

#### **Executive Summary**



- This report presents data and information from Dublin Airport's Noise Monitoring Terminals (NMTs) and flight track monitoring system.
- The publication of this quarterly report is a requirement under Condition 10 of the North Runway's planning permission.
- The report is split into three parts:
  - Part 1: Noise Monitoring Permanent monitors
  - Part 2: Noise Monitoring 92-day Summer 2025 Contour and Monitoring
  - Part 3: Flight Track Monitoring
- Noise data is presented in this report in five different metrics Lden, Lnight, Leq16h, Lmax and SEL.
- This report includes the 2024 Modelled Annual Noise Contours for the Lden and Lnight metrics and compares this data with the measured data at the 25 permanent NMT locations.
- The reporting of environmental noise from transport systems airports, road and rail is regulated by the EU Environmental Noise Directive (END).
- The END refers to the Lden and Lnight metrics to assess noise impact and to measure longer term improvements and goals.
- These two metrics are also used by the World Health Organization (WHO).
- Lmax and SEL are single event metrics and are not generally used on their own to assess noise impact by authorities. By including the number or frequency of events, they can provide a different way of representing the noise situation.
- This report demonstrates good correlation between the noise measurements obtained from NMTs and the modelled noise contours this provides confidence in the accuracy of the contours. Noise contours cover the entire study area whereas noise monitors only report noise at the actual monitoring locations.



#### Parts 1 and 2: Contents



| Page  | Page Heading  | Page Content  |
|-------|---|---|
| 5 & 6 | Explanation of Terms  |   |
| 7     | Locations of Noise Monitoring Terminals (NMTs)                | <ul> <li>Maps indicating locations of active Dublin Airport NMTs</li> <li>Installation dates of NMTs</li> </ul>   |
| 8     | Modelled Lden Noise Contour Levels at NMT Locations           | <ul> <li>Map of 2024 Lden Annual Aircraft Noise Contours</li> <li>2023 and 2024 Lden noise levels at each NMT as indicated in the Noise Contour map.</li> </ul>   |
| 9     | Modelled Lnight Noise Contour Levels at NMT Locations         | <ul> <li>Map of 2024 Lnight Annual Aircraft Noise Contours</li> <li>2023 and 2024 Lnight noise levels at each NMT as indicated in the Noise Contour map.</li> </ul>   |
| 10    | NMT Operational Data and Number of Correlated Noise Events    | <ul> <li>Downtime (minutes) for each NMT each month</li> <li>The number of correlated aircraft noise events at each NMT per month and in the quarter.</li> </ul>  |
| 11    | NMT – Q3 Monthly and Quarterly Lden, Lnight and Leq16hr Data  | For each month and over the quarter:  • Measured Aircraft Noise at each NMT displayed in Lden, Lnight and Leq16hr metrics.  |
| 12    | NMT – Q3 Aircraft Noise Event and Measured Lden/ Lnight Data  | Chart showing correlated aircraft noise events and the measured Lden and Lnight data at each NMT  |
| 13    | NMT – Modelled and Measured Lden, Lnight and Leq16hr Data     | <ul> <li>2024 Lden and Lnight Modelled Contour levels at each NMT location</li> <li>2024 annual measured aircraft noise levels in Lden and Lnight metrics at each NMT</li> <li>2025 YTD measured aircraft noise levels in Lden, Lnight and Leq16hr metrics at each NMT</li> </ul> |
| 14    | NMT – Total Noise vs Aircraft NoiseQ1, Q2 and Q3 2025         | Measured Total and the Aircraft Lden levels at each NMT.  |
| 15    | NMT – Q3 2025 Lmax and SEL (NA) Number Above (Daily Average)  | <ul> <li>Measured Single Event data at each NMT:</li> <li>Daily Average of the Number of Aircraft Events over each Lmax value 60 to 85 [N60 to N85].</li> <li>Daily Average of the Number of Aircraft Events over each SEL value 70 to 95 [N(SEL)70 to N(SEL)95]</li> </ul>       |
| 16    | NMT – Q3 2025 Lmax and SEL Percentages (3 months)             | Measured Single Event data at each NMT:  • The distribution (%) of events over the quarter in each 5-decibel Lmax band (e.g. Lmax 60 - 65 dBA) and each SEL band (e.g. SEL 75 - 80 dBA).  |
| 17    | NMT – Q3 2205 Lmax/SEL data divided by Day, Evening and Night | <ul> <li>Average of the Number of Aircraft Events over each Lmax value 60 to 85 [N60 to N85] – divided by the Day<br/>Evening and Night periods.</li> </ul>   |
| 18-21 | Data for the 92-day peak summer period – 16 June – 15 Sep     |   |

# **Explanation of Terms**



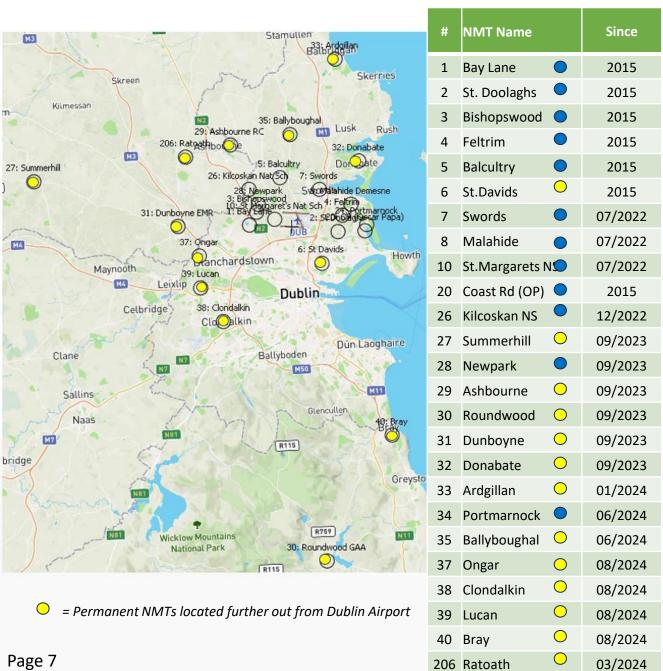
| Term   | Definition  |
|--|---|
| Aircraft Noise   | The noise generated by aircraft operating to or from Dublin Airport. For our noise monitors, this excludes aircraft not travelling to or from Dublin Airport and noise from local activity such as road traffic, wind, birds, dogs and community activity. (These other noise sources are included in the measured Total Noise.)  |
| (Correlated) Aircraft<br>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.   |
| Downtime (minutes)   | The number of minutes during the period that each monitor was not operational.  |
| 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.  |
| 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.  |
| Leq8(hr)   | Leq8h is the Leq over the 8-hour night-time period (11pm-7am). The Summer Leq16hr covers the 92 days from mid-June to mid-September. Leq8h and Lnight cover the same period, so monthly and quarterly values are identical. If the summer period is busier, the Summer Leq8h would be higher than the Annual Lnight.  |
| 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 includes non-aircraft noise.  |
| Lnight   | Lnight is the night-time (11pm-7am) Leq average noise indicator. Like Lden, in this document, Lnight is reported monthly, quarterly and annually.   |
| Measured noise levels  | This is the assessment of the noise level at an NMT derived from data from the NMT. Each measured noise level is only at the NMT point location.  |
| Modelled noise levels  | This is calculated using computer software which takes into account all Dublin Airport flight operational activity. It calculates the noise levels at thousands of points across the study area and is used to produce Noise Contours. The Modelled noise level can also be calculated at each NMT point location.  |
| (Notes: Comparing<br>Measured and<br>Modelled Noise<br>Levels) | Measured noise levels at each NMT location should be the same, or close to, the Modelled noise levels. Measured data may miss some less noisy aircraft noise events, especially if the NMT is far from the aircraft is higher) or if the aircraft track is far from the NMT. Modelled data includes all aircraft activity in the entire study area. This means that Measured data should be equal to, or slightly lower than, the Modelled data. Good agreement between the Measured and Modelled data gives confidence that the Modelled Noise Contours provide good information on actual noise levels, including at locations that do not have an NMT. |

# **Explanation of Terms (Cont.)**



| 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.   |
| Noise<br>Contours                 | Contours are lines that join points of the same modelled noise level covering a study area. All noise contours are modelled. Each year Dublin Airport publishes Annual Lden and Lnight contours and Summer Leq16h and Leq8h contours.  |
| 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<br>Above                   | 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 $\geq$ 60 dBA. N(SEL)70 is the number of (aircraft noise) events with SEL $\geq$ 70 dBA. Note that N60 value includes the events in N65, N70 and higher.   |
| 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. |
| Single Event noise metrics        | Including Lmax and SEL, these measure the noise of individual events. Along with the (daily or hourly) number of events at each noise level, these metrics provide a different perspective attempting to quantify the various experiences of individuals near flight paths.  |
| Time-<br>Averaged<br>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.   |
| YTD                               | Year to date   |

