

SS

File With _____

SECTION 131 FORM

Appeal NO: ABP 314485

TO: SEO

Defer Re O/H ☐

Having considered the contents of the submission dated/ received 22/12/24
from

Dolores Bogan I recommend that section 131 of the Planning and Development Act, 2000
be/not be invoked at this stage for the following reason(s): no new issues

E.O.: [Signature]

Date: 31/12/26

To EO: _____

Section 131 not to be invoked at this stage. ☐

Section 131 to be invoked – allow 2/4 weeks for reply. ☐

S.E.O.: _____

Date: _____

S.A.O.: _____

Date: _____

M _____

Please prepare BP _____ - Section 131 notice enclosing a copy of the attached
submission

to: _____

Allow 2/3/4 weeks – BP _____

EO: _____

Date: _____

AA: _____

Date: _____

File With _____

CORRESPONDENCE FORMAppeal No: ABP 314485Please treat correspondence received on 22/12/24 as follows:

. Update database with new agent for Applicant/Appellant _____

. Acknowledge with BP 23. Keep copy of Board's Letter ☐

1. RETURN TO SENDER with BP _____

2. Keep Envelope: ☐3. Keep Copy of Board's letter ☐

Amendments/Comments

Resp Recd

4. Attach to file

(a) R/S ☐(b) GIS Processing ☒(c) Processing ☒(d) Screening ☐(e) Inspectorate ☐RETURN TO EO ☐

	Plans Date Stamped <input type="checkbox"/>
	Date Stamped Filled in <input type="checkbox"/>
EO: <u>[Signature]</u>	AA: <u>F. Khaydar</u>
Date: <u>31/12/24</u>	Date: <u>21/12/24</u>

James Sweeney

From: Appeals2
Sent: Tuesday 31 December 2024 17:15
To: James Sweeney
Subject: FW: Submission on behalf of Bryan Beggan and Dolores Beggan case no 314485
Attachments: PL06F.314485 Bryan Beggan Further Observation 2024-12.pdf; PL06F.314485 Dolores Beggan Further Observation 2024-12.pdf

From: bryan beggan <bryanbeggan@gmail.com>
Sent: Sunday, December 22, 2024 2:22 PM
To: Appeals2 <appeals@pleanala.ie>
Subject: Submission on behalf of Bryan Beggan and Dolores Beggan case no 314485

Caution: This is an **External Email** and may have malicious content. Please take care when clicking links or opening attachments. When in doubt, contact the ICT Helpdesk.

Dear Sir/Madam,

Please see attached submissions for both myself Bryan Beggan and my Mother Dolores Beggan regarding case no 314485.

My Mother has had an issue with her email and has asked me to send on her behalf.

Kind regards

Bryan Beggan
0858667485

Dolores Beggan
Fieldstown
Kilsallaghan
Co. Dublin

20/12/2024

An Bord Pleanála via online submission

Bord Pleanála Case Number: ABP-314485-22

Planning Authority Case Reference: F20A/0668

Observations relating to Bord Pleanála Case reference ABP-314485-22 subsequent to the receipt of additional information from daa.

To Whom it may concern,

I have lived under the North east departure flight path since 1990, and have had aircraft pass overhead since then. These aircraft have always been at a high altitude, and never created noise.

Since the opening of the North runway, the aircraft are overflying our property at low altitude, and the noise levels are disturbing our sleep, and we cannot have a conversation either in person or on the phone while the aircraft pass overhead.

I did review the planning application which was granted in 2007, and I did not make a submission, as the flight paths were shown straight out, and I knew from experience that these new paths would be similar with regards to noise levels previously experienced.

Our Son became involved in aviation because the aircraft were flying overhead, and became an airline pilot because of his passion.

I have reviewed the new information supplied by daa. It underscores further that daa continues to fundamentally ignore the planning permission granted in 2007 and cements the company's intention to do as they please and their expectation that they may do so with impunity.

North Runway Permission

Condition 1 of the original planning permission for the North runway 28R stated that the DAA must stay within the EIS which is shown on the below charts marked with a black outline.

Since the planning permission was granted in 2007, there has been no consultation with any population in Co. Meath regarding the currently flown flight paths. People have invested heavily in their properties, myself included, and were not aware that there would be aircraft flying so low over our neighbourhoods. Our quality of life is dramatically reduced, being woken up by low flying aircraft. We have an A1 rated house, however the noise still wakes our family up with the departure

of the first departing aircraft off the North runway. Expanding this to night times, or allowing earlier departing times would be unbearable to live, and sleep would be impossible when aircraft are operating.

The original proposed departure flight paths out straight from the North runway 28R has had a ban on development for nearly 20 years, and this reflects with the area being made up of farmland, and now solar farms. The few houses in this area were consulted, and had their houses insulated, and yet have no aircraft flying in that direction. 100% of departing aircraft deviate immediately from the only planning permission condition 1 from 2007.

The DAA has added these illegal flight paths as part of a Night time flight and time application, and if approved would give effective planning permission retention to illegal flight paths.

If the Bord were to allow a relaxation of the planning conditions 3(d) and 5 as the applicant wants with this relevant action it will give tacit support to the daa's strategy and undermine the system of planning permission.

The IAA (Irish Aviation Authority) has stated that they have only been given one set of flight procedures to approve. There are many options, but they need to be issued with designed procedures to approve.

Air NAV Ireland have stated that there are many ways that flight paths can be separated, but it is up to the DAA to instruct them to change the flight paths. This has not been done.

The DAA are claiming that the flight paths are required for safety reasons. This is not true. The flight paths can be changed to a near straight out, overflying solar farms and farms, allowing the aircraft gain height before overflying built up areas.

If the height of an aircraft doubles, the noise reduces by a factor of 4.

Currently ATC in Dublin demand high speed, and turn aircraft off the departure routes at low altitude, which increases noise levels dramatically. The aircraft cannot climb.

Please see the individual charts below for a comparison of the planning permission the Bord granted to the submissions from daa showing their flagrant disregard for planning law.

Also examples of how the runway operation could be changed to bring it in line with original planning permission, and have the noise over solar farms rather than built up populations. These proposals will still give the airport its maximum capacity as is planned to operate for the next few years.

Inspectors report

The inspectors report outlined the following information.

Noise charts do not reflect reality.

The inspector rightly highlighted that humans do not experience noise as an average, but at min and maximum. This again highlights the fact that the information submitted by the DAA does not reflect reality. The 300 plus noise events are added up and averaged over the operating hours of the runway operation and given a figure. This is not how the population experience noise. If ABP grand permission to increase the hours as per the interim report, the charts would actually show a lower noise level than with less hours, as the total movements would be averaged over a longer period.

The DAA also claim that there will be new quieter aircraft operating at Dublin Airport. These quieter aircraft, A320 NEO, B737 Max, and B787 for example, already fly out of Dublin. One of the noisiest aircraft that we experience is in fact the B737-Max, due to the operation of the climb profiles.

DAA in Breach of planning condition 1.

The inspector has outlined that the DAA are currently and have been in breach of condition 1 of the planning, but claim that the DAA state it is for safety, and they are being forced to operate these routes by the IAA. The inspector is correct, since the opening of the runway every departure except Air Force One has in fact operated outside the environmental impact statement which was issued by the DAA for planning granted in 2007.

The inspector then claimed that the deviation of 15 degrees is due to safety and is a reasonable exception. This is incorrect information. The turns are not required for safety, and the turns are not 15 degrees, they are all immediately 30 degrees, and over 50% turn again to 180 degree turns from the runway.

Vanguardia Report is factually not correct.

The Vanguardia report that the inspector quotes as the source document for ignoring condition 1 is not accurate. This report incorrectly claims that flight path deviations are minor (15 degrees) and required for safety. In reality, deviations range from 30 to 86 degrees, finally 180 degrees from the runway, and alternate compliant designs were ignored.

Noise modelling charts not accurate.

