DublinAirport

Dublin Airport Monthly Noise and Operations Report

April 2025

- Operations and Runway Use
- Noise Complaints
- Flight Track Monitoring

DublinAirport

Part 1: Operations and Complaints

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6.	**Operations – Runway and Track Use**	Provides a representation of the distribution of arrivals and departures, along with data relating to the distribution of the main departure tracks.
7.	**2024 Annual Departure Swathe Data**	Provides an overview of 2024 runway and track use.
8.	**Total Movements in the month by hour of day**	Provides an overview of the number of movements by hour of the day.
9.	**Noise Complaints - Complainant Statistics**	Provides rolling data on complainant statistics, including total complaints received.
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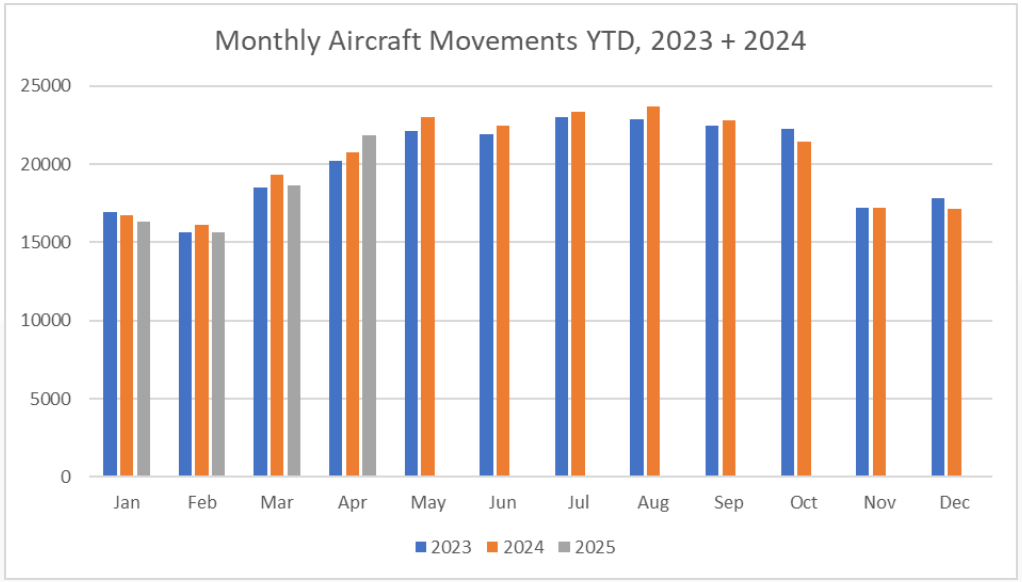
Explanation of Terms

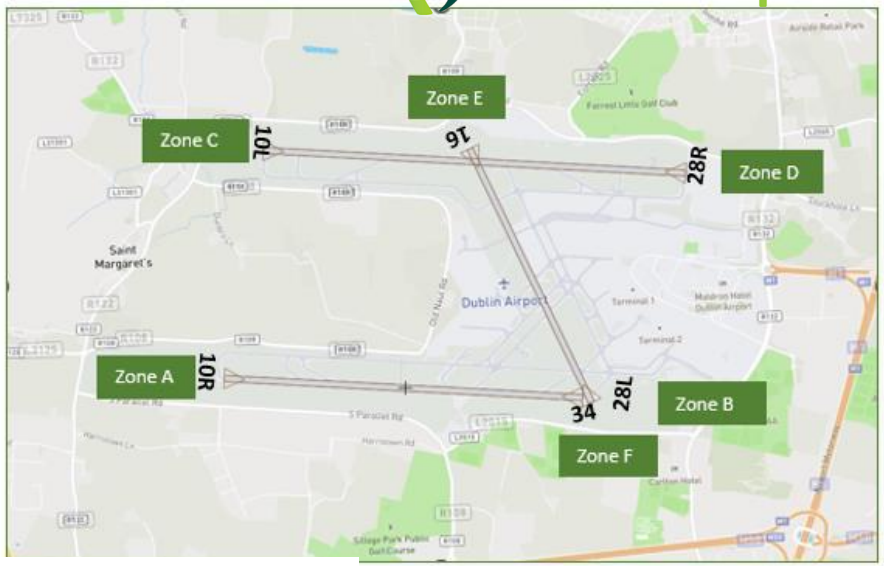
Term	Definition
Aircraft Movement	An aircraft movement is either the arrival or departure of an aircraft at Dublin Airport. For an arrival, the aircraft is detected by radar at least 50km from the airport and the route it takes is recorded in the noise management system until it touches down on one of Dublin Airport's runways. For a departure, the radar detects the flight as it leaves the ground and records the route until it is at least 50km away.
ANOMS	The Advanced Noise Management System is Dublin Airport's database and management system for recording aircraft operations, flight tracks, noise monitoring terminals and complaints.
Cat AB aircraft	Category A and B aircraft are light and propellor driven aircraft. This includes General Aviation aircraft (Cat A) and turbo-propellor aircraft such as the ATR72 (Cat B).
Cat CD aircraft	Category C and D are heavier, jet aircraft.
Runway Naming	Runways are named based on the direction (or heading) an aircraft faces during an operation on that runway. For parallel runways, the L or R indicates whether it is on the left or the right. Dublin Airport has three runways: • South Runway - Operations are either on RW28L (facing west) or on RW10R (facing east) • North Runway – Operations are either on RW28R (facing west) or on RW10L (facing east) • Cross Runway – operations are either on RW16 (facing south) or on RW34 (facing north)
Wind Rose	Circular graph of wind strength and direction issued by Met Eireann. As aircraft need to take-off and land when facing into the wind (except in low wind conditions less than 5 knots), the wind rose will give an indication of runway use.
YTD	Year To Date
Zones A to F	The "zones" are runway end zones defined for this report. For example, Zone A is west of the South Runway and is overflown by arrivals on RW10R and departures on RW28L.

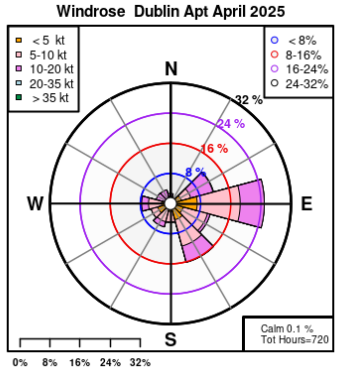
April 2025 Operations – Movements and Runway Use

Aircraft Movements (Cat ABC&D) Apr 2025

Zone		Arrivals		Departures		Total
A	South Runway	from West (RW10R)	872	to West (RW28L)	557	1,429
B		from East (RW28L)	3,430	to East (RW10R)	7,391	10,821
C	North Runway	from West (RW10L)	6,618	to West (RW28R)	2,958	9,576
D		from East (RW28R)	14	to East (RW10L)	17	31
E	Cross Runway	from North (RW16)	0	to North (RW34)	0	1
F		from South (RW34)	0	to South (RW16)	1	0
			10,934		10,924	21,858



