S

S. 37

File With _____

SECTION 131 FORM

Appeal NO:_ABP 314485

TO:SEO

Defer Re O/H ☐

Having considered the contents of the submission ~~dated~~/ received 23/12/24 from

Brian Prendergast 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 w issues

E.O.: _____ Date: 23/12/24

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 2/3/4weeks – BP_____

EO: _____ Date: _____

AA: _____ Date: _____

S. 37

File With _____

CORRESPONDENCE FORM

Appeal No: ABP 314485

M _____

Please treat correspondence received on 23/12/24 as follows:

1. Update database with new agent for Applicant/Appellant _____
2. Acknowledge with BP 23
3. Keep copy of Board's Letter ☐

1. RETURN TO SENDER with BP _____
2. Keep Envelope: ☐
3. Keep Copy of Board's letter ☐

Amendments/Comments

4. Attach to file
(a) R/S ☐ (d) Screening ☐
(b) GIS Processing ☐ (e) Inspectorate ☐
(c) Processing ☑

RETURN TO EO ☐

	Plans Date Stamped ☐ Date Stamped Filled in ☐
EO:	AA: F. Mustapha
Date: 23/12/24	Date: 24/12/24

Alfie Staunton

From: Brian Prendergast <bprendy71@gmail.com>

Sent: Monday 23 December 2024 13:18
To: Appeals2
Subject: Fwd: Case No. 314485 - DAA Relevant Action - Observations
Attachments: Appendix 1 - WDA230901TN_A_01 Noise Survey and Assessment.pdf; A - Ballyboughal - 4800 ft.jpg; B - Ballyboughal - 4900 ft.jpg; C - Ballyboughal - 5100 ft.jpg; D - Oldtown Ballyboughal - 4890 ft.jpg; E - Ballyboughal Lusk - 4800 ft.jpg; F - Ballyboughal - Lusk - 5300 ft.jpg; G - Lusk - 5900 ft.jpg; H - Ratoath - 5300 ft.jpg; I - Ratoath - 6000 ft.jpg

To whom it may concern,

Further to my previous observation regarding the relevant action by the DAA and having reviewed your draft decision, along with Ballyboughal Community Council, please see below and attached observations.

The noise pollution the local communities are being exposed to for the last 2.5 years approx. is constant and appalling.

I have attached some screen grabs from Flightradar24 which track the flight paths and altitude of aircraft for your information.

As you will note from same, it would appear that no effort whatsoever has been made to try mitigate the noise levels that local communities are exposed too. In actual fact, it would appear that the current flight paths are deliberately chosen to cause as much disruption to as many local communities as possible. With the current flight paths, even if they tried (DAA) they could not expose any more family's / communities to the constant noise pollution or make the situation any worse. The communities in Fingal of Coolquoy, Kilsallaghan, Rolestown, Oldtown, Ballyboughal, Lusk and others along with Ashbourne and Ratoath in Meath are being exposed to constant high levels of noise as a result of low altitude aircraft flying directly over these towns and villages and this situation will only get worse when the summer season comes into effect.

The current situation is having a real negative impact on our communities and the health and well-being of its residents and should not be allowed to continue. Family's / communities in what were once quite rural neighbourhoods now find their lives turned upside down. The noise levels imposed on the communities is all consuming from first thing in the morning to the last thing at night.

The DAA keeps advising that they are working with the local communities re the noise issues and the negative effect of same however as a local resident I have yet to here of any open meeting or how in any way the DAA are engaging / liaising with local communities. DAA current planning application with Fingal Co Co, which includes increasing the passenger numbers to 40 million, increase the night flight operation times and to use the current flight paths that they themselves acknowledged are not as per the original planning permission received for the north runway will have and is having a severe negative impact to the residents and local communities. The health and well being of people living in these communities should be of the utmost importance.

I would respectively request that the application should be refused outright by ABP.

Ballyboughal Community Council

1. Breaches of Planning conditions, Flight paths and noise contours

An essential prerequisite of the measures and conditions to mitigate aviation noise on the human population is that aircraft follow the approved flightpath and altitude limits known as the noise preferential route (NPR). If aircraft vary from the approved NPR, planning noise mitigation measures and conditions will not be effective. NPR control and monitoring is a fundamental pilar of any noise quota scheme, if aircraft do not follow the authorised NPR, noise exposure measurements and statics will not be accurate, and noise abatement objectives will not be achieved.

The An Bord Pleanála inspectors report page 223 states:

"12.6.75. As per my assessment below, and in the interest of clarity, the Board will note that the flight patterns submitted in the applicant's supplementary information and included for the purpose of the proposed scenario of the EIAR, differ to those submitted in the original EIS for the NR application. The Board will note that the flight patterns submitted to the planning authority for the original Relevant Action also differed from those submitted with the original EIS for the NR application. The main difference between the revised EIAR and the amended supplementary EIAR is the divergence north from the NR, earlier than previously indicated in the revised EIAR permitted by the planning authority."

The flightpaths and noise contours presented in the DAA's EIAR supplement (in response to An Bord Pleanála's Request) are materially different from those approved in the application for the North Runway EIS 2004 -2007 Option 7b. and Noise Abatement & Flight Procedures in the North Runway Planning Permission (ABP Ref. No.: PL06F.217429) documentation. See extract below:

"6.2.4 Aircraft of Categories C/D (medium to heavy jets) departing to the west (Runway 28) are required to maintain straight ahead after take-off to 5NM before commencing turn, unless otherwise cleared by ATC above 3000 feet.

6.2.5 Aircraft of Categories C/D (medium to heavy jets) departing to the east (Runway 10) are required to maintain straight ahead after take-off to 5NM before commencing turn (if turning left), and 6NM (if turning right), unless otherwise cleared by ATC above 3000 feet. The disparity here is to ensure that southbound aircraft do not over-fly Howth Head. Northbound aircraft will turn over the sea thereby avoiding the communities of Portmarnock and Malahide."

The unapproved flightpaths currently being used and presented in the DAA EIAR supplement are based on aircraft turning before the 5NM and 3000 feet limits. This has resulted in intolerable noise problems for thousands of residents in North County Dublin who were not included or consulted in the original planning. Areas such as Ashbourne, Oldtown and Ballyboughal are being overflown by aircraft causing aviation noise in the region of 60 to 80 dBA. These areas were not previously overflow by aircraft until the opening of the North runway and were not included in any insulation scheme. This in breach of condition 6 of Planning Permission (ABP Ref. No.: PL06F.217429).

Ballyboughal Community Council have attached a one-day report undertaken (see Appendix 1 attached) by independent consultants Wave Dynamics last April 2024 which clearly shows that Ballyboughal village and environs is already severely negatively impacted by the current flightpaths relative to the original flightpaths on which planning permission was granted. While primarily relating to daytime flights , as a first step, this proves conclusively that the DAA's existing modelling and noise

contours are completely flawed. A full 3-month aircraft noise study has been completed for Ballyboughal in September 2024 which will reconfirm this over a

longer period of data and will be used in subsequent legal actions however there is already strong already enough evidence in this report to show that the noise impacts in previously unaffected areas have been totally underestimated. When the South runway is out of service and these bulk of night-time flights are transferred to the North Runway the impact on the residential amenities will be detrimental and even more intolerable than the day-time flights.

While the DAA have installed a sound monitor in Ballyboughal in the summer of 2024 to suggest they are doing their job, the data from these sound monitors, very conveniently, has not been analysed and presented in the context of the original planning application noise contours. From our 1-day report we already know that the entire modelling is flawed for Ballyboughal. A further full 3-month report from an independent noise monitoring station has already been completed June-September in order to provide more comprehensive data for legal actions which will be undertaken by residents of Ballyboughal. Given the absence of any analysis of the DAA Ballyboughal data from the DAA as to the noise contours and the real data we are providing in our attached report, we are requesting that ABP use our data and independent report as a reason for reusing the application, until such time as the DAA provides an analysis of the data at its disposal in relation to its noise contour modelling, and until such time as it has been reviewed and approved as satisfactory by ABP.

In addition, as a result of the intolerable noise being created by the DAA unapproved flightpaths, there has been public protest and complaints to the DAA, Fingal County Council and local TDs. Based on this An Bord Pleanála should consider reiterating the approved flightpath conditions above for the purpose of clarity and to ensure that the noise mitigation measures are effective.

2. Unauthorised Flightpaths and Breach of Planning Conditions

As stated in our introduction the DAA have breached previous planning conditions resulting in public protests and enforcement orders from Fingal County Council.

· The DAA has implemented flightpaths that deviate significantly from those approved in the Environmental Impact Statement (EIS). These unauthorised deviations expose previously unaffected areas to significant noise impacts, creating unassessed risks.

· The deviations breach Condition 1 of the planning permission, which requires adherence to the originally assessed flight paths. No updated Environmental Impact Assessment (EIA) or planning application has been submitted for these changes.

· Affected communities have and are experiencing unreasonable noise levels without proper consultation or mitigation measures. Local schools have been impacted. The impact has been devastating for communities with families now feeling like they have no option but to sell their homes.

· The unauthorised flight paths undermine the planning system's integrity, setting a dangerous precedent for future projects. Granting permission under these conditions violates planning laws and obligations under the EIA Directive.

· There are multiple possible means of compliance with the pertinent ICAO regulations. IAA has received and approved only the one chosen by DAA as Aerodrome Operator.

· Any inference or implication that IAA instructed or caused DAA to deviate from the route approved in their planning permission is not correct.

· Permission should be unequivocally denied until unauthorised flightpaths cease and comprehensive reassessments are completed.

3. Inadequacy of DAA Application and Necessity of Movement Limit

· Failure to Address Noise Impacts:

o The Dublin Airport Authority (DAA) application fails to assess or mitigate the adverse effects of nighttime noise adequately.

o Average metrics like % Highly Sleep Disturbed (HSD) and Lnight fail to capture acute impacts such as awakenings, which have immediate and long-term health consequences.

· Health Implications of Nighttime Noise:

o Chronic sleep disruption contributes to cardiovascular disease, mental health disorders, and reduced cognitive performance.

o The WHO highlights that even one additional awakening per night represents a significant adverse health impact, ignored in the DAA's proposals.

· Projected Impacts:

o The inspector has defined that more than 1 additional awakening per night as a result of aircraft noise is a significant adverse impact.

o The inspector has concluded "in conjunction with the board's independent acoustic expert that the information contained in the RD and the RA does not adequately demonstrate consideration of all measures necessary to ensure the increase in flights during the nighttime hours would prevent a significant negative impact on the existing population."

· Insulation Limitations:

o Insulation measures cannot fully mitigate nighttime noise due to factors like open windows, low-frequency noise, and peak noise events.

o The WHO average insulation value of 21 dB assumes windows are open 20% of the year, making insulation less effective.

o The introduction of a new insulation criteria of 80dB LASMax is welcomed, however, without a detailed set of maps indicating who qualifies for this the decision is incomplete.

o Furthermore, the grant value of €20,000 is considered inadequate to fully insulate those homes that qualify. Comparisons to other EU countries are incomplete and do acknowledge the fact that construction costs in Ireland and particularly Dublin are close to the highest in the EU.

o It is fundamentally wrong that anybody who is so significantly affected by the negative impacts of noise from the proposed development should have to carry the cost of any mitigation works needed.

o The scheme should be redesigned to cover the full cost of insulation.

· Necessity of the Movement Limit:

o The movement cap of 13,000 nighttime flights is critical to reducing noise impacts and protecting public health.

o Without this cap, noise exposure levels will rise significantly, endangering the well-being of nearby residents.

· Conclusion on Permission:

o The permission should be denied due to the DAA's insufficient noise mitigation measures and failure to address core public health risks.

4. Night Flights Operational Hours:

An Boad Pleanála restricted the quantity of night flights to 56 per night and made a condition that the North runway should not be used between the hours of 11pm and 7am, in order to ensure that there would be no deterioration in noise conditions at night, per the decision on the

planning application by the DAA (Fingal County Council Reg. Ref. No. F04A/1755; ABP Ref. No. PL06F.217429).

There have been numerous news articles on the subject and an RTE Prime Time programme on the noise problems caused by the DAA change to flightpaths and exceeding the 56 flights per night.

Permission is being sought to amend part 3 (d) of the condition only so that it reads (changes highlighted):

"Runway 10L-28R shall not be used for take-off or landing between 0000 hours and 0559 hours except in cases of safety, maintenance considerations, exceptional air traffic conditions, adverse weather, technical faults in air traffic control systems or declared emergencies at other airports or where Runway 10L-28R length is required for a specific aircraft type".

The net effect of the proposed change, if permitted, would change the normal operating hours of the North Runway from the 07:00 to 23:00 (16 hours/day) to 06:00 to 00:00 (18 hours/day).

In the interest of public health, residential amenity and the proper planning and sustainable development of the area, the operations hours of the North Runway should not be increased from 16 hours / day to 18 hours per day. As it will lead to a deterioration in noise conditions at night and will reduce sleeping hours for residents in the area of the airport from 8 hours to 6 hours.

The DAA have shown that they can meet their passenger numbers and aircraft movements within 16 hours per day so there is no need to extend operating hours to 18 hours per day. The DAA have demonstrated that they can achieve in the region of 97000 passengers per day under the present An Bord Pleanála conditions which is approx. 35M passengers per year.

The movement cap of 13,000 nighttime flights is critical to reducing noise impacts and protecting public health. Without this cap, noise exposure levels will rise significantly, endangering the well-being of nearby residents.

