 - 29/07/2015 15:59:59.999	0 01:00:00.000	45.0 dB	47.3 dB	40.8 dB	61.3 dB

29/07/2015 16:00:00.000 - 29/07/2015 16:59:59.999	0 01:00:00.000	53.7 dB	54.4 dB	41.4 dB	88.0 dB
29/07/2015 17:00:00.000 - 29/07/2015 17:59:59.999	0 01:00:00.000	52.4 dB	54.5 dB	41.5 dB	80.1 dB
29/07/2015 18:00:00.000 - 29/07/2015 18:59:59.999	0 01:00:00.000	56.7 dB	62.0 dB	44.5 dB	73.4 dB
29/07/2015 19:00:00.000 - 29/07/2015 19:59:59.999	0 01:00:00.000	49.2 dB	48.4 dB	42.3 dB	77.7 dB
29/07/2015 20:00:00.000 - 29/07/2015 20:59:59.999	0 01:00:00.000	46.4 dB	47.4 dB	41.4 dB	66.0 dB
29/07/2015 21:00:00.000 - 29/07/2015 21:59:59.999	0 01:00:00.000	45.1 dB	47.2 dB	38.9 dB	69.5 dB
29/07/2015 22:00:00.000 - 29/07/2015 22:59:59.999	0 01:00:00.000	42.6 dB	44.4 dB	37.6 dB	63.9 dB
29/07/2015 23:00:00.000 - 29/07/2015 23:59:59.999	0 01:00:00.000	36.9 dB	39.0 dB	33.5 dB	52.4 dB
30/07/2015 00:00:00.000 - 30/07/2015 00:59:59.999	0 01:00:00.000	34.6 dB	35.6 dB	31.4 dB	50.7 dB
30/07/2015 01:00:00.000 - 30/07/2015 01:59:59.999	0 01:00:00.000	31.6 dB	33.7 dB	28.5 dB	50.5 dB
30/07/2015 02:00:00.000 - 30/07/2015 02:59:59.999	0 01:00:00.000	31.5 dB	33.7 dB	27.9 dB	48.5 dB
30/07/2015 03:00:00.000 - 30/07/2015 03:59:59.999	0 01:00:00.000	32.5 dB	34.9 dB	29.2 dB	45.7 dB
30/07/2015 04:00:00.000 - 30/07/2015 04:59:59.999	0 01:00:00.000	39.2 dB	42.1 dB	31.0 dB	59.1 dB
30/07/2015 05:00:00.000 - 30/07/2015 05:59:59.999	0 01:00:00.000	45.8 dB	46.7 dB	37.6 dB	75.2 dB
30/07/2015 06:00:00.000 - 30/07/2015 06:59:59.999	0 01:00:00.000	47.9 dB	50.6 dB	40.8 dB	76.2 dB
30/07/2015 07:00:00.000 - 30/07/2015 07:59:59.999	0 01:00:00.000	46.9 dB	50.2 dB	41.0 dB	67.9 dB
30/07/2015 08:00:00.000 - 30/07/2015 08:59:59.999	0 01:00:00.000	48.6 dB	50.1 dB	42.4 dB	72.5 dB
30/07/2015 09:00:00.000 - 30/07/2015 09:59:59.999	0 01:00:00.000	46.9 dB	48.4 dB	41.5 dB	67.8 dB
30/07/2015 10:00:00.000 - 30/07/2015 10:59:59.999	0 01:00:00.000	47.3 dB	49.8 dB	41.9 dB	69.3 dB
30/07/2015 11:00:00.000 - 30/07/2015 11:59:59.999	0 01:00:00.000	48.1 dB	50.8 dB	41.6 dB	75.0 dB
30/07/2015 12:00:00.000 - 30/07/2015 12:59:59.999	0 01:00:00.000	49.3 dB	47.0 dB	39.9 dB	79.1 dB
30/07/2015 13:00:00.000 - 30/07/2015 13:59:59.999	0 01:00:00.000	44.1 dB	45.5 dB	39.7 dB	70.1 dB
30/07/2015 14:00:00.000 - 30/07/2015 14:59:59.999	0 01:00:00.000	50.2 dB	48.1 dB	39.8 dB	74.0 dB
30/07/2015 15:00:00.000 - 30/07/2015 15:59:59.999	0 01:00:00.000	46.2 dB	47.8 dB	39.0 dB	75.1 dB