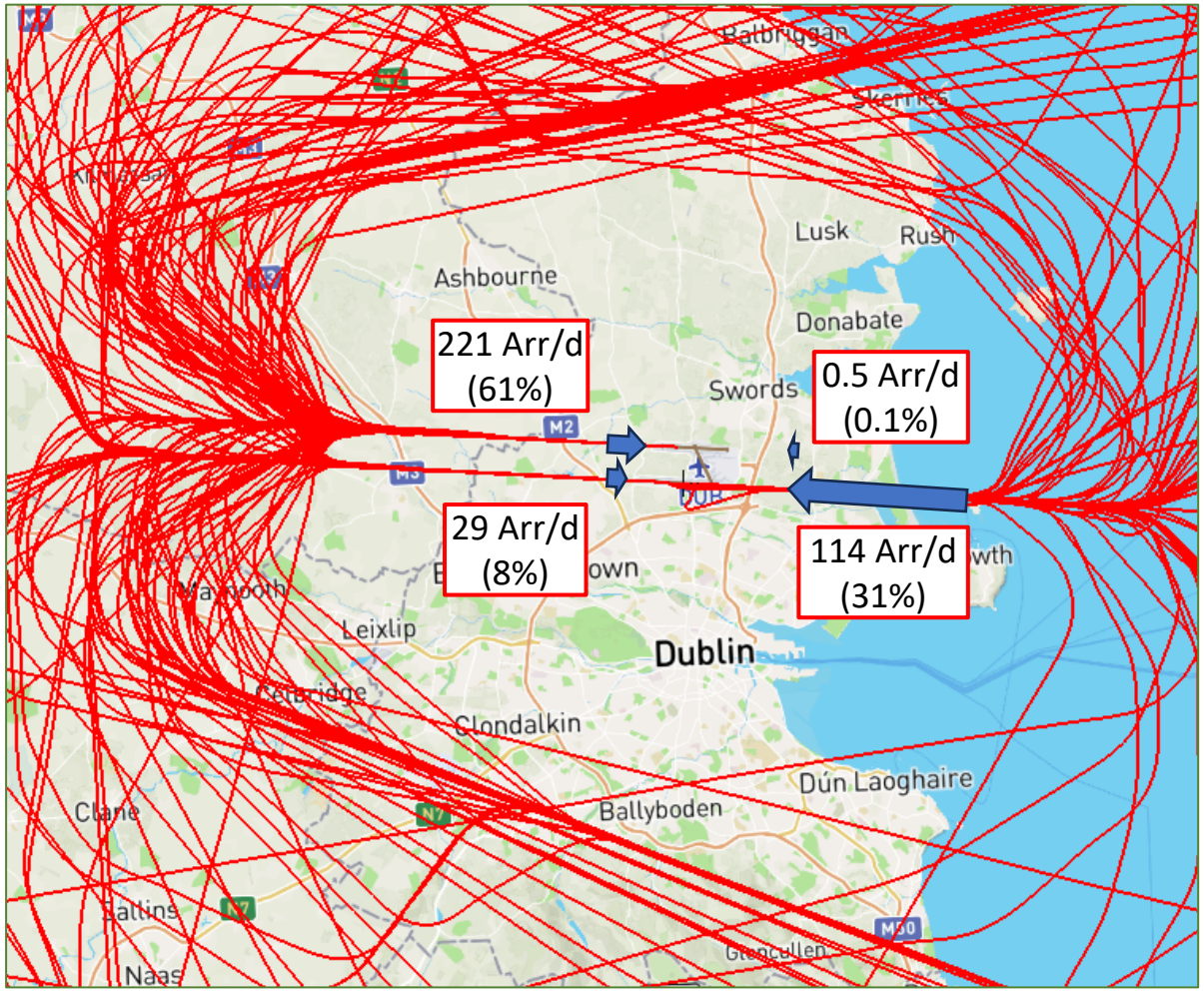




April 2025 Wind Rose:
shows percentage of time in each wind direction.
Table below shows 2024 and YTD – Westerly and Easterly operations

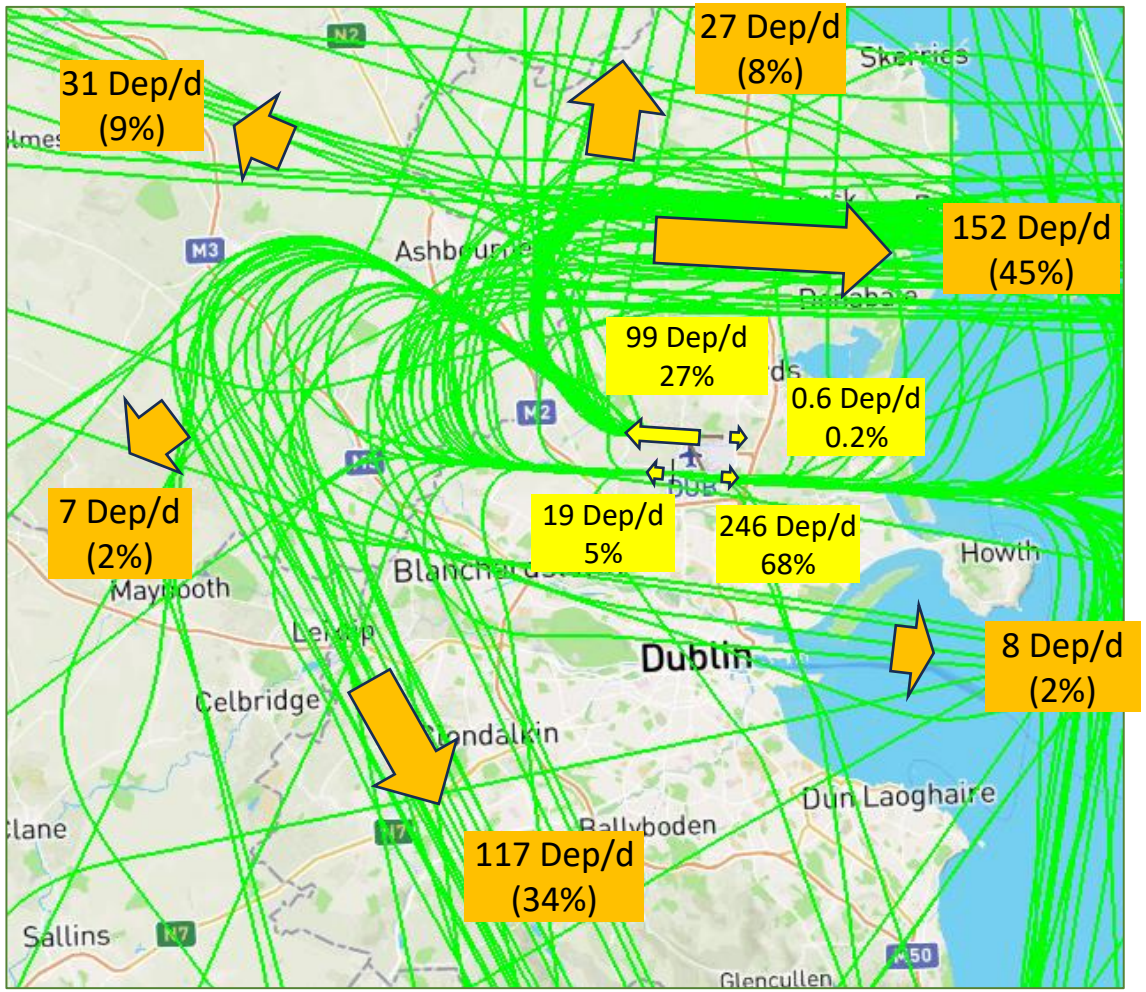
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2025	W	82%	45%	55%	32%									
	E	18%	55%	45%	68%									
2024	W	86%	87%	56%	78%	65%	89%	81%	90%	61%	63%	70%	88%	**76%**
	E	14%	13%	44%	22%	35%	11%	19%	10%	39%	37%	30%	12%	**24%**

April 2025 Operations – Runway and Track Use



Graphic depicts:

