# Submission on behalf of the St. Margaret's, The Ward Residents Group

***FOR FINGAL COUNTY COUNCIL PLANNING PERMISSION REG. REF. F20A/0668***

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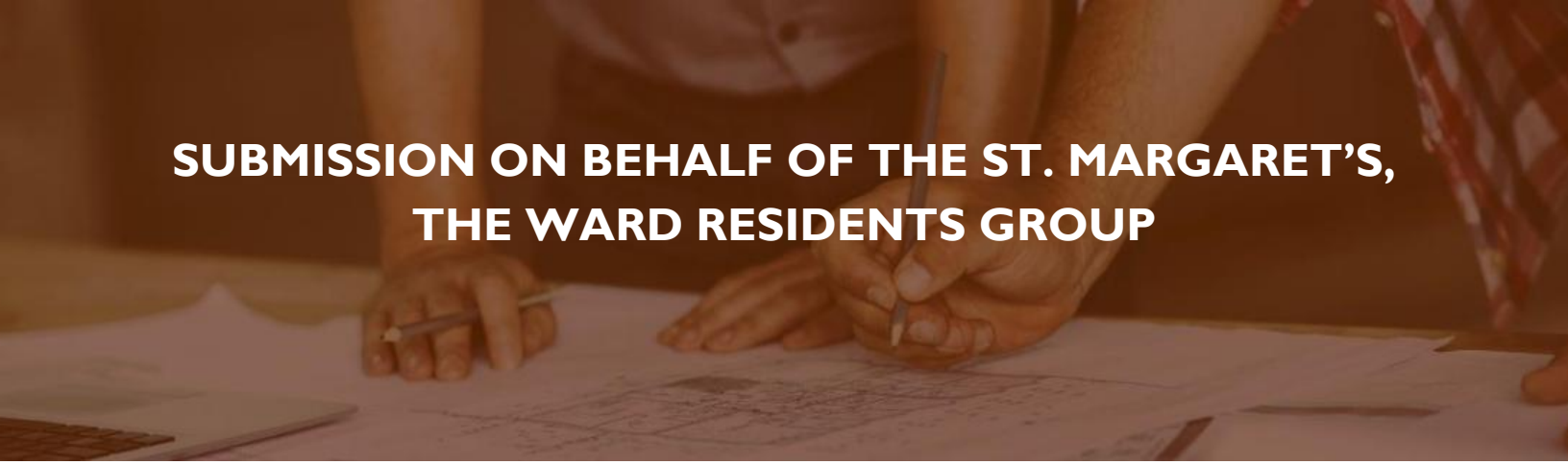


# SUBMISSION ON BEHALF OF THE ST. MARGARET'S, THE WARD RESIDENTS GROUP

## EXECUTIVE SUMMARY

- A project of this scale and with the irreversible long term impacts it will have on the environment of the communities closest to the airport requires a full and exhaustive public consultation period. The technical nature of the proposal and the sheer quantity of documents submitted demand a reasonable time and the onus should be on the DAA to adequately explain the technicalities to the public. The DAA have not carried out any public consultation with respect to their proposals to adequately inform the local community of the proposals. This is in contravention of the current North Runway planning permission conditions.
- EIAR is deficient as it does not comment on the medium- or long-term impacts of the proposal.
- The proposed use of Dublin Airport noise level data from 2018 as a baseline is fundamentally flawed as these noise levels were reported by members of the local community at the time as being chronic and unacceptable. At a strategic level the use of %HA and %HSD statistics are useful to assess the change over time of an airport operation. However, this method is not useful to assess the impact of a new proposal such as the relevant action proposed. The documentation submitted fails to clearly describe the level of impact on the communities closest to the airport. This is a serious omission.
- The assessment of impacts only up to the passenger cap of 32m fails to assess the future impact of increased passenger numbers which it is known is the stated objective of DAA and Government to allow. The true impact of the relevant action cannot be quantified without also assessing the future increase in passenger numbers.
- The proposed Noise Quota would appear to be based on incorrect analysis of data and is not clearly explained in the documents.
- The insulation scheme, even if it were acceptable, is a less comprehensive scheme than currently being offered for daytime flights. It is also not clear from the documents which specific dwellings qualify.
- The definition of significant noise effects in the EIAR is not adequate and those communities currently exposed to aircraft noise at night are incorrectly assumed to be accepting of the level of noise pollution.
- There is no clear need for the relevant action and the DAA's documents demonstrate that there is adequate capacity for them to operate to the full 32m passenger cap with the existing planning conditions in place.
- Noise insulation provided to existing dwellings does not protect the health of the residents with respect to single noise events (LAmax) and therefore insulation cannot be justified as a solution for those dwellings which suffer greatest impact. Only a complete ban on night-time flights can safeguard their health.

- DAA state in their submitted documents that if their application is not accepted there is a potentially significant opportunity lost, meaning their motivation is economic. If DAA want to expose residents of the local communities to additional and dangerously harmful public health risks of night-time and day-time noise for economic reasons, then they should include mitigation measures in their business case to protect the affected members of the community as follows:
    - Construct a dwelling of similar size on a similar plot of land outside the noise zone. There are publicly owned lands at Thornton Hall adjacent to the Airport that could be made available for this purpose. Relocation of current residents is allowed for under the current Fingal Development Plan for this purpose.
    - Offer to buy-out the dwelling and allow the affected residents to move elsewhere.
    - If 1 or 2 above are not acceptable and the resident wants to remain in their homes, provide a working insulation scheme with climate control to those residents.

  Forcing residents into a lockdown situation in their homes without the ability to open windows or use their gardens due to airport noise and forcing an insulation scheme is not acceptable and totally unjustified.

- The proposal wants to use the new North Runway at night for flights that require a longer runway than can be catered for on the existing South Runway. The frequency, number, effects, mitigation measures, etc. of this proposal are not included in the submitted documentation.
- The application by DAA as submitted is seriously lacking a substantial amount of information in order for the assertions made to be verified or explained. At a minimum a substantial amount of additional information should be requested from DAA.

# 1.0 INTRODUCTION

## 1.1 SUMMARY OF PROPOSED DEVELOPMENT

The proposed development will constitute a 'Relevant Action' only within the meaning of Section 34C of the Planning and Development Act 2000. The proposed Relevant Action seeks to amend/ replace two operating restrictions currently imposed as conditions through the relevant planning permission for the North Runway. These operating restrictions as currently drafted, once enacted, will restrict the operation of the permitted North Runway (10L/28R) between the hours of 23:00 and 07:00 as well as limit the operation of the runway system including the existing Southern Runway (10R/28L) between the hours of 23.00 and 07:00.

The proposed Relevant Action relates to the night-time use of the runway system at Dublin Airport. It involves the amendment of the operating restriction set out in condition no. 3 (d) and the replacement of the operating restriction in condition no. 5 of the North Runway Planning Permission (Fingal County Council Reg. Ref. No F04A/1755; ABP Ref. No:PL06F.217429 as amended by Fingal County Council F19A/0023, ABP Ref. No. ABP-305289-19), as well as proposing new noise mitigation measures. Conditions no. 3 (d) and 5 have not yet come into effect or operation, as the construction of the North Runway on foot of the North Runway Planning Permission is ongoing.

The proposed Relevant Action, if permitted, would be to remove the numerical cap on the number of flights permitted between 23:00 hrs and 07:00 hrs daily that is due to come into effect in accordance with the North Runway Planning Permission and to replace it with an annual night-time noise quota between 23:30 hrs and 06:00 hrs and also to allow flights to take off from and/or land on the North Runway (Runway 10L 28R) for an additional 2 hours i.e. 23:00 hrs to 24:00 hrs and 06:00 hrs to 07:00 hrs. Overall, this would allow for an increase in the number of flights taking off and/ or landing at Dublin Airport between 23:00 hrs and 07:00 hrs over and above the number stipulated in condition no. 5 of the North Runway Planning Permission, in accordance with the annual night time noise quota.

The relevant action pursuant to Section 34C (1) (a) is:

> To amend condition no. 3 (d) of the North Runway Planning Permission (Fingal County Council Reg. Ref. No. F04A/1755; ABP Ref. No. : PL06F.217429 as amended by Fingal

County Council F19A/0023, ABP Ref. No. ABP-305289-19). Condition 3 (d) and the exceptions at the end of Condition 3 state the following:

'3(d). Runway 10L-28R shall not be used for take-off or landing between 2300 hours and 0700 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.

Permission is being sought to amend the above condition so that it reads:

"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 0700 hrs to 2300 hrs to 0600 hrs to 0000 hrs."

The relevant action also includes:

To replace condition 5 of the North Runway Planning Permission (Fingal County Council Reg. Ref. No. F04A/1755; ABP Ref No: PL06F.217429 as amended by Fingal County Council F19A/0023, ABP Ref. No. ABP-305289-19) which provides as follows:

*"5. On completion of construction of the runway hereby permitted, the average number of night time aircraft movements at the airport shall not exceed 65/night (between 2300 hours and 0700 hours) when measured over the 92 day modelling period as set out in the reply to the further information request received by An Bord Pleanála on the 5th day of March 2007.*

*Reason: To control the frequency of night flights at the airport so as to protect residential amenity having regard to the information submitted concerning future night time use of the existing parallel/runway."*

With the following:

A noise quota system is proposed for night time noise at the airport. The airport shall be subject to an annual noise quota of 7990 between the hours of 2330hrs and 0600hrs.

In addition to the proposed night time noise quota, the relevant action also proposes the following noise mitigation measures.

- A noise insulation grant scheme for eligible dwellings within specific night noise contours.
- A detailed Noise Monitoring Framework to monitor the noise performance with results to be reported annually to the Aircraft Noise Competent Authority (ANCA), in compliance with the Aircraft Noise (Dublin Airport) Regulation Act 2019.

# 2.0 VALIDITY OF PLANNING PERMISSION

In the planning documents submitted it is stated that the permission sought from Fingal County Council is for a

*"proposed development comprising the taking of a "Relevant Action" only within the meaning of Section of 34C of the Planning and Development Act 2000 as amended at Dublin Airport"*

AND THAT

*"The proposed Relevant Action relates to the night time use of the Runway System at Dublin Airport. It involves the amendment of the operation Restriction set out in Condition No 3(d) and the replacement of the operating Restriction in Condition No 5 of the North Runway Planning Permission (ABP Ref No. PL06F.217429)."*

The An Bord Pleanála decision to grant permission (PL 06F.217429) noted quite clearly that:

*"In coming to the above decision the Bord noted that in addition to planning controls, Dublin Airport would in the future be subject to the new noise control regime introduced under the EU Environmental Noise Directive 2002/49/EC and the Environmental Noise Regulative 2006"*

and that

1. *there would be no significant deterioration in noise conditions at night time in the vicinity of the airport due to the proposed Option 7b operating mode for the runways (non-use of new runway and of cross runway at night) and the restriction on night time aircraft movements by way of condition,*

2. *in relation to day time noise, there would be some **improvements** relative to current or future noise impacts with the existing runway system to be offset against disimprovements in other areas/respects and the net effects would not be significant in terms of public health and safety such as to warrant a refusal of permission,*

3. *in relation to schools affected (including pre-school facilities), the mitigation measures proposed, reinforced by conditions and monitoring would ensure that a suitable noise environment can be maintained within classrooms and school buildings generally.*

To reinforce Condition 1 above of the Order by An Bord Pleanála is very specific.

The stated objective of Noise Directive 2002/49/EC is to avoid/prevent or reduce on a prioritised basis harmful effects, including annoyance due to Environmental Noise.

We refer to Section 8 "Environmental Noise Directive (END) Rounds 1, 2 & 3" of this submission that sets out in detail the progression of Environmental Noise due to operations at Dublin Airport since the introduction of this legislation.

It is quite clear that there has not been any avoidance, prevention, or reduction of noise to the surrounding communities at Dublin Airport and in fact the situation is now chronic due to the escalation in Environmental Noise at Dublin Airport.

The improvements anticipated by The An Bord Pleanála decision in Environmental Noise at Dublin Airport has not materialised since its decision in 2007 and worsened considerably since that decision.

This planning application seeks significant changes to the "Relevant Permission" that had been granted back in 2007 that not only relate to operating restrictions but also to the greater environment surrounding the Airport and the local Communities affected by the Airport.

The permission sought is not just a "Relevant Action" under the meaning of Section 34C of the Planning Acts and requires a far more detailed and informed application to alter the granted permission by An Bord Pleanála (PL 06F.217429).

Contrary to the anticipation and reliance of An Bord Pleanála on the introduction of stringent EU Environmental Noise legislation when it made its decision in 2007, the DAA are now attempting to apply the noise conditions that existed at Dublin Airport in 2018 as being the comparison for betterment as a result of introducing the proposed "Relevant Action". This is absurd given the escalation in noise conditions since An Bord Pleanála decision in 2007.