30/07/2015 16:00:00.000 - 30/07/2015 16:59:59.999	0 01:00:00.000	45.0 dB	46.6 dB	36.8 dB	69.4 dB
30/07/2015 17:00:00.000 - 30/07/2015 17:59:59.999	0 01:00:00.000	46.0 dB	45.4 dB	38.6 dB	72.1 dB
30/07/2015 18:00:00.000 - 30/07/2015 18:59:59.999	0 01:00:00.000	47.3 dB	43.8 dB	35.3 dB	74.3 dB
30/07/2015 19:00:00.000 - 30/07/2015 19:59:59.999	0 01:00:00.000	45.3 dB	45.2 dB	35.3 dB	71.6 dB
30/07/2015 20:00:00.000 - 30/07/2015 20:59:59.999	0 01:00:00.000	46.3 dB	47.4 dB	34.9 dB	78.9 dB
30/07/2015 21:00:00.000 - 30/07/2015 21:59:59.999	0 01:00:00.000	38.7 dB	39.6 dB	31.3 dB	62.0 dB
30/07/2015 22:00:00.000 - 30/07/2015 22:59:59.999	0 01:00:00.000	38.4 dB	39.6 dB	30.4 dB	61.0 dB
30/07/2015 23:00:00.000 - 30/07/2015 23:59:59.999	0 01:00:00.000	36.7 dB	35.9 dB	29.1 dB	60.4 dB
31/07/2015 00:00:00.000 - 31/07/2015 00:59:59.999	0 01:00:00.000	36.9 dB	38.6 dB	31.5 dB	57.9 dB
31/07/2015 01:00:00.000 - 31/07/2015 01:59:59.999	0 01:00:00.000	36.2 dB	39.3 dB	29.5 dB	51.8 dB
31/07/2015 02:00:00.000 - 31/07/2015 02:59:59.999	0 01:00:00.000	35.3 dB	38.8 dB	27.6 dB	54.5 dB
31/07/2015 03:00:00.000 - 31/07/2015 03:59:59.999	0 01:00:00.000	35.9 dB	38.8 dB	29.7 dB	59.5 dB
31/07/2015 04:00:00.000 - 31/07/2015 04:59:59.999	0 01:00:00.000	42.5 dB	44.2 dB	31.0 dB	66.1 dB
31/07/2015 05:00:00.000 - 31/07/2015 05:59:59.999	0 01:00:00.000	43.3 dB	45.7 dB	38.9 dB	68.2 dB
31/07/2015 06:00:00.000 - 31/07/2015 06:59:59.999	0 01:00:00.000	45.7 dB	47.2 dB	39.9 dB	66.6 dB
31/07/2015 07:00:00.000 - 31/07/2015 07:59:59.999	0 01:00:00.000	51.5 dB	47.7 dB	36.8 dB	78.9 dB
31/07/2015 08:00:00.000 - 31/07/2015 08:59:59.999	0 01:00:00.000	51.6 dB	52.8 dB	37.6 dB	76.9 dB
31/07/2015 09:00:00.000 - 31/07/2015 09:59:59.999	0 01:00:00.000	45.0 dB	47.1 dB	36.2 dB	65.8 dB
31/07/2015 10:00:00.000 - 31/07/2015 10:59:59.999	0 01:00:00.000	48.5 dB	49.9 dB	37.9 dB	78.1 dB
31/07/2015 11:00:00.000 - 31/07/2015 11:59:59.999	0 01:00:00.000	48.7 dB	50.0 dB	40.0 dB	76.9 dB
31/07/2015 12:00:00.000 - 31/07/2015 12:59:59.999	0 01:00:00.000	45.8 dB	46.2 dB	37.4 dB	76.5 dB
31/07/2015 13:00:00.000 - 31/07/2015 13:59:59.999	0 01:00:00.000	44.6 dB	44.2 dB	36.4 dB	76.6 dB
31/07/2015 14:00:00.000 - 31/07/2015 14:59:59.999	0 01:00:00.000	45.1 dB	47.5 dB	37.2 dB	70.2 dB
31/07/2015 15:00:00.000 - 31/07/2015 15:59:59.999	0 01:00:00.000	45.9 dB	46.3 dB	37.7 dB	73.3 dB
31/07/2015 16:00:00.000 - 31/07/2015 16:59:59.999	0 01:00:00.000	46.7 dB	46.5 dB	38.1 dB	73.7 dB

31/07/2015 17:00:00.000 - 31/07/2015 17:59:59.999	0 01:00:00.000	48.4 dB	49.2 dB	38.7 dB	80.0 dB