The noise modelling charts issued by the DAA show less noise at a further distance from the North Runway if compared to the south runway operating easterly. This is impossible due to physics.

Aircraft operating off the south runway facing east, climb straight ahead for approx. 7 miles before turning. This means the aircraft has maximum lift, is able to retract the flaps immediately and fly with a clean wing.

Aircraft departing off the North runway to the west make an immediate turn at the end of the runway, and are limited in speed, and cannot retract their flaps. This means part of the lift from the wing is required to turn, (this is how an aircraft is turned, its lift is tilted to the side, and it causes a turning force), reducing the lift available, and with flaps extended, the thrust is required to overcome more drag from the flaps. The result is an aircraft with less lift, climbing at a slower rate, which means higher decibels for longer periods.

This is impossible that the North runway noise tracks are shorter than the south runway.

See below pictures of actual flight path tracks recorded by ADSB Data.

Reasons why this application should be rejected.

1. The inspectors report clearly outlines that the North runway is operating in breach of the 2007 planning permission condition 1 issued by ABP.
2. There is no safety requirement for a 30 degree turn off the North runway. The claims the DAA are making are false. The 30 degree turns are only required for Independent Operations. Dublin Airport does not have this. If an aircraft approaching 28L South runway and performs a missed approach, all departures off 28R North runway are stopped. This is called Dependent operations, where a 30 degree turn is not required.
3. Increasing the hours of the North Runway will lead to a large population being denied an 8 hour sleep opportunity. This has serious health implications.
4. If the board allows this application to go through, they are defacto giving the DAA retention for breach of condition 1 of the 2007 planning permission, and departing every aircraft over

a special needs school north of the airport, where no aircraft should be operating at low levels. See picture below of the DAA's own webtrack showing noise levels recorded at the school.

5. The planning permission granted in 2007 condition 1 had one exception for safety. The Daa is trying to breach this condition for commercial purposes rather than safety. See below London and Frankfurt passenger figures which show the passenger capacity available with dependent operations which allow straight departures.
6. The bord has not compared a new environmental impact against pre north runway operation. There has been no fair comparison pre and post North runway operations.

In summary, granting this application, will effectively be granting permission for retention of illegal flight paths.

Dublin airport is being operated in a very irresponsible manner, with zero noise mitigation procedures, and a blatant disregard for the planning process and its neighbouring communities.

I am in favour of Dublin airport expanding, and growing. I want the Airport to attract new airlines, new routes. However, the airport is not operating as it was granted permission for, and should not be allowed to expand at the expense of the population who was never intended to be overflown at such low altitudes.

Regards,

Dolores Beggan

Resident North of Dublin Airport.

ADS-B transponder data captured from aircraft departing DUB over a 16 hour period was used to show the paths actually flown. Note about 50% fly directly over 12,000 people in Ratoath and 100% fly within 2km of Ashbourne while at climb power, the noisiest most disruptive phase of flight.

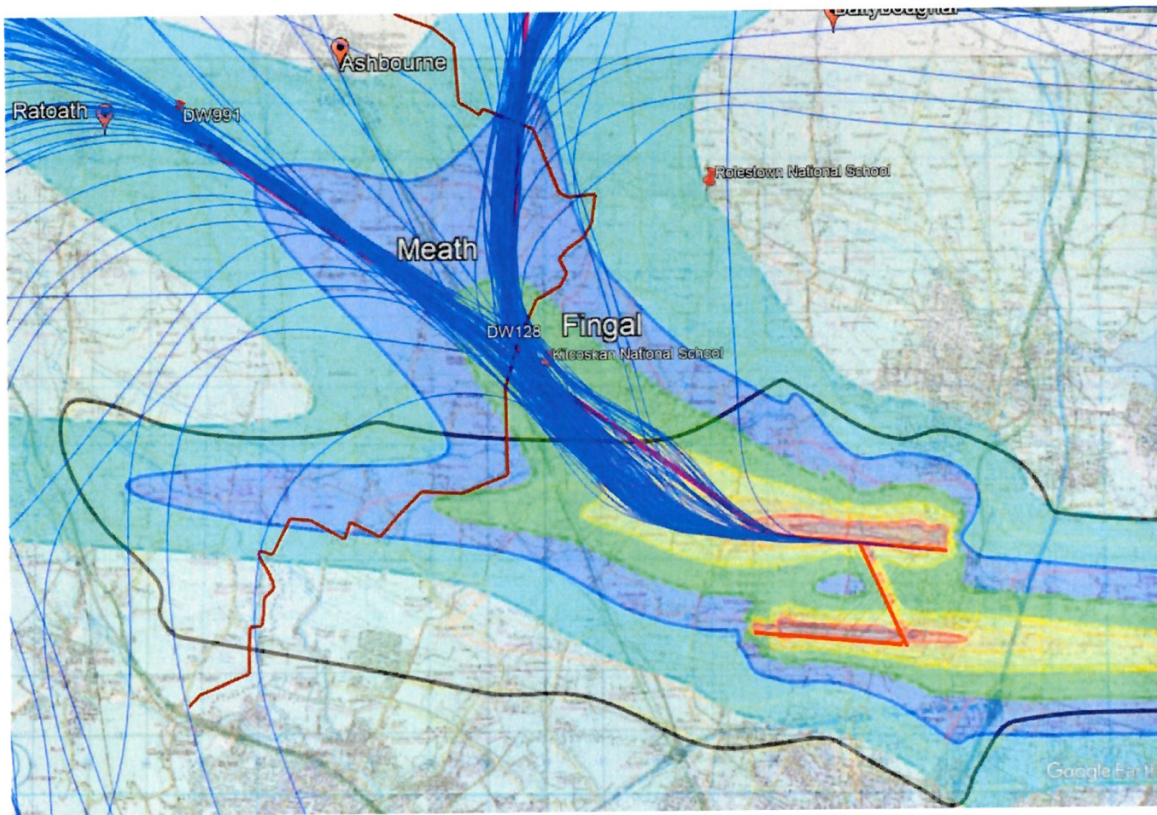


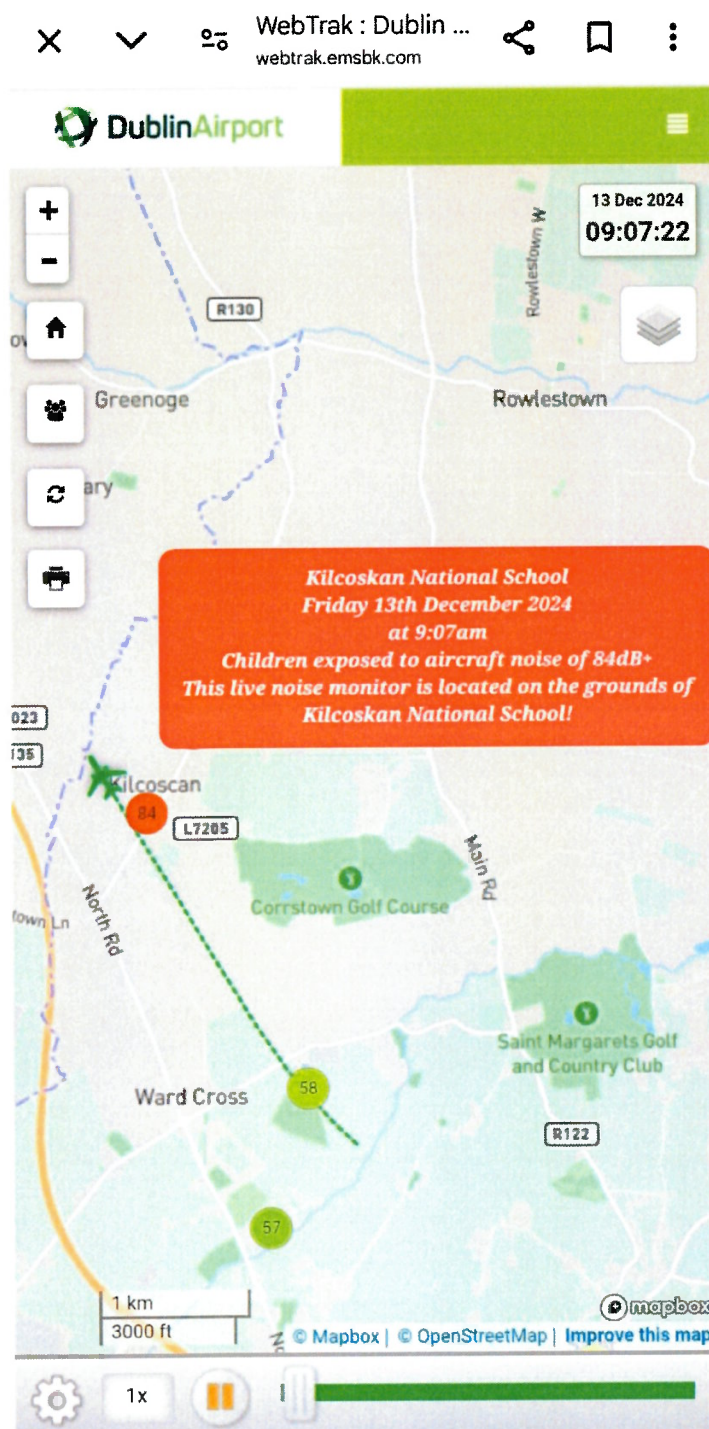
Figure 1 The present EIAR claims the coloured area as the "permitted" scenario.