A full application to Fingal County Council must be submitted by DAA in order to modify the original foundations of environmental improvements anticipated when An Bord Pleanála granted permission.

At footnote 6 on page 6 of the Planning Report by Tom Phillips & Associates, it states that:

"*2018 is used as a baseline for evaluation as this provides an empirical description of the effects when the airport was close to 32 MPPA.*"

The fact that environmental noise had spiralled to devasting proportions above and beyond all projections is overlooked completely and totally without justification without consideration of the assumptions An Bord Pleanála granted its permission.

The proposed "Relevant Action" is not for the increase to 32 MPPA, it is a proposal that will allow for the continued escalation of environmental noise that seriously affect members of the local communities.

To emphasise this point we refer to Figure 58 part 4 of the EIS, which indicates the future noise exposure at night for 2025 as submitted as part of additional information request item 4 to An Bord Pleanála below for the original application. This indicated the number of households and population to be affected. Look at how low the numbers are compared to those now being presented by the DAA for '2025 Consented'. The '2025 Consented' figures are not what An Bord Pleanála based their decision on and therefore this "Relevant Action" application does not address the original permission and cannot be taken in isolation.

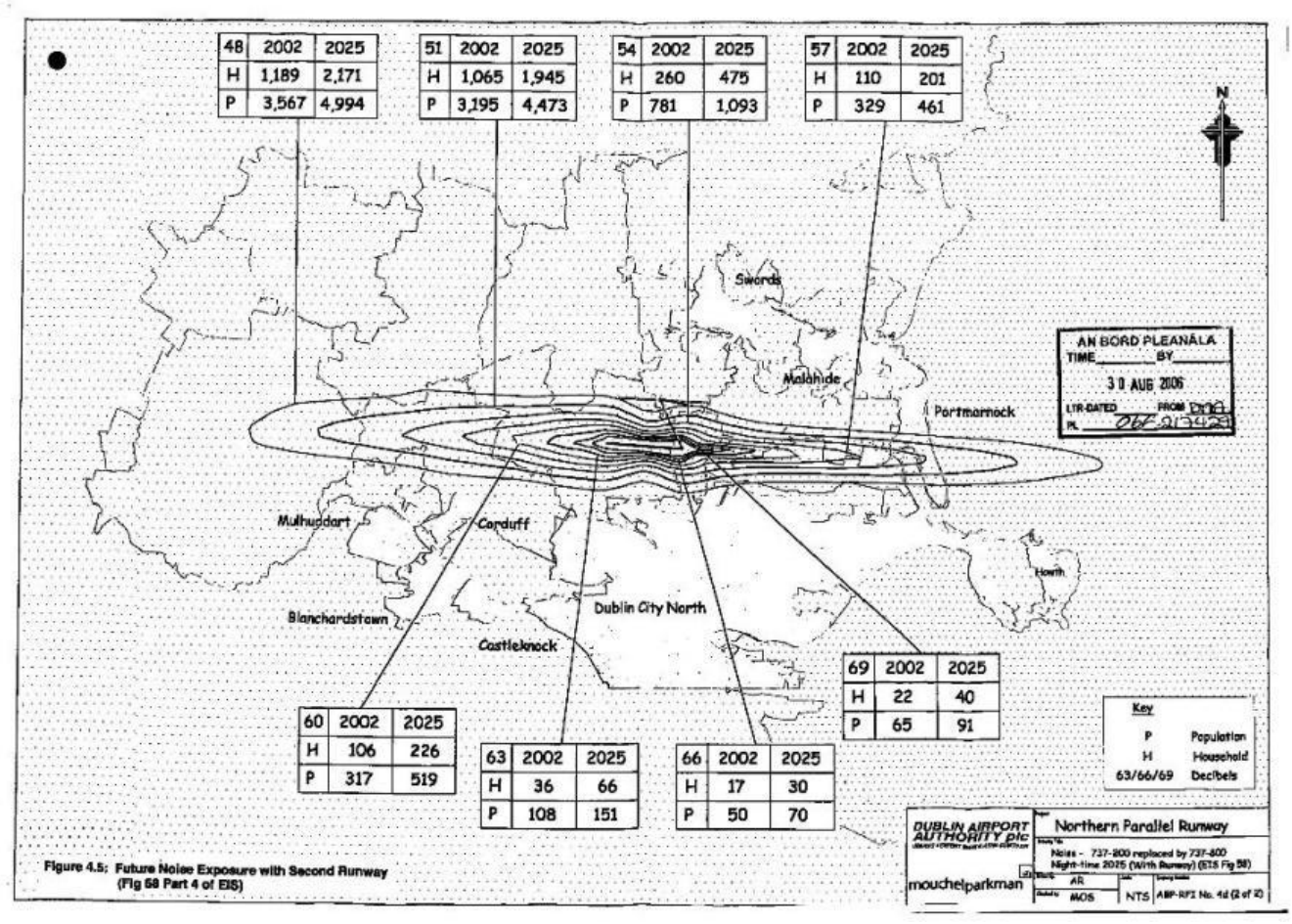



Fig 58 Part 4 of EIS additional information submitted for F04A/1755

We further note that Condition 28 of An Bord Pleanála decision is quite clear that:

*"A Community Liaison Group shall be established involving representation of the St. Margaret's Community, Fingal County Council and the Dublin Airport Authority. The composition of the committee and any variation thereof, shall be subject to the prior agreement of the Planning Authority. The Committee shall facilitate consultation with the existing community in accordance with the policies and objectives of the Fingal / Development Plan 2005 – 2011 in relation to Saint Margaret's.*

*Reason: To provide for ongoing communication, dissemination of information and consultation with local community affected by the proposed Runway".*

St. Margaret's, The Ward Residents Group attend the meetings of the Community Liaison Group. We were notified by DAA that a brief presentation of this proposed "Relevant Action" submission would be given to the member of the committee on Tuesday 15th December 2020. This was the first time that the proposal which included a Noise Quota System, a night noise insulation grant scheme, that 2018 Noise Levels would be used as a baseline, that divergence off the Runway now affected larger areas of the local communities, that there would be increases in Highly Annoyed (HA) and Highly Sleep Disturbed (HSD) population etc.

Without any form of Consultation or explanation of the proposals the planning was submitted on December 18th, 2020. No further consultation has taken place since.

Therefore condition 28 has not been satisfied prior to the submission of this "Relevant Action" and the local communities have to rely on their own interpretations of the documents which are highly technical, and the maps provided which are extremely difficult to read.

On top of this, with covid-19 restrictions, most of the community members could not visit Fingal County Council offices to examine the files as submitted. The planning documents submitted were uploaded to the Fingal County Council planning website when the application was submitted on December 18th 2020 and the date indicated for submissions was noted as February 1st 2021. On the 4th, 11th, 12th and 22nd of January 2021 a huge selection of documents were added to the file and displayed on the Fingal County Council Planning website. However, the date for submission was not altered to allow community members to adequately review this material.

We note that a brief presentation to the CLG Committee was made by Martin Doherty Environmental & Planning Manager, North Runway Project with DAA. We further note that the documents added to Fingal's Planning website were records of consultation that included DAA, ANCA and Fingal County Council Planning officials and these date back to September 2019, 16 months before DAA made this submission to Fingal County Council.

How could this happen? How could the local community be left in the dark and not consulted on DAA proposals at CLG meetings when both DAA and Fingal County Council, through regular consultations knew what was being proposed and did not inform the local communities.

A presentation by Mr Martin Doherty to an ICAO Green Seminar in Lima, Peru in May 2019 gives an insight as to how the DAA deal with local communities. This presentation is publicly available and is appended to this report In Appendix A. The presentation is titled "North Runway Project, Noise and Community".

On page 5 of the presentation, item 1 under the heading of "*Changing noise regime, since permission was granted in 2007*", clearly acknowledges that the *"3rd Noise Action Plan shows greater numbers effected by noise",* and item 2 that there is *"increased public concern in relation to noise"*. But then at page 11, *"What I have learned (so far!) with Community Engagement and Noise"* he states:

*"Have the Technical information available but do no focus too much on noise contours as most people don't understand them! Focus on information such as the number and times of flights, likely flight patterns, future aircraft types".*

This is insulting to the local communities who are starved of information on what the DAA proposals are. However, this is exactly what DAA have done in their submissions. There is a huge lack of information on who exactly are affected by the noise contours and explanation as to what they mean.

*Go to the community but if possible, avoid "town hall" meetings."*

Really, is this in the interest of friendly relations with community members?

He further states:

*"Support as many community groups, sports clubs, educational facilities as you can = emphasise the positive impact of the airport"*

i.e. give handouts such as the community fund, of an insignificant amount, to divide communities on the real issues that affect large numbers of the community.

And also;

*"Share information about major airport plans in a timely manner and not just in "development" plans or when the airports want something."*

He was obviously overruled on this one by his superiors as they never shared the information and never explained these proposals.

It is clear that the DAA and Fingal County Council are not in compliance with condition 28 as the DAA submitted the application without adequate consultation and in the middle of a Pandemic which by the way, is not a valid excuse for a lack of consultation. Even the submitted number of flights proposed indicates that the numbers at the Airport can operate quite easily with the operating restriction for a couple of more years so there is plenty of time for adequate engagement with the local communities.

We in St. Margaret's will seek to enforce our Legal Right under the current planning conditions to the ends of the earth and to that end there is no way that compliance with the current "Relevant Permission" can be met unless Fingal County Council enforce DAA to carry out proper and adequate Public Consultation with the local community before this submission can be adjudicated on by Fingal County Council. If this does not happen then condition 28 of the "Relevant Permission" cannot be complied with retrospectively and the development will be deemed to be unauthorised development which means that DAA will have to apply for a Retention Permission.

# 3.0 PUBLIC CONSULTATION

Within the current Fingal County Development Plan there is an objective DA09 which states.

*"Ensure that aircraft-related development and operation procedures proposed and existing at the Airport consider all measures necessary to mitigate against the potential negative impact of noise from aircraft operations (such as engine testing, taxiing, taking off and landing), on existing established residential communities, while not placing unreasonable, but allowing reasonable restrictions on airport development to prevent detrimental effects on local communities, taking into account EU Regulation 598/2014 (or any future superseding EU regulation applicable) having regards to the 'Balanced Approach' and the involvement of communities in ensuring a collaborative approach to mitigating against noise pollution."*

It is quite clear from this objective that the proposed "Relevant Action" as submitted by DAA requires the involvement of the affected communities in ensuring a collaborative approach to mitigating against Noise Pollution.

Documents relating to the consultation between Fingal County ANCA and DAA were uploaded to the Fingal Council Planning Portal. On pdf record 00683463 (ANCA interim response to pre-application consultation on proposed noise mitigation measures. Dated 18th May 2020) under item 9 it was noted that *"It is noted that the flight path consultation for the North Runway was undertaken in 2016. Given the time that will pass since this consultation and the commencement of operations ANCA recommends additional community consultation to advise those who may be newly overflown by North Runway operations."* DAA did not hold public consultation.

The DAA in their submitted documentation state that *"The Applicant has and continues to engage with a variety of stakeholders and will continue to manage effective relationships with a wide array of stakeholders."* They list the local community as one of these stakeholders.

We note that the DAA did participate in Public Consultation back in 2016, over 5 years ago, when they indicated that they were preparing to submit a planning application to revise conditions 3d and 5.

However, these consultations did not explain the proposal of a Noise Quota System. They did not indicate that there was to be a "night noise insulation" scheme being proposed. They did not produce the noise information now submitted which indicates that large sections of the community shall be either "Highly Sleep Disturbed (HSD) or Highly Annoyed (HA) due to the projected future noise from the Airport. They did not inform the local communities exactly what area of the community are affected by HSD and HA. They did not indicate that they would be

providing a grant of €20k for a night insulation programme and where in the community this would be offered to.

We note that the proposed Noise Quota System differs considerably than that operating in the UK and elsewhere.

Permission was granted for the Northern Runway in 2007 for option 7b in condition 3 which is a segregated mode operation. The proposal now is NOT for a segregated mode and the flight path divergence proposed particularly to the west of the new North Runway, which is a mixed mode operation, will affect a substantial new area of the communities that were not previously affected by the original permission.

We note that the community of St. Margaret's was first notified of this new proposal of a "Relevant Development" Submission on Tuesday December 15th, 2020 and the Planning Submission was made on Friday December 18th, therefore there was no public consultation on this submission. We note that Variation # 1 of the current Fingal County Council Development plan introduced Planning Protection for Future Aircraft Noise Zones. Prior to the introduction of this variation, Fingal County Council held public open consultation meetings to explain to members of the community what the proposal were and to allow the public to ask questions of their Agents and Representatives over an extended period of time.