31/07/2015 18:00:00.000 - 31/07/2015 18:59:59.999	0 01:00:00.000	47.5 dB	48.7 dB	40.2 dB	75.8 dB
31/07/2015 19:00:00.000 - 31/07/2015 19:59:59.999	0 01:00:00.000	49.4 dB	48.9 dB	39.6 dB	83.0 dB
31/07/2015 20:00:00.000 - 31/07/2015 20:59:59.999	0 01:00:00.000	50.0 dB	47.5 dB	38.7 dB	76.3 dB
31/07/2015 21:00:00.000 - 31/07/2015 21:59:59.999	0 01:00:00.000	45.9 dB	47.3 dB	41.2 dB	67.0 dB
31/07/2015 22:00:00.000 - 31/07/2015 22:59:59.999	0 01:00:00.000	43.9 dB	46.3 dB	39.0 dB	59.9 dB
31/07/2015 23:00:00.000 - 31/07/2015 23:59:59.999	0 01:00:00.000	42.5 dB	44.1 dB	37.7 dB	66.4 dB
01/08/2015 00:00:00.000 - 01/08/2015 00:59:59.999	0 01:00:00.000	49.6 dB	42.3 dB	37.3 dB	79.3 dB
01/08/2015 01:00:00.000 - 01/08/2015 01:59:59.999	0 01:00:00.000	40.8 dB	43.1 dB	36.9 dB	65.8 dB
01/08/2015 02:00:00.000 - 01/08/2015 02:59:59.999	0 01:00:00.000	37.9 dB	40.8 dB	32.7 dB	58.6 dB
01/08/2015 03:00:00.000 - 01/08/2015 03:59:59.999	0 01:00:00.000	34.9 dB	37.3 dB	31.0 dB	51.3 dB
01/08/2015 04:00:00.000 - 01/08/2015 04:59:59.999	0 01:00:00.000	41.1 dB	43.0 dB	30.5 dB	63.1 dB
01/08/2015 05:00:00.000 - 01/08/2015 05:59:59.999	0 01:00:00.000	46.3 dB	45.5 dB	36.0 dB	85.4 dB
01/08/2015 06:00:00.000 - 01/08/2015 06:59:59.999	0 01:00:00.000	45.2 dB	48.0 dB	38.7 dB	71.0 dB
01/08/2015 07:00:00.000 - 01/08/2015 07:59:59.999	0 01:00:00.000	44.3 dB	45.0 dB	36.8 dB	75.7 dB
01/08/2015 08:00:00.000 - 01/08/2015 08:59:59.999	0 01:00:00.000	54.3 dB	50.5 dB	36.1 dB	78.5 dB
01/08/2015 09:00:00.000 - 01/08/2015 09:59:59.999	0 01:00:00.000	50.8 dB	47.2 dB	36.9 dB	78.5 dB
01/08/2015 10:00:00.000 - 01/08/2015 10:59:59.999	0 01:00:00.000	49.9 dB	51.7 dB	38.7 dB	79.2 dB
01/08/2015 11:00:00.000 - 01/08/2015 11:59:59.999	0 01:00:00.000	55.8 dB	49.0 dB	38.4 dB	83.6 dB
01/08/2015 12:00:00.000 - 01/08/2015 12:59:59.999	0 01:00:00.000	44.3 dB	45.0 dB	38.6 dB	68.7 dB
01/08/2015 13:00:00.000 - 01/08/2015 13:59:59.999	0 01:00:00.000	46.6 dB	46.7 dB	39.8 dB	76.0 dB
01/08/2015 14:00:00.000 - 01/08/2015 14:59:59.999	0 01:00:00.000	47.9 dB	49.2 dB	40.2 dB	69.5 dB
01/08/2015 15:00:00.000 - 01/08/2015 15:59:59.999	0 01:00:00.000	52.3 dB	55.1 dB	41.2 dB	75.6 dB
01/08/2015 16:00:00.000 - 01/08/2015 16:59:59.999	0 01:00:00.000	52.7 dB	52.2 dB	49.1 dB	88.0 dB
01/08/2015 17:00:00.000 - 01/08/2015 17:59:59.999	0 01:00:00.000	52.5 dB	52.7 dB	49.3 dB	76.4 dB
01/08/2015 18:00:00.000 - 01/08/2015 18:59:59.999	0 01:00:00.000	53.4 dB	53.6 dB	40.0 dB	88.9 dB