- Average arrival movements per day (d) on each main runway
- % arrivals on each main runway this month
- Note: example flight track selection used



Graphic depicts:

- Average departure movements per day on each main runway (yellow boxes)
- % departures on each main runway this month (yellow boxes)
- Average departures per day on each main track swathe (orange boxes)
- Note: example flight track selection used

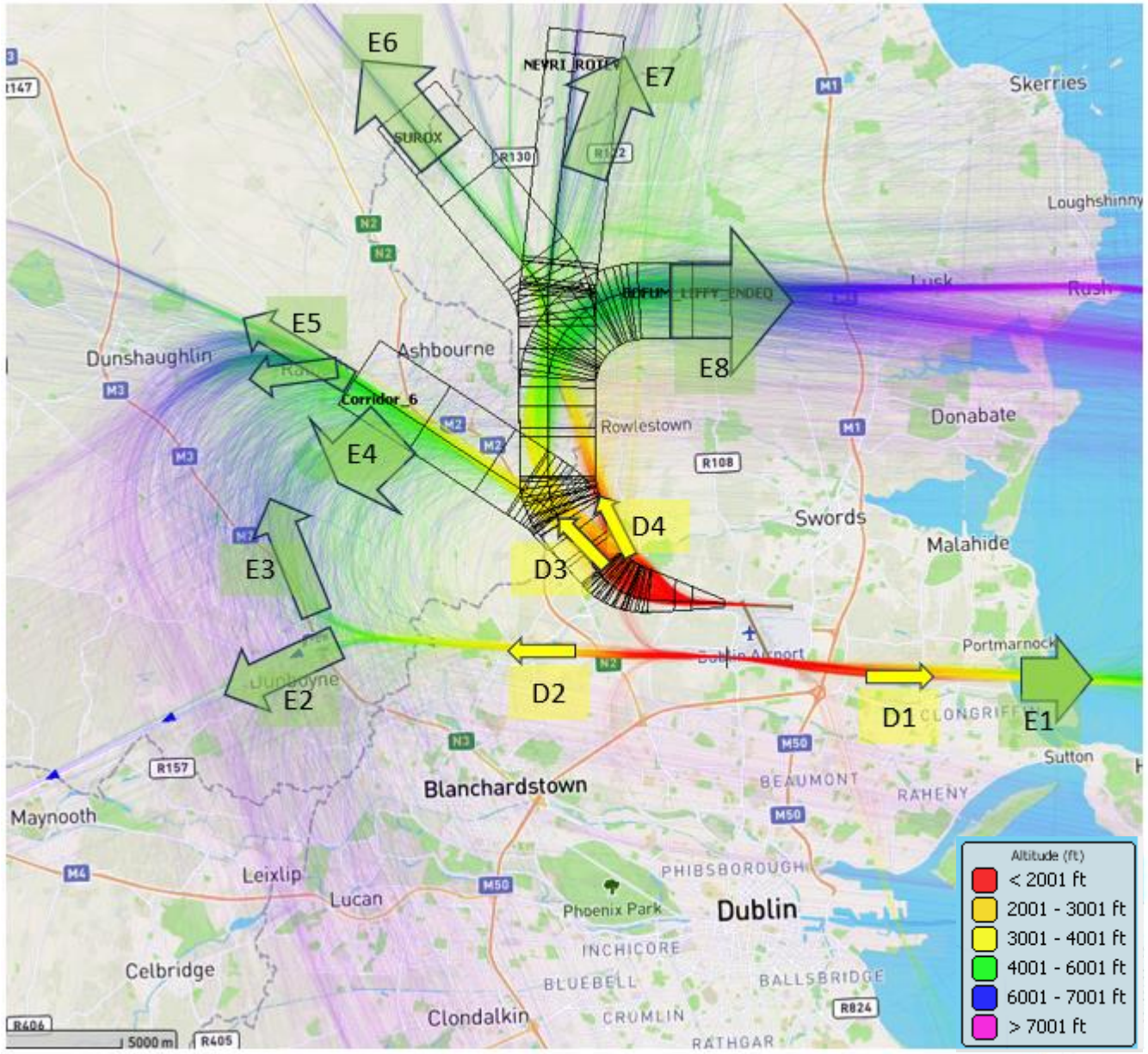
2024 Annual Departure Swathe Data – Runway and Track Use

~1,000 – 3,000 ft (D1 – D4)

	Swathe	Avg. Dept. per day	Percentage of Departures
D1	10R	81	24%
D2	28L	34	10%
D3	28R Jet	195	58%
D4	28R Turbo-prop	24	7%

~4,000 – 6,000 ft (E1 – E8)

	Swathe	Avg. Dept. per day	Percentage of Departures
E1	10R (easterly dep)	81	24%
E2	28L, S- & W-bound (left turn)	15	4%
E3	28L, N- & E-bound (right turn)	18	5%
E4	28R, S- & W-bound, left turn from NPR	27	8%
E5	28R, S- & W-bound, exit end of NPR	51	16%
E6	28R, NW-bound	6	2%
E7	28R, N-bound	24	7%
E8	28R, E-bound	109	33%



April 2025 – Total Movements in the Month by hour of day

Night Hours			
Hour of day	**Arrivals**	**Departures**	**Movements**
00:00	450	40	490
01:00	190	10	200
02:00	20	40	60
03:00	30	20	50
04:00	220	20	240
05:00	100	160	260
06:00	170	760	930
23:00	360	70	430
Total	1550	1110	2660

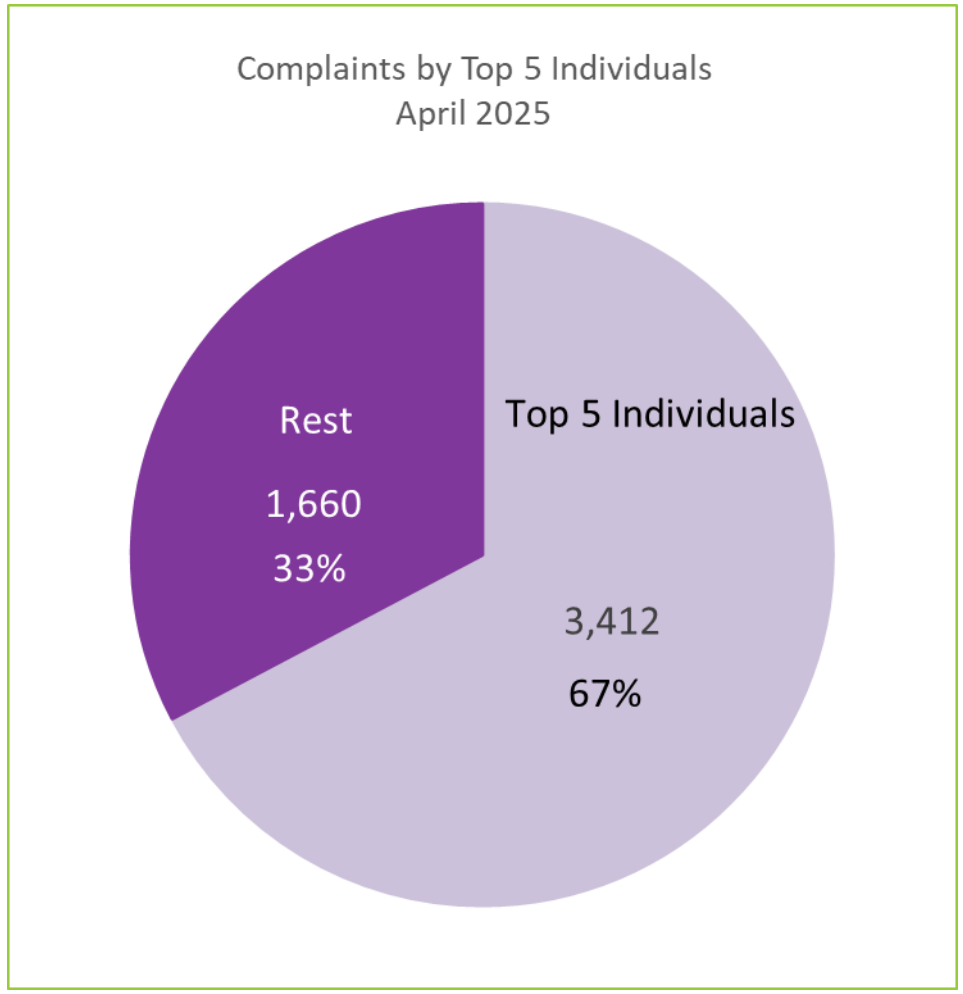
Day Hours			
Hour of day	**Arrivals**	**Departures**	**Movements**
07:00	440	1010	1440
08:00	590	590	1180
09:00	620	580	1200
10:00	630	620	1240
11:00	690	650	1340
12:00	700	670	1360
13:00	680	780	1460
14:00	690	640	1330
15:00	480	750	1230
16:00	490	690	1180
17:00	690	550	1240
18:00	650	710	1370
19:00	440	670	1110
20:00	450	410	860
21:00	580	300	870
22:00	580	210	790
Total	9380	9810	19190