Fingal County Council made it quite clear that the noise zones were indicative only and not representative of real noise contours particularly with respect to night flights given the fact that night noise contours were indicated. Fingal County Council made it clear also that they would not be enforcing or providing grants to housing that already exists and which were now indicated as being within high night and day noise zones. We note that submissions on the Variation # 1 to Fingal County Council could be made free of charge.

The charge to make a submission on this DAA application is €20 per person.

We, the local community, are outraged at this attempt by DAA to keep the local communities in the dark with respect to the submission on this Relevant Action. They are using the current covid-19 pandemic and restrictions to their advantage in order to subdue an already deflated community to get their way.

We call on our elected Representatives, and Fingal County Council to rally against this submission and to force the DAA to hold public consultations in whatever format is safe to do so with the local communities to inform them properly of the contents of this submission and to explain to the community the impact of these proposals. We note that the information as provided is extremely technical and falls majorly short in detail that can be understood by members of the local community.

The DART+ West Public Consultation is an example of how a major infrastructural project can conduct a Public Consultation process in the middle of the Covid-19 pandemic (https://www.irishrail.ie/about-us/iarnrod-eireann-projects-and-investments/DART-Programme/DART-West-Public-Consultation/DART-West-Line-Public-Consultation-Process). Another example is the N/M20 Motorway scheme (https://corklimerick.ie/). Both schemes resulted in far greater levels of public engagement because the information was easy to access and gave people time to consider the information. As a result there was a far greater number of submissions and designs were amended to reflect this.

The DAA have failed to meet the objectives of the Current Development Plan and therefore this application cannot and should not be allowed to proceed until proper public consultation is carried out. They have also failed to comply with condition 28 of the grant of permission by An Bord Pleanála in 2007 as set out in section 2.0 of this report.

We further note that additional documents were added to the Fingal Planning Portal on the 4th, 11th, 12th and 22nd of January 2021 following the original application Reg: Ref F20A/0668 was lodged on December 18th, 2020. We note that there was a substantial number of additional documents but that the closing date for submission / observations is 1st February 2021.

The newspaper advertisement and site notice stated that the application could be inspected at the Swords Fingal County Council offices. However, as you are aware the covid-19 restrictions in place do not allow people to travel beyond 5km of their homes. Therefore, a huge proportion of local communities could not visit the Swords office and are totally reliant on the Fingal Planning Portal.

We as citizens and members of the affected community are now being deprived of our statutory right to adequate time to study such a large and complicated file in order to make a planning submission and wonder if the timing of the application was purposefully arranged to deter submission. We note that from a quick examination of the additional documents that consultation with Fingal County Council and ANCA commenced as far back as September 2019 without any community notification.

The DAA published their "Dublin Airport Noise Management Plan" dated May 2018. At the bottom of page 13 of 20 it states, *"It is anticipated that community engagement will be included in any future interaction of the balanced approach".* In the same document at Section 5.3 **ENGAGEMENT** it states *"Dublin Airport is committed to engaging with the local community in order to inform and discuss developments relevant to the Airport. It should be noted that community engagement is expected to form part of the next interaction of the Balanced Approach."* They did not fulfil this commitment and are in breach of their own published policies.

The onus is on DAA to inform the local communities of their proposals prior to making an application to Fingal Council or ANCA.

The above public consultation should not be confused with the submission / observation period required for a draft regulatory decision by ANCA whereby the public can make submissions / observations on the draft regulatory decision by ANCA under part 2 Section 9 of the Aircraft Noise (Dublin-Airport) Regulation Act 2019.

The public consultation required is for DAA and its expert team to inform and answer any queries the members of the community have on the submission being made to Fingal County Council Planning Authority ANCA are supposed to be a totally independent organisation and are not part of the Fingal County Council Planning Authority to which this Development Plan objectives apply to.

In correspondence from Matthew McAleese, Director of Services for Fingal County Council, he stated "As you are aware the relevant application may be subject to, in accordance with EU Regulation 598/2014, the "balanced approach" to aircraft noise management. If this occurs there will be separate public consultation undertaken by ANCA".

This is not correct. Fingal County Council are the Planning Authority and are subject to the Development Plan requirements and planning approval conditions.

ANCA are an independent public body and are not part of the Fingal County Council Planning Authority. There is no "public consultation" by ANCA. ANCA are required under legislation to issue a "draft regulatory decision". The public are then invited to make submissions or observations on this draft regulatory decision. There is no "consultation" or interaction with the Local Communities to explain the application and its proposed effects on the Local Communities. This is a totally different platform for informing community members.

We note that it is not proposed to operate the new Runway until 2022 and therefore there is plenty of time to properly consult with the local communities.

We also note that the proposal does not breach the 32m passenger cap already exceeded in 2019 and therefore we would query why the proposed changes are required.

We demand the right to public consultation from DAA on this application.

# 4.0 EIAR

Section 4.7 of the Planning Report by Tom Phillips & Associates state that "*strictly without prejudice to that position, DAA is submitting an EIAR with the application out of an abundance of caution"* (that because the application is not a project within the meaning of the "EIA Directive", it does not require an EIAR).

As detailed in the section titled "Validity of planning submission" of this report the original decision of An Bord Pleanala was based on reductions in environmental noise through the introduction of the 2002/49/EC directive (relating to the assessment and management of environmental noise) and that this application seeks to materially alter the "relevant permission" and is not in itself a "relevant action" to simply alter or replace operating restrictions.

We are of the opinion that Tom Phillips & Associates are aware of this fact and whilst attempting to claim that an EIAR is not required, still provide one as they attempt to address the original environmental issues assessed in the original permission granted by An Bord Pleanala in 2007.

Since this planning application does not address the fact that it will cause a fundamental change to the environmental noise conditions of the original planning permission, it is an invalid application. The wording of the planning application is therefore incorrect.

The EIAR provided falls short of what is required to be addressed in an EIAR under the EIA directive (2009/31/EC).

An EIAR should contain an assessment of the medium and long-term effects on the environment. The current EIAR only discusses alleged impacts up to 2025 which does not satisfy this requirement under the EIA directive.

The directive is quite clear as are the draft EPA EIAR Guidelines 2017 which state:

*"'A description of the likely significant effects of the project on the environment resulting from, inter alia:…*

*….c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;…*

*The description of the likely significant effects on the [environmental] factors should cover the direct effects and any indirect, secondary, cumulative, transboundary,* ***short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project."***

The main purpose of an EIAR is to identify, describe and present an assessment of the likely significant impacts of a project on the environment.

"Duration" is a concept that can have different meanings for different topics and in the absence of specific definitions for different topics, the following definitions may be useful:

- Momentary effects – Effects lasting from seconds to minutes.
- Brief Effects – effects lasting less than a day.
- Temporary effects – Effects lasting less than one year.
- Short-term effects – Effects lasting one to seven years.
- Medium-term effects – Effects lasting seven to fifteen years.
- Long-term effects – Effects lasting fifteen to sixty years.
- Permanent effects – Effects lasting over sixty years,

The EIAR submitted by the applicant does not include medium- and long-term effects and is deficient in content.

The sole focus is on reaching 32MPPA to 2025 as opposed to looking at the effects going forward, which the DAA are aware of from when they applied for and subsequently withdrew a planning application for up to 40m passengers per annum.

A short-term approach such as this is pointless when it is known that the effects will change in the medium to long term. This is akin to project splitting and the DAA have not presented the potential impacts of the true extent of Dublin Airport with two runways in operation.

This application therefore does not include the detail necessary by law to inform the Local Community, Fingal County Council and the ANCA.

A noise baseline was chosen from 2018 as a comparative looking forward, due to the fact that it was the year that 31.5MPPA was recorded at Dublin Airport. This is not a solid environmental baseline to use. An Bord Pleanala relied on the 2006 environmental noise directive to check escalation of environmental noise at Dublin Airport which as shown at the 3 stages of the noise action plans carried out to date have failed with noise spiralling out of control. Refer to section 8.0 of this document.

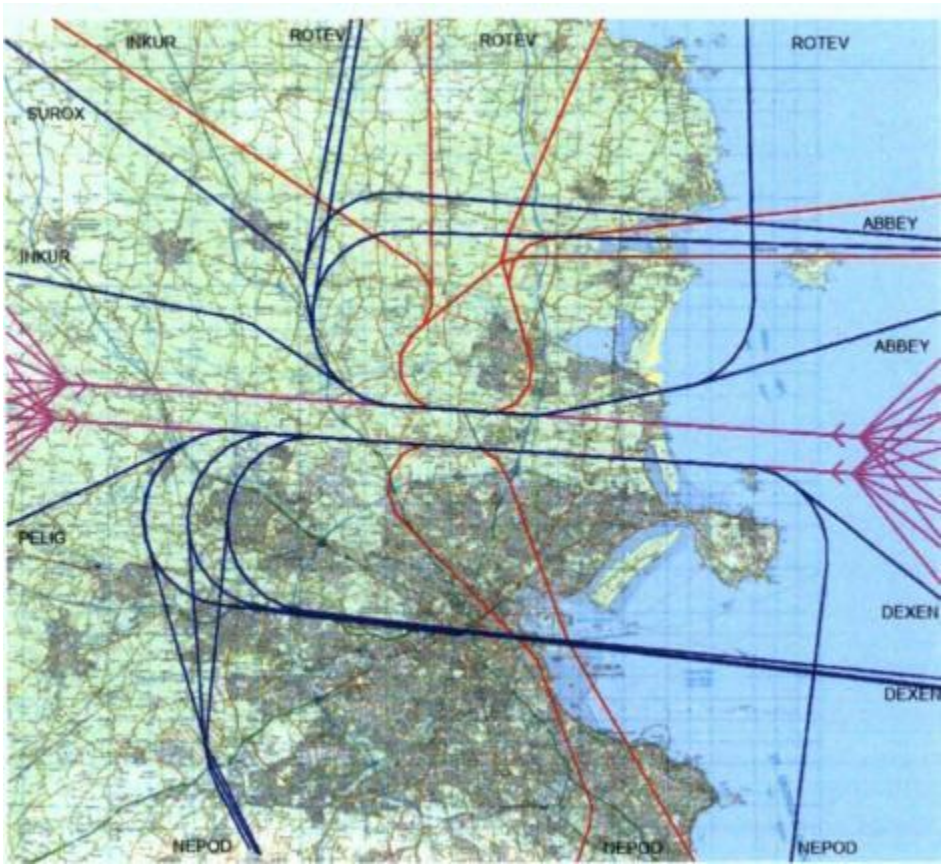
The effects of a 40m passengers per annum going forward must be demonstrated together with a base line prior to 2016 in order to meet the 2006 environmental noise directive requirements.

# 5.0 SCREENING REPORT

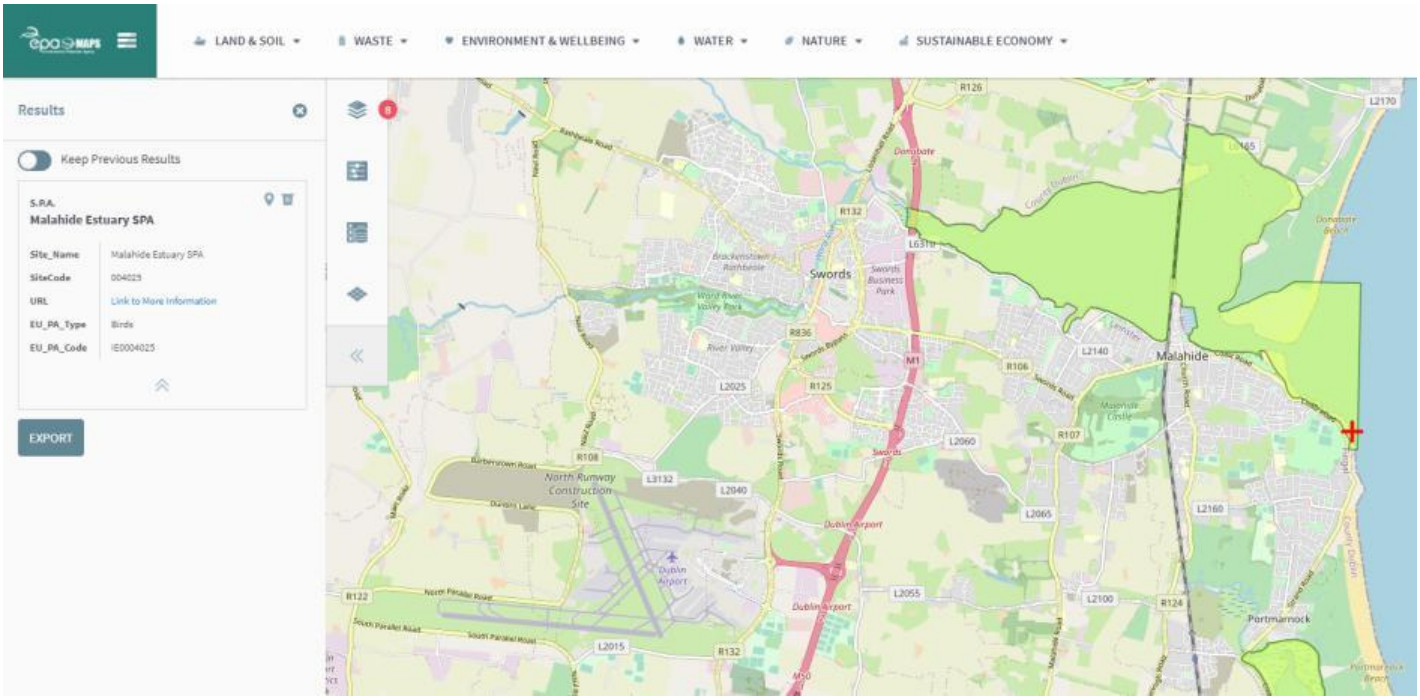
Under the Habitats Directive, EU member states are required to designate SACs for habitats listed in Annex I and Annex II of the Directive.