01/08/2015 19:00:00.000 - 01/08/2015 19:59:59.999	0 01:00:00.000	45.3 dB	45.7 dB	37.8 dB	71.6 dB
01/08/2015 20:00:00.000 - 01/08/2015 20:59:59.999	0 01:00:00.000	46.1 dB	46.3 dB	38.7 dB	79.4 dB
01/08/2015 21:00:00.000 - 01/08/2015 21:59:59.999	0 01:00:00.000	46.2 dB	47.0 dB	40.7 dB	69.8 dB
01/08/2015 22:00:00.000 - 01/08/2015 22:59:59.999	0 01:00:00.000	44.7 dB	45.6 dB	39.7 dB	73.5 dB
01/08/2015 23:00:00.000 - 01/08/2015 23:59:59.999	0 01:00:00.000	42.9 dB	43.9 dB	38.8 dB	60.7 dB
02/08/2015 00:00:00.000 - 02/08/2015 00:59:59.999	0 01:00:00.000	40.7 dB	42.3 dB	38.2 dB	57.6 dB
02/08/2015 01:00:00.000 - 02/08/2015 01:59:59.999	0 01:00:00.000	38.6 dB	40.5 dB	35.7 dB	60.1 dB
02/08/2015 02:00:00.000 - 02/08/2015 02:59:59.999	0 01:00:00.000	41.1 dB	39.1 dB	32.8 dB	62.6 dB
02/08/2015 03:00:00.000 - 02/08/2015 03:59:59.999	0 01:00:00.000	35.5 dB	37.7 dB	32.1 dB	48.4 dB
02/08/2015 04:00:00.000 - 02/08/2015 04:59:59.999	0 01:00:00.000	42.3 dB	42.8 dB	32.0 dB	69.3 dB
02/08/2015 05:00:00.000 - 02/08/2015 05:59:59.999	0 01:00:00.000	43.5 dB	46.5 dB	37.4 dB	61.1 dB
02/08/2015 06:00:00.000 - 02/08/2015 06:59:59.999	0 01:00:00.000	43.2 dB	45.4 dB	39.1 dB	63.2 dB
02/08/2015 07:00:00.000 - 02/08/2015 07:59:59.999	0 01:00:00.000	43.7 dB	46.3 dB	35.8 dB	67.5 dB
02/08/2015 08:00:00.000 - 02/08/2015 08:59:59.999	0 01:00:00.000	42.5 dB	44.9 dB	35.7 dB	70.6 dB
02/08/2015 09:00:00.000 - 02/08/2015 09:59:59.999	0 01:00:00.000	45.3 dB	46.7 dB	37.0 dB	69.2 dB
02/08/2015 10:00:00.000 - 02/08/2015 10:59:59.999	0 01:00:00.000	47.0 dB	45.9 dB	37.5 dB	72.7 dB
02/08/2015 11:00:00.000 - 02/08/2015 11:59:59.999	0 01:00:00.000	45.2 dB	47.9 dB	38.0 dB	68.6 dB
02/08/2015 12:00:00.000 - 02/08/2015 12:59:59.999	0 01:00:00.000	46.9 dB	47.8 dB	39.4 dB	70.5 dB
02/08/2015 13:00:00.000 - 02/08/2015 13:59:59.999	0 01:00:00.000	45.0 dB	46.9 dB	39.4 dB	71.0 dB
02/08/2015 14:00:00.000 - 02/08/2015 14:59:59.999	0 01:00:00.000	61.2 dB	65.5 dB	39.8 dB	90.9 dB
02/08/2015 15:00:00.000 - 02/08/2015 15:59:59.999	0 01:00:00.000	47.4 dB	48.1 dB	40.5 dB	72.3 dB
02/08/2015 16:00:00.000 - 02/08/2015 16:59:59.999	0 01:00:00.000	47.1 dB	48.3 dB	41.3 dB	67.9 dB
02/08/2015 17:00:00.000 - 02/08/2015 17:59:59.999	0 01:00:00.000	54.7 dB	59.8 dB	42.6 dB	68.5 dB

02/08/2015 18:00:00.000 - 02/08/2015 18:59:59.999	0 01:00:00.000	49.9 dB	52.7 dB	40.3 dB	70.4 dB
02/08/2015 19:00:00.000 - 02/08/2015 19:59:59.999	0 01:00:00.000	49.7 dB	49.7 dB	37.3 dB	75.3 dB