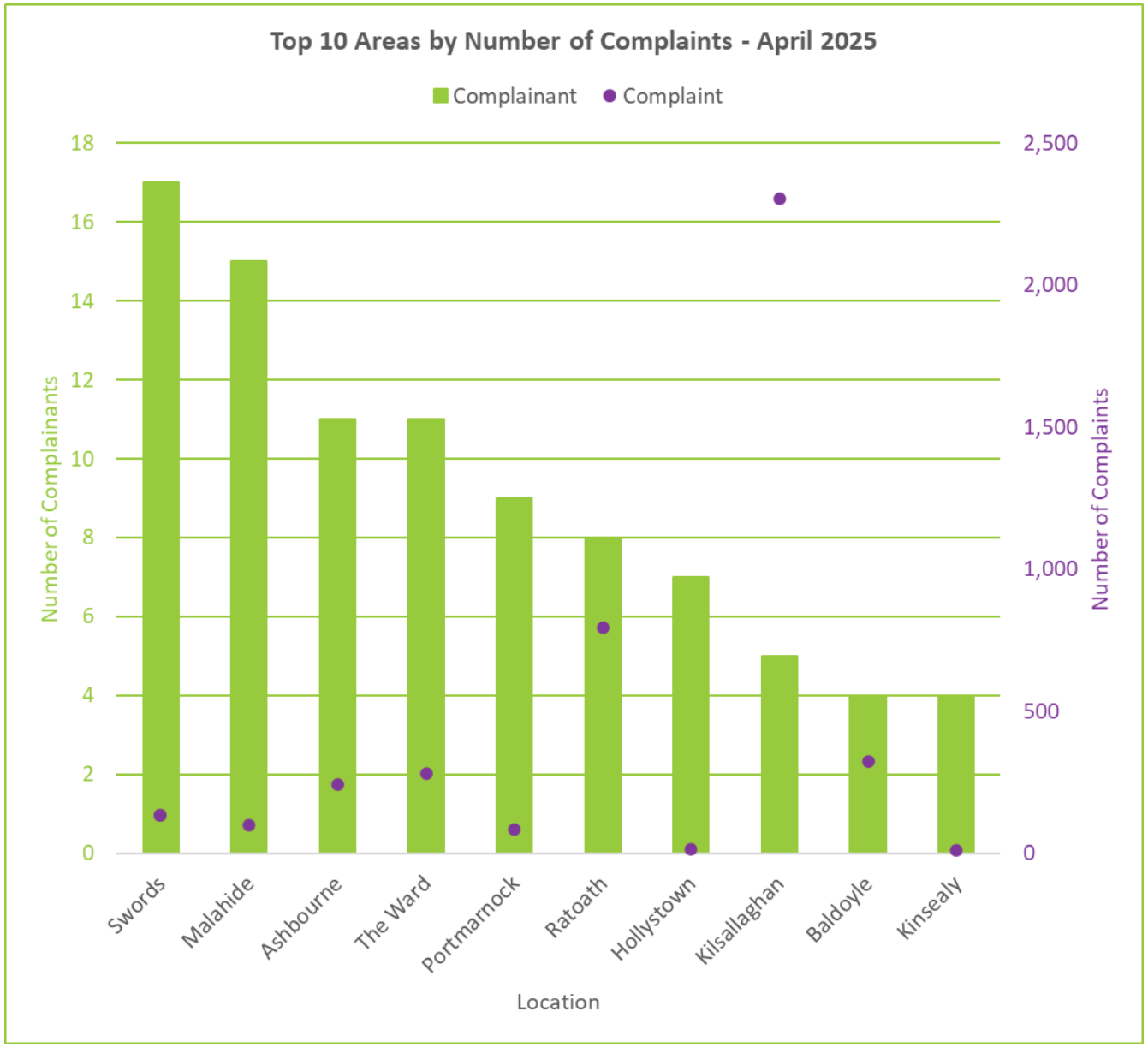
* Rounded to nearest 10

Noise Complaints - Complainant Statistics

- Complainants +31 (+29%) Apr ‘25 vs previous month
- Complaints +890 (+21%) Apr ‘25 vs previous month
- Complainants -8 (-6%) Apr ‘25 year on year
- Complaints +1,586 (+45%) Apr ‘25 year on year
- 67% of complaints lodged by five individuals

Noise Complaints - Complainant Statistics





The left-hand axis (green) shows the number of individual complainants, while the right-hand axis (purple) represents the total number of complaints received from each area.

April 2025 - Noise Complaints – by Hour of Operations

Night	
Hour of operation	**Number of complaints**
00:00	70
01:00	11
02:00	17
03:00	11
04:00	25
05:00	52
06:00	168
23:00	103
Total	**457**

Day	
Hour of operation	**Number of complaints**
07:00	604
08:00	563
09:00	345
10:00	127
11:00	149
12:00	208
13:00	207
14:00	188
15:00	220
16:00	199
17:00	184
18:00	357
19:00	332
20:00	317
21:00	360
22:00	255
Total	**4615**

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Part 2: Flight Track Monitoring

Part 2: Contents

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16.	Standard Instrument Departures (SID) South Runway	• AirNav Ireland maps displaying the departure SIDs from South Runway towards the West and the East.
17.	Noise Preferential Routes (NPR)	• Map showing the Noise Preferential Routes (NPR) for Jet Aircraft Departures from the North and South Runways in both Easterly and Westerly directions.
18.	Departure Track Adherence data (2024 and 2025 YTD)	• Chart and table of the percentages of departures each quarter since Q1 2023 that operated within the NPR until reaching the minimum height.
19.	Track NPR Deviation Examples – North Runway	• Maps showing examples of aircraft departure flight tracks from the North Runway that left the NPR before reaching the required minimum height of 4,000 ft.
20.	Track NPR Deviation Examples – South Runway	• Maps showing examples of aircraft departure flight tracks from the South Runway that left the NPR before reaching the required minimum height of 3,000 ft.