Under the Birds Directive, EU member states are required to identify and classify SPAs for rare or vulnerable species listed on Annex I of the Directive, as well as for all regularly occurring migratory species.

The screening report incorrectly states that the proposals can have no effects on SACs. Malahide SAC will be directly overflown by the plans to operate a divergent route for Easterly departures on the North Runway in mixed-mode operation. This divergent route has no planning permission and was never proposed in the original planning in 2004-2007 under Option 7b.




As can be seen this Easterly departure route on the North Runway has a 15 degree divergnce path and takes a route over Robswall Park in Malahide and over the Malahide SAC.




It is a failure of the screening process to even acknowledge this potential to affect a SAC and as a minimum, appropriate assessment is warranted.

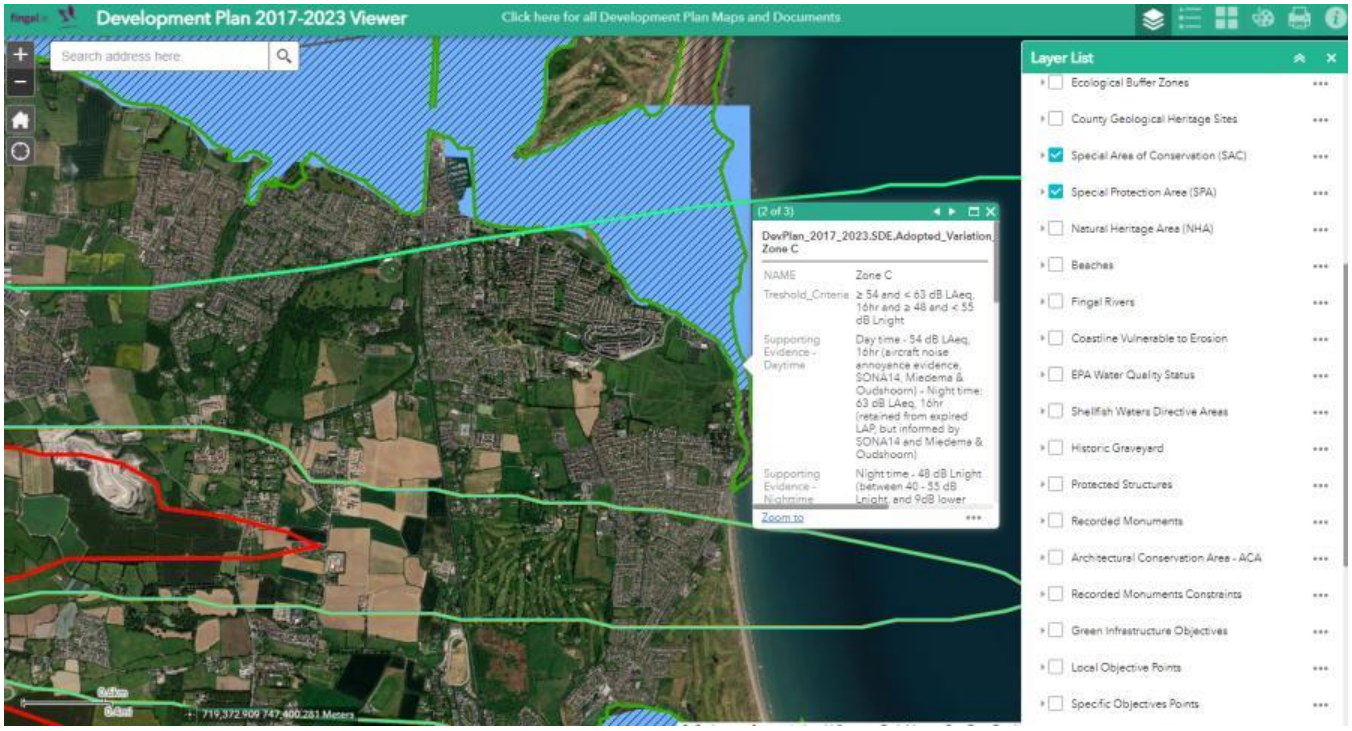
In fact, this screening report states in section 2.1.7 that:

"Flight paths will not pass over Malahide Estuary SPA, North Bull Island SPA or Howth Head Coast SPA, which are otherwise within 15km of Dublin Airport".

It is also very noticeable that the Lnight contours for 2025 Relevant Action do not appear to take departures on the North Runway into account as the noise contours don't stretch over this flight path.

Questions need to be raised why this is the case. This contradicts with the Fingal Development Plan, Variation #1, where 100% directional routes were modelled up to 2037. The Development Plan has this area around Robswall Park/Low Rock Malahide in Zone C, which caters for daytime noise levels >= 54 dB and < 63 dB LAeq16 and including night-time noise levels >= 48 dB and < 55 dB Lnight.

Fingal County Council and ANCA need to scrutinize the DAA to see if they have neglected to model departures on the North Runway for easterly departures.




In addition, easterly departures on the South Runway do not fly directly over Howth Head Coast SPA but are in very close proximity to it. This can be perceived as a current flight path, but as a minimum it should be assessed in this screening report.

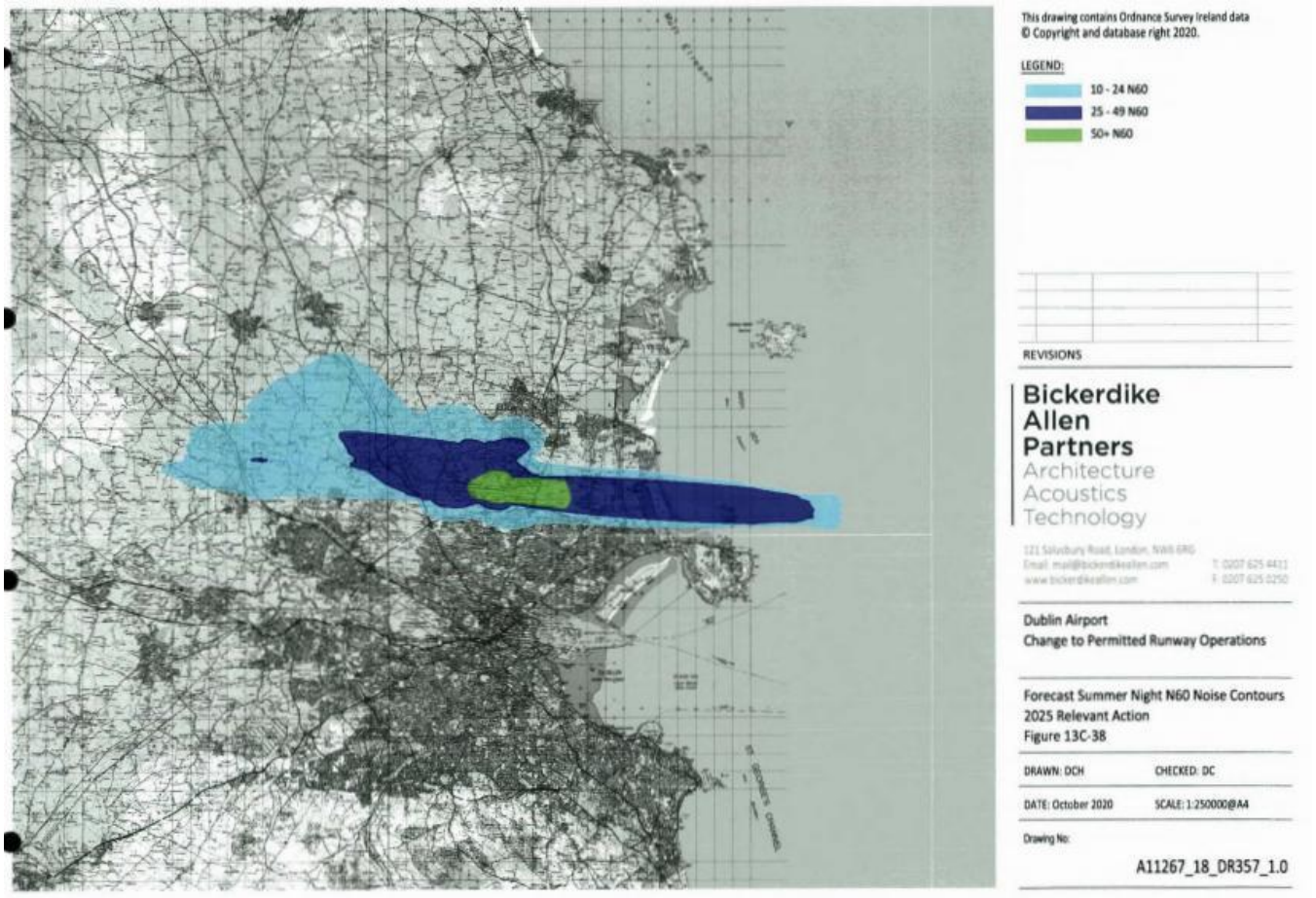
There's also failure of the screening process to take the proposed night-time operations into account. The planning application is proposing to allow night-time flights on the North Runway between 23:00-24:00 and 06:00-07:00. No mention of screening for effects on the SACs and SPAs along the Irish coast potentially affected for these night-time operations.

Nor does the screening report examine the Noise Quota Count system and scrutinize its potential for a larger number of night-time flights on both runways that will impact on SPAs and SACs on the Irish coast.

## LITERATURE REVEIW

In the summary of the literature review, which itself is very sparse, it states that noises > 60 dB(A) have been shown to elicit disturbance responses in some studies".

Here is a map displaying forecast 2025 Relevant Action N60 contours, which shows the number of events > 60 dB at night and how there are forecast to be between 25-49 noise events impacting on SACs and SPAs.




Another important feature to be noted that could have a significant effect on wildlife and birds will be the difference between the Covid-19 quiet period and a return to growth in aircraft movements. This difference in activity needs to be analysed and assessed.

Section 5.4.5 compares the number of aircraft movements > 60 dB LAmax between 2018 and 2025 Relevant Action. 2018 is an erroneous year to compare with as noise had already been identified as a noise problem with the Round 3 END noise statistics. A comparison with 2025 Baseline is a more appropriate comparison as it compares with the situation where the North Runway is operational under the current planning conditions.

Comparing 2025 Baseline and 2025 Relevant Action, the number of noise events > 60 dB LAmax increases from 35.1 to 49.6 (41% increase) for Baldoyle Bay and increases from 34.8 to 49.3 (42% increase) for Ireland's Eye.

## SACs

The screening report for Appropriate Assessment makes very little reference to SACs. In its conclusion it states that

"the nearest SAC to the North Runway is Malahide Estuary SAC, located approximately 4km north-east and designated for a number of coastal and estuarine habitats. The SAC is not designated for any Annex II species (or mobile species). Taking into consideration the distance of the SAC from the North Runway, there is no potential for the increased number of night-time flights to have any effect on the qualifying habitats. For these reasons, this AA screening was therefore concerned with testing for LSE on Special Protection Areas only".

Incredibly, the report makes no reference to the other SACs in close proximity to Dublin Airport. How were they screened out?

In relation to the Malahide Estuary SAC, its qualifying interests are:

**Qualifying Interests**

**** indicates a priority habitat under the Habitats Directive***

| 000205 | Malahide Estuary SAC |
|---|---|
| 1140 | Mudflats and sandflats not covered by seawater at low tide |
| 1310 | *Salicornia* and other annuals colonising mud and sand |
| 1320 | *Spartina* swards (Spartinion maritimae) |
| 1330 | Atlantic salt meadows (Glauco-Puccinellietalia maritimae) |
| 1410 | Mediterranean salt meadows (Juncetalia maritimi) |
| 2120 | Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) |
| 2130 | Fixed coastal dunes with herbaceous vegetation (grey dunes)* |

All of the above are Annex I natural habitat types and should be listed and a screening decision made on each.