In Figure 1, daa's Forecast Lday Noise Contours 2035 Permitted Scenario Figure 13C-23 are overlaid with the current traffic. The magenta tracks currently in use form the 4th flight-path design so far by daa/AirNav and only went into operation in February of 2023.

Examination of the original EIS (shown with a black outline) demonstrates that the Noise Contours in Figure 1 are nowhere near the noise contours claimed as permitted in the current EIAR. Simple logic dictates that it is impossible that these noise contours are the "Permitted Scenario".

Note that every departure overflies Kilsoskan Nation School near the Coolquay.

This in effect is a new application for new flight paths with new noise impacts.



This is a screenshot taken from the DAA's own Webtrack showing 84 Db of a departing aircraft. This area is outside the only planning permission granted for the North Runway in 2007.

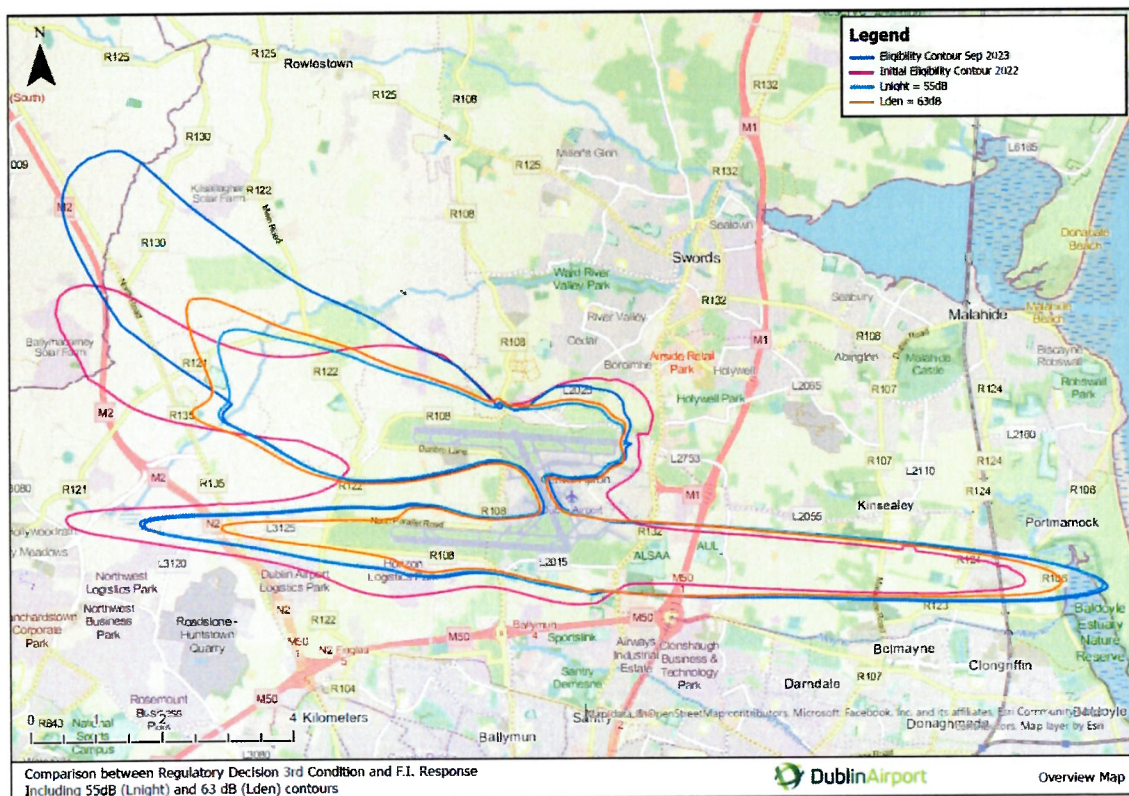


Figure 2 New submission from daa further clarifying breach of Condition 1 of the granted permission

Figure 2 supplied by daa shows that the RWY28R SID is in clear breach of Condition 1 of the granted permission.

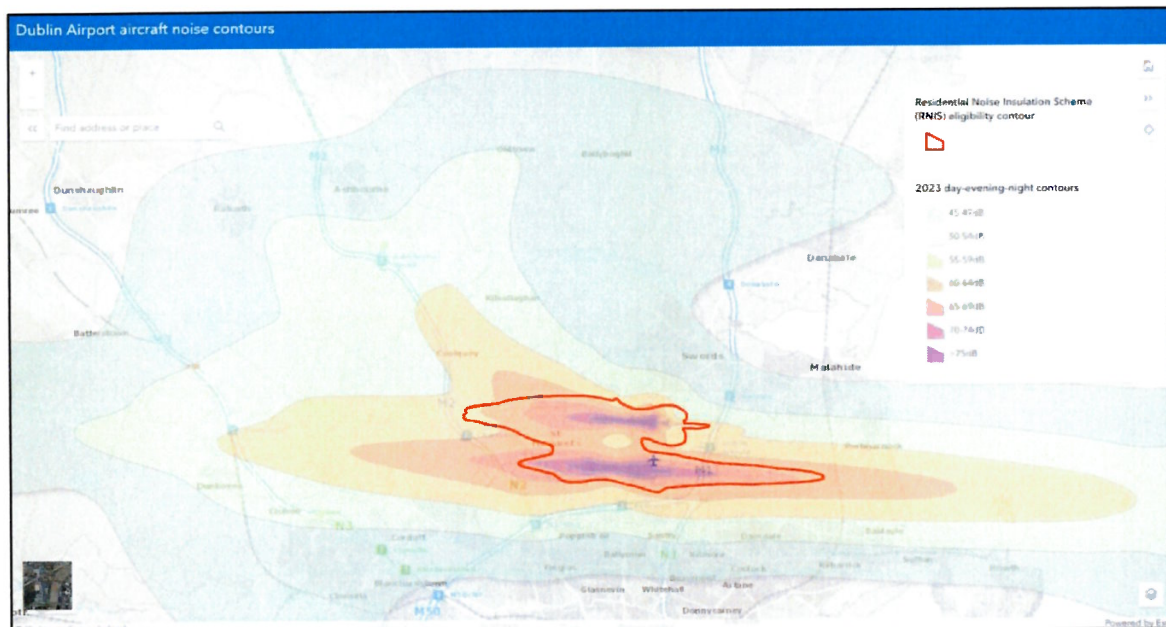
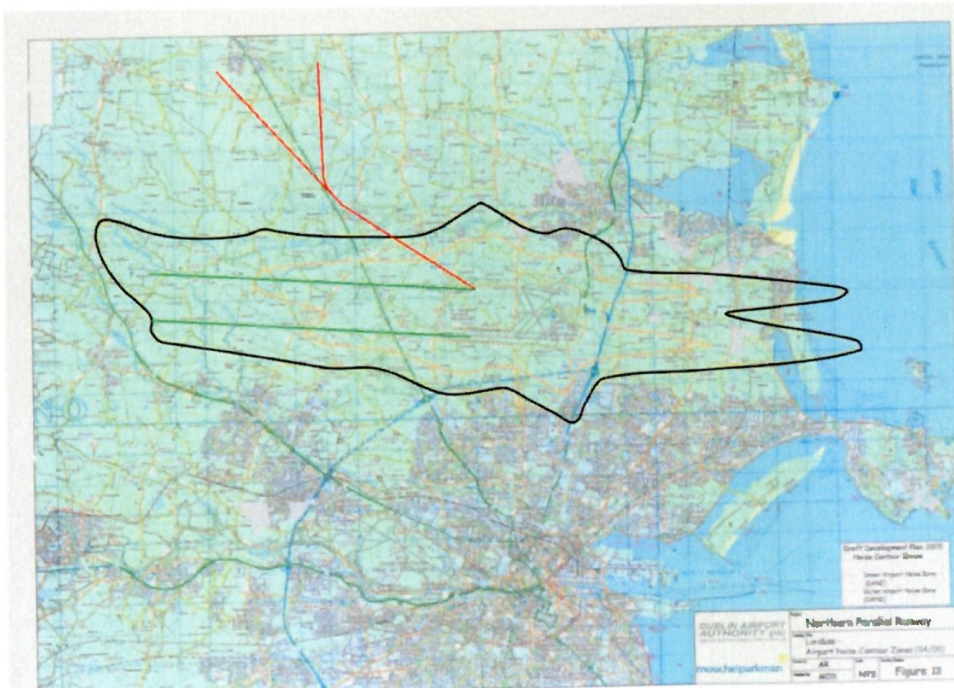