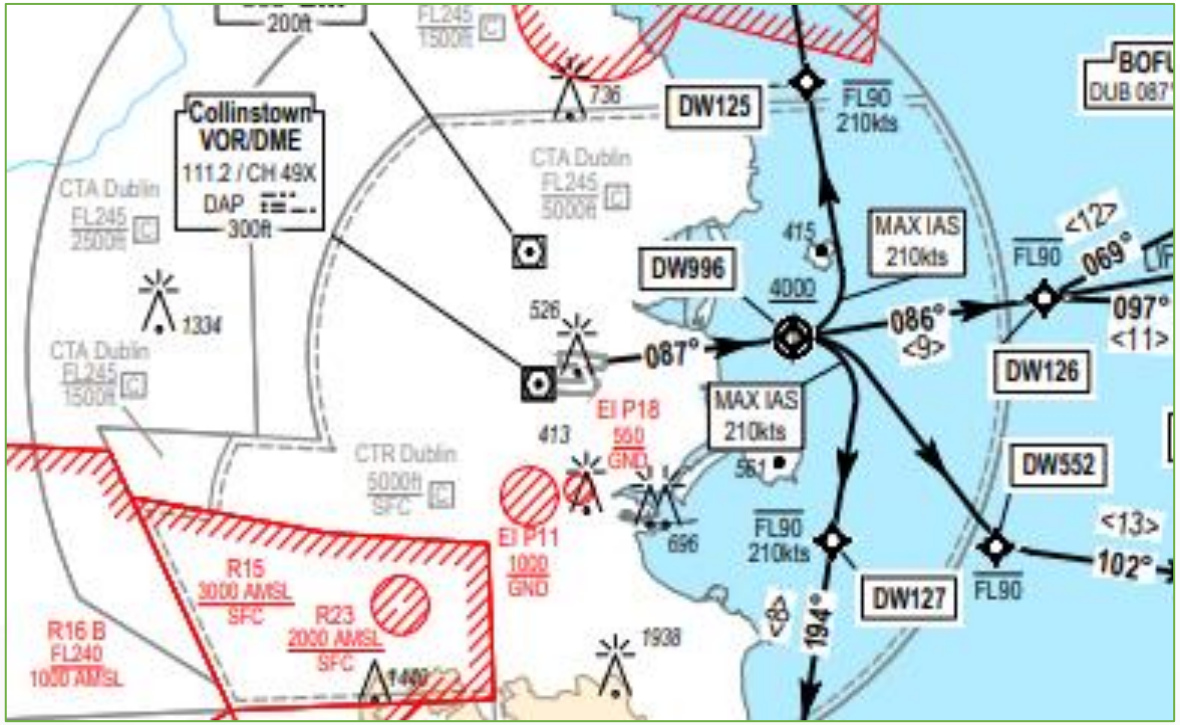
Explanation of Terms

Term	Definition
Arrival Tracks	Arriving aircraft must fly in a straight line for at least the final 11km of their approach. Aircraft come into 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).
Environmental Corridor	This is the same as the NPR (see below).
Noise Preferential Route (NPR)	Each SID (see below) at Dublin Airport has an "Environmental Corridor" also called a Noise Preferential Route (NPR). An NPR starts at the runway and is 240m wide and then, following the SID, fans out until the aircraft reaches a minimum altitude of 3,000 ft (South Runway) or 4,000 ft (North Runway). This only applies to jet aircraft – Cat C or D. (See Page 17)
Standard Instrument 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 a pre-defined route. (See Pages 15 and 16)
Track Adherence	To comply with an NPR, a departing jet aircraft needs to stay within the corridor until it reaches the required 3,000ft elevation (4,000ft for North Runway departures). After that, the pilot may fly a more direct heading for the final destination. An aircraft may be instructed by Air Traffic Control to leave the NPR before the required height due to weather, traffic or other considerations.
Track Deviation	A jet aircraft deviates from the NPR if it leaves the corridor below 3,000 ft (for South Runway departures) or 4,000 ft (for North Runway departures).
Vectoring	In some cases, Air Traffic Control may instruct a pilot to deviate from an NPR before reaching the minimum required height. This may be due to weather, traffic congestion, or other reasons. This is called Vectoring. In such cases, the track deviation is not considered to be an infringement (or violation) of the rule.

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)

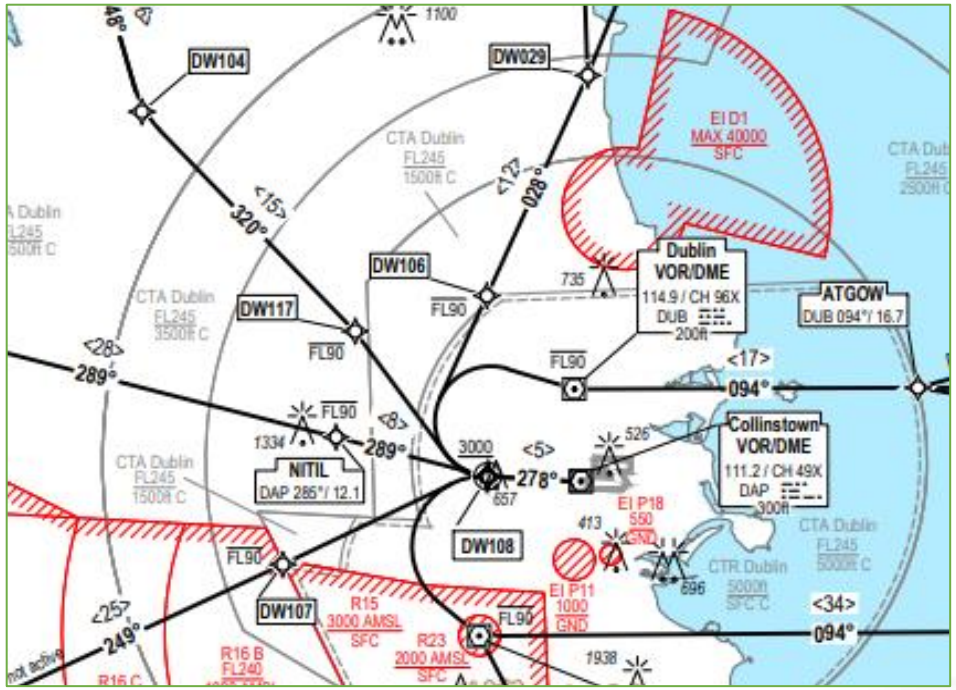


SID for North Runway (10L) departures to the east (easterly operations in easterly winds)