Lambay Island SAC contains both Annex I and Annex II species:

**Qualifying Interests**

** indicates a priority habitat under the Habitats Directive*

| | |
|---|---|
| 000204 | Lambay Island SAC |
| 1170 | Reefs |
| 1230 | Vegetated sea cliffs of the Atlantic and Baltic coasts |
| 1364 | Grey seal *Halichoerus grypus* |
| 1365 | Harbour seal *Phoca vitulina* |

The other SACs of interest:

- Rockabill to Dalkey Island SAC
- Baldoyle Bay SAC
- Howth Head SAC
- North Dublin Bay SAC
- Ireland's Eye SAC
- Rogerstown Estuary SAC
- South Dublin Bay SAC

As these SACs are not even mentioned, it is evident that that a thorough identification of the European Sites within the Zone Of Interest has not been carried out. All SACs in general have been screened out on the assumption that the proposed Relevant Action does not have any effect on SACs, as it "*does not propose any changes to the consented and under-construction layout of infrastructure associated with Dublin Airport North Runway nor does it propose any additional infrastructure at the airport*". No further evidence is provided.

It is worth noting that this lack of consideration of SACs contrasts with the screening report provided by Fingal County Council for Variation No.1 of the Fingal Development Plan 2017-2023. This variation was primarily focused on the development of new Noise Zones for Dublin Airport and so a comparison with this proposed Relevant Action is very appropriate. Comparing the two screening reports, it's evident that the Relevant Action screening report is deficient and not fit for purpose.

# 6.0 REVIEW OF CHAPTER 13 OF THE EIAR – AIRCRAFT NOISE AND VIBRATION

Chapter 13 and Appendices 13A-E of the EIAR submitted by DAA under planning application F20A/0668 deal with Aircraft Noise and Vibration.

A large selection of legislation, policy, technical guidelines, and assessment criteria are cited throughout these sections of the EIAR.

Many of the selected citations are referred to in a very selective manner and therefore we would like to clarify the following.

## WORLD HEALTH ORGANASTION (WHO) – ENVIRONMENTAL NOISE FOR THE EUROPEAN REGION – 2018.

The following are the recommendations on Aircraft Noise.

| Recommendation | Strength |
|---|---|
| For average noise exposure, the GDG strongly recommends reducing noise levels produces by aircraft below 45 dBL den, as aircraft noise above this level is associated with adverse health effects. | Strong |
| For night noise exposure, the GDG strongly recommends reducing noise levels produced by aircraft during night time below 40 dBL night, as night time aircraft noise above this level is associated with adverse effects on sleep. | Strong |

| | |
|---|---|
| To reduce health effects, the GDG strongly recommends that policy makers implement suitable measures to reduce noise exposure from aircraft in the population exposed to levels above the guideline values for average and night noise exposure. For specific interventions, the GDG recommends implementing suitable changes in infrastructure. | Strong |

As set out in Section 13.3.2 of the EIAR, the value of $L_{den}$ is a long-term average value "$L_{den}$ which takes into account the annual activity throughout the 24-hour period".

$L_{night}$ is a long-term average sound level *"which takes into account the annual activity during the night (23:00 – 07:00) period".*

The important aspect of both of these is that they are Average Long-Term Values.

On page 75 and 76 of the 2018 WHO Guidelines (Environmental Noise for the European Region) the following additional considerations or uncertainties are also set out.

| **Additional Considerations or Uncertainties**<br><br>**(pg75/ 76 WHO ENVIRONMENTAL NOISE FOR THE EUROPEAN REGION, 2018)** |
|---|
| There is additional uncertainty when characterising exposure using the acoustical description of aircraft noise by means of $L_{den}$ or $L_{night.}$ Use of these average noise indicators may limit the ability to observe associations between exposure to aircraft noise and some health outcomes (such as awakening reactions); as such, noise indicators based on the number of events (such as the frequency distribution of $L_{A,max)}$ may be better suited. However, such indicators are not widely used.<br><br>The GDG acknowledged that the guideline recommendation for $L_{night}$ may not be fully protective of health, as it implies that around 11% (95% CI: 4.72 – 17.81) of the population may be characterised as highly sleep-disturbed at the recommended $L_{night}$ level. This is higher than the 3% absolute risk considered for setting the guideline level. However, the high calculation uncertainty in predicting noise levels lower than 40 dB prevented the GDG from recommending a lower level. Furthermore, lower levels would probably require a ban on night |

or early morning flights, altogether, which is not feasible in many situations, given that the general population tends to value the convenience of air travel.

Therefore, although it is implied that 11% of the population may be characterised as highly sleep disturbed at L night of 40dB, this is the recommended value. Health outcomes such as awakening reactions with the number of events (such as frequencies of distribution of $L_{Amax}$) may be better suited as a measure of sleep disturbance.

This is acknowledged at section 13A.3.42 of the Appendices of the EIAR where it states "*Regular individual noise events for example scheduled Aircraft or passing trains) can cause sleep disturbance. A guideline value may be set in terms of SEL or LAFMAX depending on the character and number of events per night. Sporadic noise events could require separate values".*

Section 13A 4.14 the EIAR states that "*The relationship between night noise exposure and health effects as defined by these WHO guidelines can be summarised as shown in table 13A – 4".*

In table 13A 4 it states that "*Adverse health effects are observed at the level above 40dB Light such as increase use of somnifacient drugs and sedatives".*

These points are quite clear and not disputed.

A document that has not been referred to is the ProPG: Planning of Noise Professional Practice Guidance on Planning and Noise – New Residential Development, published in the UK in May 2017.

Fingal County Council, through Variation #1 introduced Noise Zones into the Current Development Plan. In Noise Zones B (> 55dB and 63dB $L_{Aeq16}$ and > 55dB $L_{night}$) Fingal County Council requires that "Noise Sensitive Development in this zone is less suitable from a noise perspective than in Zone C. A Noise Assessment "Must" be undertaken in order to demonstrate good acoustic design has been followed" "Good Acoustic Design" is defined in the Development Plan as "*means following principles of assessment and design described in Pro PG Planning of Noise – New Residential Development, May 2017*".

Appendix A of the Pro PG document deals extensively with sleep disturbance due to noise. Section A12 and A13 states:

> **A.12** Consequently the $L_{Amax}$ of noise events plus the number of events can be used as the basis of assessing impact; although this is subject to an upper limit. For example work which informs the WHO community noise guidelines recommendations that peak noise in bedrooms should not exceed 45 dB $L_{Amax}$ more than 10 to 15 times per night concluded that *"it will be noted in particular that the tolerance to noise in regard to sleep passes through a maximum value for optimum number 10 to 15 flights per night and that beyond 20 to 25 occurrences of noise per night the aircraft need to be very quiet or the dwellings provided with excellent sound proofing".*
>
> **A.13** Separate work in the publication "Public health impact of large airports" by the Netherlands Health Council (Gezondheidsraad 1999), based on data from an evaluation of literature, concluded that a sound exposure level (SEL) of 50 dB (A) at the ear of a sleeping person is the onset point of awakenings. This value corresponds with a maximum noise level event of $L_{Amax}$ around 43 dB, assuming that the time taken for the noise level to fall from its peak value to a level 10 dB lower is 10 seconds. In addition other work has demonstrated that the number of tolerable night noise events ranges from 10 to 15 per night for indoor $L_{Amax}$ noise levels of around 55 dB to 45 dB, respectively. More recent work has concluded that whilst "*given a certain equivalent noise level, additional information (i.e. $L_{Amax}$ data) on the overall number of events does not improve the prediction of sleep quality. However, the number of events above $L_{Amax}$ of 60 dB was related to an increase in mean motility, indicating lower sleep quality".*

In Figure 2 of the ProPG document the recommended ProPG internal noise level guidelines are described. The dB values provided in the table for different activities are Target Values. In Figure 2 for sleeping and daytime resting in a bedroom between the hours of 23:00 and 7:00 hours are 30 Db $L_{Aeq,8hr}$ and 45 dB $L_{Amax,F}$ (Single Event Actual Sound Level).

This is Fingal County Councils Planning Policy, and it is quite clear. The night effects of a number of $L_{Amax}$ events must be taken into account.

Therefore, it is clear that the number of $L_{Amax}$ events during the night are of major significance and the average value of $L_{night}$ cannot be taken on their own.

There is no information or evaluation that any such calculations or considerations been carried out within the documentation submitted by DAA which is a major omission and which means that the analysis is not carried out in accordance with the criteria as set out by Fingal County Council in Variation #1 in the Fingal County Council Development Plan.

Single $L_{Amax}$ noise events are very significant and frequent at Dublin Airport and section 7.0 of this document provides an in-depth review of these events.

## WORLD HEALTH ORGANISATION (WHO)

The DAA state that they have adopted the WHO approach of presenting % HA and % HSD as the main rationale for their conclusions that the relevant action 2025 noise levels are acceptable. This approach is very favourable to DAA's position given the fact that the largest population centres are not exposed to much change in noise as a result of the relevant action.

It is the very large population levels in the 45 dB $L_{den}$ and 40 dB $L_{night}$ contour levels that results in the relevant action having fewer people in the HA and HSD categories. This is a slight of hand that is effectively using the group of people that are at least impacted by the airport noise as the basis for demonstrating a reduction in impact. The overwhelming majority of the population exposed to aircraft noise at a level of 45 dB $L_{den}$ or 40 dB $L_{night}$ will have noise from road traffic or other local sources that is masking aircraft noise to a level that aircraft noise will be irrelevant to them.

Noise Monitoring has been carried out by Residents of St. Margaret's within the bedrooms of housing that has been recently insulated under the current Noise Insulation Scheme of the Northern Runway and despite this insulation being in place, results indicate $L_{Amax}$ levels of sound above 45 dB $L_{Amax}$ for individual Aircraft movements at night within the insulated bedrooms.

These results were obtained recently during the covid-19 pandemic where flights are operating well below capacity and not fully loaded.

Therefore, there is a major flaw in the proposals set out by the DAA as even sound insulation does not protect inhabitants affected by Night Flights Noise. The measures do not meet Fingal County Council stated criteria and therefore cannot be accepted.

We note with respect to the Noise Zones as set out in Variation #1 to the Development Plan that for housing that was constructed prior to the introduction of these noise zones, and also in previous development plans, there was no onus on housing developments to incorporate any noise or acoustic protection and Fingal County Council are not providing any Noise Insulation Schemes.

Contrary to the strong recommendations of WHO at Section 13A.6.7., the EIAR state that *"Taking Lden, the value of 55dB is where WHO 2018 reports evidence of an effect on reading skills and oral comprehension in children. This value is also comparable to the level of 54dB LAeq 16h which is now used in the UK as marking the approximate onset of significant community annoyance. The value of 55dB Lden has therefore been assigned to the start of a HIGH IMPACT".*

This is then contradicted at 13A.6.7 where it is stated that "*The Value of 55dB Lden has therefore been assigned to MEDIUM IMPACT as it relates to the start of these effects" and at 13A.6.8 "The value of 65 dB Lden has therefore been assigned to the start of "HIGH IMPACT*."

The EIAR is highly contradictory however, what is clear is that the WHO guidelines outline strong recommendations which should be the target values.

Table 3 of the "WHO EUROPE - NIGHT NOISE GUIDELINES FOR EUROPE, 2009" states for $L_{night,outside}$ that health effects observed in the population for 40 dB to 55 dB include *"Adverse Health effects are observed among exposed population. Many people have to adopt their lives to cope with the noise at night. Vulnerable groups are more severely affected."*

And for $L_{night,outside}$ above 55dB "*The situation is considered increasingly dangerous for Public Health. Adverse Health effects occur frequently, a sizeable proportion of the population is highly annoyed and sleep disturbed. There is evidence that risk of cardiovascular disease increases."*

*Also within the same WHO 2009 Guidelines at Page XVIII of the executive summary it is stated that "An interim target (IT) of 55dB Lnight, outside is recommended in the situations where the achievement of NNG (Night Noise Guidelines) is not feasible in the SHORT RUN for various reasons. It should be explained that IT is not a health-based limit value by itself. Vulnerable groups cannot be protected at this level. Therefore, IT should be considered only as a feasibility based intermediate target which can be temporarily considered by policy makers for EXCEPTIONAL LOCAL SITUATIONS."*

We note that there is no analysis included that was carried out by DAA to identify vulnerable groups in the local communities. No public consultation was carried out on this issue to identify such groups and the harm their Proposal will cause.

Despite the above reference the noise contour of 63dB $L_{Aeq,16}$ was chosen for daytime noise insulation of housing affected by the Northern Runway and therefore there is a complete contradiction by DAA on this issue. By their own admission now they are suggesting that the 63dB $L_{Aeq,16}$ is too high.