Figure 3 Latest ANCA data demonstrating noise all the way up to Ashbourne and Ratoath

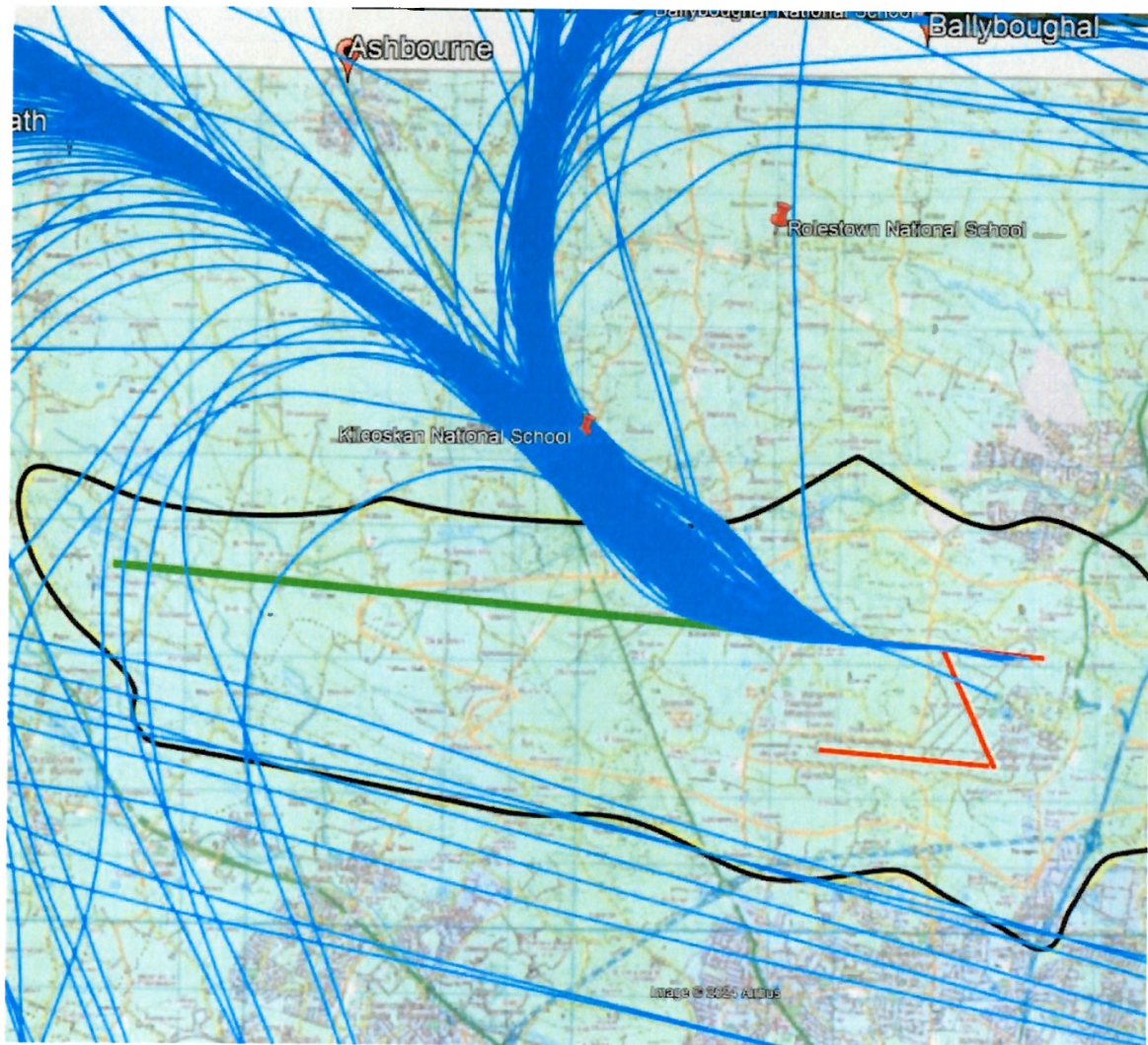
Once again, daa's new submission demonstrates their casual disregard for condition 1 of the only planning permission in force for the north runway.



This Chart shows the outline of the 2007 planning permission, with green lines indicating the intended flight paths, and the red the actual flown illegal flight paths.



This chart shows the Public safety zones as part of the 2007 planning permission. In red the actual illegal flight paths.



Here is a 16 hour period of flight paths, with the Black outline showing the only approved planning permission EIS, with the green proposed flight path used for that planning application.

Because the aircraft have to make so many turns their ability to climb is reduced significantly, and therefore the noise impacts of departure tracks with large turns compared to straight departures is compounded, with aircraft flying lower for longer periods creating more noise.

This combined with ATC instructing aircraft to turn off the departure tracks and increase speed at low levels, again increases the noise impacts even further.

The following information is a proposed solution which is in line with all ICAO requirements, gives the Airport multiples of the Capacity it is seeking, more than it could accommodate, and double of the current allowed capacity regarding planning. This plan will also solve many problems with the current flight paths off the North runway, which are outlined below.

See below picture of this planned departure area.(EIS 2007) Dwellings Marked in Red.

This flight path has a 10 degree turn at 1.9 Nautical miles which is in line with all ICAO Procedures, which requires no special safety studies to be submitted for exemptions to AMC's. This 10 degree turn is phase 2 EIS 6 months.

Note, the current flight paths are not shown here. They turn to the left in this picture immediately at the end of the runway, and climb over the golf course shown in left middleground.

Phase 1 is a straight departure to Waypoint EBEZA by NOTAM.