02/08/2015 20:00:00.000 - 02/08/2015 20:59:59.999	0 01:00:00.000	43.6 dB	46.0 dB	36.6 dB	71.0 dB
02/08/2015 21:00:00.000 - 02/08/2015 21:59:59.999	0 01:00:00.000	42.9 dB	45.1 dB	36.1 dB	62.1 dB
02/08/2015 22:00:00.000 - 02/08/2015 22:59:59.999	0 01:00:00.000	44.4 dB	47.9 dB	32.6 dB	65.7 dB
02/08/2015 23:00:00.000 - 02/08/2015 23:59:59.999	0 01:00:00.000	37.4 dB	38.0 dB	32.5 dB	55.3 dB
03/08/2015 00:00:00.000 - 03/08/2015 00:59:59.999	0 01:00:00.000	35.8 dB	38.1 dB	32.2 dB	48.2 dB
03/08/2015 01:00:00.000 - 03/08/2015 01:59:59.999	0 01:00:00.000	46.3 dB	38.9 dB	31.7 dB	74.5 dB
03/08/2015 02:00:00.000 - 03/08/2015 02:59:59.999	0 01:00:00.000	34.9 dB	37.8 dB	30.2 dB	50.3 dB
03/08/2015 03:00:00.000 - 03/08/2015 03:59:59.999	0 01:00:00.000	35.0 dB	37.6 dB	30.7 dB	50.3 dB
03/08/2015 04:00:00.000 - 03/08/2015 04:59:59.999	0 01:00:00.000	40.5 dB	42.9 dB	33.6 dB	67.5 dB
03/08/2015 05:00:00.000 - 03/08/2015 05:59:59.999	0 01:00:00.000	44.7 dB	47.6 dB	40.1 dB	62.7 dB
03/08/2015 06:00:00.000 - 03/08/2015 06:59:59.999	0 01:00:00.000	48.3 dB	50.7 dB	43.5 dB	71.1 dB
03/08/2015 07:00:00.000 - 03/08/2015 07:59:59.999	0 01:00:00.000	51.5 dB	50.6 dB	44.1 dB	91.7 dB
03/08/2015 08:00:00.000 - 03/08/2015 08:59:59.999	0 01:00:00.000	49.7 dB	49.5 dB	43.5 dB	74.6 dB
03/08/2015 09:00:00.000 - 03/08/2015 09:59:59.999	0 01:00:00.000	48.9 dB	49.6 dB	43.5 dB	73.4 dB
03/08/2015 10:00:00.000 - 03/08/2015 10:59:59.999	0 01:00:00.000	49.2 dB	50.5 dB	43.2 dB	75.6 dB
03/08/2015 11:00:00.000 - 03/08/2015 11:59:59.999	0 01:00:00.000	52.3 dB	52.4 dB	44.0 dB	91.4 dB
03/08/2015 12:00:00.000 - 03/08/2015 12:59:59.999	0 01:00:00.000	50.3 dB	53.3 dB	45.2 dB	72.7 dB
03/08/2015 13:00:00.000 - 03/08/2015 13:59:59.999	0 01:00:00.000	50.4 dB	53.0 dB	45.5 dB	70.5 dB
03/08/2015 14:00:00.000 - 03/08/2015 14:59:59.999	0 01:00:00.000	49.5 dB	52.3 dB	45.0 dB	69.3 dB
03/08/2015 15:00:00.000 - 03/08/2015 15:59:59.999	0 01:00:00.000	57.7 dB	59.4 dB	42.8 dB	80.7 dB
03/08/2015 16:00:00.000 - 03/08/2015 16:59:59.999	0 01:00:00.000	47.2 dB	48.6 dB	42.8 dB	73.1 dB
03/08/2015 17:00:00.000 - 03/08/2015 17:59:59.999	0 01:00:00.000	48.2 dB	49.2 dB	43.4 dB	74.6 dB
03/08/2015 18:00:00.000 - 03/08/2015 18:59:59.999	0 01:00:00.000	48.9 dB	48.1 dB	42.3 dB	79.2 dB
03/08/2015 19:00:00.000 - 03/08/2015 19:59:59.999	0 01:00:00.000	48.7 dB	50.7 dB	42.7 dB	68.9 dB
03/08/2015 20:00:00.000 - 03/08/2015 20:59:59.999	0 01:00:00.000	46.4 dB	46.9 dB	40.7 dB	69.1 dB