Permanent Noise Monitoring Terminal (NMT) Locations Q3 2025



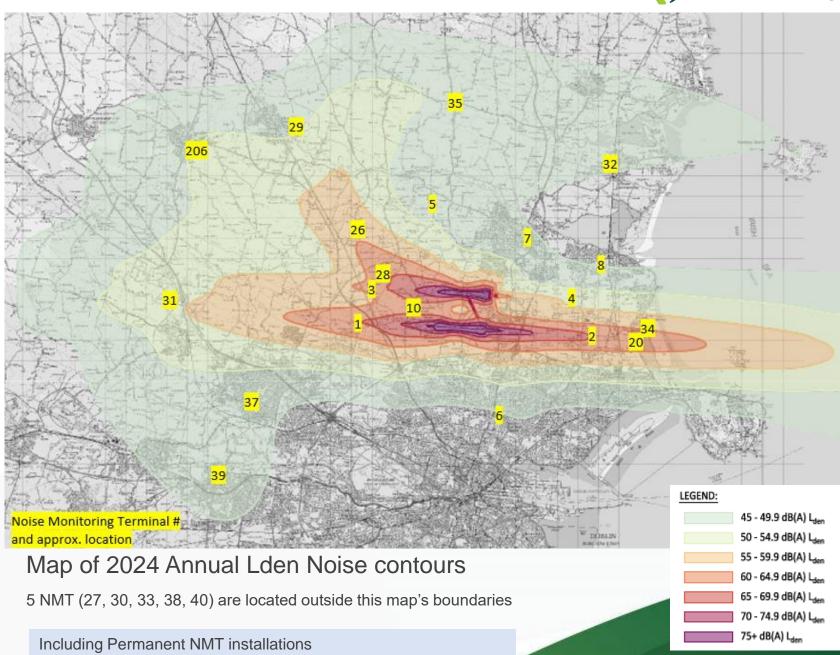


= Permanent NMTs located near Dublin Airport

### **Modelled Lden Noise Contour Levels at Permanent NMT Locations**



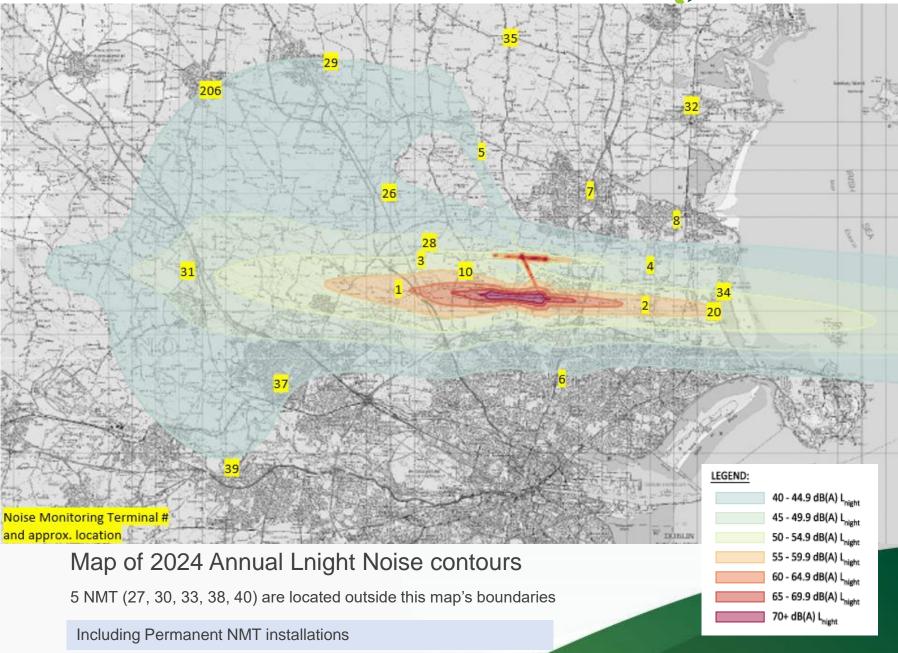
| #   | NMT Name        | Lden<br>2023 | Lden<br>2024 |
|-----|-----------------|--------------|--------------|
| 1   | Bay Lane        | 65           | 64.0         |
| 2   | St. Doolaghs    | 65           | 64.8         |
| 3   | Bishopswood     | 60           | 61.1         |
| 4   | Feltrim         | 54           | 54.1         |
| 5   | Balcultry       | 49           | 49.2         |
| 6   | St.Davids       | 44           | 43.3         |
| 7   | Swords          | 45           | 45.7         |
| 8   | Malahide        | 46           | 46.3         |
| 10  | St.Margarets NS | 63           | 63.7         |
| 20  | Coast Rd (OP)   | 63           | 62.7         |
| 26  | Kilcoskan NS    | 58           | 59.5         |
| 27  | Summerhill      | 38           | 35.8         |
| 28  | Newpark         | 60           | 61.8         |
| 29  | Ashbourne       | 49           | 50.0         |
| 30  | Roundwood       | 36           | 37.7         |
| 31  | Dunboyne        | 54           | 53.1         |
| 32  | Donabate        | 45           | 45.1         |
| 33  | Ardgillan       | 33           | 33.3         |
| 34  | Portmarnock     | 54           | 58.2         |
| 35  | Ballyboughal    | 47           | 49.0         |
| 37  | Ongar           |              | 48.3         |
| 38  | Clondalkin      |              | 43.4         |
| 39  | Lucan           |              | 46.0         |
| 40  | Bray            |              | 33.6         |
| 206 | Ratoath         | 47           | 50.5         |



**Modelled Lnight Noise Contour Levels at Permanent NMT Locations** 



| #   | NMT Name        | Lnight<br>2023 | Lnight<br>2024 |
|-----|-----------------|----------------|----------------|
| 1   | Bay Lane        | 58.5           | 58.4           |
| 2   | St. Doolaghs    | 57.0           | 57.0           |
| 3   | Bishopswood     | 49.1           | 49.4           |
| 4   | Feltrim         | 46.4           | 47.3           |
| 5   | Balcultry       | 39.0           | 40.5           |
| 6   | St.Davids       | 36.0           | 36.3           |
| 7   | Swords          | 36.7           | 36.9           |
| 8   | Malahide        | 38.4           | 38.5           |
| 10  | St.Margarets NS | 55.2           | 55.7           |
| 20  | Coast Rd (OP)   | 55.0           | 55.0           |
| 26  | Kilcoskan NS    | 40.5           | 40.4           |
| 27  | Summerhill      | 31.3           | 28.1           |
| 28  | Newpark         | 44.6           | 44.9           |
| 29  | Ashbourne       | 39.3           | 40.1           |
| 30  | Roundwood       | 28.3           | 30.1           |
| 31  | Dunboyne        | 47.0           | 47.2           |
| 32  | Donabate        | 36.7           | 37.2           |
| 33  | Ardgillan       | 23.8           | 23.4           |
| 34  | Portmarnock     |                | 50.3           |
| 35  | Ballyboughal    |                | 36.9           |
| 37  | Ongar           |                | 42.3           |
| 38  | Clondalkin      |                | 36.8           |
| 39  | Lucan           |                | 39.7           |
| 40  | Bray            |                | 24.9           |
| 206 | Ratoath         |                | 40.5           |



## NMT – Operational Downtime and Number of Correlated Aircraft Noise Events Dublin Airport

| NMT | Location        | July               |                      | August             |                      | September       | Q3 2025              |                      |  |
|-----|-----------------|--------------------|----------------------|--------------------|----------------------|-----------------|----------------------|----------------------|--|
|     |                 | Downtime<br>(mins) | # Aircraft<br>Events | Downtime<br>(mins) | # Aircraft<br>Events | Downtime (mins) | # Aircraft<br>Events | # Aircraft<br>Events |  |
| 1   | Bay Lane        | 26 days            | 210 (5 d)            | 21 days            | 421 (10 d)           | 100             | 1410                 | 2041 (45 d)          |  |
| 2   | St. Doolaghs    | 5                  | 12109                | 6                  | 11669                | 24              | 11841                | 35619                |  |
| 3   | Bishopswood     | 134                | 5081                 | 76                 | 5802                 | 23              | 5550                 | 16433                |  |
| 4   | Feltrim         | 60                 | 687                  | 2                  | 912                  | 51              | 737                  | 2336                 |  |
| 5   | Balcultry       | 50                 | 18                   | 78                 | 54                   | 56              | 12                   | 84                   |  |
| 6   | St.Davids       | 162                | 39                   | 3                  | 109                  | 2               | 47                   | 195                  |  |
| 7   | Swords          | 30                 | 2                    | 101                | 1                    | 136             | 6                    | 9                    |  |
| 8   | Malahide        | 2866               | 5                    | 102                | 81                   | 96              | 8                    | 94                   |  |
| 10  | St.Margarets NS | 33                 | 6512                 | 68                 | 4761                 | 97              | 5982                 | 17255                |  |
| 20  | Coast Rd (OP)   | 0                  | 11617                | 0                  | 10953                | 0               | 11263                | 33833                |  |
| 26  | Kilcoskan NS    | 120                | 7594                 | 0                  | 5556                 | 1               | 6745                 | 19895                |  |
| 27  | Summerhill      | 39                 | 8                    | 76                 | 128                  | 67              | 104                  | 240                  |  |
| 28  | Newpark         | 192                | 7737                 | 67                 | 8929                 | 66              | 9388                 | 26054                |  |
| 29  | Ashbourne       | 37                 | 308                  | 100                | 400                  | 99              | 744                  | 1452                 |  |
| 30  | Roundwood       | 32                 | 0                    | 68                 | 0                    | 195             | 0                    | 0                    |  |
| 31  | Dunboyne        | 31                 | 589                  | 69                 | 866                  | 66              | 821                  | 2276                 |  |
| 32  | Donabate        | 17                 | 5                    | 17                 | 5                    | 17              | 10                   | 20                   |  |
| 33  | Ardgillan       | 17                 | 5                    | 45                 | 4                    | 126             | 4                    | 13                   |  |
| 34  | Portmarnock     | 31                 | 2949                 | 142                | 6268                 | 66              | 6165                 | 15382                |  |
| 35  | Ballyboughal    | 68                 | 166                  | 77                 | 109                  | 98              | 121                  | 396                  |  |
| 37  | Ongar           | 68                 | 146                  | 129                | 117                  | 120             | 76                   | 339                  |  |
| 38  | Clondalkin      | 98                 | 12                   | 120                | 10                   | 127             | 7                    | 29                   |  |
| 39  | Lucan           | 62                 | 46                   | 100                | 26                   | 125             | 23                   | 95                   |  |
| 40  | Bray            | 69                 | 3                    | 99                 | 1                    | 65              | 0                    | 4                    |  |
| 206 | Ratoath         | 32                 | 1766                 | 68                 | 768                  | 98              | 1056                 | 3590                 |  |

NMT 1 down for 47 days in July and Aug due to power failure and part replacement.

