



Portable Noise Monitoring Terminal Report

December 2025

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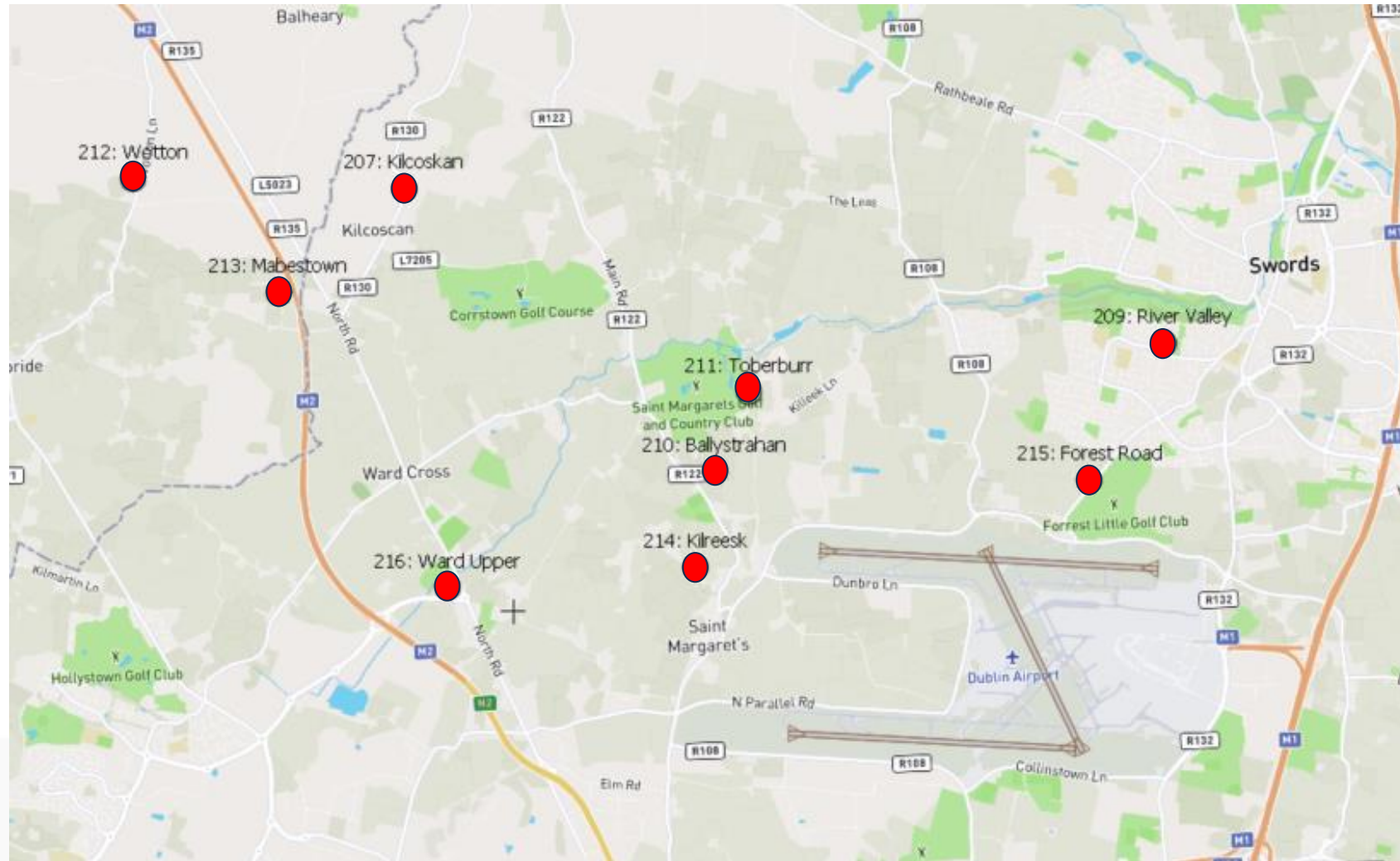
- This report presents aircraft noise data collected from Dublin Airport's Portable Noise Monitoring Terminals (NMTs) at nine community locations around the airport. Portable NMTs are used to gather short-term, location-specific noise data and compliment the Airport's network of permanent noise monitors.
- The data in this report covers measurements taken at various locations between August 2024 and December 2025, with a primary focus on activity during 2025. Results from earlier portable deployments have been reported previously in Dublin Airport's quarterly Noise and Flight Track Monitoring Reports.
- Five different noise metrics are used in this report. These include three time-averaged metrics (Lden, Lnight, and Leq16h) and two single-event metrics (Lmax and SEL). Lden and Lnight are required under the EU Environmental Noise Directive and are normally assessed over a full calendar year. In this report, they are presented over shorter monitoring periods to reflect the temporary nature of portable installations.
- Single-event metrics such as Lmax and SEL are not typically used on their own to assess noise impact. However, when combined with information on the number and frequency of events, they provide additional insight into how aircraft noise is experienced at different locations.
- International standards (ISO 20906:2009+A1:2013) recommend that aircraft noise monitoring microphones be installed at a minimum height of six metres to reduce the effect of noise reflections off the ground and hard surfaces. Microphones installed at a lower height can report slightly higher noise levels.
- Some portable NMTs were installed at heights of around 1.5 metres (Kilcoskan, Rivervalley and and Ballystrahan) however equipment upgrades mean that microphone heights are now at four metres. This does represent a compromise, as full six metre installations would require Planning Permission even for a short-term installation. As a result, portable monitors may slightly over-report noise levels.