03/08/2015 21:00:00.000 - 03/08/2015 21:59:59.999	0 01:00:00.000	45.5 dB	45.9 dB	37.0 dB	68.3 dB
03/08/2015 22:00:00.000 - 03/08/2015 22:59:59.999	0 01:00:00.000	41.6 dB	43.3 dB	34.6 dB	62.2 dB
03/08/2015 23:00:00.000 - 03/08/2015 23:59:59.999	0 01:00:00.000	39.9 dB	41.7 dB	35.2 dB	60.2 dB
04/08/2015 00:00:00.000 - 04/08/2015 00:59:59.999	0 01:00:00.000	35.7 dB	38.0 dB	31.9 dB	53.4 dB
04/08/2015 01:00:00.000 - 04/08/2015 01:59:59.999	0 01:00:00.000	34.2 dB	36.6 dB	31.1 dB	52.8 dB
04/08/2015 02:00:00.000 - 04/08/2015 02:59:59.999	0 01:00:00.000	36.1 dB	38.6 dB	31.9 dB	60.6 dB
04/08/2015 03:00:00.000 - 04/08/2015 03:59:59.999	0 01:00:00.000	36.1 dB	38.6 dB	31.8 dB	53.9 dB
04/08/2015 04:00:00.000 - 04/08/2015 04:59:59.999	0 01:00:00.000	41.6 dB	43.7 dB	34.7 dB	65.7 dB
04/08/2015 05:00:00.000 - 04/08/2015 05:59:59.999	0 01:00:00.000	44.3 dB	47.0 dB	39.0 dB	62.3 dB
04/08/2015 06:00:00.000 - 04/08/2015 06:59:59.999	0 01:00:00.000	46.2 dB	48.2 dB	43.4 dB	72.0 dB
04/08/2015 07:00:00.000 - 04/08/2015 07:59:59.999	0 01:00:00.000	48.5 dB	49.8 dB	44.5 dB	70.9 dB
04/08/2015 08:00:00.000 - 04/08/2015 08:59:59.999	0 01:00:00.000	50.6 dB	53.2 dB	45.6 dB	70.1 dB
04/08/2015 09:00:00.000 - 04/08/2015 09:59:59.999	0 01:00:00.000	51.9 dB	54.4 dB	45.8 dB	72.8 dB
04/08/2015 10:00:00.000 - 04/08/2015 10:59:59.999	0 01:00:00.000	50.7 dB	53.6 dB	45.7 dB	70.2 dB
04/08/2015 11:00:00.000 - 04/08/2015 11:59:59.999	0 01:00:00.000	49.2 dB	51.3 dB	44.4 dB	72.4 dB
04/08/2015 12:00:00.000 - 04/08/2015 12:59:59.999	0 01:00:00.000	59.5 dB	53.7 dB	44.6 dB	101.7 dB
04/08/2015 13:00:00.000 - 04/08/2015 13:59:59.999	0 01:00:00.000	50.4 dB	51.9 dB	42.8 dB	81.6 dB
04/08/2015 14:00:00.000 - 04/08/2015 14:59:59.999	0 01:00:00.000	50.0 dB	51.5 dB	44.7 dB	75.6 dB
04/08/2015 15:00:00.000 - 04/08/2015 15:59:59.999	0 01:00:00.000	50.2 dB	52.7 dB	43.3 dB	75.7 dB
04/08/2015 16:00:00.000 - 04/08/2015 16:59:59.999	0 01:00:00.000	48.7 dB	51.2 dB	43.2 dB	74.7 dB
04/08/2015 17:00:00.000 - 04/08/2015 17:59:59.999	0 01:00:00.000	49.2 dB	51.8 dB	44.5 dB	73.8 dB
04/08/2015 18:00:00.000 - 04/08/2015 18:59:59.999	0 01:00:00.000	57.8 dB	57.5 dB	45.4 dB	90.6 dB

04/08/2015 19:00:00.000 - 04/08/2015 19:59:59.999	0 01:00:00.000	49.9 dB	51.1 dB	43.8 dB	74.4 dB
04/08/2015 20:00:00.000 - 04/08/2015 20:59:59.999	0 01:00:00.000	46.6 dB	47.9 dB	41.5 dB	69.7 dB
04/08/2015 21:00:00.000 - 04/08/2015 21:59:59.999	0 01:00:00.000	44.3 dB	46.0 dB	40.8 dB	68.8 dB
