



Portable Noise Monitoring Terminal Report

April 2026

- 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 February 2026. 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 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) Deployment Schedule

#	Mobile NMT	2025				2026			
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
214	Kilreesk	X	X	X	X	X	X	X	X
216	Broghan			X	X	X	X	X	X
217	Clongriffin						X	X	X
218	Swords (Oakwood Avenue)						X	X	X
219	Malahide (Kinsealy Lane)							X (7 days)	

X = Installed

Note: Portable Noise Monitoring Terminals (NMTs) were installed at Millhead, Boroimhe, and Lusk at different intervals between October 2023 and September 2024. The results from these monitors were included in Dublin Airport’s Q2 and Q3 Noise and Flight Track Monitoring Reports, which are available on our [website](#).

Data from NMTs installed at Ballystrahan, Forest Road, Toberburr, Kilcoscan, Rivervalley (Swords), Wotton, and Mabestown were presented in the previous Portable Noise Monitoring Terminal Report.

Portable Temporary NMT - #214 Kilreesk

		Sep 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Apr 2026	Avg 6.8 Months
		13 days	31 days	30 days	24 days	19 days	28 days	31 days	30 days	
	Correlated Aircraft Noise Events	5248	10835	9499	7459	4973	8160	10185	10698	
NMT Noise Levels	Total Lden (dBA)	67.4	66.7	66.2	65.9	65.1	65.1	66.2	66.2	66.0
	Aircraft Lden (dBA)	66.9	66.1	65.5	65.2	63.4	64.1	65.7	65.4	65.3
	Aircraft Lnight (dBA)	47.3	48.9	49.4	48.7	47.1	48.0	51.4	51.2	49.4
	Aircraft Leq16h (dBA)	67.2	66.4	65.9	65.6	63.4	64.6	65.8	65.3	65.5
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	403	348	315	240	159	290	328	355	359
	NA Lmax 65	391	338	303	232	154	277	315	344	346
	NA Lmax 70	369	319	285	218	148	254	290	322	324
	NA Lmax 75	290	245	222	168	122	203	221	247	253
	NA Lmax 80	146	103	89	59	28	67	83	72	95
	NA Lmax 85	31	20	16	10	3	9	14	12	17
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	406	350	317	241	161	292	329	357	361
	NA SEL 70	405	348	315	240	159	290	328	355	359
	NA SEL 75	394	339	304	233	154	278	318	346	348
	NA SEL 80	394	339	304	233	145	253	287	317	334
	NA SEL 85	235	204	188	140	86	163	186	174	202
	NA SEL 90	111	76	64	43	15	43	61	51	68.2
	NA SEL 95	15	12	10	6	2	5	10	7	10

Portable Temporary NMT - #216 Broghan

		Nov 2025	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Apr 2026	Avg 5.6 Months
		18 days	31 days	31 Days	28 Days	31 days	30 days	
	Correlated Aircraft Noise Events	1932	5538	5239	4928	2880	2589	
NMT Noise Levels	Total Lden (dBA)	63.2	63.2	62.9	63.1	63.6	63.6	63.3
	Aircraft Lden (dBA)	55.4	57.2	57.0	57.4	55.3	54.9	56.4
	Aircraft Lnight (dBA)	48.7	49.6	48.9	49.6	48.5	47.6	48.9
	Aircraft Leq16h (dBA)	50.6	54.1	54.4	54.3	51.0	51.4	53.1
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	108	179	169	175	93	87	145
	NA Lmax 65	108	174	163	170	91	87	142
	NA Lmax 70	37	66	64	61	34	56	57
	NA Lmax 75	2	2	3	2	2	3	3
	NA Lmax 80	0	0	0	0	0	0	0
	NA Lmax 85	0	0	0	0	0	0	0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	108	179	169	175	93	87	145
	NA SEL 70	108	179	169	175	93	87	145
	NA SEL 75	85	163	159	165	89	87	134
	NA SEL 80	31	67	76	75	32	36	57
	NA SEL 85	2	2	3	2	2	2	2
	NA SEL 90	0	0	0	0	0	0	0
	NA SEL 95	0	0	0	0	0	0	0

Portable Temporary NMT - #217 Clongriffin

		Feb 2026	Mar 2026	Apr 2026	Avg 3 Months
		28 Days	31 days	30 days	
	Correlated Aircraft Noise Events	95	275	793	
NMT Noise Levels	Total Lden (dBA)	55.7	58.0	56.9	57.0
	Aircraft Lden (dBA)	37.0	42.9	47.2	44.1
	Aircraft Lnight (dBA)	0.0	32.8	38.8	35.1
	Aircraft Leq16h (dBA)	38.3	42.2	45.2	42.8
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	3	9	26	13
	NA Lmax 65	3	9	26	13
	NA Lmax 70	3	4	5	4
	NA Lmax 75	0	0	0	0
	NA Lmax 80	0	0	0	0
	NA Lmax 85	0	0	0	0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	3	9	26	13
	NA SEL 70	3	9	26	13
	NA SEL 75	3	8	25	12
	NA SEL 80	2	3	7	4
	NA SEL 85	0	0	0	0
	NA SEL 90	0	0	0	0
	NA SEL 95	0	0	0	0

Portable Temporary NMT - #218 Swords (Oakwood Avenue)

		Feb 2026	Mar 2026	Apr 2026	Avg 2.3 Months
		8.5 Days	31 days	30 days	
	Correlated Aircraft Noise Events	0	2	19	
NMT Noise Levels	Total Lden (dBA)	54.9	57.1	57.1	56.9
	Aircraft Lden (dBA)	-	24.7	30.5	27.9
	Aircraft Lnight (dBA)	-	19.5	23.8	21.6
	Aircraft Leq16h (dBA)	-	0.0	22.0	18.4
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	-	0	1	< 1
	NA Lmax 65	-	0	0	0
	NA Lmax 70	-	0	0	0
	NA Lmax 75	-	0	0	0
	NA Lmax 80	-	0	0	0
	NA Lmax 85	-	0	0	0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	-	0	1	< 1
	NA SEL 70	-	0	1	< 1
	NA SEL 75	-	0	0	0
	NA SEL 80	-	0	0	0
	NA SEL 85	-	0	0	0
	NA SEL 90	-	0	0	0
	NA SEL 95	-	0	0	0

Portable Temporary NMT - #219 Malahide (Kinsealy Lane)

		Mar 2026
		7 days
	Correlated Aircraft Noise Events	842
NMT Noise Levels	Total Lden (dBA)	59.6
	Aircraft Lden (dBA)	56.2
	Aircraft Lnight (dBA)	48.2
	Aircraft Leq16h (dBA)	52.8
Daily Number of Aircraft Noise Events Above Lmax values	NA Lmax 60	121
	NA Lmax 65	117
	NA Lmax 70	65
	NA Lmax 75	4
	NA Lmax 80	0
	NA Lmax 85	0
Daily Number of Aircraft Noise Events Above SEL values	NA SEL 65	121
	NA SEL 70	120
	NA SEL 75	114
	NA SEL 80	54
	NA SEL 85	2
	NA SEL 90	0
	NA SEL 95	0

A portable noise monitoring terminal (NMT) was deployed to Kinsealy Lane, Malahide for one week during emergency repair works on the South Runway and its associated taxiway, which required closure; during this period, all operations were temporarily switched to the North Runway for three days, resulting in easterly departures (Runway 10L) with flight paths that may overfly Malahide.

End

For further information, please visit our website:

www.dublinairport.com