The proposed additional operating hours from 6am to 7am and from 11pm to midnight on the north runway are completely unacceptable. The flightpaths in operation from north runway are causing huge suffering, distress and sleep disturbance for tens of thousands of people in Fingal and Meath.

Adding a further two hours to the schedule when most people are trying to sleep only makes and unreasonable situation even worse. The flightpath issue must be solved firstly before any other changes can be considered. For context, there were 40 departures between 6am and 7am on Monday 16 December 2024. This is the busiest hour of each day at the airport. It would be disastrous if these 40 departures were switched to the North Runway because they would now be taking a divergent turn and flying low (on full power while turning) over communities who should not be under or near to a flightpath. The volume and frequency would be much greater in the summer period.

Approving a change to increase the hours for daytime operation of the North runway will result in increasing capacity and will give the DAA the ability to further exceed their regulatory limit of 32M passengers. This is detrimental to the residents of North County Dublin and puts extra pressure on the services (such as Garda, bus service and road maintenance) while at the same time overloading existing infrastructure (such as Terminals, roads to the Airport and carparks).

Why would any reasonable manager or neighbour do this. This should not be approved before approving an increase to the Dublin airports capacity limit, which is another application within the planning process.

5. DAA's failure to record complaints adequately and presenting misleading data to the public and regulatory bodies.

· Community Impacts and complaints:

The DAA has implemented flight paths that deviate significantly from those approved in the Environmental Impact Statement (EIS).These unauthorised deviations expose previously unaffected areas to significant noise impacts, creating unassessed risks. The impacts of these deviating flight path have resulted in unprecedented levels of anger, public protests and complaints from residents to TD and local councillor's, which resulted in the passing of a motion by the over 40 councillor chamber of Fingal County Council on the 11th of September 2023 calling for the resignation of the Board of Directors. As far as we are aware this is the first time in the history of this state that a county council chamber (one of the largest in Ireland) has passed such a motion in relation to the board of a semi-state body.

Despite this, the data in the DAA's complaints reports does not seem to have materially changed. This is because the DAA's complaints system is designed to fail had hide the true picture quantitative and qualitative picture. It requires each individual complainant to complain about each individual flight thereby meaning that resident who wish to complain about every single flight overflying their homes every few minutes would need to spend a minimum of 12 hours per day complaining which deters the vast majority of people.

As the controller of the complaints data the DAA has refused to accept a bulk complaint from over 140 members of Ballyboughal community who wish to add a bulk complaint to the DAA's data and complain about every single flight overflying Ballyboughal Village. In Appendix 2 below we have attached correspondence to the DAA (which was also shared with the Dáil Transport Committee) which confirms this. We have also shared this information with ANCA and the Board members of Fingal County Council who are totally disinterested. The email trail shows a blatant disregard for the wishes of the Ballyboughal Community Council to have our complaints heard and registered.

The DAA have ceased to respond to our requests for further information and have offered no avenue of appeal or rational for their logic, particularly given that they have all the data necessary to make a

quick monthly assessment of the level of complaints. In effect, from our small village alone, the DAA are hiding an additional 7 million complaints per annum which we are seeking to have registered.

As a result of this dishonesty the vast majority of our community feel completely disregarded by the DAA and the regulatory authorities ,including ANCA and Fingal County Council , who are fully aware of this scandalous behaviour and have done absolutely nothing to ensure our complaints data is captured and presented in the public domain.

As a result of these events "Trust" in the DAA and their agenda has been completely eroded due to a lack of transparency and accountability. It is ludicrous, from our experiences of any other regulated industries such as the Telecoms, Financial Services, Insurance sectors etc., that the body being regulated , in this case the DAA, is responsible for collecting the complaints

data and presenting it. This absurd anomaly as resulted in a complete abuse of its position by the DAA particularly in the way it has managed and spun the public complaints narrative to media and other public bodies.

The DAA is perfectly happy to negate it' responsibilities, and the outcomes and effects of its operations on its community neighbours (a supposed key stakeholder according to the DAA's annual reports) with facile legal technical arguments stating it is not responsible for determining the flightpaths while, in its original planning application , it was perfectly content to show completely different flightpaths in order to obtain its planning permission. This kind of obfuscation and hiding of the level of complaints from the community is an intolerable abuse of the planning process.

· Legal and Procedural Concerns:

o The unauthorised flight paths undermine the planning system's integrity, setting a dangerous precedent for future projects.

o Granting permission under these conditions violates planning laws and obligations under the EIA Directive.

· Conclusion on Permission:

Permission should be unequivocally denied until unauthorised flight paths cease and comprehensive reassessments of noise contour models are completed, which must include the accurate and independent capturing of complaint data from genuine and reliable sources from which personal affidavits of truth have been offered to the DAA and can be provided to any independent body.

6. Right of Appeal in the Aircraft Noise Act 2019

· Legal Framework:

o Section 10 of the Aircraft Noise Act permits appeals of Regulatory Decisions (RDs) by relevant persons who participated in the consultation process.

o SMTW (St. Margaret's The Ward Residents Group) qualifies as a relevant person under this framework.

· Inappropriate Refusal of Appeal:

o SMTW's appeal against noise-related RDs was inappropriately denied by An Bord Pleanála, despite clear legislative provisions supporting it.

o Denial of appeal prevents critical scrutiny of noise mitigation measures and exacerbates community disenfranchisement.

· Importance of Appeals:

o Appeals are vital for maintaining transparency, ensuring accountability, and balancing airport operations with community welfare.

· **Conclusion:**

o Denying appeals undermines public trust and violates the Aircraft Noise Act's intent to provide affected parties a voice.

7. Noise Quota System:

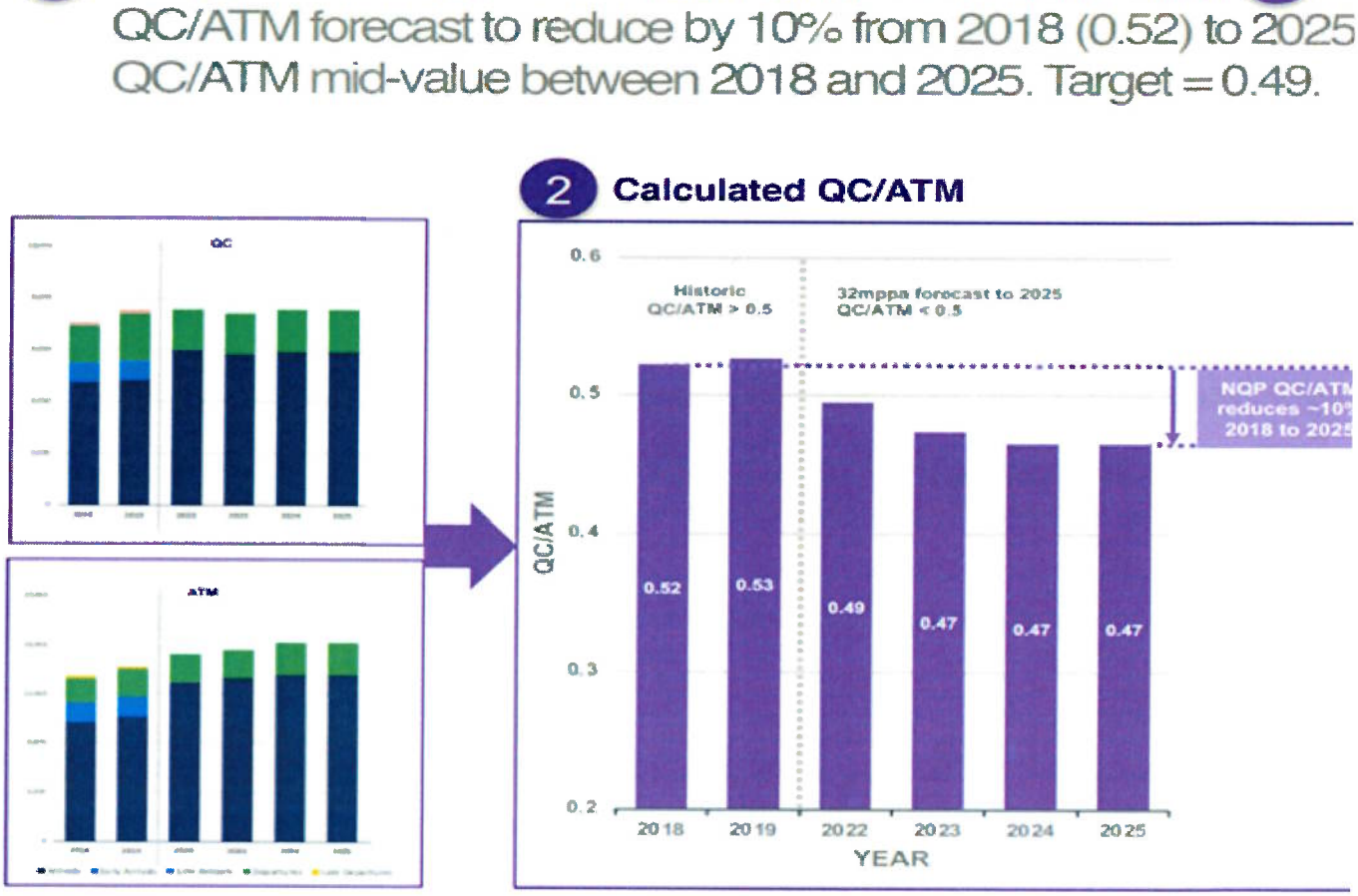
The DAA in conjunction with ANCA are planning to amend operating conditions per the DAA planning application (F20A/0668) to allow night flights while introducing a new noise quota system based on average noise levels without a cap on the number of flights (movements) per night.
They propose a noise quota annual limit of 16,260, which can result in a very large number of flights on any given night.

The An Bord Pleanála inspectors report page 19 states:

1.10.4. The applicant's breakdown of the NQS includes an estimation of the ratio of quota count to aircraft movements (QC/ATM). The initial proposed annual night quota for the 6.5hr night quota period (i.e. 7,990) derived a mid-value QC/ATM between 2018 and 2025 of 0.49 per aircraft movement. The updated annual night quota for the 8hr night quota period (i.e. 16,260) for the same time is 0.51. The Board's noise expert has equated the QC budget of 16,260 over the annual 365-day period as c. 87 aircraft movements per night. Under this quota scenario, I have calculated, there is a potential for 31,755-night flights.

Normal practice at major European hub airports is to have a limit on flights (movements) per annum or per night.
An Bord Pleanála recognised this and correctly proposes a limit of 13,000 aircraft movements between 11pm and 6:59am, with 3,900 of those in the winter and 9,100 in the summer, along with the noise quota limit of 16260.

The noise quota limit of 16260 is problematic and needs to be reduced to be in the region of 7990 as originally suggested by the DAA to achieve a ratio of quota count to aircraft movement of .49 per the extract below from the DAA proposal for a noise quota system.



Dublin Airport Proposed Night Quota System

In the UK they have a similar limit of night flights and a similar noise quota process but with a noise quota limit which is lower than night flights limit. This is an important feature of the quota process to ensure that the noise level over time is driven downwards.

Proposed structure of the regime is set out in table 1 below from the UK site: Night flight restrictions: Heathrow, Gatwick and Stansted airports from October 2025 - GOV.UK (www.gov.uk)

Table 1 – proposed structure of the night flight regime, October 2025 to 2028

Airport	Seasonal Period	Movement Limit	Noise Quota Limit
Heathrow	Winter	2,550	2,415
	Summer	3,250	2,735
Gatwick	Winter	3,250	1,785
	Summer	11,200	5,150
Stansted	Winter	5,600	3,310

	Summer	**8,100**	**4,650**

As you can see from the above the UK airports have similar allowed movements per night to Dublin but a noise quota limit of at least half that being proposed by ABP in its draft decision.

When ANCA and the DAA initially proposed using the noise quota system, they based it on a passenger Cap 32M passengers and a noise quota count of 7990 which is closer to the London noise quota count numbers above and much less than the 16260 being proposed now.
Base on the above we request that you use the 7990 as the noise quota count limit.

8.Night Flight Restrictions in Europe and Implications for Dublin

Major airports like Schiphol, Heathrow, and Frankfurt enforce strict caps or curfews on nighttime flights. Dublin's proposed 31,755 annual nighttime flights far exceed these airports' limits relative to passenger numbers.

European airports prioritize reducing noise exposure to mitigate sleep disruption, cardiovascular risks, and stress.

Adopting the 13,000-flight cap aligns Dublin with international best practices, ensuring proportional and sustainable operations. Without the movement limit the Noise Abatement Objective (NAO) set by ANCA for Dublin Airport cannot be fully achieved.

9.Health and Environmental Impacts

Chronic exposure to nighttime aircraft noise increases the risks of cardiovascular disease, hypertension, and mental health issues. This writer has been prescribed anti-depressants since November 2022 to help cope with the impact of aircraft overflying our home and garden from since August 2022. Children's cognitive development is adversely affected, impairing memory, learning, and overall performance.

Health-related costs, including healthcare expenses and reduced productivity, are substantial and long-term. For example, Brussels Airport's health cost analysis suggests similar impacts at Dublin could reach €750m annually.