At Section 13A.6.11 of the EIAR it is stated that "*The higher level of 55 dB $L_{night}$ has been assigned as the level above which an impact arises".*

This is totally wrong given the WHO guideline as noted above.

In fact, they confirm this as they state in the remainder of 13A.6.11 that *"This follows from the WHO Night Noise Guidelines 2009 (NN9 2009) which describe it as the threshold at which "Adverse Health effects occur frequently, a sizeable proportion of the population is highly annoyed and sleep disturbed". The noise level is also comparable with the level of 55 dBLAeq8h commonly used at Airports in the UK for eligibility for sound insulation schemes."*

It is on the basis that they then propose that any housing units affected by $L_{night}$ noise events above 55 dB $L_{night}$ are proposed to be given a grant of €20K for Noise Insulation to their home. As indicated, this is above the interim target of 55 dB which according to the WHO cannot be used as a target and therefore the proposal by DAA is seriously flawed.

Night Noise Insulation is NOT a solution to night noise. Most people sleep with windows open, particularly in the summer period and therefore this proposal is not an acceptable solution

particularly for dwelling residents who have lived at their homes for most of their lives. The current noise insulation scheme does not allow for any form of air conditioning. A condition for qualifying for the Proposed Night Noise Insulation is a change in noise level of 9dB or greater from 2018. This assumes wrongly that many of the dwellings currently impacted by nighttime noise are accepting of the situation. Dwellings already exposed to high noise levels are being penalised by their current situation and may not qualify under the Proposal. This is downright wrong.

In the Ricondo Report dated December 2020

*"Dublin Airport North Runway, Regulation 598/2014 (Aircraft Noise Regulations) Forecast without new measures and additional measures assessment report" in the introduction state that if the current noise restrictions imposed by the current planning permission remains that an accumulative loss over the four year period between 2022 when the North Runway is expected to be operational and 2025 of 4.3 million passengers. Because of the operating restrictions and constraints the Irish economy could forgo an additional 3430 jobs and €963m in gross value by 2025, relative unrestricted night movements".*

If this is the case, and there are no Proposals to reduce the noise levels surrounding Dublin Airport to the levels pre the introduction of EU 2002/49, then the people affected by the proposed night noise must be offered the opportunity to protect their health by offering them one of the following options:

1. To relocate them elsewhere away from the noise by constructing a similar dwelling away from the noise zone.
2. Purchase their dwelling to allow them to relocate.
3. If 1 and 2 is not acceptable and if the occupier really wants to stay, offer an insulation package that includes air conditioning.

The above are the only real way of mitigating the proposed noise issues. The cost to the DAA and the Irish economy are very small as the existing housing will then be owned by DAA and can be insulated and rented out to those who may want to live there even for a few years and put up with the noise.

The Ricondo document, like many sections of the EIAR state that the cNAO seeks to limit aircraft noise from Dublin Airport so that the impact on people is no worse than the 2018 Situation.

Noise Action plans for Dublin Airport have been carried out under European Union Directive 2002/49/EC. The objective of this legislation is to avoid / prevent or reduce on a prioritised basis the harmful effects, including annoyance due to exposure to Environmental Noise.

Previous Action Plans identified that increasing noise at Dublin Airport would be reduced in order to fulfil the objectives of the legislation.

The noise levels in 2016 indicated a huge increase in people affected by Noise at Dublin Airport and hundreds of observations were submitted by local Residents to air their concerns that the Noise Levels had escalated to unbearable levels. The DAA now want to set these levels as the bar not to be exceeded which is totally unacceptable.

At a Fingal Council meeting on Monday 10th December 2018 under item No 25 "Dublin Airport Noise Action Plan" it was noted that 589 Submissions were received relating to the noise levels in the local communities. Many of them pointed out that NO ASSESSMENT OR information was included on the proposed use of the new North Runway despite the fact that this is a requirement of the EU Directive.

At Annex IV of EU2002/49 EC at item 6, it is clearly stated that "For the purposes of informing the citizens in accordance with Article 9 and the development of action plans in accordance with Article 8, additional more detailed information must be given such as difference maps in which the existing situation is compared with various possible situations". Both Fingal and DAA presented these possible situations with request to the operation of the North Runway at open public consultation meetings in 2016 but did not take them into account in the current Airport Noise Action Plan.

The lack of specific noise calculation for the worst affected area of St Margaret's, The Ward is very disappointing. To present citizens as being representative in Ashbourne, Dunboyne etc and not give any specific levels for the Ward area is poor. It is clear that the area under the noise contour are increasing and the lack of description of local impacts is particularly

glaring considering that it is the local community exclusively that will be impacted by Aircraft Noise.

The documentation is also totally unacceptable as submitted by DAA as it does not indicate the locations of dwellings affected and does not include restriction on the number of night movements associated with the Health Issues associated with such noise as set out above. There is no data submitted indicating the calculation of the Proposed Noise Quota of QC Values and therefore, we as the local community, cannot comment on the adequacy or otherwise of the proposed 7990 figure.

# 7.0 $LA_{MAX}$

The planning noise zones adopted by Fingal County Council in Variation number 1 of the Fingal Development Plan stipulate that applications for development in Zones A, B and C must carry out a noise assessment in accordance with the ProPG Planning Guidelines with respect to internal noise levels. The ProPG guidelines make use of LAmax as the key indicator for internal bedroom at night. Individual noise events should not exceed 45 dB LAmax more than 10 times a night. The guidelines also make reference to open windows and

"*where it is proposed that windows need to be closed to achieve the internal noise level guidelines, then full details of the proposed ventilation and thermal comfort arrangements must be provided*".

| ACTIVITY | LOCATION | 07:00 – 23:00 HRS | 23:00 – 07:00 HRS |
|---|---|---|---|
| Resting | Living room | 35 dB $L_{Aeq,16\,hr}$ | - |
| Dining | Dining room/area | 40 dB $L_{Aeq,16\,hr}$ | - |
| Sleeping (daytime resting) | Bedroom | 35 dB $L_{Aeq,16\,hr}$ | 30 dB $L_{Aeq,8\,hr}$<br>45 dB $L_{Amax,F}$ (Note 4) |

*NOTE 1 The Table provides recommended internal $L_{Aeq}$ target levels for overall noise in the design of a building. These are the sum total of structure-borne and airborne noise sources. Ground-borne noise is assessed separately and is not included as part of these targets, as human response to ground-borne noise varies with many factors such as level, character, timing, occupant expectation and sensitivity.*

*NOTE 2 The internal $L_{Aeq}$ target levels shown in the Table are based on the existing guidelines issued by the WHO and assume normal diurnal fluctuations in external noise. In cases where local conditions do not follow a typical diurnal pattern, for example on a road serving a port with high levels of traffic at certain times of the night, an appropriate alternative period, e.g. 1 hour, may be used, but the level should be selected to ensure consistency with the internal $L_{Aeq}$ target levels recommended in the Table.*

*NOTE 3 These internal $L_{Aeq}$ target levels are based on annual average data and do not have to be achieved in all circumstances. For example, it is normal to exclude occasional events, such as fireworks night or New Year's Eve.*

*NOTE 4 Regular individual noise events (for example, scheduled aircraft or passing trains) can cause sleep disturbance. A guideline value may be set in terms of SEL or $L_{Amax,F}$, depending on the character and number of events per night. Sporadic noise events could require separate values. In most circumstances in noise-sensitive rooms at night (e.g. bedrooms) good acoustic design can be used so that individual noise events do not normally exceed 45dB $L_{Amax,F}$ more than 10 times a night. However, where it is not reasonably practicable to achieve this guideline then the judgement of acceptability will depend not only on the maximum noise levels but also on factors such as the source, number, distribution, predictability and regularity of noise events (see Appendix A).*

In Appendix A.10 the ProPG Guidelines make reference to the UK Government's Planning Practice Guidance and highlights the distinction between detectable impacts and adverse and significant adverse effects of noise on sleep.

- "Noise with the "potential for some reported sleep disturbance" is an "Observed Adverse Effect" that should be mitigated and reduced to a minimum; and

- Noise with the "potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep" is a "Significant Observed Adverse Effect" that should be avoided; and

- Noise that causes "regular sleep deprivation/awakening" is a "Significant Observed Adverse Effect" that should be prevented."

This focus on LAmax is also highlighted in the WHO Community Noise Guidelines 1999. It is therefore imperative that LAmax should be a critical assessment metric in the NAO.

The WHO Community Noise Guidelines 1999 are referenced in the BAP report titled "Dublin Airport Aircraft Noise Methodology Report" dated March 2020 and which was submitted to ANCA as part of their planning application to have the passenger numbers increased from 32m to 35m (F19A/0449).

In appendix A2.33 it states:

"*The 1999 WHO guidelines provide advice that for a good sleep**, indoor sound pressure levels should not exceed approximately 45 dB LAmax more than 10-15 times per night**. This guidance on internal noise levels remains current. Accounting for sleeping with a bedroom window slightly open (and a reduction from outside to inside of 15 dB), this translates to an outside sound pressure level of 60 dB LAmax*.".

The BAP report goes on further to explain how N60 contours can be used to show differences in scenarios for individual noise events:

"*N60 contours are therefore used in this assessment to illustrate how, for a given point on the ground, the number of aircraft events producing a level of 60 dB LAmax or more will change between various scenarios.*"

The WHO 2009 Night Noise Guidelines (NNG) makes reference to the Community Nosie Guidelines (1999):

"*If negative effects on sleep are to be avoided the equivalent sound pressure*

*level should not exceed 30 dBA indoors for continuous noise. If the noise is*

*not continuous, sleep disturbance correlates best with LAmax and effects have*

*been observed at 45 dB or less. This is particularly true if the background level is low. Noise events exceeding 45 dBA should therefore be limited if possible. For sensitive people an even lower limit would be preferred. It should be noted that it should be possible to sleep with a bedroom window slightly open (a reduction from outside to inside of 15 dB). To prevent sleep disturbances, one should thus consider the equivalent sound pressure level and the number and level of sound events. Mitigation targeted to the first part of the night is believed to be effective for the ability to fall asleep*."

The NNG comments further:

"*New information has made more precise assessment of exposure-effect relationship. The thresholds are now known to be lower than LAmax of 45 dB for a number of effects. The last three sentences still stand: there are good reasons for people to sleep with their windows open, and to prevent sleep disturbances one should consider the equivalent sound pressure level and the number of sound events. The present guidelines allow responsible authorities and stakeholders to do this. Viewed in this way, the night noise guidelines for Europe are complementary to the 1999 guidelines. This means that the recommendations on government policy framework on noise management elaborated in the 1999 guidelines should be considered valid and relevant for the Member States to achieve the guideline values of this document*."

The executive summary makes reference to the interim target (IT) of 55 dB Lnight,outside and for its recommendation in the situations where the NNG of 40 dB Lnight, outside is not achievable in the short term. But the "***IT is not a health-based limit by itself. Vulnerable groups cannot be protected at this level***".

The 2009 NNG makes reference to a comparison of 'Inside' to 'Outside'. The assumption is that the insulation value of a house is 30 dB with windows closed and 15 dB with windows open. With windows open 50% of the time then the value is 18 dB. The guidelines present a figure of 21 dB as a conversion factor between outside and inside and this takes account that even well insulated houses may have their windows open a large part of the year.

Another very important feature of night-time noise events is the difference between the background noise levels and these single events. Background noise levels are lower at night and therefore harder to mask the individual aircraft noise events. The environs of the flight paths to the West of Dublin Airport is rural, lending itself to quiet night-time ambient noise levels and therefore the changes from ambient to high aircraft noise levels is of high significance.

## NOISE REPORTS

The DAA provide biannual noise monitoring reports and publish them on their website (https://www.dublinairport.com/corporate/sustainability-and-community/noise/airport-noise-noise-reports).

The January-June 2020 report shows a significant decrease in aircraft movements from March to June due to the Covid-19 pandemic. Table 4 provides overflying altitudes at the various noise monitoring terminals (NMTs) comparing with the same period in 2019:

**Table 4: Average overflying height**

| | Height [ft] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NMT1 | | NMT2 | | NMT5 | | NMT6 | | NMT20 | |
| | A | D | A | D | A | D | A | D | A | D |
| 2019 | 900 | 2,600 | 1,100 | 2,600 | 1,100 | 2,800 | 1,200 | 2,800 | 1,500 | 3,400 |
| 2020 | 1,000 | 2,800 | 1,000 | 3,000 | 1,100 | 3,000 | 1,300 | 3,200 | 1,600 | 3,600 |

NMT1 monitors runway 28 departures and runway 10 arrivals. It's located at the 'Bay Lane' and is approximately 6.5km from the start of the runway.


Table 4 shows that arrivals were on average 100 ft higher at NMT1 and departures 200 ft higher. This can be explained by lighter load factors due to the loss of passengers during the Covid-19 pandemic.