Including Permanent NMT installations only

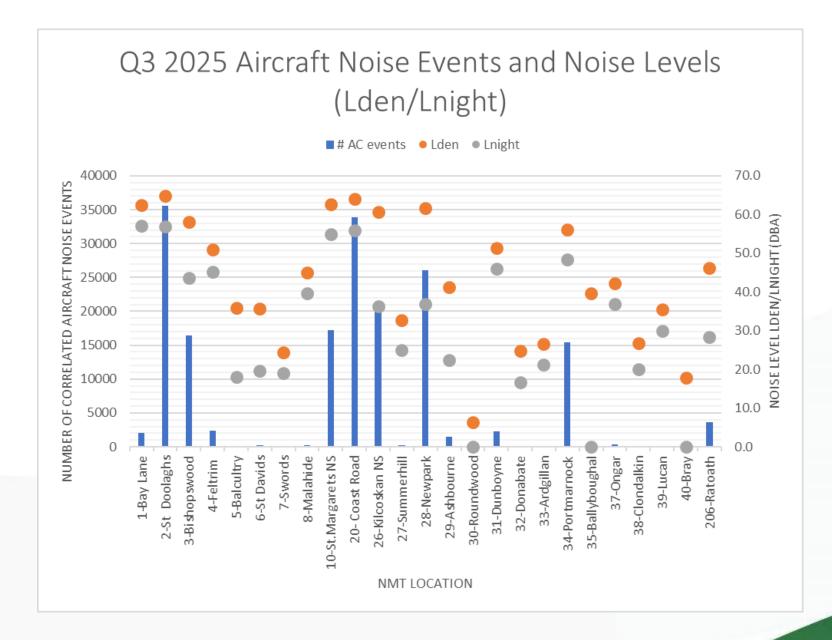
## NMT – Q3 2025 Monthly and Quarterly Lden, Lnight and Leq16hr



| IAIAII | <b>Q5 202</b>       | <b>3 1410</b> | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | and         | Qua   | terry Lucii, Lingiit and Lequoin |      |      |            |           |             |      |            | Positiviti porc |      |      |            |  |  |
|--------|---------------------|---------------|--|-------------|-------|----------------------------------|------|------|------------|-----------|-------------|------|------------|-----------------|------|------|------------|--|--|
| NMT    | Location            | # Correla     | ted Aircraf                            | t Noise Eve | ents  | Lden (dB/                        | A)   |      |            | Lnight (= | Leq 8h) (dE | A)   |            | Leq16h (dBA)    |      |      |            |  |  |
|        |                     | Jul           | Aug                                    | Sep         | Q3    | Jul                              | Aug  | Sep  | Q3         | Jul       | Aug         | Sep  | Q3         | Jul             | Aug  | Sep  | Q3         |  |  |
| 1      | Bay Lane (45d only) | 210 (5d)      | 421 (10d)                              | 1410        | 2041  | 61.6                             | 62.0 | 63.4 | 63.0 (45d) | 56.3      | 56.7        | 58.2 | 57.7 (45d) | 35.9            | 42.1 | 42.1 | 41.7 (45d) |  |  |
| 2      | St. Doolaghs        | 12109         | 11669                                  | 11841       | 35619 | 64.8                             | 64.4 | 65.0 | 64.7       | 57.0      | 56.3        | 57.1 | 56.8       | 61.6            | 61.6 | 61.8 | 61.6       |  |  |
| 3      | Bishopswood         | 5081          | 5802                                   | 5550        | 16433 | 57.3                             | 58.3 | 58.7 | 58.1       | 39.6      | 44.5        | 44.8 | 43.5       | 57.7            | 58.2 | 58.5 | 58.2       |  |  |
| 4      | Feltrim             | 687           | 912                                    | 737         | 2336  | 49.3                             | 54.0 | 46.4 | 51.0       | 43.3      | 48.4        | 38.6 | 45.1       | 42.4            | 43.8 | 43.9 | 43.4       |  |  |
| 5      | Balcultry           | 18            | 54                                     | 12          | 84    | 30.7                             | 39.8 | 28.5 | 35.8       | 17.9      | 16.3        | 19.3 | 18.0       | 31.4            | 41.5 | 26.6 | 37.3       |  |  |
| 6      | St.Davids           | 39            | 109                                    | 47          | 195   | 30.7                             | 38.6 | 33.9 | 35.6       | 0.0       | 21.4        | 21.6 | 19.7       | 32.2            | 40.0 | 34.7 | 36.9       |  |  |
| 7      | Swords              | 2             | 1                                      | 6           | 9     | 19.7                             | 20.7 | 27.9 | 24.3       | 13.8      | 15.5        | 22.6 | 19.0       | 12.4            | 0.0  | 12.9 | 11.0       |  |  |
| 8      | Malahide            | 5             | 81                                     | 8           | 94    | 20.1                             | 34.2 | 21.0 | 29.8       | 13.5      | 28.7        | 0.0  | 24.1       | 13.6            | 21.1 | 20.2 | 19.3       |  |  |
| 10     | St.Margarets NS     | 6512          | 4761                                   | 5982        | 17255 | 62.8                             | 61.8 | 63.0 | 62.6       | 55.1      | 54.4        | 55.3 | 55.0       | 59.5            | 58.1 | 59.8 | 59.2       |  |  |
| 20     | Coast Rd (OP)       | 11617         | 10953                                  | 11263       | 33833 | 64.2                             | 63.6 | 64.5 | 64.1       | 56.2      | 55.4        | 56.3 | 56.0       | 61.3            | 60.9 | 61.9 | 61.4       |  |  |
| 26     | Kilcoskan NS        | 7594          | 5556                                   | 6745        | 19895 | 61.1                             | 59.7 | 61.1 | 60.7       | 35.3      | 38.9        | 29.6 | 36.1       | 61.6            | 60.0 | 61.6 | 61.1       |  |  |
| 27     | Summerhill          | 8             | 128                                    | 104         | 240   | 24.8                             | 34.6 | 34.1 | 32.8       | 18.6      | 26.0        | 26.7 | 24.9       | 19.5            | 33.4 | 31.3 | 30.8       |  |  |
| 28     | Newpark             | 7737          | 8929                                   | 9388        | 26054 | 61.9                             | 61.0 | 62.0 | 61.7       | 34.4      | 40.4        | 29.5 | 36.9       | 62.4            | 61.4 | 62.4 | 62.1       |  |  |
| 29     | Ashbourne           | 308           | 400                                    | 744         | 1452  | 39.3                             | 40.2 | 43.2 | 41.2       | 23.2      | 21.3        | 22.3 | 22.4       | 39.9            | 41.4 | 43.9 | 42.0       |  |  |
| 30     | Roundwood           | 0             | 0                                      | 0           | 0     | 6.4                              | 6.4  | 6.4  | 6.4        | 0.0       | 0.0         | 0.0  | 0.0        | 0.0             | 0.0  | 0.0  | 0.0        |  |  |
| 31     | Dunboyne            | 589           | 866                                    | 821         | 2276  | 49.9                             | 51.8 | 52.0 | 51.3       | 44.6      | 46.6        | 46.7 | 46.1       | 27.9            | 31.7 | 31.8 | 30.8       |  |  |
| 32     | Donabate            | 5             | 5                                      | 10          | 20    | 21.0                             | 24.7 | 26.8 | 24.8       | 0.0       | 18.0        | 18.9 | 16.7       | 22.1            | 20.5 | 25.3 | 23.1       |  |  |
| 33     | Ardgillan           | 5             | 4                                      | 4           | 13    | 23.3                             | 26.9 | 28.4 | 26.6       | 17.6      | 21.6        | 23.1 | 21.3       | 15.5            | 0.0  | 0.0  | 11.0       |  |  |
| 34     | Portmarnock         | 2949          | 6268                                   | 6165        | 15382 | 54.2                             | 56.7 | 57.0 | 56.1       | 46.3      | 48.8        | 49.3 | 48.3       | 51.3            | 54.1 | 53.8 | 53.2       |  |  |
| 35     | Ballyboughal        | 166           | 109                                    | 121         | 396   | 39.8                             | 38.4 | 39.2 | 39.2       | 0.0       | 0.0         | 0.0  | 0.0        | 40.7            | 39.2 | 40.3 | 40.1       |  |  |
| 37     | Ongar               | 146           | 117                                    | 76          | 339   | 43.1                             | 42.1 | 40.9 | 42.1       | 37.8      | 36.8        | 35.6 | 36.8       | 25.5            | 24.6 | 26.1 | 25.4       |  |  |
| 38     | Clondalkin          | 12            | 10                                     | 7           | 29    | 27.3                             | 27.3 | 25.6 | 26.8       | 19.5      | 20.5        | 19.7 | 19.9       | 20.8            | 21.1 | 15.2 | 19.8       |  |  |
| 39     | Lucan               | 46            | 26                                     | 23          | 95    | 37.0                             | 34.0 | 34.5 | 35.4       | 31.8      | 28.6        | 28.6 | 30.0       | 15.8            | 19.6 | 24.1 | 21.0       |  |  |
| 40     | Bray                | 3             | 1                                      | 0           | 4     | 21.4                             | 16.0 | 6.4  | 17.9       | 0.0       | 0.0         | 0.0  | 0.0        | 20.0            | 17.3 | 0.0  | 17.2       |  |  |
| 206    | Ratoath             | 1766          | 768                                    | 1056        | 3590  | 47.3                             | 44.0 | 46.4 | 46.1       | 30.4      | 26.2        | 27.2 | 28.4       | 47.9            | 44.6 | 46.9 | 46.7       |  |  |