The DAA analysis has not used the correct population datasets in determining the impacts. This underestimates the impact on the communities around the airport. Furthermore in its economic arguments about the impact on jobs and industrial activity it has never included the revenues leaving the country to be spent on holidays abroad, the loss of revenue to the state from zero VAT on airline tickets or zero excise duty on aviation fuel. Their constant scaremongering about how the economy will collapse is completely flawed from any sensible economic modelling, none of which has been undertaken by the Central Bank or independent bodies like the OECD. The consultant that compiled the DAA's "independent report" on the contribution of the DAA to the Irish Economy was written by a paid travel industry consultant and lobbying specialist call InterVISTAS, based in Vancouver, Canada. Nor at any point has the DAA highlighted the fact that only 11% of airline tickets are business related transport, implying that 89% of outward flights are supporting personal holidays with a substantial loss of revenues to businesses and the state (though VAT and tax receipts) which as least some significant

proportion would offset the inbound revenues from tourism if a greater proportion of people holidayed in Ireland.

While this writer is not suggesting that Irish people, given our climate, would not be entitled to a holiday (or two abroad per year) I am suggesting that the extent and excessive number of short weekend travel and trips, which we are addicted to and are fuelled by absurdly low and heavily subsidised pricing, is not sustainable in the current global climate crisis. The potential benefits to Irish businesses and the state from more people holidaying in Ireland have also been totally ignored in all the economic modelling.

So, in addition to the totally flawed and facile economic arguments being put forward by the airline industry, evidence from health agencies tells us that noise-induced sleep disturbance (in addition to day-time disturbance) is a significant environmental health risk. Ignoring these risks and using economic arguments which ignore the revenue outflows resulting from excessive and unnecessary outbound holiday travel (e.g. weekend golf trips to Faro and stag parties in Amsterdam) from Ireland contravenes the principles of public health protection and of sustainable development in a time of global climate crisis.

This model, where inbound and outbound tourism at all costs is our nirvana, has to change, and the time is now. Airline prices will have to reflect the damage they are doing to the climate and charges put in place to help pay for offsetting the catastrophic impact on the environment and the health impacts native residents on the ground 365 days a year from what , in the cold light of day, is a dirty industry.

And why should the residents of Fingal and East Meath have to take the impact of 85% of all flights into and out of this island when this could be shared in a much more equitable way by forcing the airlines to spread their traffic across the other regional airports like Cork, Shannon, Knock, Waterford , and Belfast are available? If the load was spread more evenly it would reduce the carbon footprint the millions of people travelling long distances to Dublin Airport every day by car from these regions. It is against stated government policy towards balanced regional development and makes no sense economically or environmentally to further support such an unbalanced regional policy and attempt to turn Dublin Airport into an international hub for which, with a surrounding conurbation population of 400,000 residents, it is so patently unsuited. Dublin Airport is not a Dubai where you can fly in over the Gulf and out over the desert. It holds close to 10% of the national population.

Any changes which make the current bad situation worse for those residents should be refused until all flightpaths comply with planning conditions, the health impacts on the ground for residents are fully understood and addressed by the DAA , and a clearly designed and proper and regionally balanced strategy is in place for the noise and air pollution load to be shared pro-rata to population across the regions by all airports within the state.

10. Insulation Limitations:

Insulation measures cannot fully mitigate nighttime noise due to factors like open windows, low-frequency noise, and peak noise events. The WHO average insulation value of 21 dB assumes windows are open 20% of the year, making insulation less effective.

The introduction of a new insulation criteria of 80dB LASMax is welcomed, however, without a detailed set of maps indicating who qualifies for this the decision is incomplete.

The proposed grant value of €20,000 is considered inadequate to fully insulate those homes that qualify. Comparisons to other EU countries are incomplete and do acknowledge the fact that

construction costs in Ireland and particularly Dublin are close to the highest in the EU. The scheme should be redesigned to cover the full cost of insulation.

Residential Noise Insulation Scheme (RNIS) and Home Sound Insulation Program (HSIP) do not meet modern health protection standards. Insulation is unsuitable for nighttime impacts and cannot substitute for operational restrictions like movement caps.

Eligibility to the insulation scheme shall be **reviewed every 2 years commencing in 2027** with residential dwellings situated in the 55 dB Lnight contour being eligible under the scheme. A period of 2 years is unreasonable for residents affected by noise levels and with the amount of new housing being planned by the Government.

The DAA have not conducted an insulation programme to affected residents along the unapproved flightpath over Ballyboughal and have just recently introduce noise monitoring there. Without having reviewed the results of the current noise monitoring, the DAA cannot confirm that they have adequate noise mitigations measures in place for residents.

11. Other Environmental Impacts

- **Use of Outdated Surveys:**
  - The Appropriate Assessment (AA) relied on outdated ecological surveys that do not accurately reflect current environmental conditions.
  - Failure to update surveys undermines the validity of the assessment and risks overlooking critical impacts on local habitats and species.
- **No AA on Full North Runway Development:**
  - The AA did not assess the full scope of the North Runway development, focusing only on limited aspects of the proposal.
  - Significant components of the development were excluded, leaving major potential impacts unexamined.
- **No Cumulative or In-Combination Assessment:**
  - The AA failed to consider cumulative impacts arising from the interaction of the North Runway with other existing and planned projects in the vicinity.
  - The absence of an in-combination assessment violates key legal requirements and risks underestimating the overall environmental impact of the development.
- **Non-Compliance with Legal and Regulatory Standards:**
  - The failure to provide an accurate, comprehensive, and up-to-date AA breaches obligations under the EU Habitats Directive.
  - The planning process has been compromised by this omission, exposing the development to potential legal challenges.
- **Potential Environmental Risks:**
  - The lack of thorough assessment could lead to significant unmitigated impacts on protected habitats and species, including cumulative degradation of local ecosystems.

12. Corporate Governance at the DAA

While the corporate governance of a planning applicant may not typically seem relevant , in the context of explaining the failures of the DAA to properly comply with planning, adequately capture and report on complaints, and to be transparent with affected communities and the regulatory bodies it answers to , we believe it is critically important. In this regard please note the following facts in the public domain:

- Last June the CEO of the DAA, Mr Kenny Jacobs, admitted to the Dáil Public Transport Committee on public record, that he not only held shares in Ryanair but that he held shares in no less than 11 other airlines. Furthermore Mr Jacobs did not consider that this was a conflict of interest. To view his statement click on https://www.linkedin.com/posts/davidwalton1_dublinairport-aviation-corporateethics-activity-7244358053368594433-
- The following day, the man responsible for Corporate Governance, as Chairman of the DAA, Mr Basil Geoghegan, briefed media and defended Mr Jacobs for the fact that he had declared these shareholdings. However surely Mr Geoghegan knows that the bar is far higher for holders of Public Office and Officers of semi-state bodies the CEO of the DAA, a state-run company which is vending landing slots to airlines. Declaring a conflict of interest is not sufficient unless that person absents or recuses himself from involvement in decisions which will impact his personal interests, and in this case, where he can benefit his wealth financially at a personal level from favourable movement in the profitability of airlines which will enhance shareholder wealth.
- This writer (and other people that we are aware of), have made a complaint to Standards in Public Office body (SIPO) based on the information put into the public domain and has asked for the matter to be investigated as well as establishing whether other members of the DAA board also have shares in airlines operating out of Dublin Airport. My complaint has been acknowledged by SIPO and they have recently advised on the 22nd of October that " your complaint will be considered by the members of the Commission at an upcoming meeting."
- There is no evidence to suggest that Mr Jacobs has recused himself in any way from commercial decisions regarding the airlines, of which he is a shareholder. In fact, on the contrary, Mr Jacobs has been publicly vocal in calling for ABP to speed up their processes and do his bidding when it comes to their planning applications and raising the passenger cap. It is also noticeable that Michael O' Leary ,the Group CEO of Ryanair (and Mr Jacobs former employer), has been equally publicly vocal in calling for the passenger cap to be removed and for the Government to bypass the planning process. It also explains why Mr Jacobs has refused to meet with SMTW Forum Group and other groups like Ballyboughal Community Council, and why the DAA continues to play down the impact of aircraft on their community neighbours, as declared stakeholders (in DAA Annual reports) in the operations of the DAA.
- Regardless of the final outcome of the complaints made to SIPO on this matter it must be quite clear to any objective observer that the CEO of the DAA is hopelessly compromised, this explains completely his biased approach towards facilitating the demands and profits of the airlines at the expense of the local community, while enhancing his own personal shareholding wealth in the airlines, Separate to the obvious conflict of interest itself, the fact that Mr Jacob's did not dispose of his shares immediately on taking up his role as CEO of the DAA confirms that the Chairman of the DAA condones this behaviour. Such tolerance of these questionable standards by the man responsible for corporate governance at the DAA must raise serious questions about the management culture prevailing at the entire board of the DAA, particularly for their sole shareholder, the Irish State, via the Department of Transport. Does the Department of transport think it is acceptable for a state body like the DAA vending landing slots to airlines to have shares in the businesses that the state is vending to? I have asked the Department of Transport this question and so far have not received a straight answer.

- Certainly, from the stakeholder perspective of the communities neighbouring the airport , it would seem impossible that the DAA CEO could represent those interests and lead his organisation in an impartial fashion when he is an airline shareholder.

While we look forward to the outcome of SIPO's deliberations which could be quite a legal Pandora's box for the DAA, we do not believe that it is necessary for an investigation to conclude what the facts in the public domain tell us. The DAA's behaviour since the opening of the North Runway in August 2022, and our experience of their behaviour as their neighbours (albeit 10km away), continually tells us that the DAA believes itself above the planning laws and to be without any moral compass in their efforts to grow their profits, and the already substantial profits of the airlines operating out of Dublin. It is based on a culture of commercial greed, combined with a fair degree of incompetence, with total indifference and lip-service to the impact of their operations on the residential amenity and the health and well-being of its neighbours. In our opinion, it is therefore essential that ABP strongly counterbalances this DAA culture and brings them to heel in the interests of protecting the integrity of the planning process and the neighbouring residents of North Dublin and East Meath.

Once again i would kindly request that this application be rejected in order to protect the integrity of the planning process, uphold public health standards, and ensure that the needs of the local community and the horrendous situation we the residents now find ourselves in are prioritised over the DAA.

Yours sincerely,

Brian Prendergast

WAVE DYNAMICS
ACOUSTIC CONSULTANTS

Technical Note

Project:	Ballyboughal, Co. Dublin	**Title:**	Noise Assessment
Job Number:	WDA230901	**Prepared By:**	Sean Rocks
Date:	30/04/2024	**Reviewed By:**	James Cousins
Reference:	WDA230901TN_A_01	**Client:**	Ballyboughal Community Council

1 Introduction

Following the commencement of operations of the new Dublin Airport North Runway, Wave Dynamics were engaged by David Walton of Ballyboughal Community Council to assess the noise levels from aircraft flyovers using sound exposure level measurements at Cnoc Dubh residential housing estate, Ballyboughal, Co. Dublin.

The objective of the assessment was to quantify the existing noise environment and the current noise levels from aircraft noise from the operation of the new North Runway at Dublin Airport. The measured noise levels have been compared with the predicted noise levels from the DAA noise contours and industry criteria.

1.1 Statement of Competence

This assessment and report were completed by Sean Rocks, Director | Senior Consultant; Sean has experience with aircraft noise, particularly for planning and complaints investigation. Sean's qualifications include a BEng (Hons) in Mechanical and Manufacturing Engineering, a Diploma in Acoustics and Noise Control (Institute of Acoustics), an IOA Certificate of Competence in Environmental Noise Measurement and SITRI certified sound insulation tester. Sean is a member of both Engineers Ireland and the Institute of Acoustics.

This report was peer reviewed by James Cousins, Managing Director | Principal Consultant with Wave Dynamics who has extensive experience in assessing noise and vibration from road and rail infrastructure on commercial and residential developments. James is an experienced consultant. His qualifications include; BSc (Hons) in Construction Management and Engineering, Pg Cert in Construction Law and Diploma in Acoustics and Noise Control (Institute of Acoustics) and an IOA Competence Cert in Building Acoustic Measurements. James is a member of both Engineers Ireland (MIEI) and the Institute of Acoustics (MIOA) and is the current SITRI Chairman.

2 Baseline Noise Survey

An attended noise survey was undertaken to quantify the noise levels from aircraft flyovers at the Cnoc Dubh estate, Ballyboughal. The attended noise measurements were conducted from 08:00hrs to 11:00hrs on 18th of April 2024 with aircraft taking off on the new North Runway in the westerly direction (normal operating procedure). Sound exposure level measurements were taken for aircraft flyovers during the attended noise survey.

2.1 Site Description and Measurement Locations

Ballyboughal is located in County Dublin, approximately 9-9.5km directly north of the new North Runway. The area is mainly a small village surrounded by agricultural land.