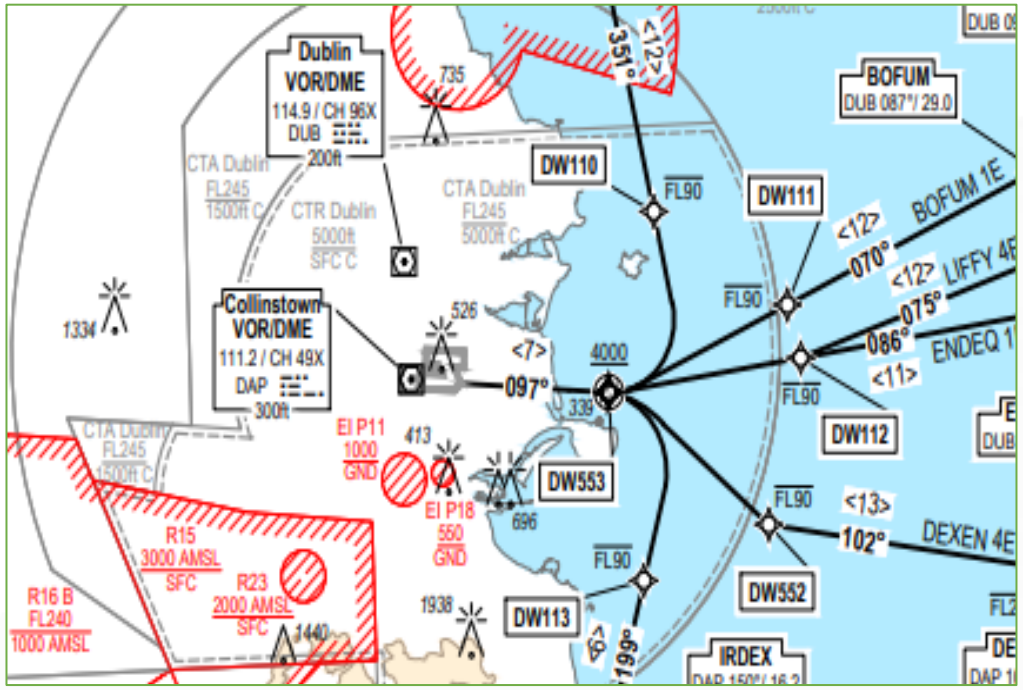
Diagrams are from the AirNav Ireland Aeronautical Information Package

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)

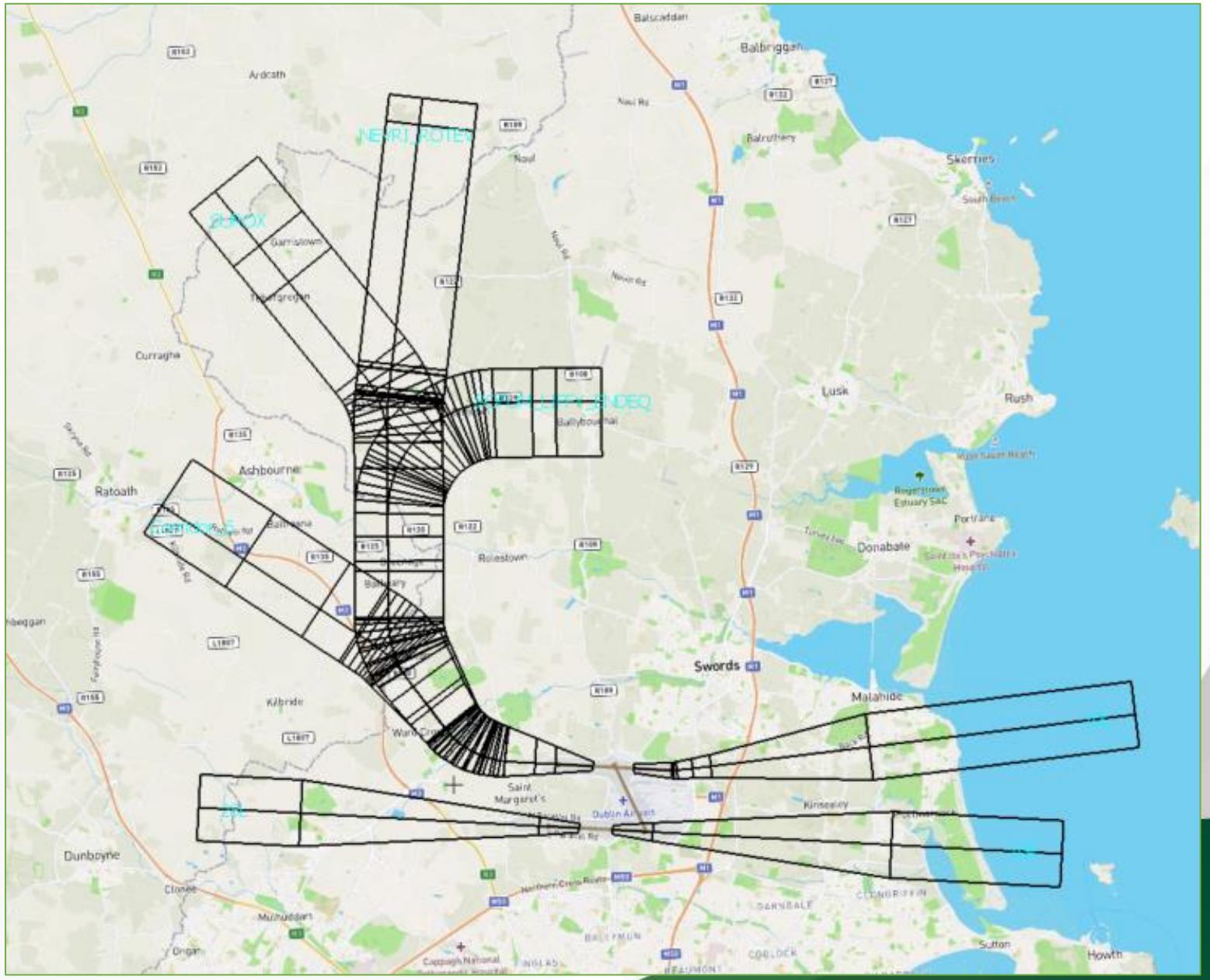


SID for South Runway (10R) Departures to the east (Easterly operations in easterly winds)

Diagrams are from the AirNav Ireland Aeronautical Information Package

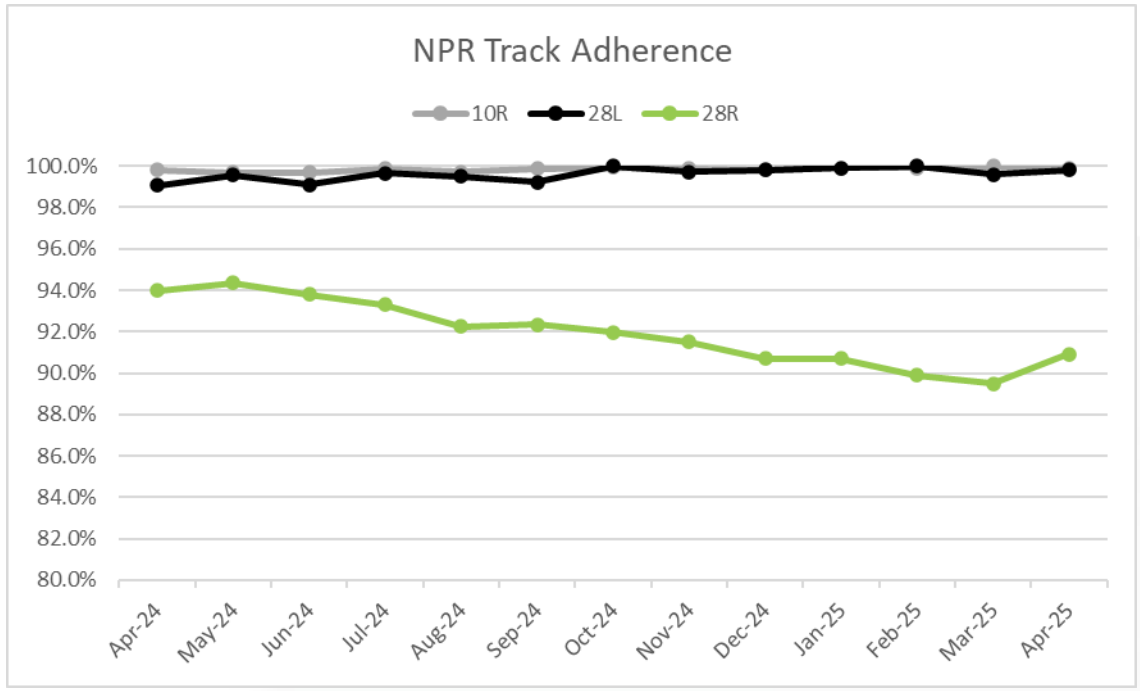
Noise Preferential Routes (NPR) for Jet Aircraft Departures

- Noise Preferential Routes (NPR) are passageways or corridors defined to either side of each SID path.
- An NPR is also called an Environmental Corridor.
- These only apply to the departures of jet (Category C and D) aircraft which are the larger aircraft.
- From South Runway, aircraft should not deviate from the NPR until reaching an altitude of 3,000ft.
- From North Runway, aircraft should not deviate from the NPR until reaching an altitude of 4,000ft.
- Deviation from the NPR is only permitted if directed by Air Traffic Control.