#### NMT – Q3 2025 Aircraft Noise Events and Measured Lden and Lnight





## 2024 and Quarterly 2025 (YTD) Measured Lden, Lnight & Leq16hr



|     |                | Qualterly 2025 (115) Measured Each, Emgile & Ecq10111 |                    |            |            |            |            |      |  |                    |            | •••        |            |            |      |                         |            |            |            |            |      |
|-----|----------------|---|--------------------|------------|------------|------------|------------|------|--|--------------------|------------|------------|------------|------------|------|-------------------------|------------|------------|------------|------------|------|
| NMT | Location       | Lden (d   | BA) [Mod           | delled Co  | ntour and  | d Measur   | ed         |      | Lnight (=Leq 8h) (dBA) [Modelled Contour and Measured] |                    |            |            |            |            |      | Leq16h (dBA) [Measured] |            |            |            |            |      |
|     |                | <b>'24</b><br>Model                                   | '24<br>NMT         | Q1<br>2025 | Q2<br>2025 | Q3<br>2025 | Q4<br>2025 | 2025 | <b>'24</b><br>Model                                    | '24<br>NMT         | Q1<br>2025 | Q2<br>2025 | Q3<br>2025 | Q4<br>2025 | 2025 | '24<br>NMT              | Q1<br>2025 | Q2<br>2025 | Q3<br>2025 | Q4<br>2025 | 2025 |
| 1   | Bay Lane (45d) | 64.0  | 63.4               | 63.7       | 63.8       | 63.0 *     |            |      | 58.4   | 57.8               | 58.2       | 58.6       | 57.7*      |            |      | 51.6                    | 50.6       | 42.5       | 41.7*      |            |      |
| 2   | St. Doolaghs   | 64.8  | 64.3               | 63.4       | 64.3       | 64.7       |            |      | 57.0   | 56.5               | 55.4       | 56.1       | 56.8       |            |      | 61.0                    | 60.5       | 61.7       | 61.6       |            |      |
| 3   | Bishopswood    | 61.1  | 58.4               | 58.6       | 59.7       | 58.1       |            |      | 49.4   | 45.1               | 44.0       | 43.3       | 43.5       |            |      | 58.4                    | 58.7       | 59.8       | 58.2       |            |      |
| 4   | Feltrim        | 54.1  | 52.4               | 51.5       | 52.4       | 51.0       |            |      | 47.3   | 45.3               | 44.0       | 45.9       | 45.1       |            |      | 48.5                    | 48.3       | 47.2       | 43.4       |            |      |
| 5   | Balcultry      | 49.2  | 44.1               | 40.9       | 37.7       | 35.8       |            |      | 40.5   | 37.2               | 27.1       | 25.8       | 18.0       |            |      | 37.8                    | 41.4       | 36.8       | 37.3       |            |      |
| 6   | St.Davids      | 43.3  | 42.8               | 40.6       | 40.9       | 35.6       |            |      | 36.3   | 34.8               | 28.8       | 31.7       | 19.7       |            |      | 39.3                    | 40.8       | 39.7       | 36.9       |            |      |
| 7   | Swords         | 45.7  | 38.7               | 37.3       | 37.8       | 24.3       |            |      | 36.9   | 26.8               | 18.6       | 30.3       | 19.0       |            |      | 37.2                    | 37.9       | 34.5       | 11.0       |            |      |
| 8   | Malahide       | 46.3  | 38.9               | 35.8       | 41.4       | 29.8       |            |      | 38.5   | 32.0               | 28.9       | 35.9       | 24.1       |            |      | 32.6                    | 31.0       | 28.9       | 19.3       |            |      |
| 10  | St.Margarets   | 63.7  | 63.4               | 61.8       | 61.7       | 62.6       |            |      | 55.7   | 56.1               | 54.6       | 54.4       | 55.0       |            |      | 59.6                    | 57.9       | 57.9       | 59.2       |            |      |
| 20  | Coast Rd (OP)  | 62.7  | 62.6               | 62.6       | 63.3       | 64.1       |            |      | 55.0   | 54.5               | 54.1       | 54.9       | 56.0       |            |      | 59.6                    | 60.3       | 60.9       | 61.4       |            |      |
| 26  | Kilcoskan NS   | 59.5  | 60.4               | 58.7       | 59.4       | 60.7       |            |      | 40.4   | 36.0               | 35.0       | 37.4       | 36.1       |            |      | 61.1                    | 59.4       | 60.0       | 61.1       |            |      |
| 27  | Summerhill     | 35.8  | 33.8               | 31.3       | 34.9       | 32.8       |            |      | 28.1   | 23.3               | 24.0       | 24.0       | 24.9       |            |      | 33.5                    | 27.7       | 33.2       | 30.8       |            |      |
| 28  | Newpark        | 61.8  | 61.3               | 59.0       | 59.7       | 61.7       |            |      | 44.9   | 36.7               | 34.3       | 37.0       | 36.9       |            |      | 61.9                    | 59.6       | 60.2       | 62.1       |            |      |
| 29  | Ashbourne      | 50.0  | 39.7               | 38.7       | 39.1       | 41.2       |            |      | 40.1   | 23.4               | 19.8       | 23.0       | 22.4       |            |      | 40.4                    | 39.4       | 39.8       | 42.0       |            |      |
| 30  | Roundwood      | 37.7  | 17.7               | 0          | 0          | 6.4        |            |      | 30.1   | 0.0                | 0.0        | 0.0        | 0.0        |            |      | 19.2                    | 0.0        | 0.0        | 0.0        |            |      |
| 31  | Dunboyne       | 53.1  | 50.4               | 50.6       | 51.9       | 51.3       |            |      | 47.2   | 44.9               | 45.1       | 46.7       | 46.1       |            |      | 38.3                    | 35.2       | 28.6       | 30.8       |            |      |
| 32  | Donabate       | 45.1  | 32.7               | 29.8       | 32.3       | 24.8       |            |      | 37.2   | 21.6               | 18.4       | 21.8       | 16.7       |            |      | 31.1                    | 29.3       | 31.0       | 23.1       |            |      |
| 33  | Ardgillan      | 33.3  | 30.1               | 28.5       | 28.7       | 26.6       |            |      | 23.4   | 20.9               | 11.8       | 21.7       | 21.3       |            |      | 27.8                    | 28.1       | 24.7       | 11.0       |            |      |
| 34  | Portmarnock    | 58.2  | 54.8 <sup>8</sup>  | 54.6       | 58.3       | 56.1       |            |      | 50.3   | 46.9 <sup>8</sup>  | 47.0       | 51.5       | 48.3       |            |      | 52.1 <sup>8</sup>       | 51.6       | 53.5       | 53.2       |            |      |
| 35  | Ballyboughal   | 49.0  | 38.3 <sup>8</sup>  | 38.1       | 38.8       | 39.2       |            |      | 36.9   | 24.1 <sup>8</sup>  | 24.9       | 18.1       | 0.0        |            |      | 38.7 <sup>8</sup>       | 38.6       | 39.9       | 40.1       |            |      |
| 37  | Ongar          | 48.3  | 40.63              | 39.9       | 42.8       | 42.1       |            |      | 42.3   | $34.8^{3}$         | 34.4       | 37.4       | 36.8       |            |      | 32.0 <sup>3</sup>       | 27.5       | 27.0       | 25.4       |            |      |
| 38  | Clondalkin     | 43.4  | 37.8 <sup>3</sup>  | 22.9       | 28.3       | 26.8       |            |      | 36.8   | 24.5 <sup>3</sup>  | 16.8       | 20.1       | 19.9       |            |      | 38.6 <sup>3</sup>       | 16.6       | 26.6       | 19.8       |            |      |
| 39  | Lucan          | 46.0  | 33.8 <sup>3</sup>  | 30.6       | 35.3       | 35.4       |            |      | 39.7   | 25.3 <sup>3</sup>  | 22.6       | 28.9       | 30.0       |            |      | 32.6 <sup>3</sup>       | 24.8       | 27.8       | 21.0       |            |      |
| 40  | Bray           | 33.6  | 33.4 <sup>3</sup>  | 24.7       | 31.4       | 17.9       |            |      | 24.9   | 16.4 <sup>3</sup>  | 10.6       | 10.6       | 0.0        |            |      | 34.0 <sup>3</sup>       | 24.9       | 31.2       | 17.2       |            |      |
| 206 | Ratoath        | 50.5  | 47.0 <sup>10</sup> | 44.3       | 46.3       | 46.1       |            |      | 40.5   | 27.1 <sup>10</sup> | 28.4       | 28.0       | 28.4       |            |      | 47.410                  | 45.0       | 46.9       | 46.7       |            |      |