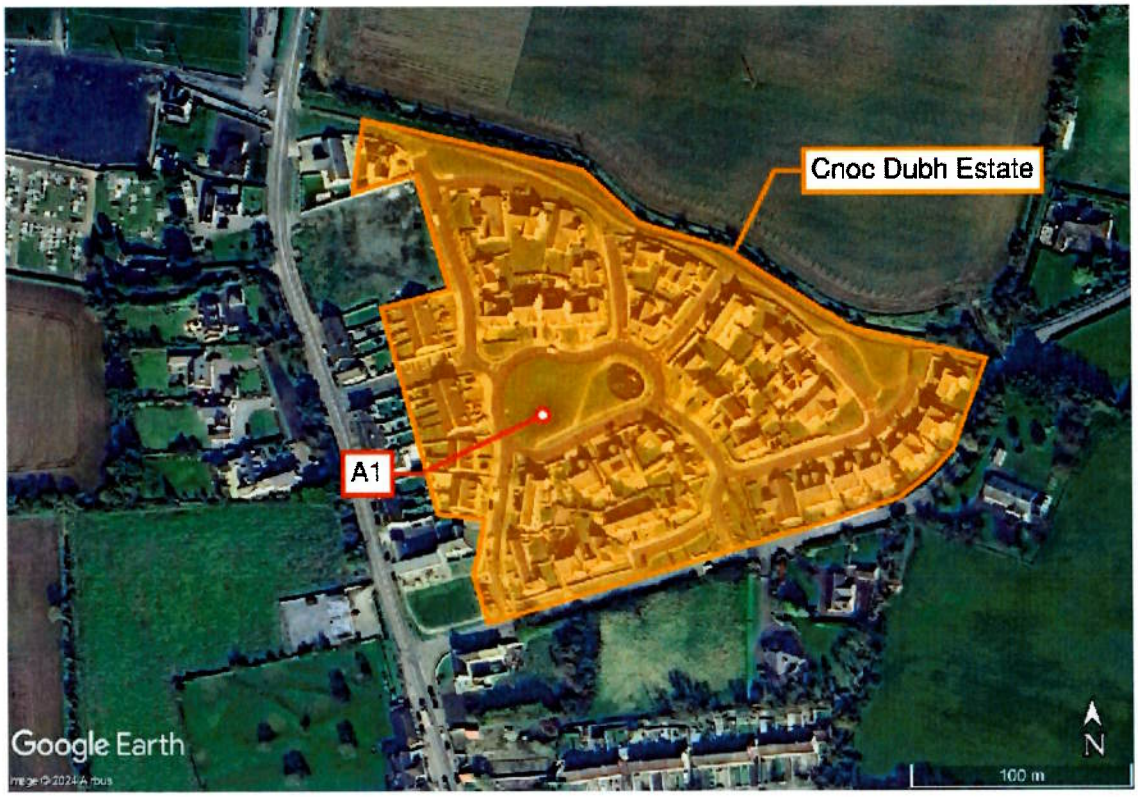


Figure 1: Site location and SEL measurement location A1.

Figure 2: Site location in Relation to Dublin Airport and the new North Runway.

2.1.1 Survey Period

The noise measurements were undertaken on the 18th of April 2024 to establish the existing noise levels from aircraft flyovers in the Cnoc Dubh estate, Ballyboughal . It is understood that Dublin Airport was operating as normal during the survey, with aircraft taking off from the North Runway towards the west.

2.1.2 Noise Measurement Equipment

A Class 1 sound level meter/noise logger, in general accordance with IEC 61672-1:2013, was used for the attended measurements. Table 1 below summarises the measurement equipment used.

Table 1: Noise Measurement Equipment

Description	WD Asset Number	Model	Serial No.	Calibration Certificate No.	Calibration Due Date
Sound Level Meter	SLM4	NTI XL2-TA	A2A-23316-E1	UK-23-100	01/09/2025
Calibrator	CAL1	Nor 1251	31056	AC230226	16/10/2024

2.1.3 Subjective Noise Environment

Based on the information provided during the attended noise survey and logger deployment, the following noise sources were identified:

- Aircraft Noise from Aircraft Fly Overs.
- Road noise from the R108
- Birdsong
- Occasional activity from residents (cars arriving/departing, voices, etc.)

2.2 Noise Measurement Results

This section outlines the results of the attended noise survey.

Attended Monitoring Results

Table 2 outlines the results of the attended measurements for aircraft flyover noise levels at location A1. The flyover sound exposure levels have been calculated from the measured L_{Aeq} levels.

The sound exposure level (SEL) from aircraft flyovers has been calculated using the following equation to allow direct comparison of the measured levels with the DAA predicted SEL contour maps:

$$L_{AX} = L_{Aeq} + 10*\log_{10}(d1/d2) - 10*\log_{10}(N) + 10*\log_{10}(T)$$

Where:

L_{Ax} measured SEL
N number of vehicle movements
T time (seconds)
d1 distance from the source to the receiver
d2 distance from the source to the measurement

Table 2: Aircraft Flyover Noise Levels

Measurement				Aircraft Type	Measured Noise Levels		Sound Exposure Level
Location	Date	Time (hrs)	Duration (sec)		L_{Aeq} dB	L_{AFmax} dB	L_{AX} dB
A1	18/04/2024	08:21	83	Boeing 737-8AS	56	63	75
A1	18/04/2024	08:26	48	Boeing 737-8AS	61	66	78
A1	18/04/2024	08:29	33	ATR 72-600	52	57	67
A1	18/04/2024	08:34	46	Airbus A320	59	65	76
A1	18/04/2024	08:35	38	Boeing 737 Max 8-200	55	61	71
A1	18/04/2024	08:46	41	Airbus A320	61	69	77
A1	18/04/2024	08:53	45	Embraer E19	58	65	75
A1	18/04/2024	08:58	44	Boeing 737-8AS	61	70	77
A1	18/04/2024	09:09	41	Boeing 737-8AS	61	66	77
A1	18/04/2024	09:14	44	Airbus A320	59	66	75
A1	18/04/2024	09:19	50	Boeing 737-8AS	61	67	78
A1	18/04/2024	09:21	40	Boeing 737-8AS	59	66	75
A1	18/04/2024	09:22	56	Boeing 737-8AS	58	65	75
A1	18/04/2024	09:25	42	Embraer E19	60	68	76
A1	18/04/2024	09:33	25	Boeing 787-8 Dreamliner	51	58	65
A1	18/04/2024	09:47	40	Boeing 737-8AS	62	67	78
A1	18/04/2024	09:54	34	Boeing 787-10 Dreamliner	63	71	78
A1	18/04/2024	10:02	37	Boeing 737-8AS	58	65	74
A1	18/04/2024	10:24	37	Boeing 777	58	65	74
A1	18/04/2024	10:39	33	ATR 72-600	57	62	72
A1	18/04/2024	10:51	38	Airbus A320	59	67	75
A1	18/04/2024	10:53	33	Boeing 737-8AS	60	66	75
A1	18/04/2024	10:56	30	ATR 72-600	51	57	66
A1	18/04/2024	10:58	25	Airbus A320	53	62	67

1. SELs calculated on the rounded L_{Aeq} values measured.

2.3 Weather Conditions

Good weather conditions were noted in general during the attended surveys, with winds of less than 5 m/s, no rain and full cloud cover.

3 Analysis of Results

3.1 $L_{Aeq,16hr}$ Noise Levels

The most recently predicted noise contours for the North Runway operation as per the 2007 planning permission are the compliance contours submitted to Fingal County Council in 2016. Here, the predicted $L_{Aeq,16hour}$ (07:00hrs to 23:00 hrs) noise contours for Dublin Airport with the North Runway operational can be seen in Figure 3. The noise contours are developed by DAA based on the busiest 92 day period of the year for the airport, 16th June to 15th September.

Based on the DAA contour maps, Ballyboughal is outside the lowest predicted contour therefore noise from aircraft flyovers would be expected to be significantly below 60 dB $L_{Aeq,16hour}$.

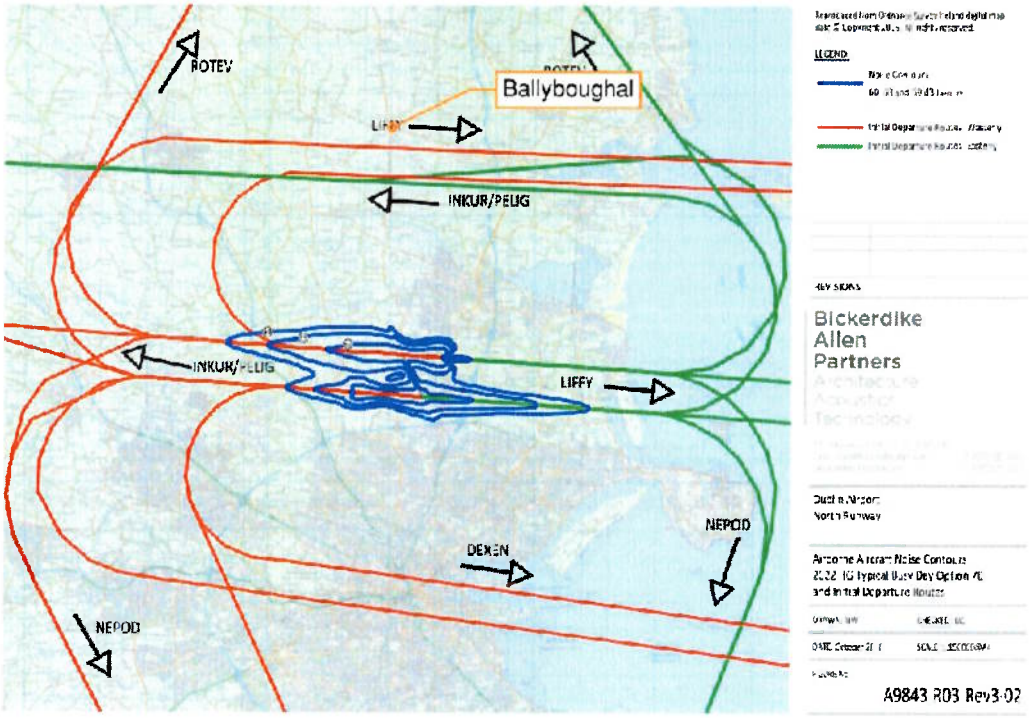


Figure 3: Predicted $L_{Aeq,16hour}$ (07:00 – 23:00) airport noise contours with North Runway in operation.

Noise contour maps presented in the most recently submitted EIAR supplement by DAA provided to ABP place Ballyboughal outside the lowest predicted noise contour of 51-53 dB $L_{Aeq,16hr}$ for the 2025 year scenario i.e. aircraft noise below 51 dBA for the year 2025.

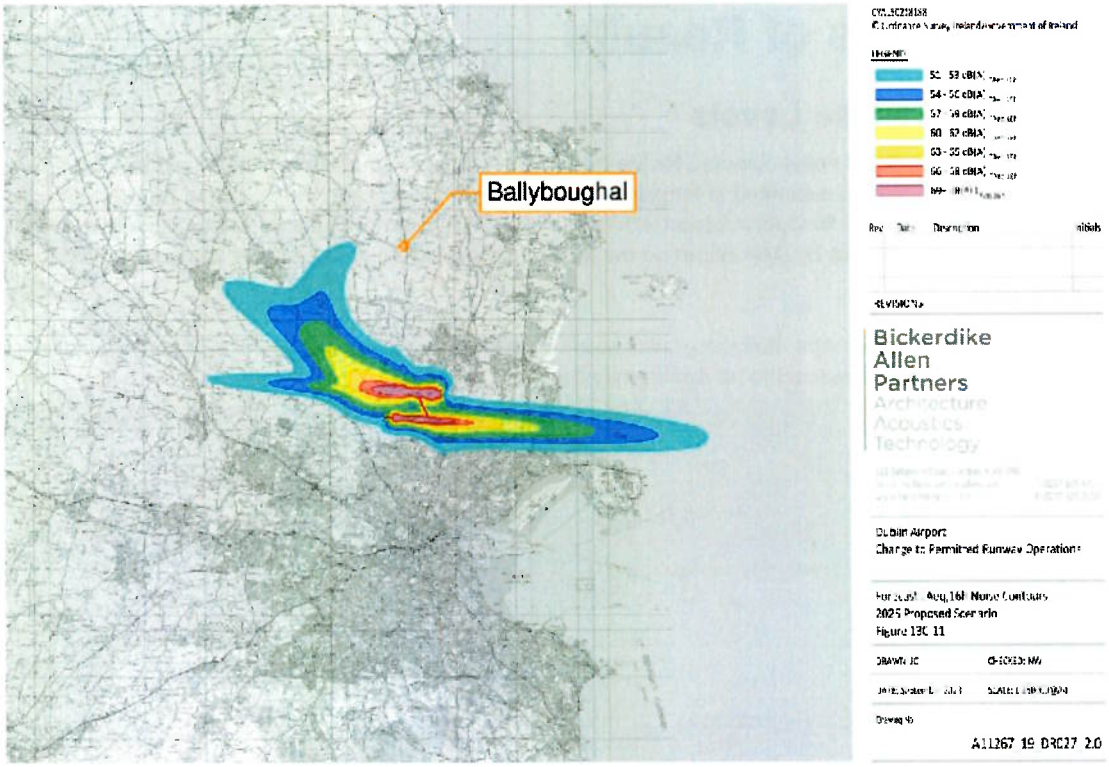


Figure 4: DAA predicted LAeq,16hour (07:00 - 23:00) airport noise contours for 2025.

3.1.1 Calculation of $L_{Aeq,16hr}$ Noise Levels from SEL Measurements

Based on the SEL measurements undertaken at the monitoring location in combination with the information submitted by DAA to ANCA as part of the response to ANCA's review of the 2022 airport noise emission outlining the number of flights per aircraft type (included in Appendix B) the $L_{Aeq,16hr}$ noise levels at the residence can be calculated to be compared with the unattended measurement results to confirm validity. The noise level for each aircraft type can be calculated using the following formula and then logarithmically added to predict the daily $L_{Aeq,16hour}$ level as follows:

$$L_{Aeq} = L_{AX} - 10*\log_{10}(d1/d2) + 10*\log_{10}(N) - 10*\log_{10}(T)$$

Where:

L_{Ax} measured SEL
N number of vehicle movements
T time (seconds)
d1 distance from the source to the receiver
d2 distance from the source to the measurement

A correction was then applied to the results to account for days of Easterly winds which is assumed to be 12 days over the 92 day duration based on WDA's experience and previous monitoring of the North Runway undertaken in 2023. A correction has also been allowed for in that not all aircraft have flight paths over Ballyboughal, and many will continue westerly after taking off, and many will turn south rather than north. Based on the flight path tracking (determined via https://sbeaney.com/track/v2/dublin_flights.html) an allowance of 50% of aircraft takeoffs flying over Ballyboughal area has been allocated.