One response to such a proposal from the DAA community officer is that you are just moving the noise from one population to another. This is not the case, because:

1. The houses under this flight path have expected aircraft overflying their houses since 2007. This area is where ABP granted permission for the Noise and therefore the flight paths.
2. The area is very sparsely populated. This is because the councils have refused permission for building in these areas since the granting of planning in 2007.
3. Insulation for such limited number of houses, or purchase orders are a lot lower cost to the DAA than the current flight paths.



Noise Abatement Procedures

The DAA publish via the IAA in the Aeronautical Information Publication (AIP), procedures for airlines and Pilots to comply with. There are currently no noise abatement procedures published being followed. See below extracts from the AIP. This can be viewed [here](#)

AIP IRELAND

EIDW AD 2 – 19

11 JUL 2024

1.5.2 When winds are westerly, Runway 28L shall be preferred for arriving aircraft. Either Runway 28L or 28R shall be used for departing aircraft as determined by air traffic control.

Currently this is not the practice used. ATC will use tailwinds up to 10Kts.

EIDW AD 2.21 NOISE ABATEMENT PROCEDURES

1. Aircraft operators shall ensure at all times that aircraft are operated in a manner calculated to cause the least disturbance practicable in areas surrounding the airport.

This is not the current practice at Dublin Airport. ATC request high speed above 250Kts below 10,000ft on every departure. This is increasing the risk of damage in the event of a bird strike. A 20% increase of speed, increases the impact force by 44%.

This acceleration results in the aircraft reducing their climb, and showering neighbourhoods with higher levels of higher decibels over a larger area.

3.2 Cat C, D Aircraft

3.2.1 Departures from all runways except Runway 10R, must track the runway extended centreline after take-off until passing 750ft and then proceed in accordance with the relevant Instrument Flight Procedure published departure track and adhere to published altitude/level restrictions unless otherwise cleared by ATC.

The current 28R SID for every departure has published turns below this height.

3.2.3 Take-off climb shall comply with the procedure detailed below, which is based on noise abatement departure climb guidance contained in PANS OPS Doc 8168 Vol 1 - Appendix to Chapter 3 - NADP2.

3.2.4 Take-off thrust. speed $V^2 + 20$ to 40 km/h ($V^2 + 10$ to 20kt).

3.2.4.1 At 240m (800ft) and while maintaining a positive rate of climb, body angle is reduced and flaps/slats are retracted on schedule as the aircraft is accelerated towards V_{zf} .

3.2.4.2 Power/thrust is reduced during the flap/slat retraction sequence at a point that ensures satisfactory acceleration performance. 3.2.4.3 (3000ft) Transition smoothly to en-route climb speed.

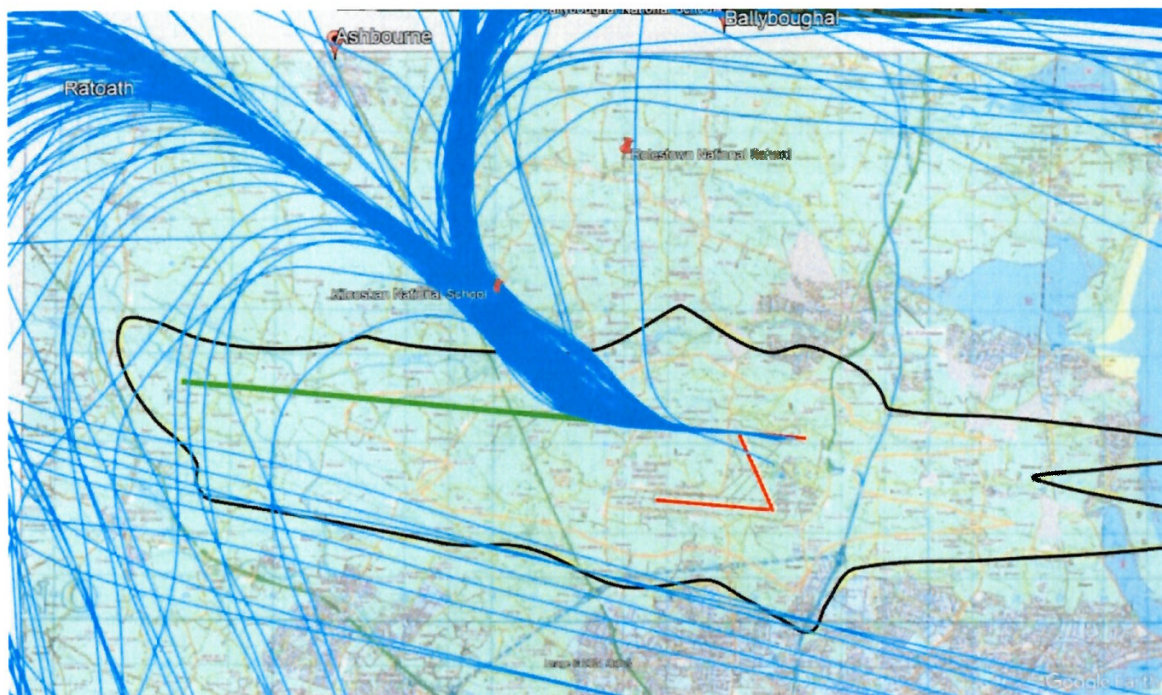
Of the two main airlines that operate at Dublin, one which operated an Airbus aircraft climb to 1500ft AGL, then accelerates while reducing thrust. The other airline operating a Boeing aircraft climb to 1000ft agl before accelerating. This means that the Boeing aircraft following an Airbus aircraft will catch up and reduce the ATC spacing.

I believe this is one of the reasons why ATC request high speed.

Cat C and D aircraft using Runways 28L, 28R, 10L, 16 and 34 shall operate within environmental corridors which are based on runway take-off flight path areas. The corridors have a width of 180 M at the departure end of the clearway, diverging at 12.5% on each side to a maximum width of 1800 M, and extending in length to 5 NM from the point of origin. The corridors extend vertically from surface to 3000 ft AMSL.

This Noise abatement procedure is not being followed. All Departures off the North runway turn within 1 nautical mile to the North West.

This chart shows the outline in black of the 2007 EIS provided by the DAA to ABP seeking planning permission for the north runway. The Blue lines are one period from 0700-2300, actual flight track data.



This chart clearly shows that the departures are not in line with the planning permission of the noise preferential route in green, which was issued by the DAA to ABP in 2006.

What Dublin Airport Currently has:

Currently Dublin Airport does not have Independent Operations. The reason for this is because the missed approach procedure off 28L turns across the departure path from 28R, with no Altitude separation guaranteed. This has been confirmed by the IAA.

While Independent operations should be the main aim, this will take a long time to solve, so a simple step which keeps capacity above the requirements should be the first port of call.

On a point, fully independent operations would cater for over 60 million passengers, a figure that the DAA don't need for a very long time.

Dependant operations would give over 40 million (Close to 50 million) capacity overnight should the CAP be lifted.

London Gatwick in 2023 operated with one runway. They processed 40.9 million passengers with a load factor of 84.1%. That is a total seat capacity of 48.6 million. With one runway, they operate Dependant mode since it is only one runway. With two runways the DAA could exceed this figure before next summer if the Cap is lifted.

Frankfurt Airport (FRA) recorded a significant recovery in passenger demand across 2023. In total, some 59.4 million passengers traveled via Germany's largest aviation hub in 2023 with 2 runways – representing a 21.3 percent increase compared to 2022. However, passenger numbers for 2023 remained 15.9 percent below the pre-crisis 2019 level.

Frankfurt operates dependent mode operations, just as we propose in our 3 phase plan. Not every aircraft was full in Frankfurt, so the number of seats could be 20% higher, over 71 million passengers.

I have a 3 phase plan, that could give the required capacity to the airport now, increase this to over 40 million + passengers nearly 50 million+ by next summer, and 60 million + within 12-18 months.

This plan will also have two basic Noise abatement rules to reduce noise, which all airlines must comply with. This must be made mandatory for Pilots and ATC, unless an emergency situation arises, or for weather avoidance. This will not increase the fuel burn or carbon emissions for an airline based in Dublin.