04/08/2015 22:00:00.000 - 04/08/2015 22:59:59.999	0 01:00:00.000	41.8 dB	43.4 dB	38.2 dB	66.0 dB
04/08/2015 23:00:00.000 - 04/08/2015 23:59:59.999	0 01:00:00.000	37.1 dB	39.6 dB	33.3 dB	49.6 dB
05/08/2015 00:00:00.000 - 05/08/2015 00:59:59.999	0 01:00:00.000	44.9 dB	36.2 dB	31.8 dB	71.3 dB
05/08/2015 01:00:00.000 - 05/08/2015 01:59:59.999	0 01:00:00.000	32.2 dB	34.2 dB	29.3 dB	47.1 dB
05/08/2015 02:00:00.000 - 05/08/2015 02:59:59.999	0 01:00:00.000	34.5 dB	34.4 dB	27.9 dB	55.5 dB
05/08/2015 03:00:00.000 - 05/08/2015 03:59:59.999	0 01:00:00.000	32.9 dB	35.5 dB	29.2 dB	49.9 dB
05/08/2015 04:00:00.000 - 05/08/2015 04:59:59.999	0 01:00:00.000	37.3 dB	39.9 dB	31.0 dB	56.1 dB
05/08/2015 05:00:00.000 - 05/08/2015 05:59:59.999	0 01:00:00.000	42.3 dB	44.5 dB	36.1 dB	64.0 dB
05/08/2015 06:00:00.000 - 05/08/2015 06:59:59.999	0 01:00:00.000	43.3 dB	45.9 dB	39.2 dB	62.7 dB
05/08/2015 07:00:00.000 - 05/08/2015 07:59:59.999	0 01:00:00.000	45.9 dB	46.7 dB	37.9 dB	70.8 dB
05/08/2015 08:00:00.000 - 05/08/2015 08:59:59.999	0 01:00:00.000	46.3 dB	46.5 dB	36.6 dB	80.2 dB
05/08/2015 09:00:00.000 - 05/08/2015 09:59:59.999	0 01:00:00.000	46.6 dB	46.4 dB	36.4 dB	73.3 dB
05/08/2015 10:00:00.000 - 05/08/2015 10:59:59.999	0 01:00:00.000	45.2 dB	45.8 dB	38.5 dB	71.5 dB
05/08/2015 11:00:00.000 - 05/08/2015 11:59:59.999	0 01:00:00.000	43.9 dB	46.1 dB	39.1 dB	67.7 dB
05/08/2015 12:00:00.000 - 05/08/2015 12:59:59.999	0 01:00:00.000	48.0 dB	50.2 dB	39.2 dB	67.5 dB
05/08/2015 13:00:00.000 - 05/08/2015 13:59:59.999	0 01:00:00.000	46.0 dB	47.6 dB	39.2 dB	72.8 dB
05/08/2015 14:00:00.000 - 05/08/2015 14:59:59.999	0 01:00:00.000	46.8 dB	49.9 dB	38.1 dB	70.4 dB
05/08/2015 15:00:00.000 - 05/08/2015 15:59:59.999	0 01:00:00.000	48.6 dB	47.5 dB	40.1 dB	73.1 dB
05/08/2015 16:00:00.000 - 05/08/2015 16:59:59.999	0 01:00:00.000	47.2 dB	48.0 dB	39.4 dB	71.7 dB
05/08/2015 17:00:00.000 - 05/08/2015 17:59:59.999	0 01:00:00.000	47.7 dB	46.3 dB	37.7 dB	75.0 dB
05/08/2015 18:00:00.000 - 05/08/2015 18:59:59.999	0 01:00:00.000	44.1 dB	44.9 dB	38.3 dB	67.4 dB
05/08/2015 19:00:00.000 - 05/08/2015 19:59:59.999	0 01:00:00.000	52.6 dB	45.7 dB	35.6 dB	73.4 dB
05/08/2015 20:00:00.000 - 05/08/2015 20:59:59.999	0 01:00:00.000	50.0 dB	53.0 dB	39.5 dB	76.7 dB
05/08/2015 21:00:00.000 - 05/08/2015 21:59:59.999	0 01:00:00.000	47.5 dB	47.6 dB	40.2 dB	68.5 dB
05/08/2015 22:00:00.000 - 05/08/2015 22:59:59.999	0 01:00:00.000	44.2 dB	44.5 dB	35.6 dB	64.6 dB