Based on the above calculation and the recorded SEL for each aircraft type outlined in Table 2 the predicted $L_{Aeq,16hour}$ during the 92 day summer period in 2024 will be 52dB(A). Similarly, the 2025 $L_{Aeq,16hour}$ noise level during the 92 day summer period is predicted to also be 52dB(A).

This shows that the noise levels from aircraft flying over Ballyboughal are expected to exceed the predicted $L_{Aeq,16hour}$ DAA predicted 92 day contour map level at the area which situates Ballyboughal outside the 51dBA contour.

3.2 L_{night} Noise Levels

There are currently no nighttime takeoffs from the North Runway affecting noise levels at Ballyboughal, however the proposed Relevant Action application will see an increase in night noise at the area. In the year 2025, the L_{night} noise levels with the proposed night time take offs on the North Runway predict that Ballyboughal will experience noise levels of 40 to 44dB L_{night}. This is highlighted on the L_{night} contour map shown in Figure 5.

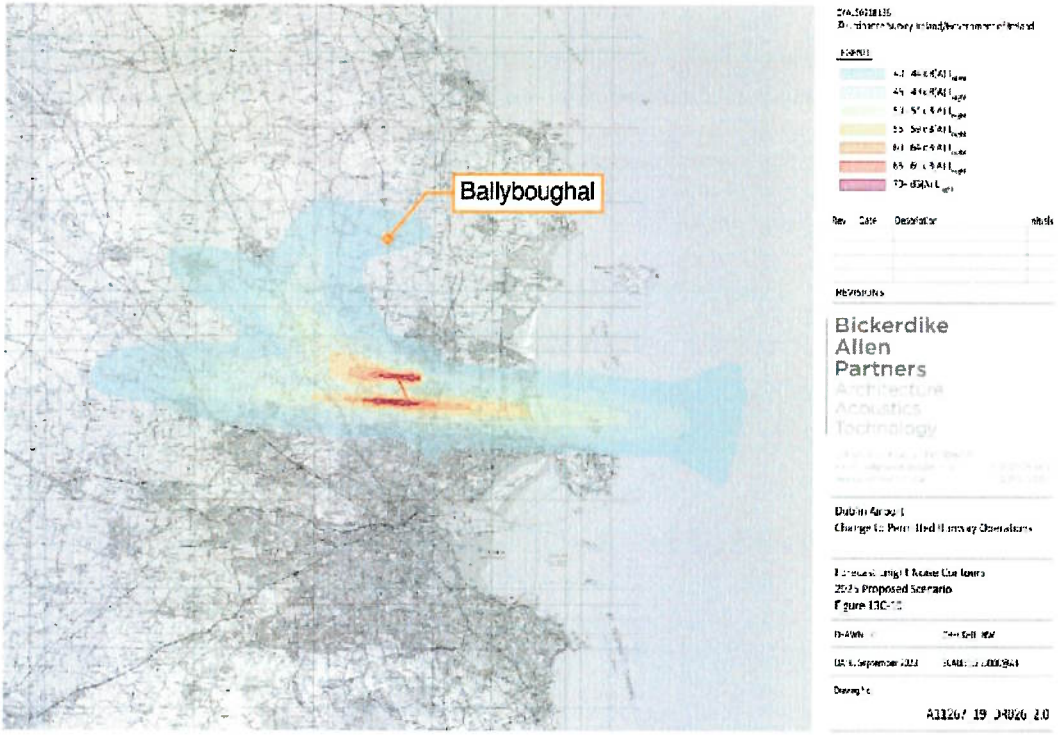


Figure 5: DAA predicted L_{night} airport noise contours for 2025.

3.2.1 Calculation of L_{night} Noise Levels from SEL Measurements

The L_{night} noise levels can be predicted based on the measured SEL noise measurements at the monitoring location in combination with the information submitted by DAA to ANCA as part of the response to ANCA's review of the 2022 airport noise emission outlining the number of flights per aircraft type (included in Appendix B). Similarly to the daytime noise level predictions, a correction was applied to the results to account for days of Easterly winds which is assumed to be 12 days over the 92 day duration and a correction has also been allowed for in that not all aircraft have flight paths over Ballyboughal, an allocation of 50% of aircraft takeoffs flying over Ballyboughal area has been allowed.

Based on the above calculation and the recorded SEL for each aircraft type outlined in Table 2 the predicted L_{night} during the 92 day summer period in 2024 will be 44dB(A). The 2025 L_{night} noise level during the 92 day summer period is predicted to also be 44dB(A).

This is at the upper limit of the range predicted by DAA at Ballyboughal.

3.3 Comparison of SEL Noise Levels

Sound exposure level (SEL) contours have been predicted by the DAA and their acoustic consultants Bickerdike Allen in relation to the noise abatement departure procedures (NADP) for the North Runway for the most common aircraft types:

- Boeing 737-800
- Airbus A320
- Airbus A330

The predicted SEL contours are shown for the Boeing 737-800 and Airbus A320 in Figure 6 and Figure 7, respectively.

For the DAA predicted SEL contours for the Boeing 737-800 as shown in Figure 6 below, Ballyboughal currently lies significantly outside the lowest predicted contour of 80dB(A). Based on the recorded noise levels at the monitoring location and calculated SELs as outlined in Table 2, the sound exposure level ranged 74 – 78 dB(A) for the Boeing 737-8AS with a logarithmical average SEL of 77dB(A). Given the extent at which Ballyboughal is predicted outside the 80dB(A) contour, it is suggested that by the recorded noise levels that the noise impact of plane flyovers is higher than the DAA predictions.

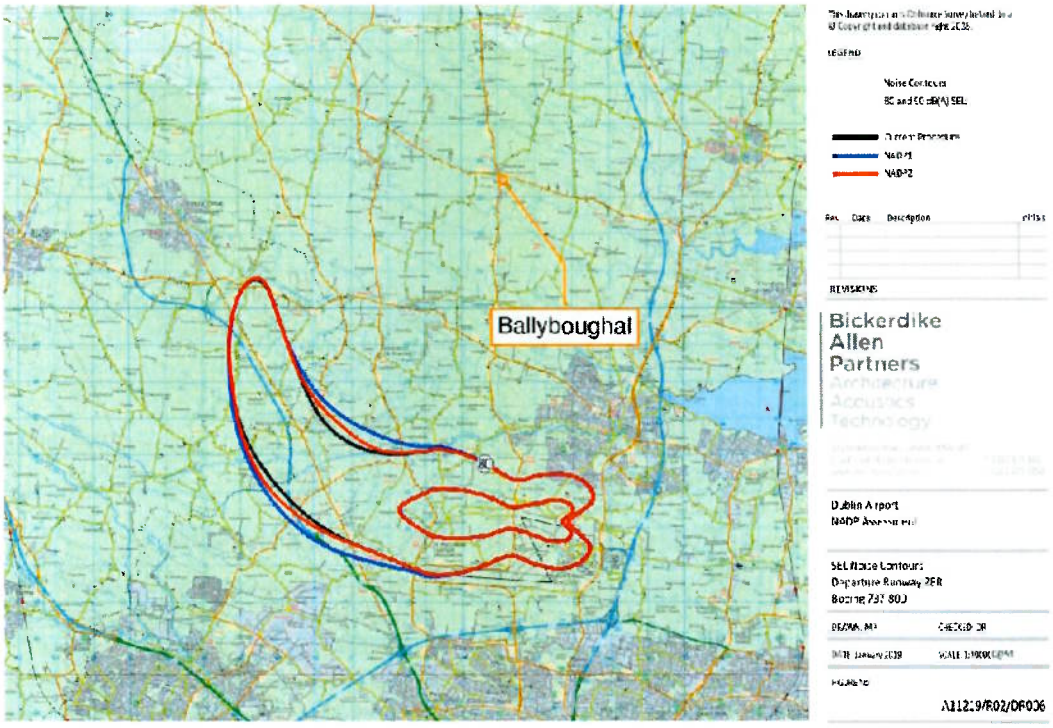


Figure 6: Predicted Sound Exposure Level noise contours for Boeing 737-800 for North Runway operation.

For the DAA predicted SEL contours for the Airbus A320 as shown in Figure 7 below, Ballyboughal again lies significantly outside the 80dB(A) contour for all departure procedures. Based on the recorded noise levels at the area and calculated SELs as outlined in Table 2, the sound exposure level ranged 67 – 77 dB(A) for the Airbus A320 with a logarithmical average SEL of 75dB(A). Given the extent at which Ballyboughal is predicted outside the 80dB(A) contour, it is suggested that by the recorded noise levels that the noise impact of plane flyovers is higher than the DAA predictions.

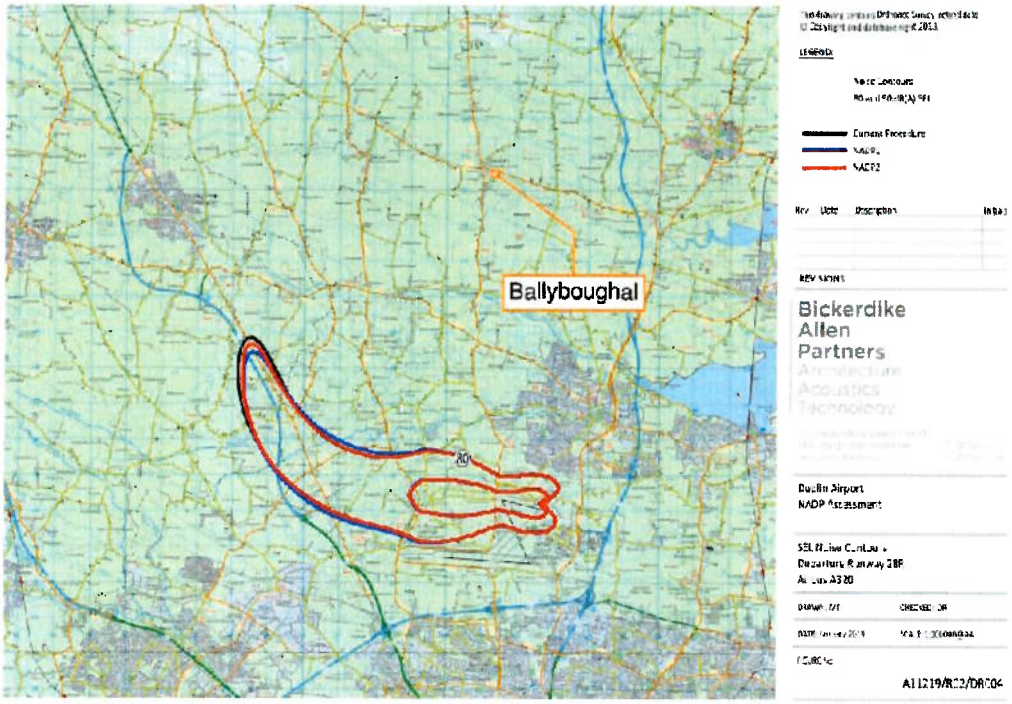


Figure 7: Predicted Sound Exposure Level noise contours for Airbus A320 for North Runway operation .

3.4 L_{AFmax} Noise Levels

Figure 8 and Figure 9 outline the DAA predicted L_{Amax} noise levels for the Boeing 737-800 and Airbus A320 aircrafts with the operation of the North Runway respectively.

The contours for the Boeing 737-800 aircraft shows Ballyboughal just over 7.5km outside the 70dB L_{Amax} contour, which is indicative that the noise levels at this location would be significantly lower. Based on the recorded measurements as outlined in Table 2 there was one instance of Boeing 737 aircraft which achieved 70dB(A) L_{AFmax}, and the average L_{AFmax} recorded was 66dB(A).

This shows that the maximum noise levels experienced at the Cnoc Dubh estate are negatively affected by the operation of the North Runway.