Phase 1

Aim: To have 28R departures straight,

Time Line: EIS approx. 2 weeks

Capacity 48 million +

Issue a Trigger NOTAM (Notice to Airmen)

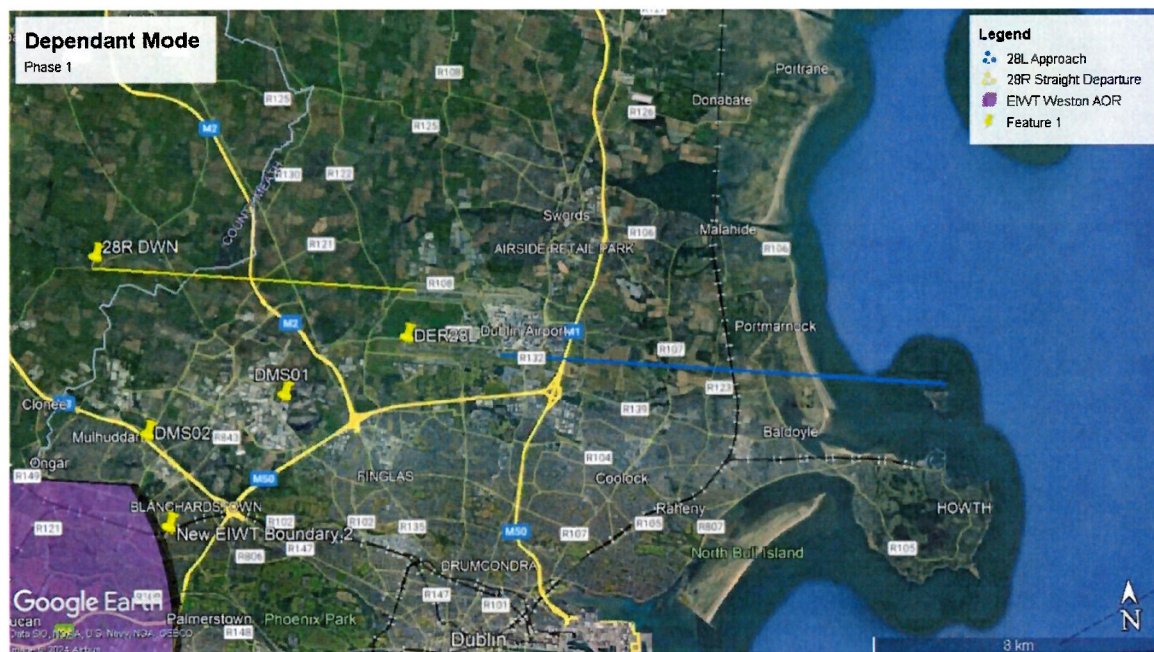
All CAT C and CAT D Standard Instrument Departures off 28R Suspended.

New 28R Procedure. Climb Straight ahead to EBEZA CLIMB FL90 CONTACT DEPARTURE FREQ. Expect Radar vectors or direct routing to FLIGHTPLAN.

28L MISAP CLIMB STRAIGHT AHEAD TO GANET CONTACT ATC CLIMB 3000FT.

LOSS OF COMMS MISAP 28L CLIMB TO GANET 3000ft THEN CLIMB 5000ft and TURN LEFT TO UMOWI. COMPLETE ONE HOLD THEN MAKE AN APPROACH TO LAND 28L.

Dublin ATC would operate DEPENDANT MODE. EG 28R Departure would be given clearance when the 28L aircraft Lands. This will not slow down arrival or departure flow rates from currently achieved rates. There are currently 3-4 arrivals each morning between 0600-0700, the peak wave.



This would enable the DAA to immediately comply with the planning permission, and allow them to enter a submission to ABP that they are now returning the original EIS, and they can argue for a better night time flight restriction.

Yellow line is straight departure off 28R, Blue line is Approach 28L.

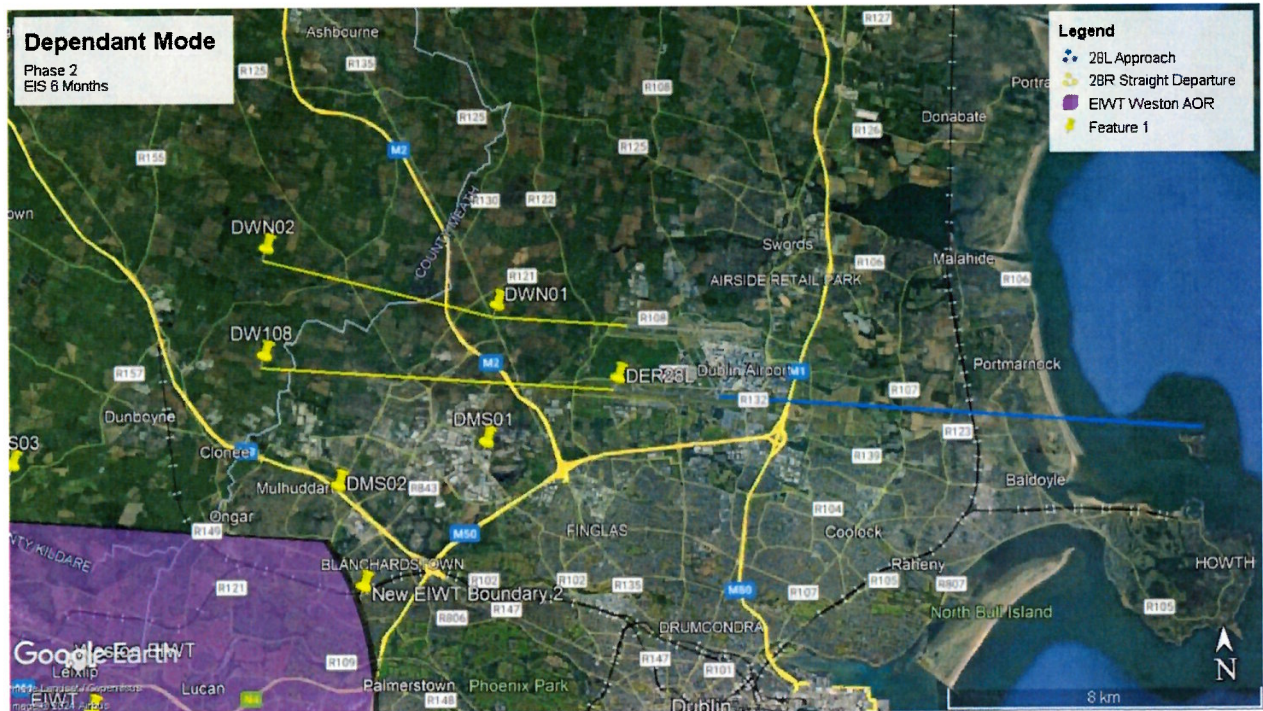
Phase 2

Instruct ASAP to create new SIDS based on ICAO DOC 9643.

Aim: To have both runways departing aircraft simultaneously.

Time Line: EIS approx. 6 months, ready for Summer 2025.

Capacity 48 million +



The yellow lines are departure tracks, with a 10 degree divergence within 2 nautical miles. The blue line is the arrival path.

DWN01 Is end of runway 28R 1.9 NM

DWN 02 is a track 10 degrees right after DWN01 to the same distance as GANET on the south runway.

Procedure:

ATC Line up an aircraft on 28R and hold position. Aircraft lands on 28L.

Immediately ATC give take off clearance to the aircraft on 28R, and give line up clearance to the next aircraft departing off 28R. (Conditional clearance)

While the landing aircraft is rolling out, ATC line up the next departure aircraft on 28L. Once the landing aircraft is vacated, they clear the aircraft on 28L and at the same time 28R to take off.