The July-December 2019 report shows the average overflying height compared with the same period in 2018:

**Table 4: Average overflying height**

| | Height [ft] | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NMT1 | | NMT2 | | NMT3 | | NMT4 | | NMT5 | | NMT6 | | NMT20 | |
| | A | D | A | D | A | D | A | D | A | D | A | D | A | D |
| 2018 | 900 | 2,600 | 1,000 | 2,600 | 900 | 2,500 | 1,100 | 2,900 | 1,100 | 2,700 | 1,200 | 3,100 | 1,500 | 3,400 |
| 2019 | 1,000 | 2,500 | 1,000 | 2,600 | 1,000 | 2,500 | 1,100 | 2,800 | 1,100 | 2,700 | 1,200 | 3,100 | 1,500 | 3,400 |

And the January to June 2019 report compares the same period with 2018:

**Table 4: Average overflying height**

| | Height [ft] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NMT1 | | NMT2 | | NMT5 | | NMT6 | | NMT20 | |
| | A | D | A | D | A | D | A | D | A | D |
| 2018 | 900 | 2,600 | 1,000 | 2,600 | 1,100 | 2,800 | 1,100 | 3,100 | 1,500 | 3,400 |
| 2019 | 900 | 2,600 | 1,000 | 2,600 | 1,100 | 2,800 | 1,200 | 2,800 | 1,500 | 3,400 |

Using these average overflying heights, the data shows that arrivals normally overfly NMT1 at 900ft and departures at 2600ft. The data in the first half of 2020 shows that these heights have increased but that can be explained by the lower loads due to lower passenger numbers. The report states that in the first half of 2020 there was a decrease of 65% in passenger numbers compared to the same period in 2019. And Runway 28 handled 88% of all the movements in this period.

The report provides the LAmax distribution for NMT1 in figure 12:

Figure 12 shows the $L_{A,MAX}$ distribution, for aircraft noise, for the first half year of 2020 for NMT 1.

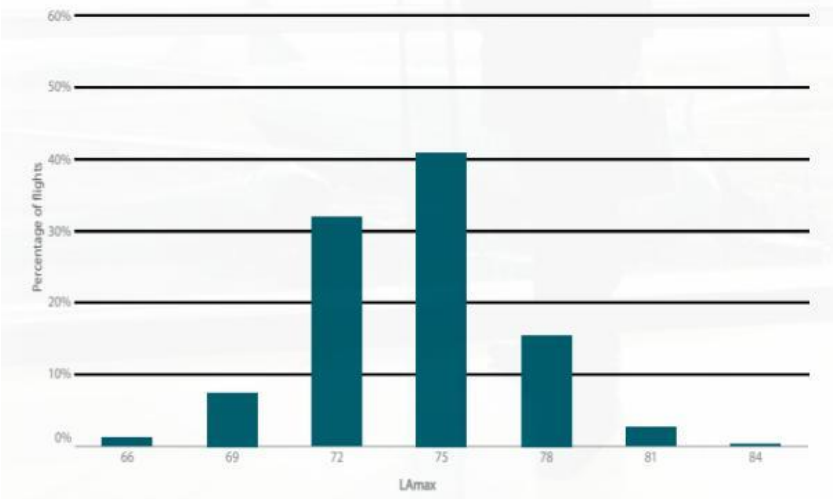



Figure 12: $L_{A,MAX}$ levels distribution for NMT 1, January - June 2020

Figure 12 shows that approximately 58% of aircraft movements detected at NMT1 had a LAmax value > 75 dB. Approximately 18% had a LAmax value > 78 dB and 2.5% > 81 dB.

From the distribution of the LAmax values for the June-Dec 2019 time period, the percentage of events > 75 dB LAmax is approximately 68%. 26% > 78 dB LAmax and 5% > 81 dB LAmax.

Figure 12 shows the $L_{A,MAX}$ distribution, for aircraft noise, for the second half year of 2019 for NMT 1.

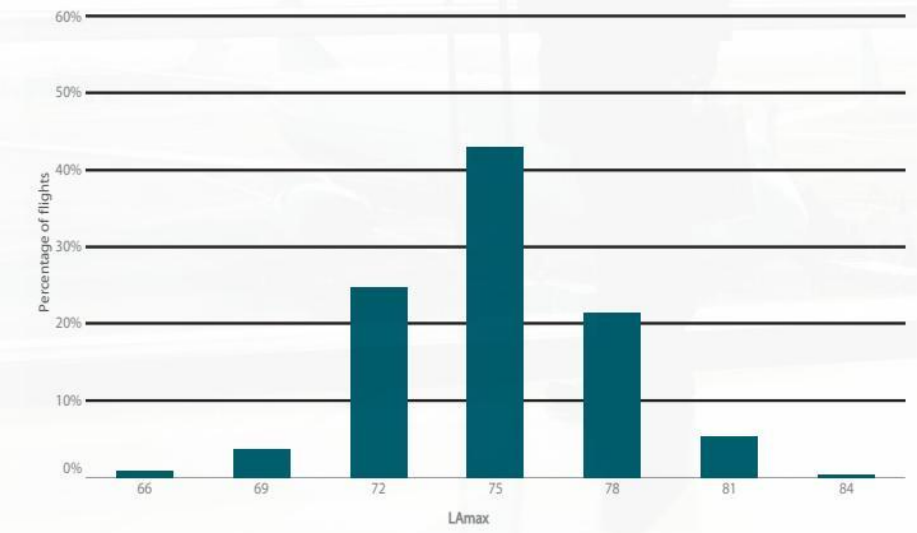



**Figure 12: $L_{A,MAX}$ levels distribution for NMT 1, July – December 2019**

The distribution for the first half of 2019 is similar. From these distributions and the lower heights of overflying aircraft one can deduce that the distribution for 2020 shows lower amount of LAmax events > 75 dB, which is below normal expected noise levels.

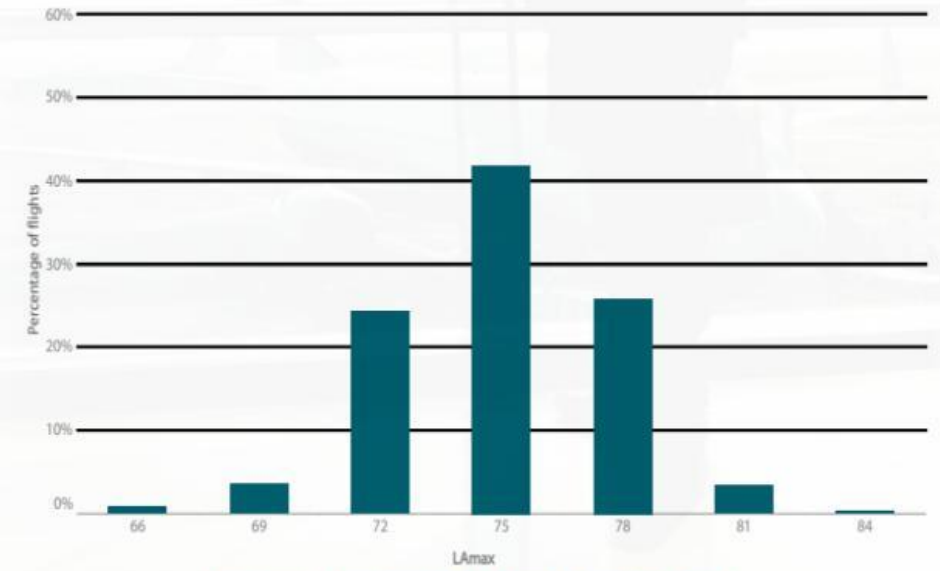



**Figure 12: $L_{A,MAX}$ levels distribution for NMT 1, January – June 2019.**
**Updated in September 2020 (see section introduction and executive summary).**

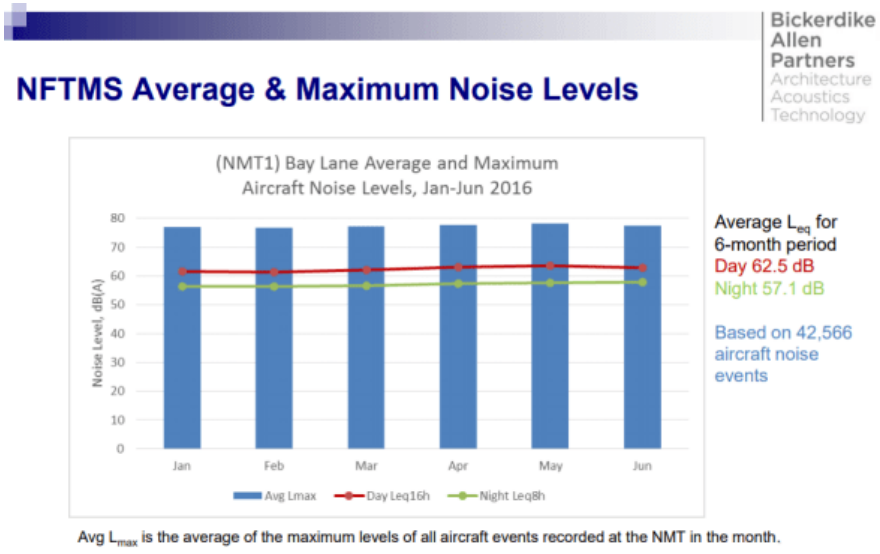
## BAP PRESENTATION

At a Community Liaison Group (CLG) meeting in April 2017, a presentation from BAP was given titled 'Aircraft Noise Monitoring Data from Noise Monitoring Terminals (NMTs)'. In this presentation BAP explain noise monitoring and metrics. The presentation also focused on NMT1 and NMT3 which are to the West of Dublin Airport.

### NFTMS NMT1 Bay Lane – Details

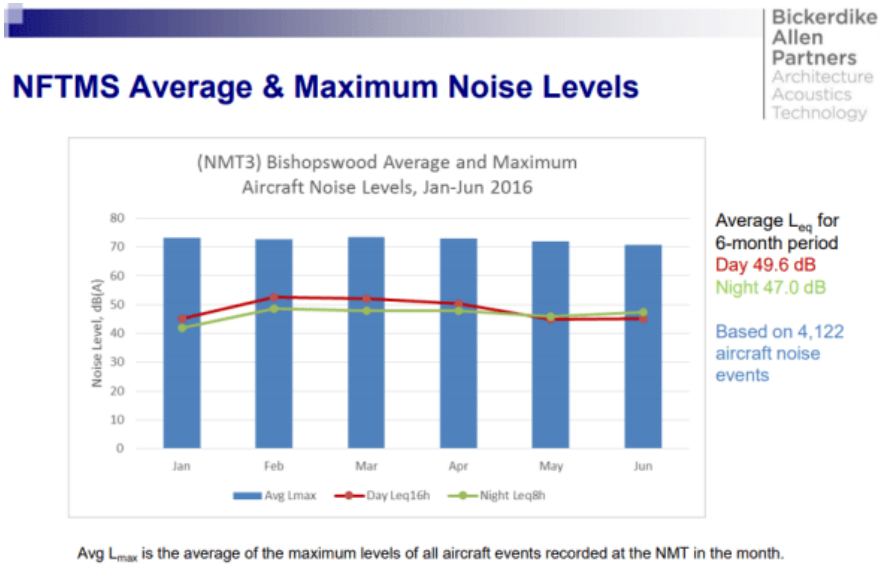
### NFTMS NMT3 Bishopswood – Details

Average LAmax at NMT1 from January-June 2016 was 77 dB:




Average $L_{max}$ for 6-month period is 77 dB
Day $L_{eq}$ 5 dB higher than night on average

Average LAmax at NMT3 from January-June 2016 was 72 dB:




Average $L_{max}$ for 6-month period is 72 dB
Day $L_{eq}$ 3 dB higher than night on average

An important point to note is that there are many dwellings that are located closer to Dublin Airport than NMT1 which is 6.5km from the start of the South Runway. These dwellings are exposed to noise levels in excess of those at NMT1 as the aircraft are lower on departure and arrival, closer to the airport.

LAmax values for 2019 were requested via an AIE request to the DAA on August 12th 2020 and the DAA responded with an Excel sheet on September 9th.

Data for July and September for NMT1 was analysed and the following statistics produced:

- July
  - 1208 Noise events in the night-time period 23:00-07:00
  - Average of 39 movements per night at NMT1
  - Max value of 93.1 dB LAmax
  - Min value of 66.7 dB LAmax
  - Mean value of 76.1 dB LAmax
  - 6.7% of movements > 80 dB LAmax
  - 56.5% between 75-80 dB LAmax
  - 35.3% between 70-75 dB LAmax
  - 1.6% between 65-70 dB LAmax
- September
  - 1101 Noise events in the night-time period 23:00-07:00
  - Average of 37 movements per night at NMT1
  - Max value of 106.7 dB LAmax
  - Min value of 66.4 dB LAmax
  - Mean value of 76.1 dB LAmax
  - 12.2% of movements > 80 dB LAmax
  - 52.0% between 75-80 dB LAmax
  - 34.7% between 70-75 dB LAmax
  - 1.2% between 65-70 dB LAmax

The data shows that during July and September 2019, over 37 movements were detected at NMT1 over the night-time period and over 63% of these movements were recorded at a value greater than 75 dB LAmax, at a distance 6.5km from the start of the runway.