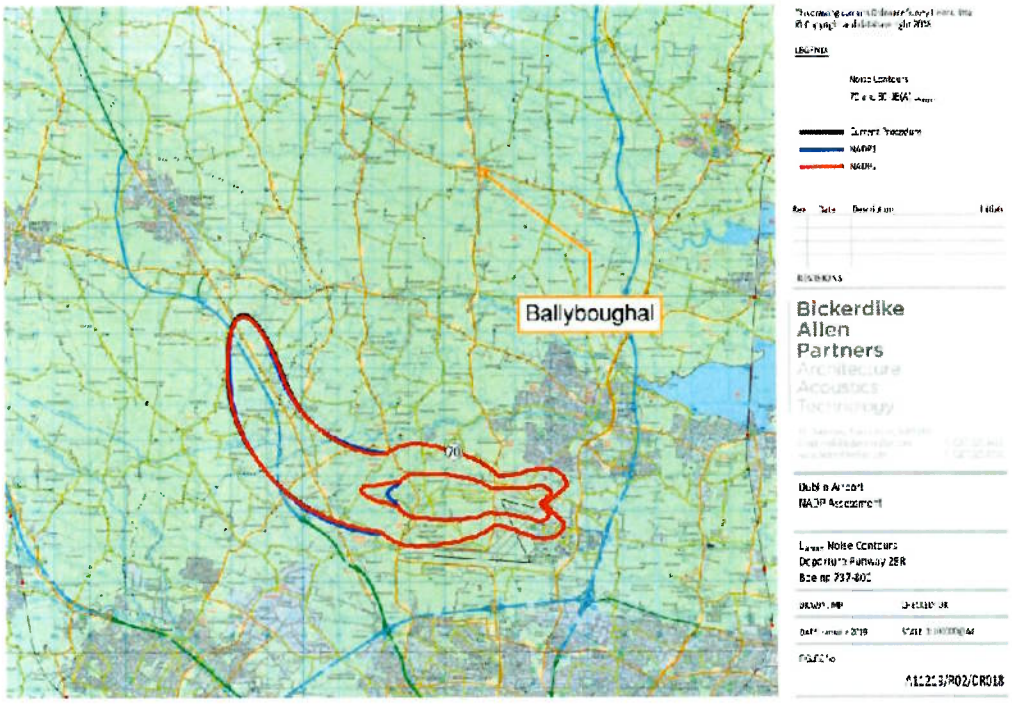


Figure 8: Predicted L_{Amax} noise contours for Boeing 737-800 for North Runway operation.

The contours for the Airbus A320 aircraft shows Ballyboughal over 8km outside the 70dB L_{Amax} contour, which is indicative that the noise levels at this location would be significantly lower. Based on the recorded measurements as outlined in Table 2 the L_{AFmax} recorded noise levels ranged from 62-69dB(A), with an average L_{AFmax} recorded was 66dB(A).

Similarly, this also shows that the maximum noise levels experienced at the Cnoc Dubh estate are negatively impacted by the operation of the North Runway.

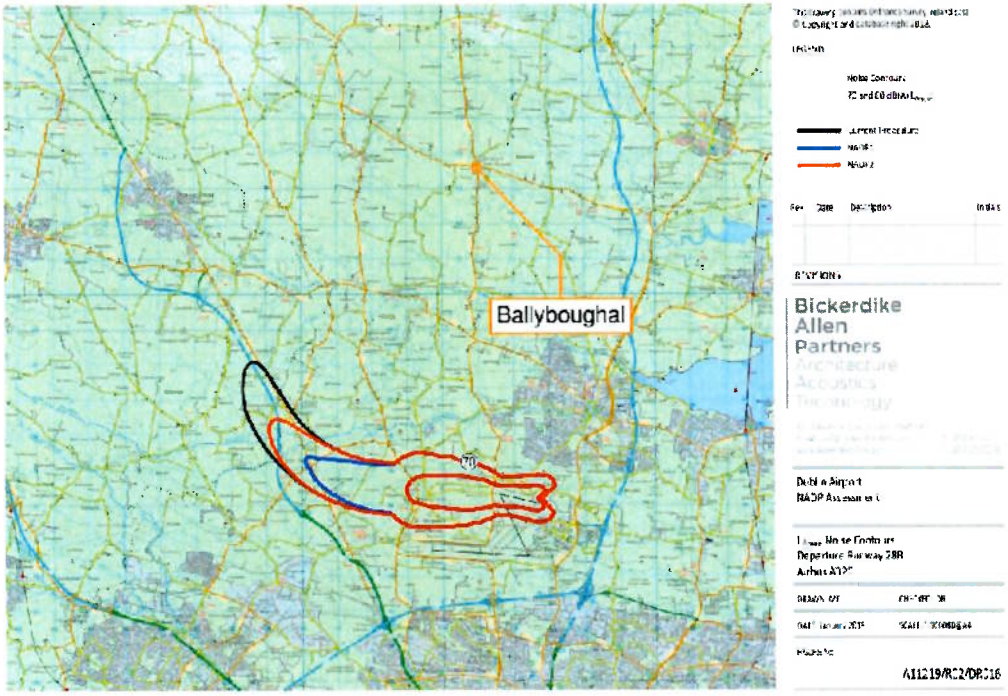


Figure 9: Predicted L_{Amax} noise contours for Airbus A320 for North Runway operation.

4 Conclusion

Following the commencement of operations of the new Dublin Airport North Runway, Wave Dynamics were engaged by Ballyboughal Community Council to undertake sound exposure level measurements at Cnoc Dubh estate, Ballyboughal, Co. Dublin.

The objective of the assessment was to quantify the noise levels from aircraft flyovers in the area following the commencement of the operation of the North Runway. The measured noise levels have been compared with the predicted noise levels from the DAA noise contours. Sound exposure level measurements were taken in the area and thus used to calculate the 92 day average $L_{Aeq,16hour}$ based on the number of aircraft types over the 92 day period which predicted an $L_{Aeq,16hour}$ of 52dB(A). The DAA 2025 predicted noise contour situates Ballyboughal approx. 3km outside the 51-53dB(A) contour, therefore daytime aircraft noise levels lower than 51dB(A) would be expected at the site from aircraft noise. The measured noise levels and predicted $L_{Aeq,16hour}$ value show that the Cnoc Dubh Estate is negatively impacted by aircraft noise and an exceedance of the DAA contours is very likely. Based on the $L_{Aeq,16hour}$ noise levels at the Cnoc Dubh, it would be expected that the internal noise levels within dwellings would exceed the recommended levels of 35dB(A) $L_{Aeq,T}$ with the windows open. This is likely to have a significant negative effect on residents being able to enjoy the amenity of their own home in the Summer months where purge ventilation and cooling are likely required.

Based on studies on the reduction in noise levels from outdoor noise to indoor with an open window[1], an open window will provide approx. 10dB attenuation in noise levels. Based on the measured noise levels, a dwelling with the window open for ventilation is likely to have internal noise levels in the range 45-50dB L_{Aeq} while aircraft pass. This would be clearly audible within the dwelling.

From the site visit it is evident that there is a significant subjective noise impact, and that aircraft are clearly audible at the Cnoc Dubh estate and are the dominant noise source in the area while flying overhead. The assessment of L_{Amax} noise levels at the estate indicate that there is likely a significant negative noise impact on the residents of Cnoc Dubh, Ballyboughal. The maximum noise levels measured averaged 66dB(A) for both Boeing 737 and Airbus A320 however the predicted noise contour shows 70dB L_{Amax} over 7.5km and 8km from the estate respectively.

Sound exposure level measurements for the two most common aircraft types were also compared to the DAA predicted noise contours for the same aircraft types. Despite Ballyboughal being located significantly outside the lowest predicted SEL contour for both aircraft types, there is no specific noise contour for Ballyboughal, which would assume no negative noise impact was predicted here from aircraft flyovers. Considering this, the SEL measurements indicate that the noise from aircraft flyovers is providing a negative noise impact.

It is recommended that the noise levels in the area are verified during the 92-day summer period to confirm the predicted noise levels outlined in this report.

[1] Differences between Outdoor and Indoor Sound Levels for Open, Tilted, and Closed Windows

Appendix A- Glossary of Terms

Ambient Noise	The totally encompassing sound in a given situation at a given time, usually composed of sound from all the noise sources in the area.
Background Noise	The steady existing noise level present without contribution from any intermittent sources. The A-weighted sound pressure level of the residual noise at the assessment position that is exceeded for 90 per cent of a given time interval, T ($L_{AF90,T}$).
dB	Decibel - The scale in which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the RMS pressure of the sound field and the reference pressure of 20 micro-pascals (20 μPa).
dB(A)	An 'A-weighted decibel' - a measure of the overall noise level of sound across the audible frequency range (20 Hz – 20 kHz) with A-frequency weighting (i.e. 'A'–weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
Hertz	The unit of sound frequency in cycles per second.
L_{A90}	A-weighted, sound level just exceeded for 90% of the measurement period and calculated by statistical analysis. See also the background noise level.
L_{Aeq}	A-weighted, equivalent continuous sound level.
L_{AFmax}	A-weighted, maximum, sound level measured with a fast time-constant - maximum is not peak
L_{den}	day-evening-night noise level, the A-weighted, Leq (equivalent noise level) over a whole day, but with a penalty of 10 dB(A) for night-time noise (23:00-07:00) and 5 dB(A) for evening noise (19:00-23:00), also known as the day evening night noise indicator
R_W	Weighted sound reduction index - a single number quantity which characterises the airborne sound insulation of a material or building element over a range of frequencies, based on laboratory measurements
SEL	The constant sound level that, if it persisted for 1 second, would provide the same sound energy as the original noise event.

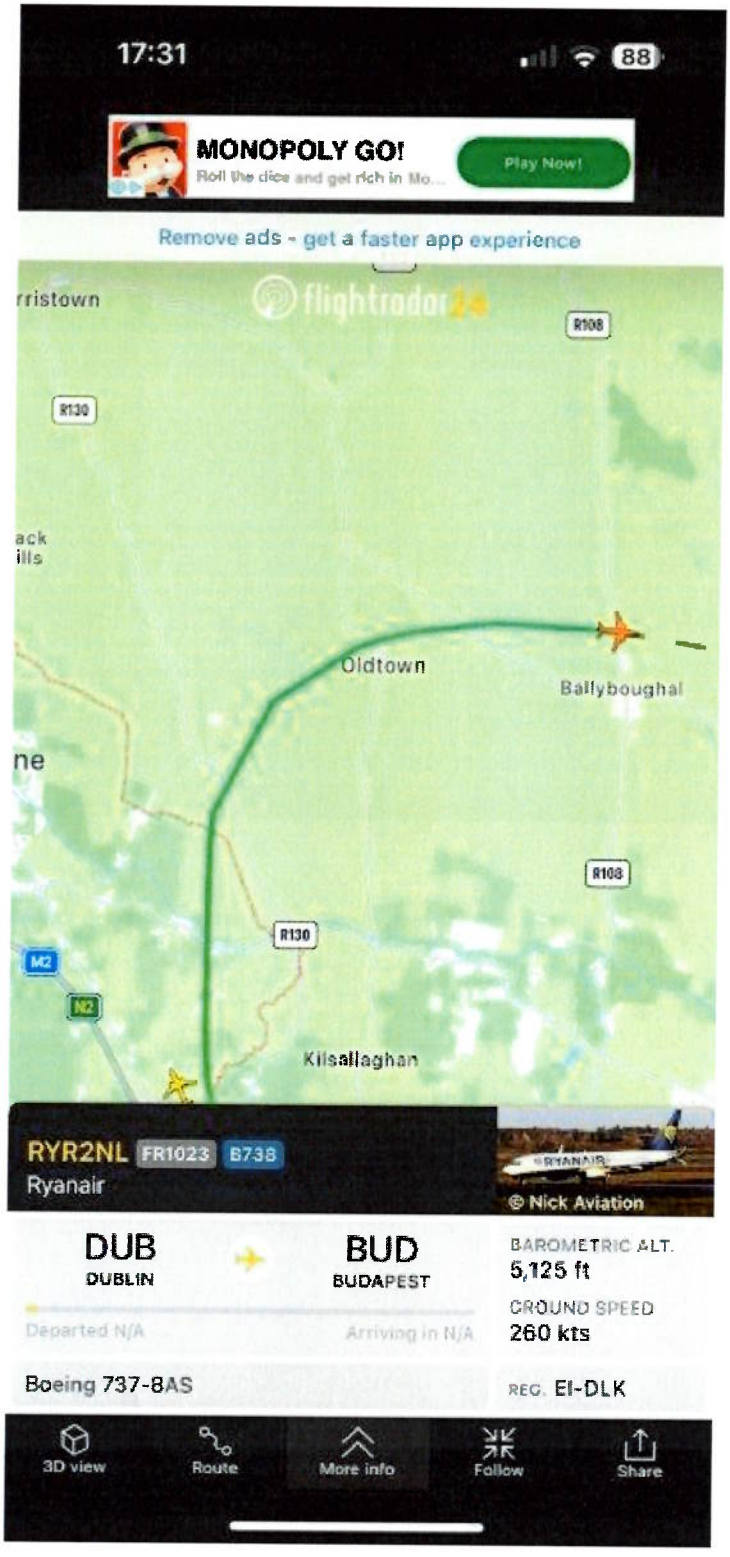
Appendix B – Volume of Flights per Aircraft Type

The volume of flights per aircraft type have been submitted to DAA by ANCA as part of the response to ANCA's review of the 2022 airport noise emission and are outlined below in Table 3.