If there is enough space to the next arrival, they could line up and clear aircraft for take off from both runways at the same time again, otherwise when the next aircraft lands, the clearances repeat over and over.

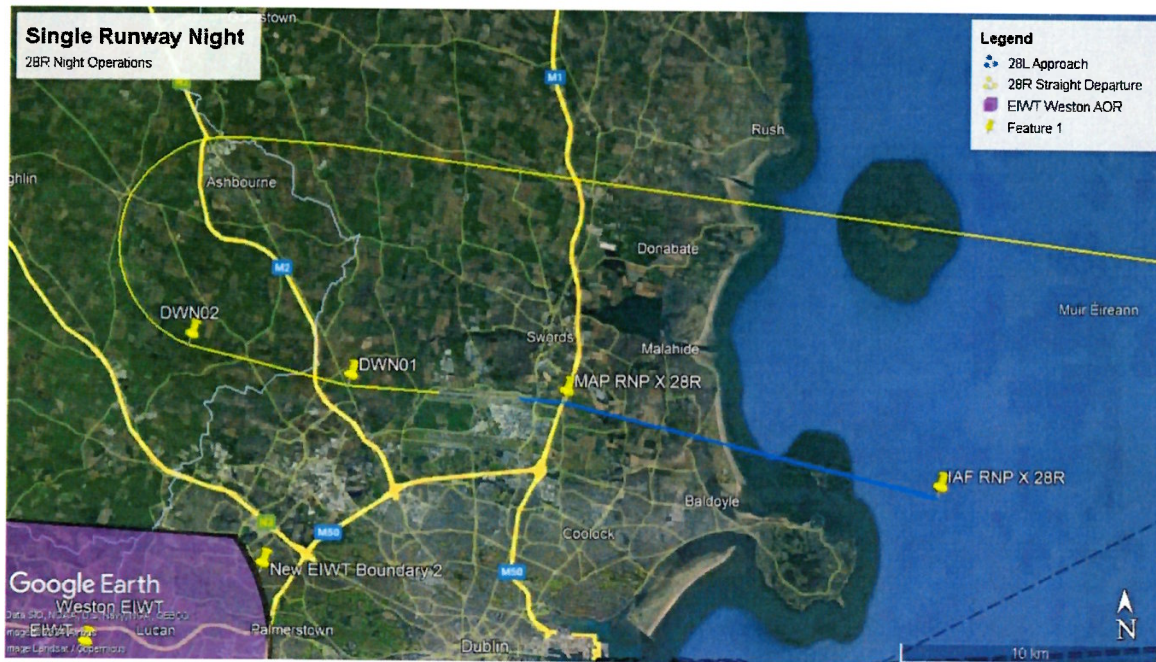
This would give ATC in Dublin more capacity than London Gatwick, and Frankfurt, and allow expansion if the passenger Cap is raised, which it should be if this flight path is used.

Dublin Aiport instruct ASAP to design an offset RNP approach to 28R for single North Runway Operations.

Why have I chosen 10 degrees? This is because this is within the current regulations (ICAO DOC 9643), and no exceptions under AMC's (EASA Requirements) are required. It also splits both Hollystown and Kilbride equidistant, minimising the noise impacts to the fewest number of people.

Offset RNP approach 28R for night time operations when 28L is closed.

Aim: to minimise the noise impact for built up areas near Swords, Portmarnock, and Malahide.



Pic: New offset RNP approach for 28R.

When the south runway 28L/10R is closed every 8 weeks for grass cutting or maintenance, this offset approach should be used, to avoid aircraft overflying Portmarnock and Malahide.

There are no changes required to departures or the missed approach using this offset approach.

This type of approach is used worldwide for this exact reason, examples, New York 13L RNP approx. 90 degree offset, RNP X 22L 10 degree offset, Nice France, 80 degree offset, Nantes France, 15 degrees offset.

If the weather is below or forecast below the required minima for this type of approach, ATC revert to the current ILS approach.

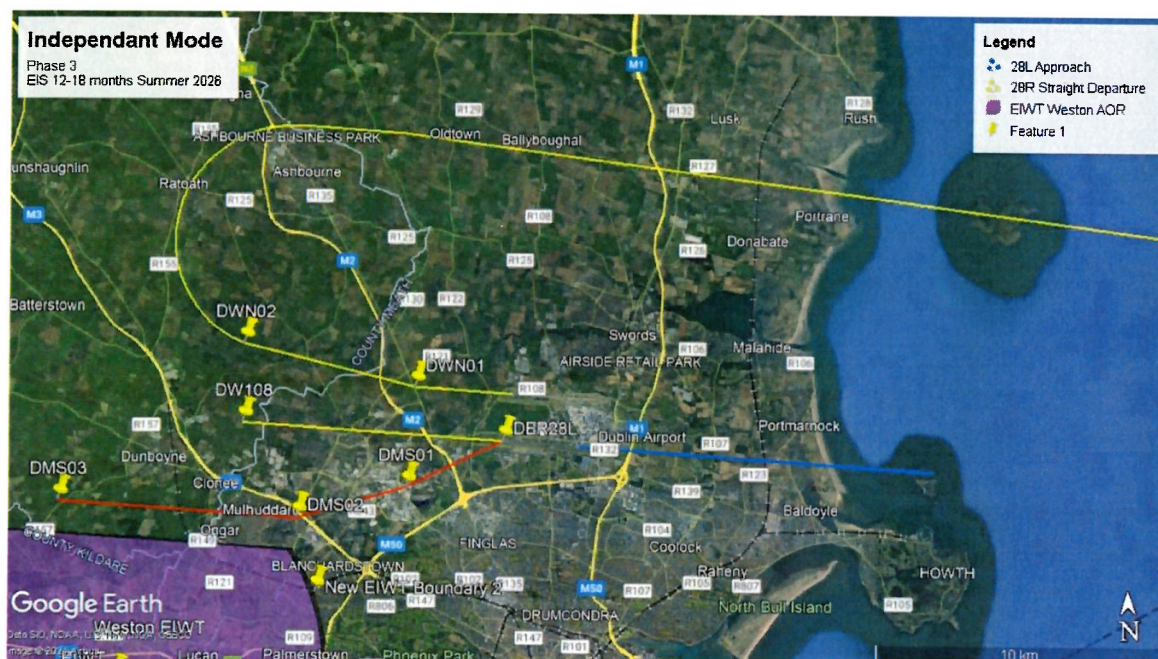
Phase 3

Whilst Phase 2 is operational, Dublin Airport will have a higher potential capacity greater than London Gatwick, which in 2023 had a total seat capacity of 48.6 million. This is far above the requirements that Dublin Airport require or could achieve.

If the designs were put in place now, this phase could be operational before the summer season 2025.

Once this phase is operational, the DAA and ASAP will have time to design a new missed approach off 28L, which would allow fully independent operations, Phase 3.

Pic: Example of a new missed approach design



Yellow lines : Departure tracks

Blue line : Approach 28L

Red Line: New missed approach 28L with required ICAO DOC 9643 regulations complied with.

This phase 3 allows fully independent operations, the maximum capacity that is possible at Dublin Airport

This new missed approach is an example of a solution. 30 degrees deviation is guaranteed until 3NM radar separation is achieved, and the aircraft are always deviating away from each other initially by track, then by altitude.

NOISE ABATEMENT PROCEDURE EIDW ALL RUNWAYS:

CLIMB AS PER NADP2

TAKE OFF POWER TO 1500FT AGL

REDUCE TO CLIMB POWER ACCELERATE TO 250 KTS

250KTS or Vz_f (Minimum clean speed) MANDATORY BELOW 10000FT

NO TURNS OFF SID UNTIL ABOVE 8000FT OR OVER WATER, EITHER BY THE PILOT OR ATC INSTRUCTION.

Exceptions: Aircraft in an Emergency situation, or avoiding weather.

This will require all airlines and ATC to be mandated to comply with these requirements. This is to ensure ATC radar separation. The DAA have the control to mandate this. This is common practice around the world.