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Term	Definition
NMT	NMT means Noise Monitoring Terminal. They are generally located in community areas. An NMT includes a high-quality, calibrated microphone and provides continuous noise level data at the location of the NMT.
Correlated Aircraft Noise Event	This is a noise event that is matched to an aircraft flight near the location of the NMT and the time of the noise event. Only correlated aircraft noise events are used to calculate the measured aircraft noise (e.g. Lden, Lnight, Leq16) at the NMT location.
Lden	Lden is the day-evening-night level. It is a descriptor of noise level based on energy equivalent noise level (Leq) over a whole day or longer, with a penalty of 5 dBA for evening noise (19:00-23:00h or 7-11pm) and a penalty of 10 dBA for night-time noise (23:00-7:00h or 11pm-7am). The 5-decibel penalty means that an evening flight is treated as the equivalent of three daytime flights. The 10-decibel penalty means that a night flight is the equivalent of 10 daytime flights.
Lnight	Lnight is the night-time (11pm-7am) Leq average noise indicator. Like Lden, in this document, Lnight is reported monthly, quarterly and annually.
Leq	Leq is the Equivalent Continuous Sound Level and is the average sound level, over the given period, that has the same total energy as the actual time-varying noise.
Leq16(hr)	Leq16h is the Leq over the 16-hour day-time period (7am-11pm). The Summer Leq16hr covers the 92 days from mid-June to mid-September and, at Dublin Airport, is used for assessing the Residential Noise Insulation Scheme.
Lmax	Lmax is the maximum instantaneous noise level recorded at an NMT during a noise event. Leq1sec (approx. Lmax) is displayed at each NMT on the Dublin Airport WebTrak site however, it also <u>includes</u> non-aircraft noise.
SEL	SEL or Sound Exposure Level represents the total noise energy contained in a noise event, as if the same noise energy were compressed into a single second. For a short event (like a single dog bark) the SEL is approximately the same value as the Lmax. For an aircraft noise event, usually 10 to 30 seconds, the SEL value is typically about 10 decibels higher than the Lmax. The SEL values of the Correlated Aircraft Noise Events are added up and used to calculate average noise level metrics over longer periods, including annual or monthly Lden & Lnight, or monthly or summer Leq16 & Leq8.

Term	Definition
Noise Event	A noise event is detected at an NMT location when the noise level rises above and then falls below a pre-set threshold level. This can be caused by many different sources including aircraft, vehicles on a road, dogs barking, wind, sirens etc.
Number Above (NA)	Number Above is a single event metric unlike Lden or Lnight which are time-averaged noise metrics. N60 is the number of (aircraft noise) events with Lmax ≥ 60 dBA. N(SEL)70 is the number of (aircraft noise) events with SEL ≥ 70 dBA. Note that N60 value includes the events in N65, N70 and higher.
Time-Averaged noise levels	Including Annual Lden and Lnight and Summer Leq16/8h, averaged noise levels allow the comparison of different locations around an airport, (and also other airports) where aircraft types, power settings, overflight frequency, operational time of day, and tracks heights vary. The EU and WHO uses Lden and Lnight to assess the total impact on communities for road, rail and air transport noise.
Total Noise	Total Noise is a measure of noise from all noise sources (including aircraft and non-aircraft activity) during the period. This means that Aircraft Noise cannot exceed Total Noise. In this report, Total Lden measurements are presented for the purpose of comparison with the measured Aircraft noise Lden.