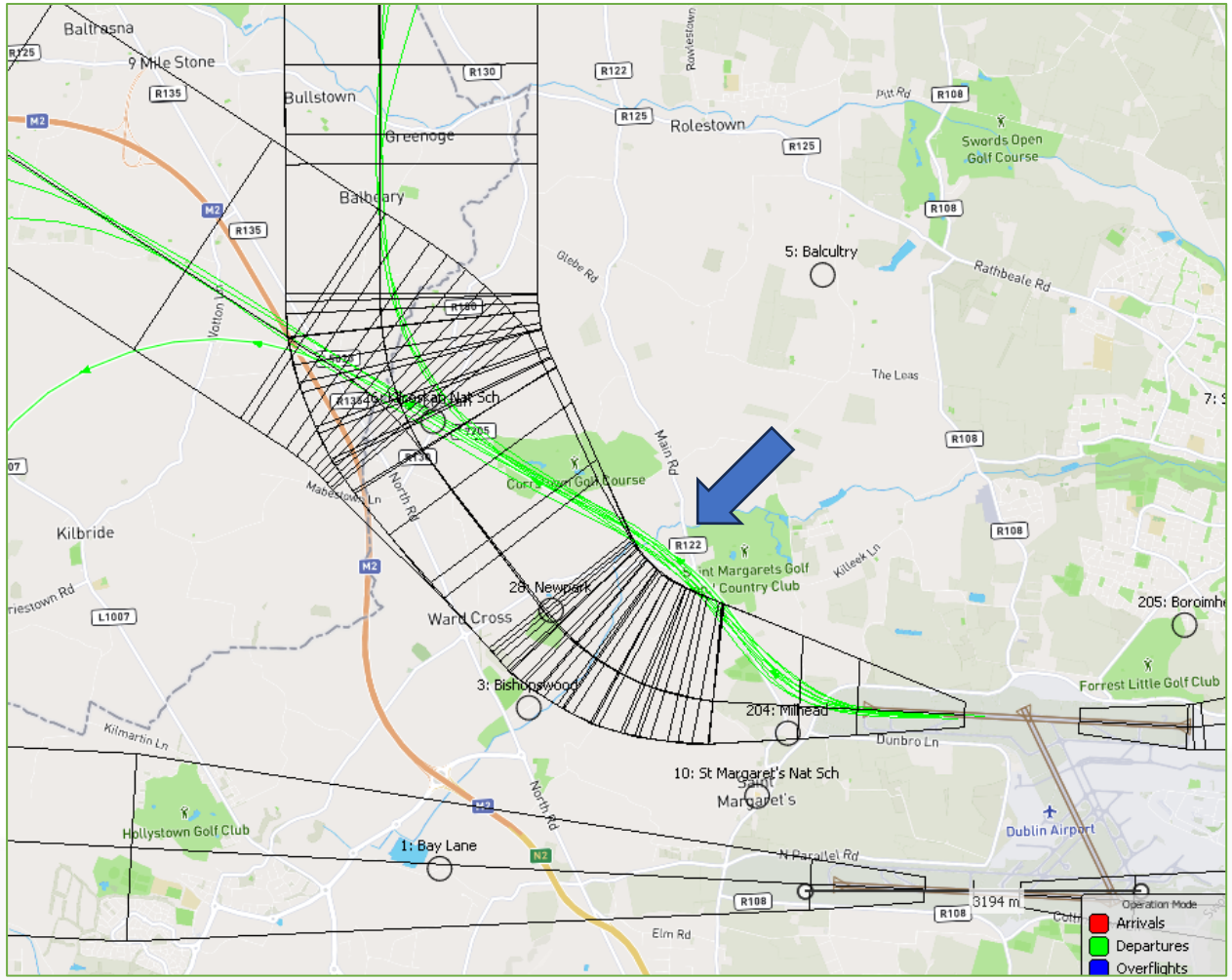
Departure Track Adherence (Monthly 2024 and 2025 YTD)

- Track Adherence refers to jet aircraft departures that remain within the NPR up to the minimum height.
- Both runways are displaying a high level of track adherence (over 90% for North Runway westerly and South Runway – westerly and easterly - is close to 100%).
- Further work is underway on improving track adherence which will include the implementation of a tool which can be used by AirNav Ireland and airlines to track and manage deviations and conduct detailed investigations into individual deviations.
- Note: North Runway easterly and Cross Runway operations are too seldom used to report.