#### Total Noise versus Aircraft Noise Q1, Q2 & Q3 2025

|     |                 |                      |                            |                               | , ,                  |                            |                               |                      |                            |                               |  |  |
|-----|-----------------|----------------------|----------------------------|-------------------------------|----------------------|----------------------------|-------------------------------|----------------------|----------------------------|-------------------------------|--|--|
| NMT | Location        | Lden Q1 2025         | 5                          |                               | Lden Q2 2025         | 5                          |                               | Lden Q3 2025         |                            |                               |  |  |
|     |                 | Total Noise<br>(dBA) | Aircraft<br>Noise<br>(dBA) | # Aircraft<br>Noise<br>Events | Total Noise<br>(dBA) | Aircraft<br>Noise<br>(dBA) | # Aircraft<br>Noise<br>Events | Total Noise<br>(dBA) | Aircraft<br>Noise<br>(dBA) | # Aircraft<br>Noise<br>Events |  |  |
| 1   | Bay Lane        | 68.7                 | 63.7                       | 3817                          | 65.6                 | 63.8                       | 4431                          | 64.4 (45d)           | 62.4                       | 2041 (45d)                    |  |  |
| 2   | St. Doolaghs    | 65.0                 | 63.4                       | 24307                         | 65.0                 | 64.3                       | 33551                         | 65.3                 | 64.8                       | 35619                         |  |  |
| 3   | Bishopswood     | 64.8                 | 58.6                       | 14535                         | 63.5                 | 59.7                       | 20662                         | 63.2                 | 58.1                       | 16433                         |  |  |
| 4   | Feltrim         | 66.2                 | 51.5                       | 5115                          | 59.7                 | 52.5                       | 5095                          | 60.8                 | 50.9                       | 2336                          |  |  |
| 5   | Balcultry       | 63.2                 | 40.9                       | 99                            | 69.1                 | 37.6                       | 75                            | 55.8                 | 35.6                       | 84                            |  |  |
| 6   | St.Davids       | 64.2                 | 40.6                       | 283                           | 55.1                 | 40.8                       | 330                           | 57.7                 | 35.5                       | 195                           |  |  |
| 7   | Swords          | 68.6                 | 37.3                       | 98                            | 60.8                 | 37.7                       | 48                            | 66.6                 | 24.4                       | 9                             |  |  |
| 8   | Malahide        | 63.9                 | 35.8                       | 254                           | 61.8                 | 41.5                       | 369                           | 76.8                 | 29.5                       | 94                            |  |  |
| 10  | St.Margarets NS | 67.0                 | 61.8                       | 12310                         | 66.0                 | 61.7                       | 14223                         | 66.2                 | 62.6                       | 17255                         |  |  |
| 20  | Coast Rd (OP)   | 68.3                 | 62.6                       | 23282                         | 66.3                 | 63.3                       | 30742                         | 66.6                 | 64.1                       | 33833                         |  |  |
| 26  | Kilcoskan NS    | 66.6                 | 58.7                       | 11690                         | 62.5                 | 59.4                       | 14130                         | 63.2                 | 60.7                       | 19895                         |  |  |
| 27  | Summerhill      | 61.2                 | 31.3                       | 106                           | 58.9                 | 34.9                       | 106                           | 58.0                 | 32.7                       | 240                           |  |  |
| 28  | Newpark         | 67.2                 | 59.0                       | 13189                         | 61.5                 | 59.7                       | 15013                         | 62.8                 | 61.7                       | 26054                         |  |  |
| 29  | Ashbourne       | 62.7                 | 38.7                       | 827                           | 57.1                 | 39.1                       | 851                           | 56.0                 | 41.2                       | 1452                          |  |  |
| 30  | Roundwood       | 57.6                 | 6.4                        | 0                             | 55.0                 | 6.4                        | 0                             | 59.0                 | 6.4                        | 0                             |  |  |
| 31  | Dunboyne        | 61.1                 | 50.6                       | 1733                          | 59.0                 | 51.9                       | 2338                          | 60.6                 | 51.3                       | 2276                          |  |  |
| 32  | Donabate        | 58.5                 | 29.8                       | 34                            | 54.7                 | 32.4                       | 32                            | 54.3                 | 24.8                       | 20                            |  |  |
| 33  | Ardgillan       | 58.1                 | 28.5                       | 38                            | 53.2                 | 28.6                       | 21                            | 54.2                 | 26.6                       | 13                            |  |  |
| 34  | Portmarnock     | 60.2                 | 54.6                       | 6758                          | 60.8                 | 58.3                       | 9705                          | 59.0                 | 56.1                       | 15382                         |  |  |
| 35  | Ballyboughal    | 64.0                 | 38.1                       | 224                           | 62.3                 | 38.8                       | 338                           | 61.3                 | 39.2                       | 396                           |  |  |
| 37  | Ongar           | 65.3                 | 39.9                       | 201                           | 60.1                 | 42.8                       | 280                           | 59.0                 | 42.1                       | 339                           |  |  |
| 38  | Clondalkin      | 65.8                 | 22.9                       | 859                           | 58.0                 | 28.2                       | 35                            | 59.0                 | 26.8                       | 29                            |  |  |
| 39  | Lucan           | 57.4                 | 30.6                       | 308                           | 54.7                 | 35.3                       | 78                            | 54.7                 | 35.4                       | 95                            |  |  |
| 40  | Bray            | 59.3                 | 24.7                       | 108                           | 58.1                 | 31.5                       | 38                            | 55.1                 | 17.9                       | 4                             |  |  |
| 206 | Ratoath         | 60.1                 | 44.3                       | 2541                          | 55.3                 | 46.3                       | 3971                          | 54.8                 | 46.2                       | 3590                          |  |  |
|     |                 |                      |                            |                               |                      |                            |                               |                      |                            |                               |  |  |



- **Total Noise** includes all noise sources detected at the NMT.
- Aircraft Noise only includes noise events that are correlated with the flight radar and time of aircraft operational events i.e. arrivals and departures at Dublin Airport.

| Q3 2025 Lmax and SEL Number Above (NA) data (Daily Average)  NMT Location Average Number of Aircraft Noise Events per DAY Above Lmax (dBA) # Aircraft N Average Number of Aircraft Noise Events per DAY Above SEL # Aircraft |                 |            |              |               |       |             |     |             |   |          |          |          |          |          | irport        |
|--|-----------------|------------|--------------|---------------|-------|-------------|-----|-------------|---|----------|----------|----------|----------|----------|---------------|
|  |                 | Average Nu | umber of Air | craft Noise E |       | AY Above Lm | •   | •           | Average Number of Aircraft Noise Events per DAY Above SEL # Ai [e.g. N(SEL)70 = Number of events above SEL 70dBA] Eve |          |          |          |          |          |               |
|  |                 | N60        | N65          | N70           | N75   | N80         | N85 | (Av day Q3) | N(SEL)70  | N(SEL)75 | N(SEL)80 | N(SEL)85 | N(SEL)90 | N(SEL)95 | (Total in Q3) |
| 1  | Bay Lane        | 45.4       | 45.4         | 43.8          | 26.2  | 4.0         | 0.1 | 45.4        | 45.4  | 45.2     | 42.2     | 24.8     | 1.5      | 0.0      | 2041 (45 d)   |
| 2  | St. Doolaghs    | 387.2      | 387.2        | 367.2         | 145.5 | 5.2         | 0.1 | 387.2       | 387.2   | 385.1    | 357.0    | 78.8     | 3.5      | 0.0      | 35619         |
| 3  | Bishopswood     | 178.8      | 178.8        | 140.9         | 51.4  | 1.7         | 0.1 | 178.6       | 178.8   | 175.5    | 127.5    | 27.5     | 2.1      | 0.2      | 16433         |
| 4  | Feltrim         | 25.4       | 19.5         | 6.5           | 2.1   | 0.0         |     | 25.4        | 25.3  | 18.8     | 6.2      | 1.2      | 0.0      |          | 2336          |
| 5  | Balcultry       | 0.9        | 0.9          | 0.6           | 0.5   | 0.1         | 0.0 | 0.9         | 0.9   | 0.9      | 0.6      | 0.4      | 0.0      |          | 84            |
| 6  | St.Davids       | 2.1        | 2.0          | 1.3           | 0.2   | 0.0         |     | 2.1         | 2.1   | 2.0      | 0.9      | 0.2      | 0.0      |          | 195           |
| 7  | Swords          | 0.1        | 0.1          |               |       |             |     | 0.1         | 0.1   | 0.0      |          |          |          |          | 9             |
| 8  | Malahide        | 0.3        | 0.1          | 0.0           |       |             |     | 1.0         | 0.3   | 0.1      | 0.0      |          |          |          | 94            |
| 10   | St.Margarets NS | 187.3      | 181.5        | 175.1         | 90.2  | 9.5         | 0.1 | 187.6       | 187.0   | 181.7    | 168.2    | 62.6     | 4.9      |          | 17255         |
| 20   | Coast Rd (OP)   | 367.8      | 367.8        | 345.5         | 64.0  | 3.1         | 0.1 | 367.8       | 367.8   | 367.8    | 343.7    | 67.2     | 1.8      | 0.1      | 33833         |
| 26   | Kilcoskan NS    | 216.3      | 215.8        | 210.1         | 108.2 | 10.8        | 0.1 | 216.3       | 216.5   | 215.7    | 205.7    | 93.6     | 8.4      | 0.0      | 19895         |
| 27   | Summerhill      | 2.5        | 0.8          | 0.1           | 0.0   | 0.0         |     | 2.6         | 2.1   | 0.8      | 0.0      | 0.0      |          |          | 240           |
| 28   | Newpark         | 283.2      | 246.4        | 194.7         | 114.2 | 15.5        | 0.8 | 283.2       | 283.0   | 235.9    | 197.9    | 122.0    | 13.8     | 0.3      | 26054         |
| 29   | Ashbourne       | 15.8       | 13.1         | 2.4           | 0.2   |             |     | 15.8        | 15.8  | 10.2     | 2.0      | 0.1      |          |          | 1452          |
| 30   | Roundwood       | 0          |              |               |       |             |     | 0.0         | 0   |          |          |          |          |          | 0             |
| 31   | Dunboyne        | 24.3       | 13.2         | 1.8           | 0.0   |             |     | 24.7        | 24.0  | 15.4     | 2.3      | 0.0      |          |          | 2276          |
| 32   | Donabate        | 0.2        | 0.2          | 0.0           |       |             |     | 0.2         | 0.2   | 0.1      | 0.0      |          |          |          | 20            |
| 33   | Ardgillan       | 0.1        | 0.1          | 0.0           |       |             |     | 0.1         | 0.1   | 0.0      | 0.0      |          |          |          | 13            |
| 34   | Portmarnock     | 167.2      | 132.6        | 38.4          | 3.8   | 0.0         |     | 167.2       | 166.8   | 130.5    | 49.8     | 5.0      | 0.2      |          | 15382         |
| 35   | Ballyboughal    | 4.3        | 4.3          | 4.3           | 0.7   | 0.0         |     | 4.3         | 4.3   | 4.3      | 2.7      | 0.2      |          |          | 396           |
| 37   | Ongar           | 3.2        | 1.4          | 0.1           |       |             |     | 3.7         | 3.4   | 2.2      | 0.2      |          |          |          | 339           |
| 38   | Clondalkin      | 0.3        | 0.1          | 0.0           |       |             |     | 0.3         | 0.3   | 0.1      | 0.0      |          |          |          | 29            |
| 39   | Lucan           | 1.1        | 0.2          | 0.0           |       |             |     | 1.0         | 1.0   | 0.5      | 0.0      |          |          |          | 95            |
| 40   | Bray            | 0.0        | 0.0          | 0.0           |       |             |     | 0.0         | 0.0   | 0.0      |          |          |          |          | 4             |
| 206  | Ratoath         | 39.0       | 32.8         | 6.5           | 0.8   | 0.1         |     | 39.0        | 38.2  | 29.3     | 6.7      | 0.4      |          |          | 3590          |

This data shows Lmax and SEL distributions of correlated aircraft noise events each day averaged over Q2 2025. For example, N60 = number of daily events over Lmax 60 dBA.