Portable Noise Monitoring Terminal (NMT) Locations



Portable Noise Monitoring Terminal (NMT) Deployment Schedule

#	Mobile NMT	2024	2025												
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
207	Kilcoscan	X (Aug 2024 - Present)	X	X	X	X	X	X	X	X	X	X	X	X	X
209	Rivervalley Swords			X	X	X	X	X							
210	Ballystrahan								X	X	X	X	X	X	X
211	Toberburr/ Rivermeade										X (17 th -30 th)	X	X	X	
212	Wotton										X (17 th -30 th)	X	X (1 st - 21 st)		
213	Mabestown										X (17 th -30 th)	X	X (1 st - 11 th)		
214	Kilreesk										X (17 th -30 th)	X	X	X	X
215	Forest Road										X (17 th -30 th)	X	X	X	X
216	Broghan												X	X	

X = Installed

Portable Temporary NMT - #207 Kilcoskan



		Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025	Oct 2025	Nov 2025	Dec 2025	Avg 17 Months	
	Correlated Aircraft Noise Events	5259	3021	3492	2978	3238	3032	1619	2508	1639	2117	4285	4348	3389	4488	3866	3502	2785		
NMT Noise Levels	Total Lden (dBA)	60.7	58.5	59.5	59.1	61.7	62.6	57.8	58.2	56.9	57.5	60.4	59.8	59.2	60.4	60.3	59.6	59.2	59.8	
	Aircraft Lden (dBA)	57.6	55.1	56.0	55.3	56.3	55.6	52.8	54.5	52.8	53.8	56.9	56.8	55.7	57.3	56.3	56.1	55.1	55.8	
	Aircraft Lnight (dBA)	35.4	24.9	37.4	23.3	27.4	34.3	27.8	32.8	25.5	35.9	36.6	32.9	36.6	25.2	36.2	36.2	36.2	28.1	33.7
	Aircraft Leq16h (dBA)	57.8	55.4	56.2	55.8	57.0	55.9	53.4	54.8	53.1	53.9	57	56.8	55.7	57.4	56.5	56.3	55.4	56.0	
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	170	101	113	100	104	98	58	81	55	68	143	140	109	150	125	117	90	107	
	NA Lmax 65	170	101	113	100	104	98	58	81	55	68	143	140	109	149	125	117	90	107	
	NA Lmax 70	163	96	109	96	101	95	56	79	53	66	138	133	105	144	120	113	87	103	
	NA Lmax 75	45	18	26	26	27	30	19	23	15	19	41	34	29	40	33	33	28	29	
	NA Lmax 80	1.0	0.2	0.5	0.7	0.7	0	1	1	0	0	1	0	0	1	1	1	1	0.6	
	NA Lmax 85	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	170	101	113	100	104	98	58	81	55	68	143	140	109	150	125	117	90	107	
	NA SEL 70	170	101	113	100	104	98	58	81	55	68	143	140	109	150	125	117	90	107	
	NA SEL 75	169	100	112	100	104	98	58	81	55	68	143	140	109	149	124	117	89	107	
	NA SEL 80	142	83	95	85	86	84	49	68	45	55	113	113	86	120	98	93	72	87	
	NA SEL 85	22	12	17	19	17	19	9	13	9	11	23	20	14	26	22	21	18	17	
	NA SEL 90	0.2	0.0	0.1	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	NA SEL 95	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Portable Temporary NMT - #209 River Valley

		Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Avg 4.7 Months
		22 days	31 days	30 days	31 days	30 days	
	Correlated Aircraft Noise Events	14	36	14	20	13	
NMT Noise Levels	Total Lden (dBA)	55.3	54.3	54.5	53.9	53.8	54.3
	Aircraft Lden (dBA)	34.7	37.4	36.2	40.5	32.9	37.3
	Aircraft Lnight (dBA)	18.3	0.0	28.7	34.8	20.6	29.2
	Aircraft Leq16h (dBA)	36.1	38.1	30.9	32.5	33.2	34.9
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	0.6	1.2	0.5	0.6	0.4	0.7
	NA Lmax 65	0.6	1.2	0.5	0.6	0.4	0.7
	NA Lmax 70	0.3	0.8	0.3	0.3	0.2	0.4
	NA Lmax 75	0.3	0.4	0.1	0.2	0.1	0.2
	NA Lmax 80	0.1	0.2	0.0	0.1	0.0	0.1
	NA Lmax 85	0.0	0.0	0.0	0.0	0.0	0.0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	0.5	1.2	0.5	0.7	0.4	0.7
	NA SEL 70	0.5	1.2	0.5	0.7	0.4	0.7
	NA SEL 75	0.4	1.1	0.4	0.6	0.4	0.6
	NA SEL 80	0.3	0.9	0.3	0.3	0.1	0.4
	NA SEL 85	0.2	0.5	0.1	0.2	0.0	0.2
	NA SEL 90	0.1	0.0	0.0	0.1	0.0	0.0
	NA SEL 95	0.0	0.0	0.0	0.0	0.0	0.0