05/08/2015 23:00:00.000 - 05/08/2015 23:59:59.999	0 01:00:00.000	44.4 dB	46.0 dB	36.8 dB	63.1 dB
06/08/2015 00:00:00.000 - 06/08/2015 00:59:59.999	0 01:00:00.000	46.5 dB	41.8 dB	34.1 dB	69.5 dB
06/08/2015 01:00:00.000 - 06/08/2015 01:59:59.999	0 01:00:00.000	34.5 dB	36.9 dB	30.5 dB	50.6 dB
06/08/2015 02:00:00.000 - 06/08/2015 02:59:59.999	0 01:00:00.000	33.4 dB	36.5 dB	29.0 dB	49.4 dB
06/08/2015 03:00:00.000 - 06/08/2015 03:59:59.999	0 01:00:00.000	49.6 dB	36.9 dB	28.9 dB	76.1 dB
06/08/2015 04:00:00.000 - 06/08/2015 04:59:59.999	0 01:00:00.000	45.2 dB	41.0 dB	31.3 dB	73.8 dB
06/08/2015 05:00:00.000 - 06/08/2015 05:59:59.999	0 01:00:00.000	44.1 dB	45.5 dB	35.3 dB	73.5 dB
06/08/2015 06:00:00.000 - 06/08/2015 06:59:59.999	0 01:00:00.000	45.4 dB	45.0 dB	38.1 dB	78.6 dB
06/08/2015 07:00:00.000 - 06/08/2015 07:59:59.999	0 01:00:00.000	46.6 dB	48.8 dB	41.5 dB	74.9 dB
06/08/2015 08:00:00.000 - 06/08/2015 08:59:59.999	0 01:00:00.000	47.3 dB	48.7 dB	42.8 dB	80.5 dB
06/08/2015 09:00:00.000 - 06/08/2015 09:59:59.999	0 01:00:00.000	49.8 dB	50.8 dB	43.9 dB	72.5 dB
06/08/2015 10:00:00.000 - 06/08/2015 10:59:59.999	0 01:00:00.000	48.4 dB	51.0 dB	42.3 dB	71.1 dB
06/08/2015 11:00:00.000 - 06/08/2015 11:59:59.999	0 01:00:00.000	46.1 dB	49.1 dB	42.0 dB	66.5 dB
06/08/2015 12:00:00.000 - 06/08/2015 12:59:59.999	0 01:00:00.000	47.1 dB	49.0 dB	42.5 dB	66.2 dB
06/08/2015 13:00:00.000 - 06/08/2015 13:59:59.999	0 01:00:00.000	47.4 dB	49.7 dB	42.5 dB	66.6 dB
06/08/2015 14:00:00.000 - 06/08/2015 14:59:59.999	0 01:00:00.000	49.0 dB	51.2 dB	43.2 dB	72.4 dB
06/08/2015 15:00:00.000 - 06/08/2015 15:59:59.999	0 01:00:00.000	48.3 dB	49.7 dB	42.5 dB	77.7 dB
06/08/2015 16:00:00.000 - 06/08/2015 16:58:04.000	0 00:58:05.000	45.8 dB	47.5 dB	41.4 dB	72.7 dB

Appendix 2 Summary of attended noise monitoring by hour.

Calculation interval (absolute time)	14/08/2015	Effective duration	Laeq	L 10.0%	L 90.0%	Max: LAF(
18/08/2015 05:00:00.000 - 18/08/2015 05:59:59.999	0 01:00:00.000	46.4 dB	46.5 dB	34.1 dB	74.6 dB	
18/08/2015 06:00:00.000 - 18/08/2015 06:59:59.999	0 01:00:00.000	45.0 dB	47.4 dB	39.7 dB	65.4 dB	
18/08/2015 07:00:00.000 - 18/08/2015 07:59:59.999	0 01:00:00.000	56.0 dB	48.5 dB	41.2 dB	87.3 dB	
18/08/2015 08:00:00.000 - 18/08/2015 08:59:59.999	0 01:00:00.000	49.7 dB	47.7 dB	39.0 dB	78.3 dB	
18/08/2015 09:00:00.000 - 18/08/2015 09:59:59.999	0 01:00:00.000	49.3 dB	48.6 dB	40.0 dB	74.8 dB	
18/08/2015 10:00:00.000 - 18/08/2015 10:59:59.999	0 01:00:00.000	46.6 dB	48.7 dB	41.3 dB	70.3 dB	