Table 3: Volume of each aircraft type over the entire year and over summer period

Aircraft Type	2024						
	Annual Average				Summers Period		
	Annual Day	Annual Eve	Annual Night	Annual 24hr	Summer Day 16hr	Summer Night	Summer 24hr
Airbus A300	0	0	0	0	0	0	0
Airbus A306	597	299	299	1195	262	87	350
Airbus A319	1792	0	0	1792	524	0	524
Airbus A320	39428	11649	4182	55258	14945	1224	16169
Airbus A320neo	4182	1493	299	5974	1661	87	1748
Airbus A321	1792	896	597	3286	787	175	961
Airbus A321neo	6571	0	597	7169	1923	175	2098
Airbus A330	8961	0	896	9857	2622	262	2884
Airbus A330neo	0	0	0	0	0	0	0
Airbus A350	0	0	0	0	0	0	0
ATR 42	0	0	0	0	0	0	0
ATR 72	9558	2390	0	11948	3496	0	3496
BAe 146/Avro RJ	0	0	0	0	0	0	0
Boeing 737-400	597	1195	597	2390	524	175	699
Boeing 737-500	0	0	0	0	0	0	0
Boeing 737-700	0	0	0	0	0	0	0
Boeing 737-800	39726	11350	4480	55557	14945	1311	16256
Boeing 737 MAX	17623	8363	3286	29272	7604	961	8565
Boeing 757	2390	299	299	2987	787	87	874
Boeing 767	1792	1195	597	3584	874	175	1049
Boeing 777	597	0	597	1195	175	175	350
Boeing 777X	597	597	0	1195	350	0	350
Boeing 787	3584	597	597	4779	1224	175	1398
Bombardier CS300	1792	597	0	2390	699	0	699
Bombardier Dash 8	597	0	0	597	175	0	175
Convair 580	0	0	0	0	0	0	0
Embraer E190/195	5078	2390	299	7766	2185	87	2272
Embraer E190-E2	597	0	0	597	175	0	175
HS748A	0	0	0	0	0	0	0
Lockheed C130	0	0	0	0	0	0	0
McDonnell Douglas	0	0	0	0	0	0	0
MD83	0	0	0	0	0	0	0
Piper PA34	0	0	0	0	0	0	0

Aircraft Type	2024						
	Annual Average				Summers Period		
	Annual Day	Annual Eve	Annual Night	Annual 24hr	Summer Day 16hr	Summer Night	Summer 24hr
Shorts SD330/360	0	0	0	0	0	0	0
Other	2390	1195	0	3584	1049	0	1049
Total	150243	44505	17623	212372	56985	5157	62141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R130
M2
N2
Kilsallaghan
RYR2NL FR1023 B738
Ryanair
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DUB
DUBLIN
BUD
BUDAPEST
BAROMETRIC ALT.
5,125 ft
GROUND SPEED
260 kts
Departed N/A
Arriving in N/A
Boeing 737-8AS
REG. EI-DLK
3D view
Route
More info
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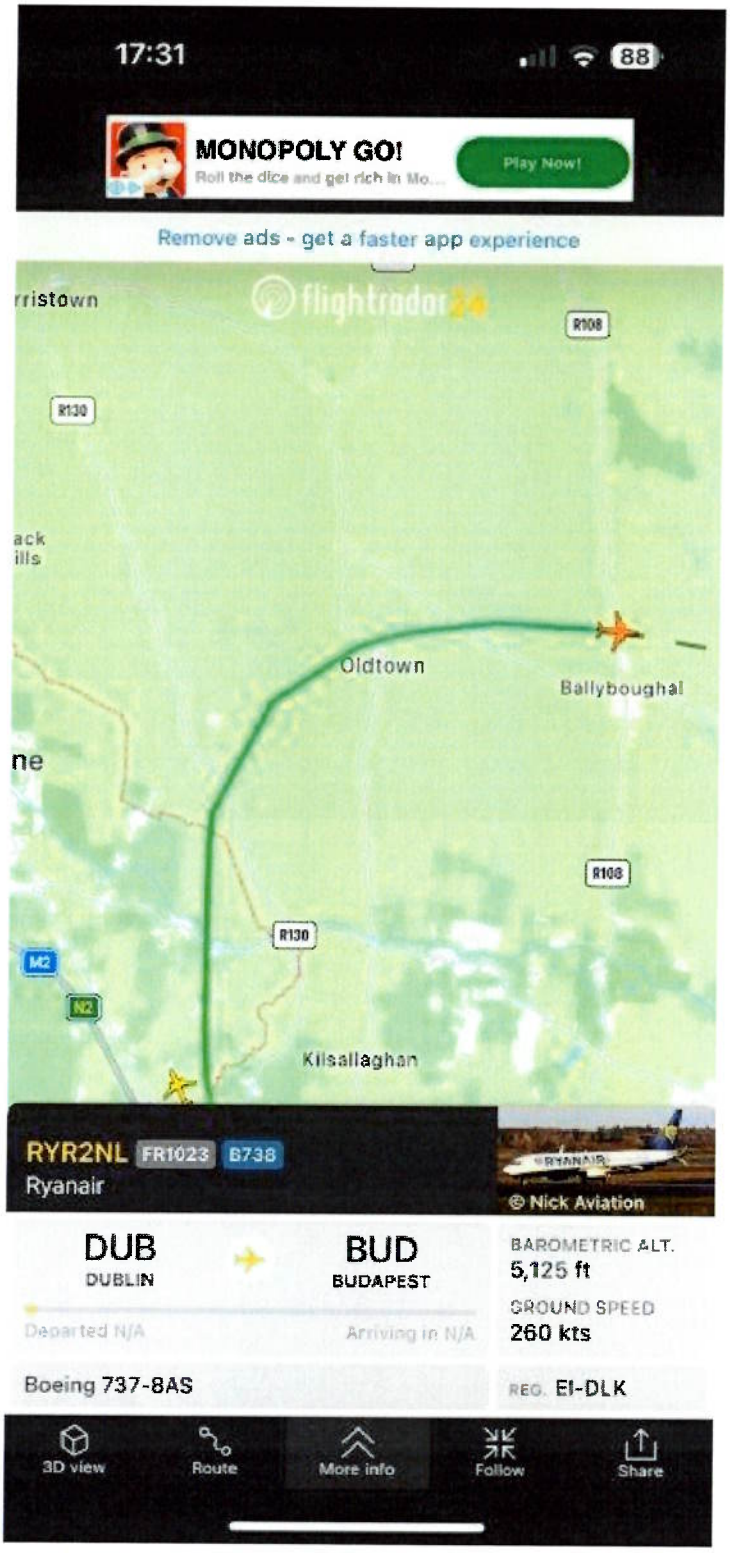
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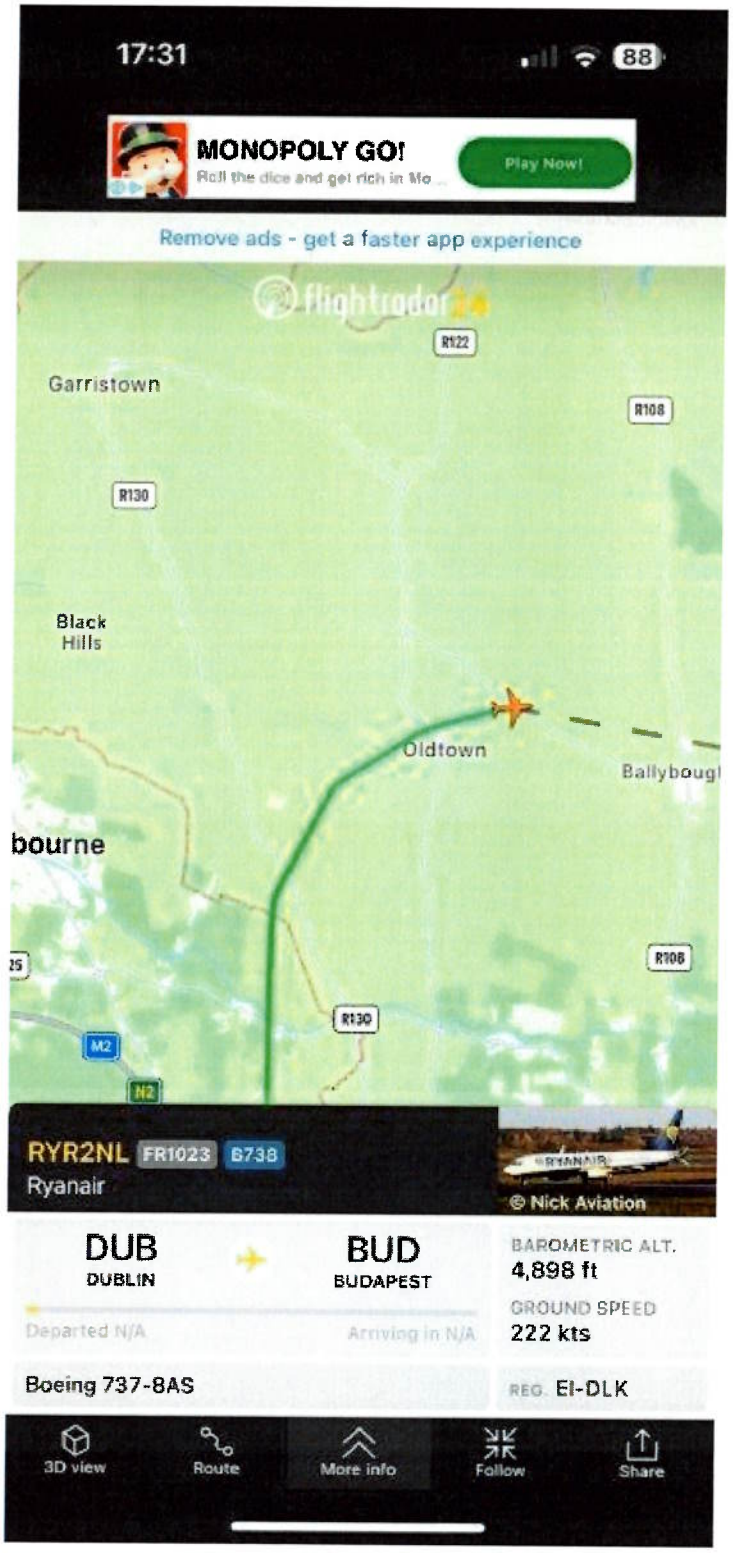
N2
Kilsallaghan
RYR2NL FR1023 B738
Ryanair
© Nick Aviation
DUB
DUBLIN
BUD
BUDAPEST
BAROMETRIC ALT.
5,125 ft
GROUND SPEED
260 kts
Departed N/A
Arriving in N/A
Boeing 737-8AS
REG. EI-DLK
3D view
Route
More info
Follow
Share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MONOPOLY GO!
Roll the dice and get rich in Mo...
Play Now!
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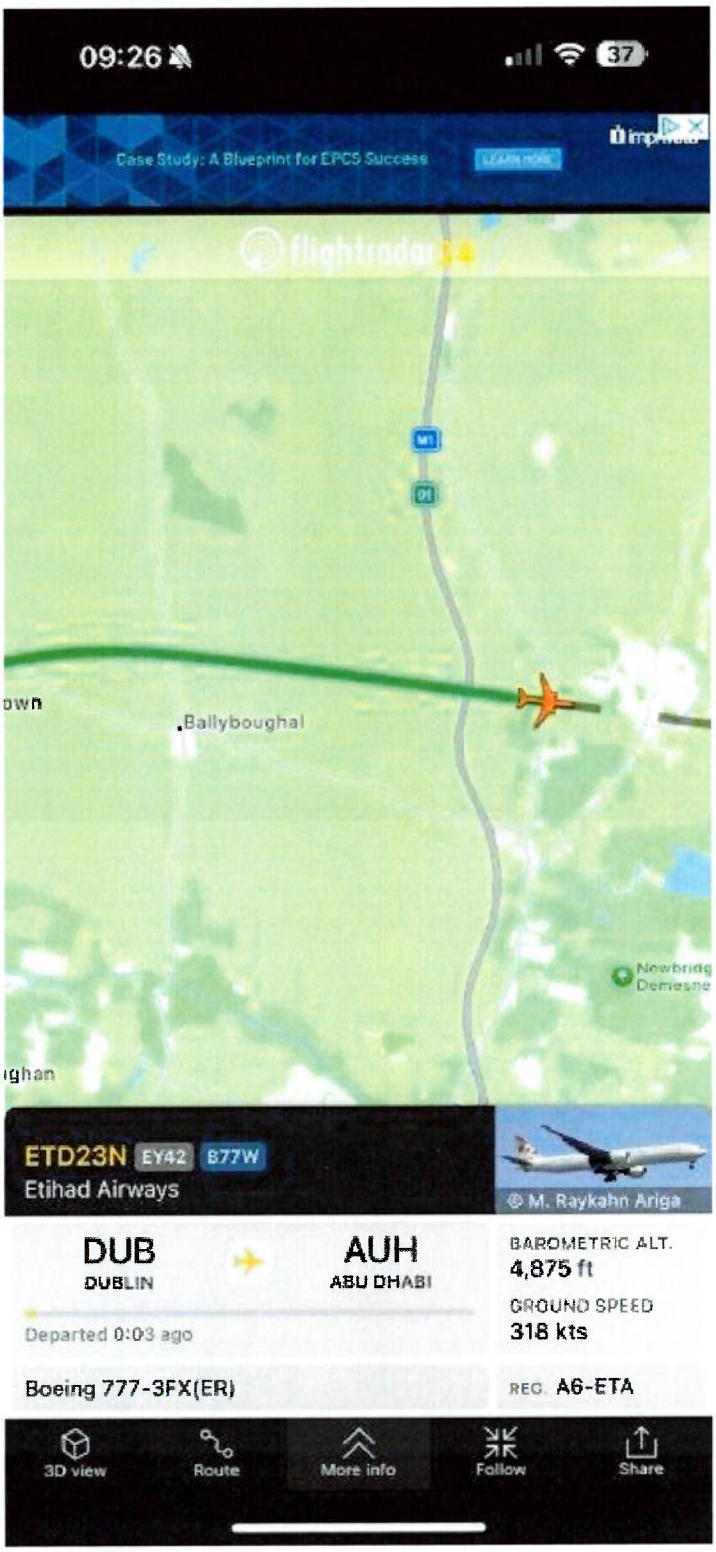
flightradar24
R122
Garristown
R108
R130
Black Hills
Oldtown
Ballybough
bourne
R108
R130
M2
N2
RYR2NL FR1023 B738
Ryanair
© Nick Aviation
DUB
DUBLIN
BUD
BUDAPEST
BAROMETRIC ALT.
4,898 ft
GROUND SPEED
222 kts
Departed N/A
Arriving in N/A
Boeing 737-8AS
REG. EI-DLK
3D view
Route
More info
Follow
Share