Portable Temporary NMT - #210 Ballystrahan

		Jul 2025	Aug 2025	Sep 2025	Oct 2025	Nov 2025	Dec 2025	Avg 6 months
		31 days	31 days	30 days	31 days	30 days	31 days	
	Correlated Aircraft Noise Events	10778	10332	10309	7133	6303	4989	
NMT Noise Levels	Total Lden (dBA)	64.6	64.4	65.1	64.6	64.7	63.6	64.5
	Aircraft Lden (dBA)	64.2	63.3	64.4	63.7	62.9	61.9	63.5
	Aircraft Lnight (dBA)	38.8	43.5	37.1	42.1	42.0	36.5	40.8
	Aircraft Leq16h (dBA)	64.8	63.6	64.9	64.2	63.4	62.5	64.0
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	346	332	341	230	210	161	270
	NA Lmax 65	312	300	315	229	207	159	254
	NA Lmax 70	244	211	243	227	206	158	215
	NA Lmax 75	172	140	172	153	130	100	145
	NA Lmax 80	37	32	43	34	29	28	34
	NA Lmax 85	4	4	4	4	3	3	4
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	348	334	344	230	210	161	271
	NA SEL 70	346	332	343	230	210	161	270
	NA SEL 75	328	314	331	230	208	160	262
	NA SEL 80	247	209	250	223	198	148	212
	NA SEL 85	182	141	180	160	135	104	151
	NA SEL 90	38	27	43	33	28	26	33
	NA SEL 95	3	2	3	4	2	2	3

Portable Temporary NMT - #211 Toberburr/Rivermeade

		Sep 2025	Oct 2025	Nov 2025	Dec 2025	Avg 3.5 Months
		13 days	31 days	30 days	31 days	
	Correlated Aircraft Noise Events	2337	5583	4517	3742	
NMT Noise Levels	Total Lden (dBA)	57.8	64.4	58.5	58.4	61.1
	Aircraft Lden (dBA)	55.1	56.3	55.0	54.4	55.3
	Aircraft Lnight (dBA)	25.4	36.5	33.4	24.8	33.1
	Aircraft Leq16h (dBA)	55.6	56.7	55.6	54.9	55.8
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	180	180	151	121	181
	NA Lmax 65	180	180	150	121	180
	NA Lmax 70	60	82	66	58	76
	NA Lmax 75	6	11	8	8	9
	NA Lmax 80	0	1	1	0	0.7
	NA Lmax 85	0	0	0	0	0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	180	180	151	121	181
	NA SEL 70	180	180	151	121	180
	NA SEL 75	174	173	144	115	173
	NA SEL 80	91	110	91	75	105
	NA SEL 85	8	13	10	9	11
	NA SEL 90	0	1	0	0	0.5
	NA SEL 95	0	0	0	0	0

Portable Temporary NMT - #212 Wotton

		Sep 2025	Oct 2025	Nov 2025	Avg 2.1 Months
		13 days	31 days	21 days	
	Correlated Aircraft Noise Events	1857	3412	1152	
NMT Noise Levels	Total Lden (dBA)	58.1	58.0	57.7	57.9
	Aircraft Lden (dBA)	54.5	53.5	50.8	53.0
	Aircraft Lnight (dBA)	31.5	32.9	34.2	33.1
	Aircraft Leq16h (dBA)	54.8	54.1	51.5	53.6
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	142	110	55	147
	NA Lmax 65	141	110	55	145
	NA Lmax 70	69	48	21	66
	NA Lmax 75	7	8	2	8
	NA Lmax 80	0	1	0	0
	NA Lmax 85	0	0	0	0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	143	110	55	147
	NA SEL 70	142	110	55	147
	NA SEL 75	133	103	51	137
	NA SEL 80	75	54	24	73
	NA SEL 85	8	9	3	9
	NA SEL 90	0	0	0	0
	NA SEL 95	0	0	0	0