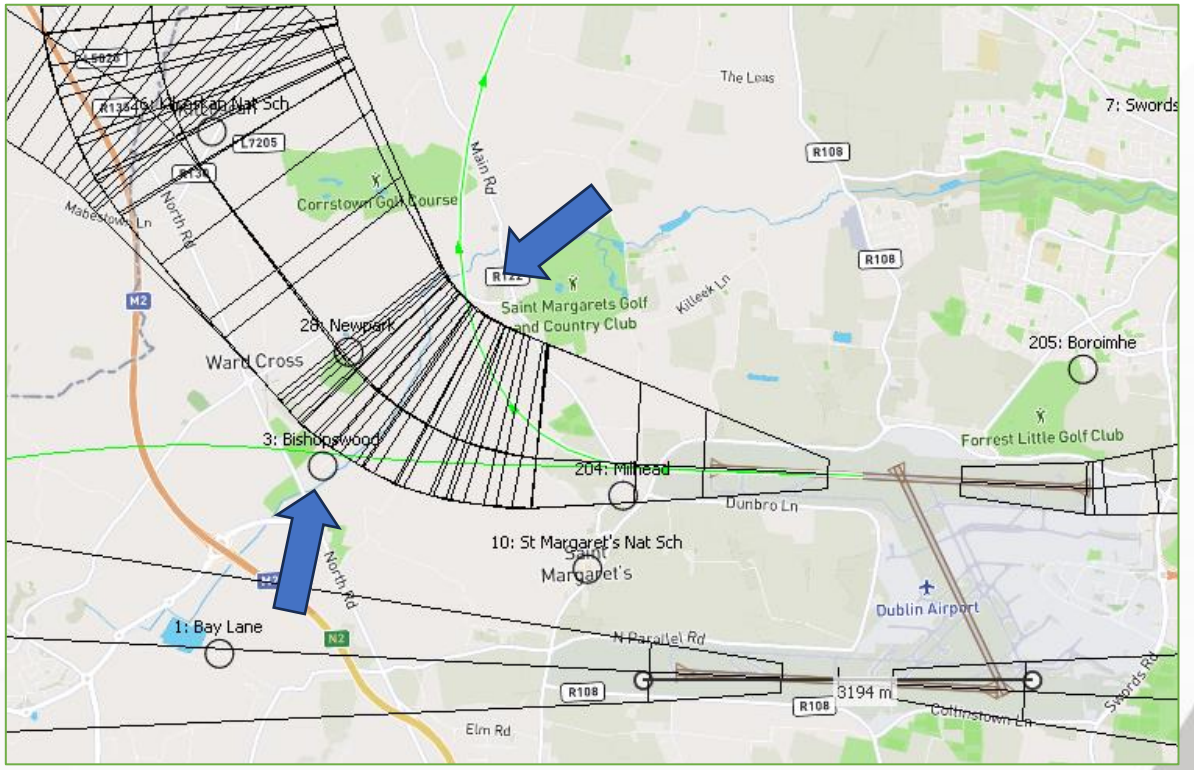


Departure Runway	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
10R (South Runway)	99.9%	99.9%	100%	99.9%								
28L (South Runway)	99.9%	100%	99.6%	99.8%								
28R (North Runway)	90.7%	89.9%	89.5%	90.9%								
Total Airport (2025)	93.3%	96.1%	95.0%	97.4%								
Total Airport (2024)	93.9%	94.0%	96.5%	95.9%	96.8%	95.1%	95.4%	93.6%	95.8%	95.5%	94.7%	92.8%

Track NPR Deviation Examples – North Runway (RW28R)

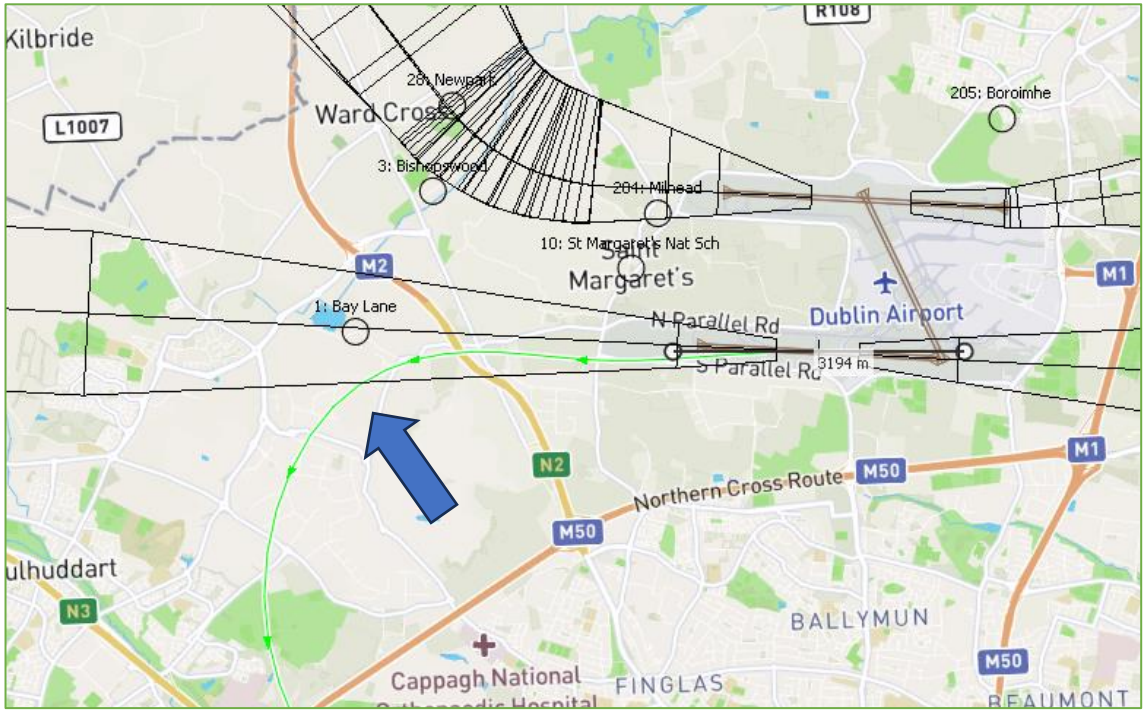


The above diagram displays a number flights which exited the North Runway NPR and then re-entered the NPR. This is a known issue for a small percentage of aircraft and Dublin Airport is working with the airlines and the aircraft manufacturer on resolving it.

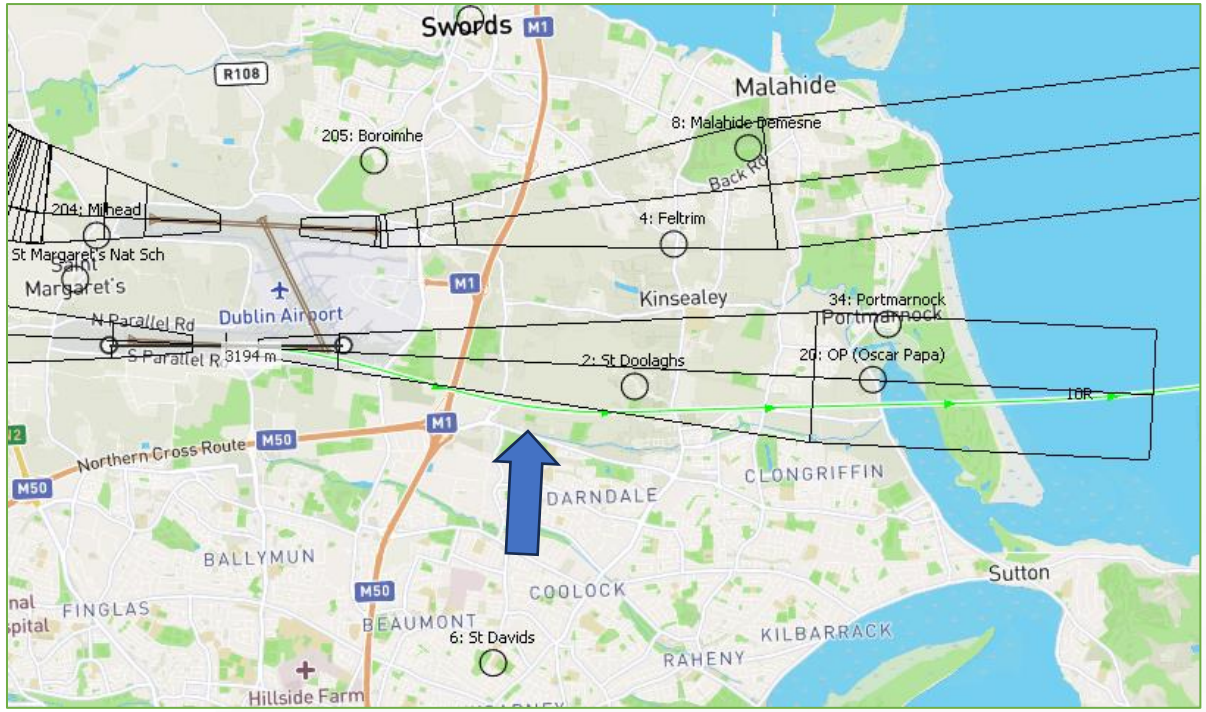


The above diagram displays two different departing flights which exited the North Runway NPR before they would have reached 4,000 ft altitude.

Track NPR Deviation Examples – South Runway



A jet aircraft departed the South Runway heading west and then turned left (southward) not far after the M2 motorway before reaching 3,000ft.



This jet aircraft departed the South Runway heading east. It deviated from the NPR for a short distance and then returned to the corridor, to continue on the correct path.

End

For further information, please visit our website:

www.dublinairport.com