### Q3 2025 Lmax and SEL Percentages in 5-decibel bands (3 months)



| raft Noise<br>s |
|-----------------|
| tal in Q3)      |
| 41 (45 d)       |
| 35619           |
| 16433           |
| 2336            |
| 84              |
| 195             |
| 9               |
| 94              |
| 17255           |
| 33833           |
| 19895           |
| 240             |
| 26054           |
| 1452            |
| 0               |
| 2276            |
| 20              |
| 13              |
| 15382           |
| 396             |
| 339             |
| 29              |
| 95              |
| 1               |
| 4               |
|                 |

# Q3 2025 Lmax data (Day, Evening & Night averages over the 3 months)



|     |                 |       |                    | <b>– • ,</b> |      | 6    | <u> </u> | -8  | <u> </u> | <b></b> |      |     |     |      |  |      |      |     |     |  |
|-----|-----------------|-------|--------------------|--------------|------|------|----------|---|----------|---------|------|-----|-----|------|--|------|------|-----|-----|--|
| NMT | Location        | _     | Number ovel (Day P |              |      |      |          | Average Number of Evening time Events over each Lmax Level (Evening Period is 4 hrs, 7pm to 11pm) |          |         |      |     |     |      | Average Number of Night time Events over each Lmax Level (Night Period is 8 hours 11pm to 7am) |      |      |     |     |  |
|     |                 | N60   | N65                | N70          | N75  | N80  | N85      | N60   | N65      | N70     | N75  | N80 | N85 | N60  | N65  | N70  | N75  | N80 | N85 |  |
| 1   | Bay Lane (45d)  | 3.3   | 3.3                | 3.0          | 1.1  | 0.1  | 0.0      | 0.8   | 0.8      | 0.7     | 0.4  | 0.0 | 0.0 | 41.3 | 41.3   | 40.1 | 24.8 | 3.8 | 0.1 |  |
| 2   | St. Doolaghs    | 264.8 | 264.8              | 250.1        | 97.9 | 4.5  | 0.1      | 69.4  | 69.4     | 65.8    | 25.8 | 0.2 | 0.0 | 53.1 | 53.1   | 51.3 | 21.9 | 0.4 | 0.0 |  |
| 3   | Bishopswood     | 144.4 | 144.4              | 116.6        | 43.6 | 1.5  | 0.1      | 29.3  | 29.3     | 22.1    | 7.3  | 0.1 | 0.0 | 5.1  | 5.1  | 2.1  | 0.4  | 0.1 | 0.0 |  |
| 4   | Feltrim         | 16.6  | 13.9               | 3.7          | 0.2  | 0.0  | 0.0      | 2.7   | 1.6      | 0.3     | 0.0  | 0.0 | 0.0 | 6.1  | 3.9  | 2.6  | 1.8  | 0.0 | 0.0 |  |
| 5   | Balcultry       | 0.8   | 0.8                | 0.6          | 0.5  | 0.1  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.1  | 0.1  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 6   | St.Davids       | 2.1   | 2.0                | 1.3          | 0.2  | 0.0  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 7   | Swords          | 0.0   | 0.0                | 0.0          | 0.0  | 0.0  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.1  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 8   | Malahide        | 0.2   | 0.0                | 0.0          | 0.0  | 0.0  | 0.0      | 0.1   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.1  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 10  | St.Margarets NS | 119.1 | 119.1              | 119.0        | 63.9 | 8.6  | 0.1      | 35.2  | 35.2     | 31.6    | 12.9 | 0.2 | 0.0 | 32.9 | 27.2   | 24.6 | 13.5 | 0.6 | 0.0 |  |
| 20  | Coast Rd (OP)   | 251.1 | 251.1              | 236.6        | 48.7 | 2.6  | 0.1      | 66.6  | 66.6     | 61.9    | 6.9  | 0.2 | 0.0 | 50.1 | 50.1   | 47.0 | 8.4  | 0.3 | 0.0 |  |
| 26  | Kilcoskan NS    | 176.4 | 175.8              | 171.2        | 89.7 | 10.4 | 0.1      | 39.5  | 39.5     | 38.5    | 18.4 | 0.4 | 0.0 | 0.8  | 0.5  | 0.4  | 0.2  | 0.0 | 0.0 |  |
| 27  | Summerhill      | 2.1   | 0.7                | 0.0          | 0.0  | 0.0  | 0.0      | 0.1   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.3  | 0.1  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 28  | Newpark         | 231.6 | 202.0              | 158.2        | 94.6 | 14.4 | 0.8      | 50.7  | 43.8     | 36.2    | 19.5 | 1.1 | 0.0 | 1.0  | 0.6  | 0.3  | 0.2  | 0.0 | 0.0 |  |
| 29  | Ashbourne       | 13.3  | 11.6               | 2.3          | 0.2  | 0.0  | 0.0      | 2.2   | 1.4      | 0.1     | 0.0  | 0.0 | 0.0 | 0.2  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 30  | Roundwood       | 0.0   | 0.0                | 0.0          | 0.0  | 0.0  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 31  | Dunboyne        | 1.4   | 0.6                | 0.1          | 0.0  | 0.0  | 0.0      | 0.4   | 0.2      | 0.0     | 0.0  | 0.0 | 0.0 | 22.4 | 12.4   | 1.7  | 0.0  | 0.0 | 0.0 |  |
| 32  | Donabate        | 0.1   | 0.1                | 0.0          | 0.0  | 0.0  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.1  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 33  | Ardgillan       | 0.0   | 0.0                | 0.0          | 0.0  | 0.0  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.1  | 0.1  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 34  | Portmarnock     | 96.6  | 96.6               | 32.0         | 3.8  | 0.0  | 0.0      | 28.3  | 18.1     | 3.7     | 0.0  | 0.0 | 0.0 | 42.2 | 17.8   | 2.8  | 0.0  | 0.0 | 0.0 |  |
| 35  | Ballyboughal    | 4.0   | 4.0                | 4.0          | 0.5  | 0.0  | 0.0      | 0.3   | 0.3      | 0.3     | 0.1  | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 37  | Ongar           | 0.5   | 0.1                | 0.0          | 0.0  | 0.0  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 2.7  | 1.3  | 0.1  | 0.0  | 0.0 | 0.0 |  |
| 38  | Clondalkin      | 0.1   | 0.0                | 0.0          | 0.0  | 0.0  | 0.0      | 0.1   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.1  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 39  | Lucan           | 0.1   | 0.0                | 0.0          | 0.0  | 0.0  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.9  | 0.1  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 40  | Bray            | 0.0   | 0.0                | 0.0          | 0.0  | 0.0  | 0.0      | 0.0   | 0.0      | 0.0     | 0.0  | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 |  |
| 206 | Ratoath         | 32.0  | 27.4               | 6.3          | 0.7  | 0.1  | 0.0      | 6.4   | 5.3      | 0.3     | 0.0  | 0.0 | 0.0 | 0.7  | 0.2  | 0.0  | 0.0  | 0.0 | 0.0 |  |
|     |                 |       |                    |              |      |      |          |   |          |         |      |     |     |      |  |      |      |     |     |  |



#### Part 2: Summer 2024 Noise Contours and 2024 and 2025 NMT data

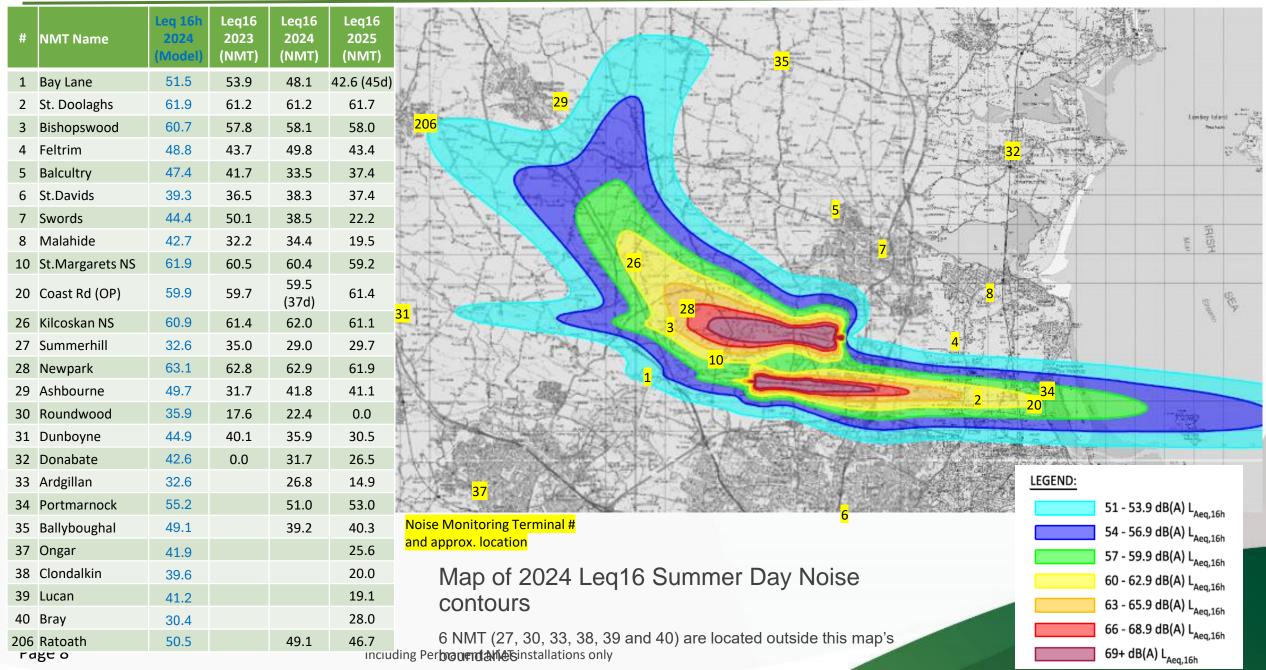


Why we have both Annual Lden and Lnight and Summer Leq16h and Leq8h noise contours.