Portable Temporary NMT - #213 Mabestown

		Sep 2025	Oct 2025	Nov 2025	Avg 1.8 Months
		13 days	31 days	11 days	
	Correlated Aircraft Noise Events	4048	8892	2476	
NMT Noise Levels	Total Lden (dBA)	65.4	64.6	65.1	64.9
	Aircraft Lden (dBA)	59.4	58.5	56.8	58.5
	Aircraft Lnight (dBA)	32.8	36.4	36.0	35.7
	Aircraft Leq16h (dBA)	60.1	59.2	57.7	59.2
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	311	287	226	458
	NA Lmax 65	277	244	186	393
	NA Lmax 70	137	112	75	180
	NA Lmax 75	19	17	9	24
	NA Lmax 80	1	0	0	0.7
	NA Lmax 85	0	0	0	0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	312	287	226	459
	NA SEL 70	309	287	226	457
	NA SEL 75	301	274	214	438
	NA SEL 80	252	205	157	341
	NA SEL 85	43	23	13	44
	NA SEL 90	0	0	0	0
	NA SEL 95	0	0	0	0

Portable Temporary NMT - #214 Kilreesk

		Sep 2025	Oct 2025	Nov 2025	Dec 2025	Avg 3.5 Months
		13 days	31 days	30 days	31 days	
	Correlated Aircraft Noise Events	5248	10835	9499	7459	
NMT Noise Levels	Total Lden (dBA)	67.4	66.7	66.2	65.9	66.4
	Aircraft Lden (dBA)	66.9	66.1	65.5	65.2	65.8
	Aircraft Lnight (dBA)	47.3	48.9	49.4	48.7	48.8
	Aircraft Leq16h (dBA)	67.2	66.4	65.9	65.6	66.1
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	403	348	315	240	373.4
	NA Lmax 65	391	338	303	232	361.3
	NA Lmax 70	369	319	285	218	340.4
	NA Lmax 75	290	245	222	168	264.3
	NA Lmax 80	146	103	89	59	113.4
	NA Lmax 85	31	20	16	10	22.1
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	406	350	317	241	376
	NA SEL 70	405	348	315	240	374
	NA SEL 75	394	339	304	233	363
	NA SEL 80	363	314	284	215	336
	NA SEL 85	235	204	188	140	219
	NA SEL 90	111	76	64	43	84
	NA SEL 95	15	12	10	6	12

Portable Temporary NMT - #215 Forest Road

		Sep 2025	Oct 2025	Nov 2025	Dec 2025	Avg 3.5 Months
		13 days	31 days	30 days	31 days	
	Correlated Aircraft Noise Events	309	766	831	728	
NMT Noise Levels	Total Lden (dBA)	60.8	60.5	61.0	62.0	61.2
	Aircraft Lden (dBA)	39.6	45.7	45.1	45.8	45.1
	Aircraft Lnight (dBA)	0.0	31.9	17.7	22.0	27.2
	Aircraft Leq16h (dBA)	40.3	45.0	45.6	46.3	45.3
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	18	19	22	21	23
	NA Lmax 65	10	12	13	14	14
	NA Lmax 70	4	5	5	6	6
	NA Lmax 75	1	1	1	2	1
	NA Lmax 80	0	0	0	0	0
	NA Lmax 85	0	0	0	0	0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	24	25	28	23	28
	NA SEL 70	18	20	24	22	24
	NA SEL 75	12	15	17	18	18
	NA SEL 80	5	6	6	8	7
	NA SEL 85	0	1	1	1	1
	NA SEL 90	0	0	0	0	0
	NA SEL 95	0	0	0	0	0

		Nov 2025	Dec 2025	Avg 1.6 Months
		18 days	31 days	
	Correlated Aircraft Noise Events	1932	5538	
NMT Noise Levels	Total Lden (dBA)	63.2	63.2	63.2
	Aircraft Lden (dBA)	55.4	57.2	56.6
	Aircraft Lnight (dBA)	48.7	49.6	49.3
	Aircraft Leq16h (dBA)	50.6	54.1	53.1
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	108	179	179
	NA Lmax 65	108	174	176
	NA Lmax 70	37	66	64
	NA Lmax 75	2	2	2.8
	NA Lmax 80	0	0	0.1
	NA Lmax 85	0	0	0.0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	108	179	179
	NA SEL 70	108	179	179
	NA SEL 75	85	163	155
	NA SEL 80	31	67	61
	NA SEL 85	2	2	2.6
	NA SEL 90	0	0	0.1
	NA SEL 95	0	0	0.0

End

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