Fuel Burn and Carbon emissions.

One concern is that this longer SID off the North Runway will cost a lot more fuel and time, and increase emissions.

An A330, which is the most common widebody flown in Dublin was test flown in a simulator to gather Data.

This was flown at the maximum landing weight 187 tons, in ISA conditions still wind.

The Current ENDEQ 3J took 9 minutes 12 seconds, burning 1640Kgs of Fuel.

The New designed departure took 9 minutes 37 seconds, burning 1660 Kgs of Fuel.

Fuel increase + 20Kgs

Time increase 22 seconds.

This flight complied 100% with all planning conditions, ensures ATC radar separation, and still overflies Ratoath and Ashbourne, but at a much higher altitude, and the noise levels would be very low.

The south departure to PESIT ,(Canaries, Spain, Portugal Flights), had a saving of fuel and time.

Current PESIT 2 J 19 minutes 30 seconds Fuel burn 2500 Kgs

New design PESIT 18 minutes Fuel burn 2360 Kgs

Time saving 1 minute 30 seconds per departure

Fuel saving 140 Kgs of Fuel.

Over all

New SID

Time saving combined 1 minute 8 seconds

Fuel saving -120 Kgs of Fuel

These tests were carried out using the Noise Procedures set out as above.

Issues with the Current Flight path procedures.

1. **ATC Radar Separation** – Currently when aircraft depart off 28R, there is a speed limit due to the tight turns of 210 Kts. The faster an aircraft flies, the wider the turn is, so to keep the turns tight, the speed is reduced. An A320 flying to Europe, the minimum speed to retract the flaps will be above the limit speed of 210 Kts. Therefore we are required to maintain the Flaps at 1 until we pass this speed restriction. With Flaps extended, there is a lot of drag, the aircraft burns more fuel, does not climb as well, and we make more noise. The Boeing 737 has the same issue. For A321 Neo to the USA Flap 2 is required with a lower speed again.

Another factor is, at Flap 1 in the A320, our max speed is 215 Kts. If we were to fly 210 Kts we are very close to the overspeed, and therefore would normally fly 190-200Kts. The Boeing 737 aircraft when maintain Flap 1 to comply with the speed, has a max speed for this Flap setting of 235-250 Kts depending on the variant. So The B737 can fly exactly 210 Kts while the A320 is flying 190 – 200 Kts. If a B737 is following a A320, they will catch up, and reduce the ATC Radar Separation (Minimum separations is 3 nautical miles)

Different Companies use different Climb Profiles. For example, one airline climbs at take-off power and Flaps until 1500ft above ground, and then accelerate, while another climbs at take-off power and Flaps until 1000 ft and then accelerate.

So, if a B737 is following an A320, The B737 aircraft will accelerate at a lower height, and fly a faster speed than the A320. These two combined effects mean the B737 aircraft catches up quickly.

The response from ATC is to instruct the A320 aircraft to increase speed passing 3000ft to 290 Kts. This increases noise on the ground as the aircraft lowers its climb rate to accelerate.

This also increases the risk of bird strike as the aircraft is longer in the lower altitudes where birds are, and the higher speed increases the risk of serious damage if such a strike occurs.

This has now become custom and practice with Dublin ATC, even if there are no conflicts or separation issues. For example, a single aircraft departing at night, with no previous or following aircraft, will be routinely instructed to increase speed to 290 kts, and turn early off the SID. This has the effect of causing more noise that was ever experienced in the past, even off the existing south runway, as the aircraft reduces its climb rate to increase speed.

The only way this will be stopped is an instruction from the DAA.

Mitigation

1. Do not have any speed limits below 250 Kts to enable all aircraft types to retract their flaps and all fly the same speed.
2. Mandate all operators to fly one climb profile so every aircraft operates to the same performance level, and take enforcement action.

The new proposed Departures have these two measures built into them.

2. CAT A/B aircraft fly the same SIDS as CAT C/D

Currently with the 28R Departure, the Larger CAT C and D, (A320 B737, A330 Etc) commence their turn at approx. 400ft above the ground 30 degrees right at the end of the runway.

The Smaller CAT A/B aircraft, (Mainly ATR Emerald) commence their turn at 500ft above the ground. These aircraft are a lot slower to climb and fly slower speeds (170 Kts) than the larger aircraft. This means that if an A320, B737, or A330 is to depart after an ATR, they must wait a long time before they can depart.

On the South runway, the CAT A/B aircraft turn approx. 500ft, and clear the area for the faster jet aircraft behind, which reduces the delay for the next departure.

The new design is for CAT C/D aircraft. The smaller aircraft can turn as they are now, while the larger aircraft fly straight ahead to approx. 3000ft before turning. This turns the smaller aircraft out of the way and increases the departure flow rate off 28R.

As you can see on the first chart above, the missed approach off 28L tracks North and then east towards the Dublin VOR.. (*Departure tracks not shown on this chart.*)

The second Picture is actual radar flight data of all departures for one 24 hour period.. In red you can see the missed approach track off 28L.

The red missed approach altitude is 3000ft. Where these two intersect, departing aircraft have been tracked between 2800ft and 4000ft. This is clearly a conflict. So how do ATC avoid the risk of collision?

If an aircraft performs a missed approach off 28L, all departures are stopped off 28R. Remember the definition of Independent operations is that the operation of one runway has no effect of the other parallel runway? This is clearly not the case in Dublin Airport.

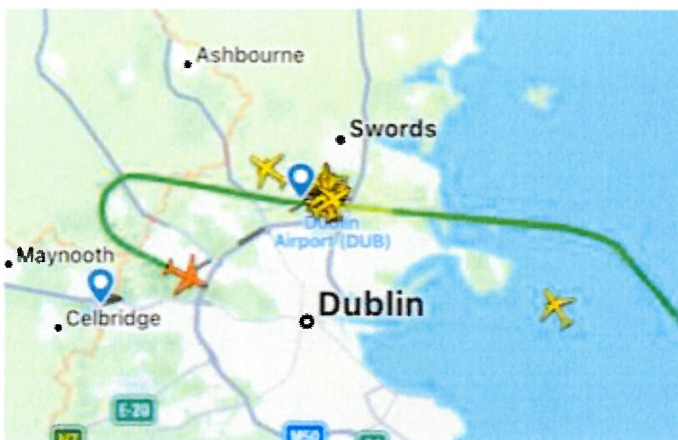
When an aircraft performs a missed approach, Dublin Airport becomes a Dependent operation. In this mode 30 degree turns off the North runway are not required.

If it is quite windy, and ATC perceive that there is a higher risk of a missed approach off 28L, ATC will not depart an aircraft off 28R until the aircraft on approach has landed. This is the definition of Dependent operations.

So, What happens to an aircraft on approach to 28L that performs a missed approach? The aircraft is turned left over Dublin City, a procedure that AIR Nav stated is complicated to design, and cannot be done.

The reason that in the picture above where we have Radar tracks for departures, but a drawn in procedure for the missed approach, is because since the opening of the North Runway in August 2022, not one single aircraft performing a missed approach has flown the published procedure.

Actual Missed approach observed.



Why have an offset approach for 28R?

At the moment, during the summer cycle, every 8 weeks, the south runway closes for maintenance. This offset approach would hugely reduce the population affected by noise at night time.

Summary.

I believe that making an immediate change would be beneficial for the airport going forward for many reasons. The Noise impacts for local populations would drop dramatically, the issues outlined above for ATC, and the Pilots would be solved.

This action must be taken very quickly, as we are in the winter period, with capacity requirement very low. Any short term reduction in capacity while ATC get trained and up to speed, will have no impact on operations.

The design criteria is required to be started immediately for phase 2. This will take a few months, and this is needed to be in place for April 2025. Dublin Airport will then have more capacity than London Gatwick who in 2023 had a seat capacity actually flown of nearly 50 million passengers.