- Before the EU agreed on the use of the Annual Lden and Lnight metrics in the early 2000's, Dublin Airport (and UK airports) mainly conducted noise impact assessment using the average noise levels over the 16-hour day (0700 2300) and the 8-hour night (2300 0700) assessed over the 92-day summer period 16 June to 15 September. These are the Leq16h and Leq8h metrics, respectively.
- In 2004 when Dublin Airport applied for planning permission for the North Runway impact assessments were based on the Summer Leq16h and Leq8h metrics. The Leq16h daytime metric was also referred to as the "Daytime Annoyance" metric.
- The 2007 North Runway (NR) Planning Permission established the Noise Insulation Schemes (NIS) all based on the then-forecast summer Leq16h contours. These include the Residential Noise Insulation Scheme (RNIS), based on 63 dBA Leq16h, the Voluntary Dwelling Purchase Scheme (VDPS), based on 69 dBA Leq16h, and the School Insulation Scheme (SIS), based on 60 dBA Leq 16h. In 2024, the first NIS review was reported 2-years after the opening of the new North Runway and this review was based on the 2023 Summer Leq16h contour. (This was still during the 2024 summer period.)
- Since 2006, Dublin Airport has published Annual Lden and Lnight contours (every 5 years), and since 2018, four sets of contours have been published every year –
  Annual Lden and Lnight and Summer Leq16h and Leq8h.
- In 2020, Dublin Airport applied to modify the NR nighttime operating restriction (an application called the "Relevant Action") and proposed the Residential Sound Insulation Grant Scheme (RSIGS). This Grant Scheme eligibility was based on the Annual 55 dBA Lnight contour.
- The 2021 Dublin Airport Noise Abatement Objective (NAO) uses assessments based on the Annual Lden and Lnight noise contours.
- As Dublin Airport reports the Summer Leq16h and Leq8h metrics and the NMT can measure them, the resulting data for the 2023 calculated summer contours and the 2023 and 2024 measured noise level are reported here.

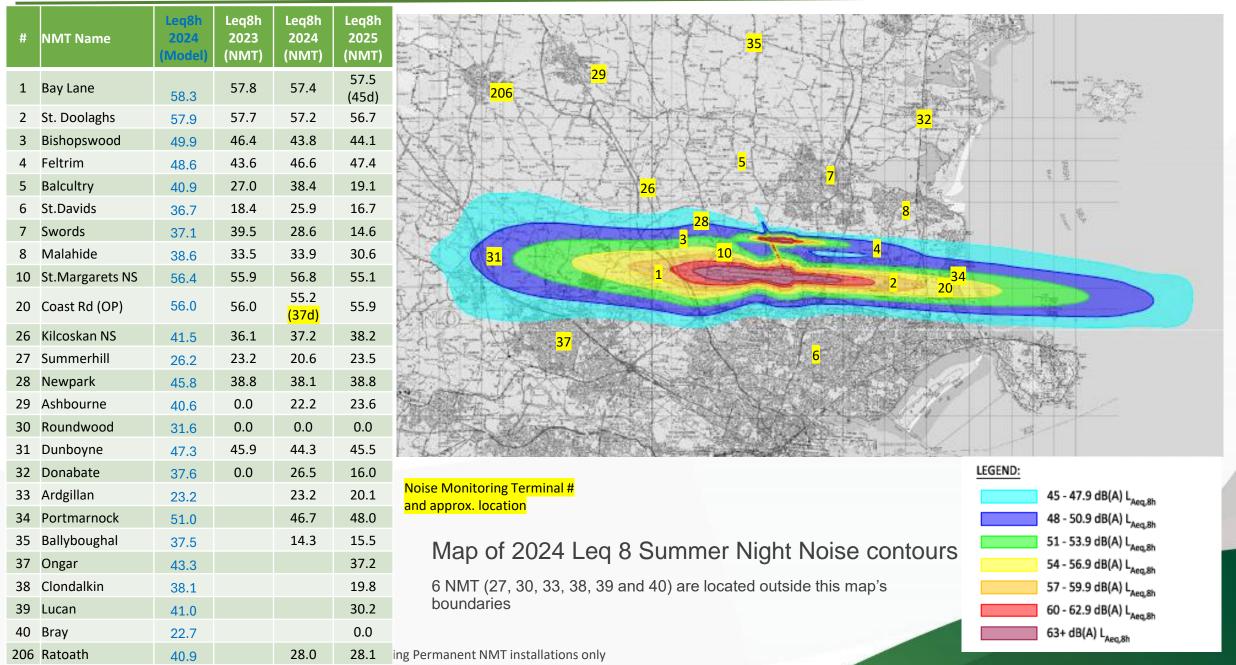
#### 92-day Summer Day – Modelled Contours and Measured NMT Levels





#### 92-day Summer Night – Modelled Contours and Measured NMT Levels







#### **Part 3: Contents**



| Page | Page Heading  | Page Content   |
|------|---|--|
| 24   | Explanation of Terms                                      |  |
| 25   | Standard Instrument Departures (SID) North Runway         | AirNav Ireland maps displaying the departure SIDs from North Runway towards the West and the East. |
| 26   | Standard Instrument Departures (SID) South Runway         | AirNav Ireland maps displaying the departure SIDs from South Runway towards the West and the East. |
| 27   | Busy day Flight Tracks - Westerly and Easterly Operations | Examples of a typical 'busy day' flight pattern  |
| 28   | Noise Contour Modelling (1) – Core Flight Tracks          | Explanation of how noise contours are modelled using core flight tracks                            |
| 29   | Noise Contour Modelling (2) – Dispersed Flight Tracks     | Explanation of how noise contours are modelled using dispersed flight tracks                       |
| 30   | Conclusion  |  |

### **Overview Narrative**

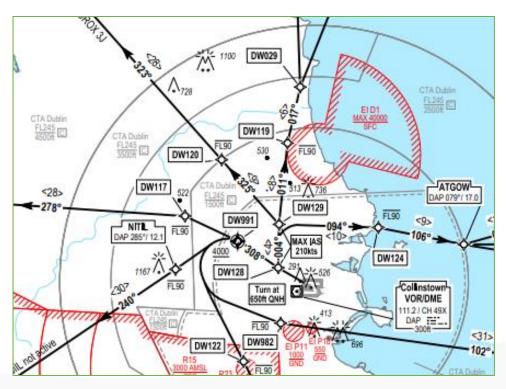


| Term                                      | Definition/ Explanation   |
|---|---|
| Arrival Tracks                            | Arriving aircraft must fly in a straight line for at least the final 11km of their approach before landing on the runway. Aircraft approach the airport at a precise downward angle of 3 degrees, which means that they are at a height of 1,800ft when they join the final approach at the 11km point.   |
| Departure Tracks                          | Departing jet aircraft are required to follow procedures defined by the SID and to stay within the Environmental Corridor, also called the Noise Preferential Route (NPR), below 3000ft for the South Runway and below 4000ft for the North Runway, unless directed by Air Traffic Control.   |
| Easterly vs<br>Westerly<br>Operations     | In general, aircraft land and take-off facing into the wind.  If the wind is easterly (blowing from the east), aircraft land from the west and take-off towards the east.  If the wind is westerly (blowing from the west), aircraft land from the east (over the Irish Sea) and take-off towards the west.  A moderate cross-wind component can be tolerated, but a strong north or south wind will require the use of the Crosswind Runway. |
| Standard<br>Instrument<br>Departure (SID) | Depending on the departure runway and final destination, departing aircraft follow routes called Standard Instrument Departures (SID). SIDs allow aircraft to safely depart an airspace following pre-defined routes. (See Pages 20 and 21)   |
| Flight Track                              | A flight track is the actual path flown by an aircraft (as opposed to a route or SID which indicate where an aircraft should go.) Flight track monitoring is based on flight radar data that is incorporated into the Noise and Flight Track Monitoring System.   |
| Noise Modelling                           | A computer program is used to model airport operations and calculate the noise contours. Input data include all aircraft operations, aircraft types, runway use, time of day and flight tracks.   |
| Modelled Flight<br>Track                  | Arrival noise is dominated by the straight final approach which is relatively easy to model for the noise contour calculations.  Departing aircraft generally follow the SID  |
| Track Dispersion                          | In practice there is a spread or dispersion of actual tracks flown to either side of a main central track. This is modelled using a central flight track and secondary (dispersed) flight tracks to either side and the operations area divided between these tracks using a normal distribution.   |

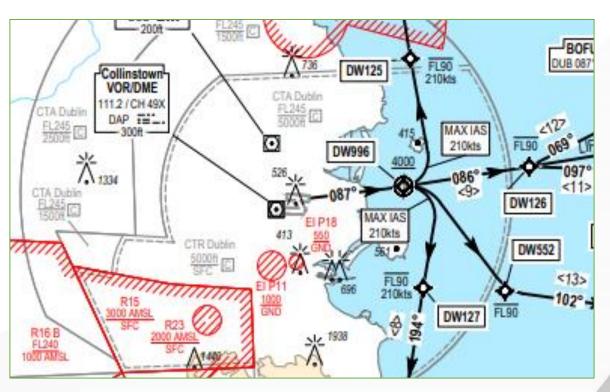
#### **Standard Instrument Departures (SID) North Runway**



- Jet aircraft departures are required to follow these Standard Instrument Departures (SID).
- SID's are developed taking into account various safety, operational and environmental considerations amongst others.