09:26
37
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flightradar24
M1
01
Ballyboughal
ETD23N EY42 B77W
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DUB
DUBLIN
AUH
ABU DHABI
Departed 0:03 ago
BAROMETRIC ALT.
4,875 ft
GROUND SPEED
318 kts
Boeing 777-3FX(ER)
REG. A6-ETA
3D view
Route
More info
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Share


11:27
5G
SUBARU
flightradar24
Oldtown
Ballyboughal
Newbridge Demesne
Kilsallaghan
Swords
Rivermeade
Malahide
St. Margaret's
Kinsealy
Portm
THY1976 TK1976 A21N
Turkish Airlines
© Christian Winkel
DUB
DUBLIN
IST
ISTANBUL
Departed 0:03 ago
BAROMETRIC ALT.
5,300 ft
GROUND SPEED
295 kts
Airbus A321-271NX
REG. TC-LSR
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Route
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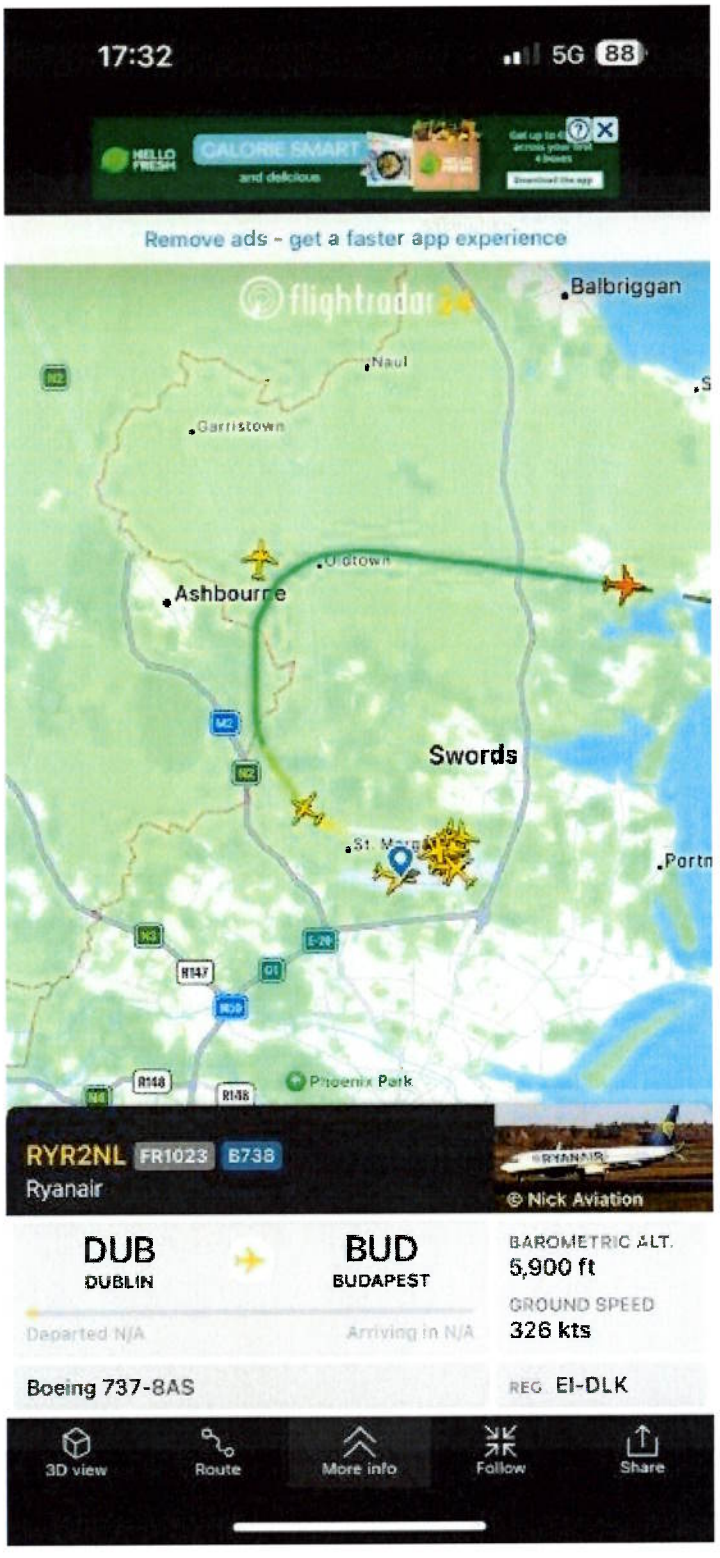
17:32
5G 88
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Balbriggan
Naul
Garristown
Ashbourne
Swords
Phoenix Park
RYR2NL FR1023 B738
Ryanair
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DUB
DUBLIN
BUD
BUDAPEST
BAROMETRIC ALT.
5,900 ft
GROUND SPEED
326 kts
Departed N/A
Arriving in N/A
Boeing 737-8AS
REG EI-DLK
3D view
Route
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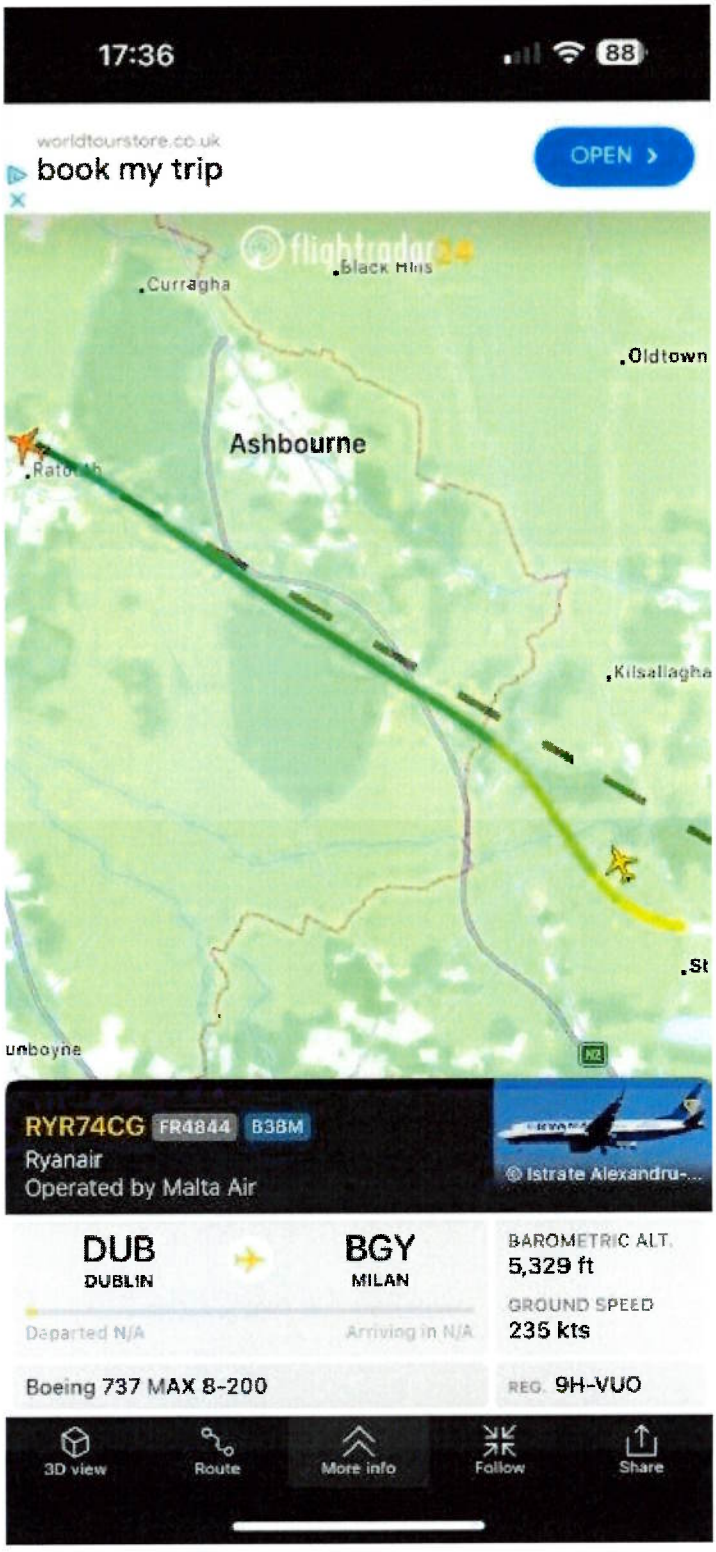
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Black Hills
Oldtown
Ashbourne
Kilsallagha
unboyne
RYR74CG
FR4844
B38M
Ryanair
Operated by Malta Air
© Istrate Alexandru-...
DUB
DUBLIN
BGY
MILAN
BAROMETRIC ALT.
5,329 ft
GROUND SPEED
235 kts
Departed N/A
Arriving in N/A
Boeing 737 MAX 8-200
REG. 9H-VUO
3D view
Route
More info
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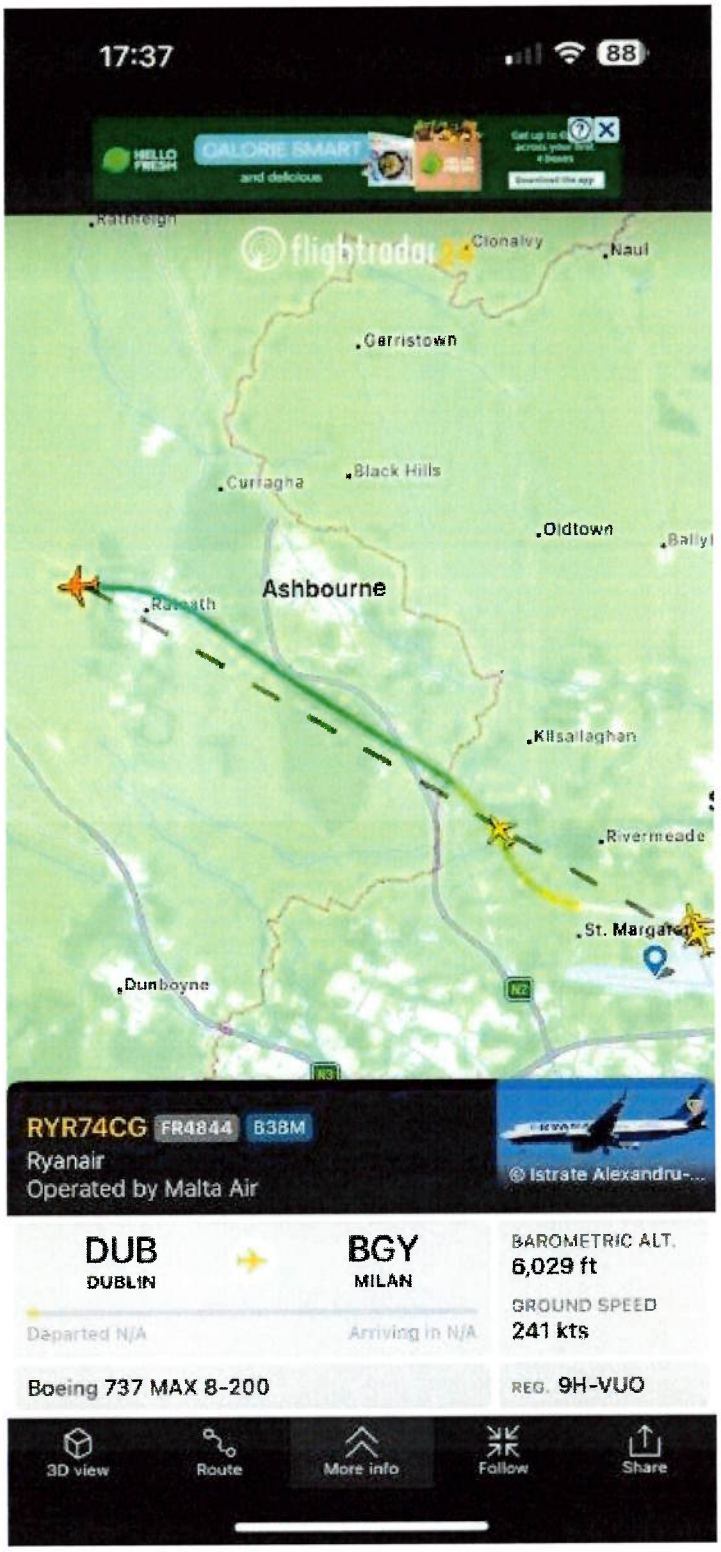
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88
HELLO FRESH
CALORIE SMART
and delicious
flightradar24
Clonalvy
Naul
Garristown
Curragha
Black Hills
Oldtown
Ashbourne
Kilsallaghan
Rivermeade
St. Margaret
Dunboyne
N2
N3
RYR74CG FR4844 B38M
Ryanair
Operated by Malta Air
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DUB
DUBLIN
BGY
MILAN
BAROMETRIC ALT.
6,029 ft
GROUND SPEED
241 kts
Departed N/A
Arriving in N/A
Boeing 737 MAX 8-200
REG. 9H-VUO
3D view
Route
More info
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