SID for North Runway (28R) departures to the west (westerly operations in westerly winds)



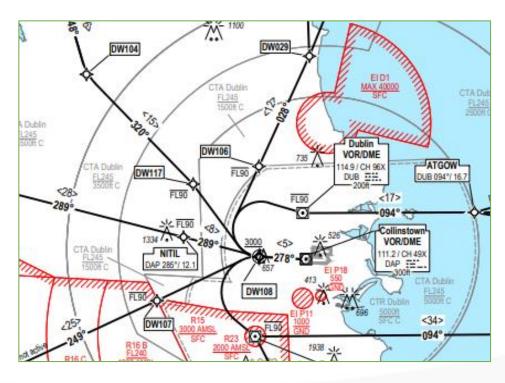
SID for North Runway (10L) departures to the east (easterly operations in easterly winds)

Note: This is only used during periods when the South Runway is closed.

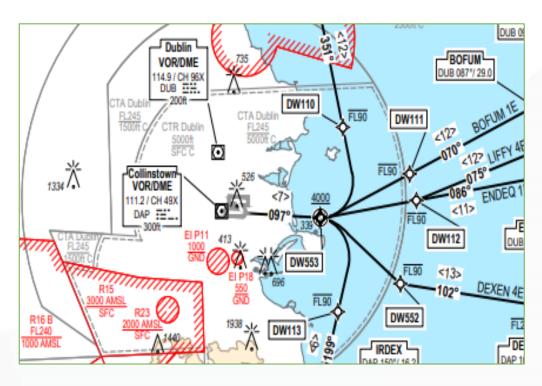
#### **Standard Instrument Departures (SID) South Runway**



Jet aircraft departures are required to follow Standard Instrument Departures (SID)



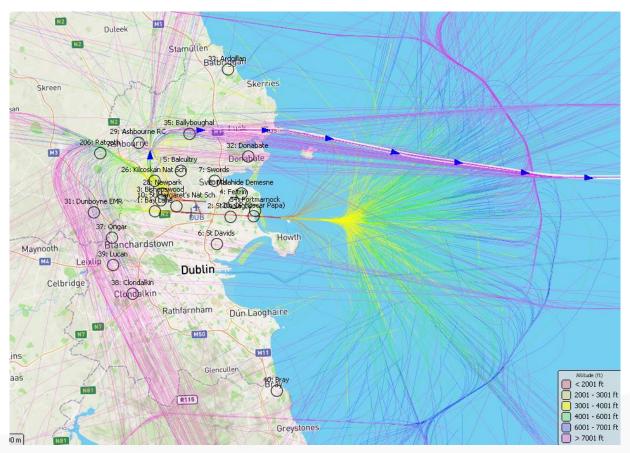
SID for South Runway (28L) Departures to the west (Westerly operations in westerly winds)

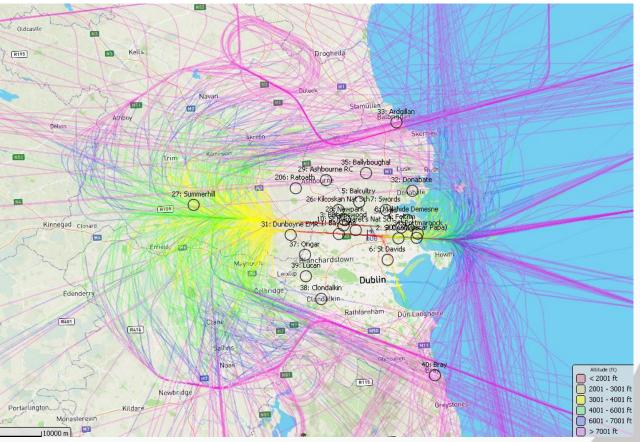


SID for South Runway (10R) Departures to the east (Easterly operations in easterly winds)

#### **Busy Day Flight Tracks**







#### Operations on 7 August 2025

- 821 movements, westerly conditions
- Colours indicate aircraft height

#### Operations on 17 August 2025

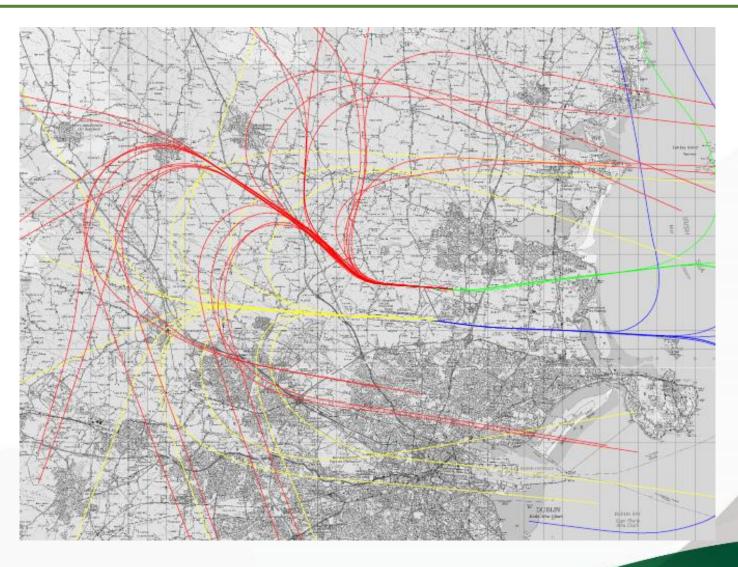
- 810 movements, easterly conditions
- Colours indicate aircraft height

#### Noise Contour Modelling (1) – Core Departure Flight Tracks



Noise contours are calculated by a computer model based on input of the aircraft operations at the airport. This process includes certain steps including:

- Flight track data is extracted from the airport's Noise and Flight Track Monitoring system.
- Typical flight tracks are identified for each of the runways (as depicted here)
- Dispersed tracks are then created either side of the central lines to reflect actual operations (as depicted in the next page)

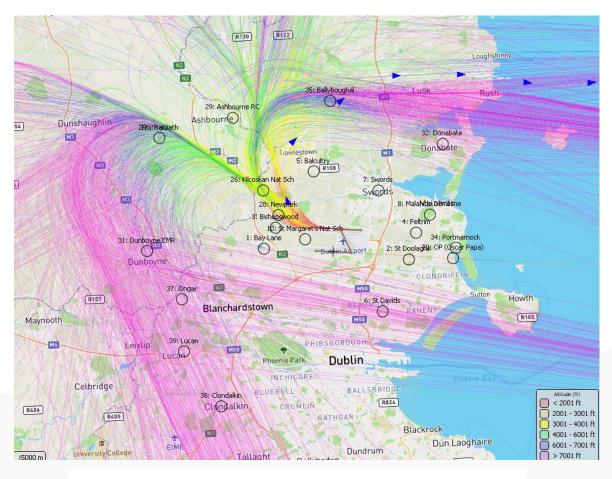


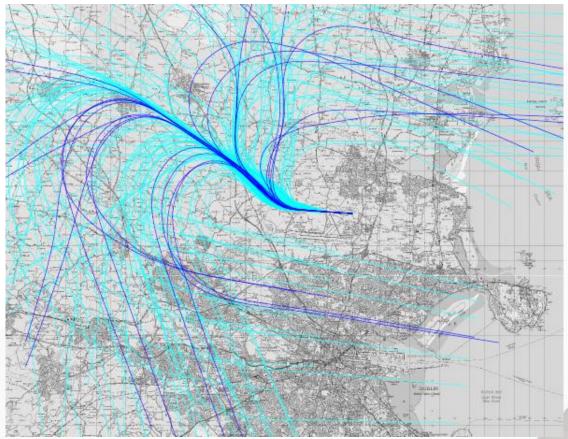
Main departure flight paths in calculation model for the 2 main runways – easterly and westerly departures

#### Noise Contour Modelling (2) – Dispersed Flight Tracks



In practice, the spread or scatter of actual flight tracks is modelled by creating dispersed tracks either side of the central or main track as shown.





Actual (Monitored) Flight Paths: North Runway (28R) – westerly departures 7-20 Aug 2025 Modelled Departure Flight Paths: North Runway (28R) – westerly operations Dark blue = centreline flight paths Light blue = dispersion flight paths

#### **Conclusion**



#### **Noise Monitoring**

- Dublin Airport had a network of 25 permanent Noise Monitoring Terminals (NMT) covering the entire Q2 2025 period, at locations ranging from less than 1 km to over 30 km from the runways.
- NMT locations are selected across a wide area to cover the region including the nearest, most-impacted residences, heavily populated areas and less-impacted, further-out locations.
- Measured aircraft noise data is presented in both time-averaged and single-event noise metrics.

#### Flight Track Monitoring

- Flight track data is used to positively identify aircraft noise from the NMT data and filter out non-aircraft noise.
- Monitored flight tracks are also used to ensure that the operations in the noise contour model are representative of actual airport activity.
- Airline track adherence is reported in Dublin Airport's monthly operations reports.

#### **Noise Contour Validation**

- There is good correlation between the Measured and Modelled aircraft noise levels.
- This demonstrates that the noise modelling is sufficiently representative of the totality of aircraft operations at Dublin Airport and thus that the Modelled noise levels accurately represent community noise exposure levels.
- This mean that the contours can be used to assess the noise at locations which do not have an NMT in the immediate vicinity.
- In general, noise impact assessment and mitigations at the airport including Noise Insulation and Dwelling Purchase Schemes
  are based on the modelled noise contours, so the Noise and Flight Track Monitoring, presented herein, provides support to
  the assessment and mitigation work at the airport.



# End

For further information, please visit our website:

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