In the ProPG guidelines, appendix A2.33 states:

> "*The 1999 WHO guidelines provide advice that for a good sleep**, indoor sound pressure levels should not exceed approximately 45 dB LAmax more than 10-15 times per night**. This guidance on internal noise levels remains current. Accounting for sleeping*

*with a bedroom window slightly open (and a reduction from outside to inside of 15 dB), this translates to an* ***outside sound pressure level of 60 dB LAmax***".

In table 13C-40 of the EIAR appendices, the existing population counts for the N60 metric are given for existing population count. N60 is the number of events above 60 dB LAmax per night-time period.

*Table 13C-40: Existing Population Counts, N60 Metric*

| Metric Value, N60 | Scenario and Existing Population Count | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2018 Baseline | 2019 Baseline | 2022 Baseline | 2022 Relevant Action | 2025 Baseline | 2025 Consented | 2025 Relevant Action |
| ≥ 10 | 69,613 | 75,967 | 42,926 | 59,891 | 42,864 | 65,906 | 61,018 |
| ≥ 25 | 24,638 | 26,835 | 15,370 | 11,879 | 15,020 | 7,958 | 11,739 |
| ≥ 50 | 80 | 7,402 | 35 | 67 | 32 | 29 | 191 |
| ≥ 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

The '2025 Relevant Action' scenario has 42% more people (61018 vs 42864) subjected to between 10-25 noise events compared with '2025 Baseline'.

Based on the ProPG Guidelines, 61018 people will not be able to sleep with their windows slightly open or risk having their sleep disturbed, with the '2025 Relevant Action' Scenario.

In section 13.3.3 of the EIAR (Supplementary Noise Metrics), it lists 'SEL' and 'LAmax' as metrics that have been presented in this application.

### 13.3.3 Supplementary Noise Metrics

The primary air noise assessment metrics generally rely on extensive surveying of attitudes to aircraft noise resulting in a dose-response relationship linking levels of community annoyance to the metric. In addition, as used previously in the assessment of air noise around Dublin Airport, noise contours have been prepared in terms of the established UK noise metrics for air noise, the $L_{Aeq,16h}$ metric for the daytime (07:00-23:00) period and the $L_{Aeq,8h}$

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metric for the night-time (23:00-07:00) period. These periods relate to an average summer day. Summer in this instance is defined as the 92-day period between 16 June and 15 September inclusive.

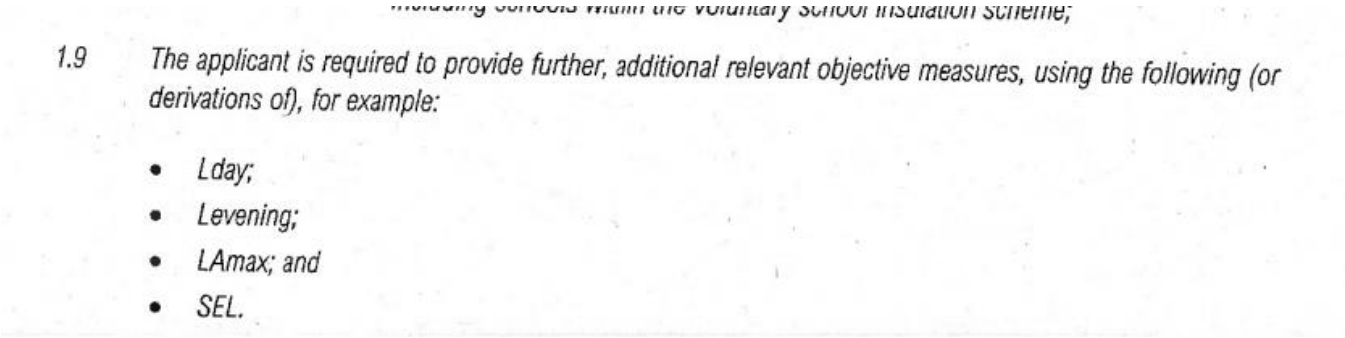
Some other supplementary air noise metrics, while having limited research into correlation with community annoyance, can be useful in reflecting how aircraft noise is experienced in the locality around an airport and these are also presented here.

The following supplementary noise metrics have been presented to contextualise the noise around Dublin Airport associated with the Relevant Action:

- The summer $L_{Aeq,16h}$ and $L_{Aeq,8h}$ metrics. These describe the average noise level during a summer day (07:00-23:00) and summer night (23:00-07:00) respectively.
- The annual $L_{day}$ and $L_{evening}$ metrics which are optional under EU Regulation 598/2014. These describe the average noise level during an annual day (07:00-19:00) and evening (19:00-23:00) respectively.
- N65 and N60 indices. N65 for example indicates the number of times a threshold level of 65 dB $L_{Amax}$ is exceeded within the time period of interest and has been determined for the summer daytime period. The N60 has been determined for the summer night-time period.
- SEL and $L_{Amax}$, which are commonly used to rate the impacts of noise from individual aircraft operations at night.

This is factually incorrect as no discussion on SEL or LAmax values are presented. This is a serious deficiency in any noise application. SEL and LAmax values should be important noise metrics requested by ANCA.

It is interesting to note that ANCA requested SEL and LAmax data from the daa in their additional information request (anca-rf01.pdf) during the 32 to 35m passenger planning application (F19A/0449).



*including schools within the voluntary school insulation scheme;*

1.9 *The applicant is required to provide further, additional relevant objective measures, using the following (or derivations of), for example:*

- *Lday;*
- *Levening;*
- *LAmax; and*
- *SEL.*

## AIRCRAFT ENVIRONMENTAL NOISE STUDY SURVEY

The St Margarets and The Ward Residents Group contracted the MLM Group to conduct surveys on properties that had been insulated under the daa's schemes. The purpose of the surveys was to investigate the internal bedroom noise to determine what levels of noise the occupants were being subjected to in relation to best international guidance for health. The ProPG Guidelines discussed earlier in this section state that:

"Indoor sound pressure levels should not exceed approximately **45 dB LAmax more than 10-15 times per night**. This guidance on internal noise levels remains current. Accounting for sleeping with a bedroom window slightly open (and a reduction from outside to inside of 15 dB), this translates to an **outside sound pressure of 60 dB LAmax**".

It should be noted that the Fingal County Council Variation #1 to the Development Plan focuses on the ProPG Guidelines:

| | | |
|---|---|---|
| B | ≥ 54 and < 63 dB $L_{Aeq, 16hr}$ and ≥ 55 dB $L_{night}$ | **To manage noise sensitive development in areas where aircraft noise may give rise to annoyance and sleep disturbance, and to ensure noise insulation is incorporated within the development.**<br><br>*Noise sensitive development in this zone is less suitable from a noise perspective than in Zone C. A noise assessment **must** be undertaken in order to demonstrate good acoustic design has been followed.*<br><br>*Appropriate well-designed noise insulation measures **must** be incorporated into the development in order to meet relevant internal noise guidelines.*<br><br>*An external amenity area noise assessment **must** be undertaken where external amenity space is intrinsic to the developments design. This assessment should make specific consideration of the acoustic environment within those spaces as required so that they can be enjoyed as intended. Ideally, noise levels in external amenity spaces should be designed to achieve the lowest practicable noise levels.*<br><br>*Applicants **must** seek expert advice.* |
| A | ≥ 63 dB $L_{Aeq, 16hr}$<br><br>and/or<br><br>≥ 55 dB $L_{night}$ | **To resist new provision for residential development and other noise sensitive uses.**<br><br>*All noise sensitive developments within this zone may potentially be exposed to high levels of aircraft noise, which may be harmful to health or otherwise unacceptable. The provision of new noise sensitive developments will be resisted.* |
| Notes:<br>• 'Good Acoustic Design' means following the principles of assessment and design as described in ProPG: Planning & Noise – New Residential Development, May 2017;<br>• Internal and External Amenity and the design of noise insulation measures should follow the guidance provided in British Standard BS8233:2014 'Guidance on sound insulation and noise reduction for buildings' | | |

As can be seen from the survey report, property number #1 experienced 20 events > 45 dB LAmax, property number #2 experienced 17 events > 45 dB LAmax and property number #3 experienced 1 event > 45 dB LAmax. As the report states it is likely that these events will increase when normal activity resumes at Dublin Airport post Covid-19. It is also worth noting that the aircraft are operating at a lot lower loading factors than normal times and therefore the aircraft are lighter and therefore climb higher at a quicker rate.

The CEO of the daa, Mr Dalton Philips, is quoted in an RTE article from September 9th 2020 as stating that the load factors of the 31 airlines operating at Dublin Airport were at 39%, compared to 90% a year earlier (https://www.rte.ie/news/business/2020/0909/1164158-dublin-airport-operator-losing-1m-a-day-due-to-covid/). He further states that every day in 2019 around 100k passengers on average used the airport, but that in 2020 the average was down to 16.5k. It is a safe argument to make that with the lower passenger numbers and lower loading factors that the weight of the aircraft would be significantly reduced and requiring less fuel. As a result, the noise experienced in the 3 properties during the surveys is not reflective of normal operations at Dublin Airport and it would be anticipated that the properties would experience even greater noise levels when normal operations resume.

A very important factor to consider in conjunction with the LAmax values is the relative increase from ambient baseline levels at night. At night the quiet periods between flights show LAFmax levels very low in the low 20's. This then increases by as much as 30 dB when there is a flight. That is a very significant change in noise level and would be an increased risk factor for being awoken from sleep and as the next section discusses, an increased risk of a serious cardiovascular event.

This report clearly demonstrates that the insulation scheme provided by the daa fails to adequately protect the residents in the environs of Dublin Airport. They are being exposed to noise levels in their bedrooms that lead to adverse health effects and are at risk to acute cardiovascular events. Insulation is not a safe mitigating factor for these residents and only a complete ban on night-time flights can protect their health.

## HEALTH STUDY ON AIRCRAFT NOISE EVENTS

On December 23rd, the European Heart Journal published an editorial (https://academic.oup.com/eurheartj/advance-article/doi/10.1093/eurheartj/ehaa984/6046141) titled 'Noise and cardiovascular risk: nighttime aircraft noise acutely triggers cardiovascular death'. The editorial refers to 'Does night-time aircraft noise trigger mortality? A case-crossover study on 24 886 cardiovascular deaths', by A. Saucy *et al*., doi: 10.1093/eurheartj/ehaa957.

The editorial discusses how most epidemiological studies have focused on cardiovascular side effects of long-term exposure to transportation noise.

"So far, most epidemiological studies have focused on cardiovascular side effects of long-term exposure to transportation noise (for reviews, see Basner *et al*.[7] and Munzel *et al*.[8]). Importantly, translational studies in humans and animals primarily focused on health side effects of nighttime noise with respect to the cardiovascular system.[9] In humans only one night of aircraft noise triggered endothelial dysfunction, increased stress hormone levels, and deteriorated sleep quality.[10] These effects were even more pronounced in patients with already established CVD.[11] The acute administration of the antioxidant vitamin C improved endothelial dysfunction, suggesting an involvement of reactive oxygen species in the pathophysiology of noise-induced vascular dysfunction.[10] Recent animal studies indicated that aircraft noise applied during the sleeping phase of mice, but not during the awake phase, raises blood pressure, dysregulates genes related to the circadian clock and stress hormone levels, causes endothelial dysfunction, and increases cerebral and vascular oxidative stress.[12] These observations may indicate that the disturbance of sleep (e.g. sleep deprivation or fragmentation) may account at least in part for noise-induced cardiovascular damage."

Even one night's exposure to noise pollution affected the cardiovascular system:

"Epidemiological and translational studies of humans with and without coronary artery disease revealed that nighttime exposure to different transportation noise patterns for only one night adversely affected blood pressure, diastolic heart function, sympathovagal balance, and the plasma proteome."

This study sought to determine the effect of acute exposure to night-time aircraft noise on cardiovascular death. The authors analysed 24886 CVD deaths from the Swiss National Cohort around Zurich Airport between 2000 and 2015. The authors established that:

**"for nighttime deaths, aircraft noise exposure levels 2 h preceding death were significantly associated with mortality for all causes of CVD"**

The authors also calculated a population-attributable fraction of 3% in their study population and finally concluded that nighttime noise may trigger acute cardiovascular mortality.

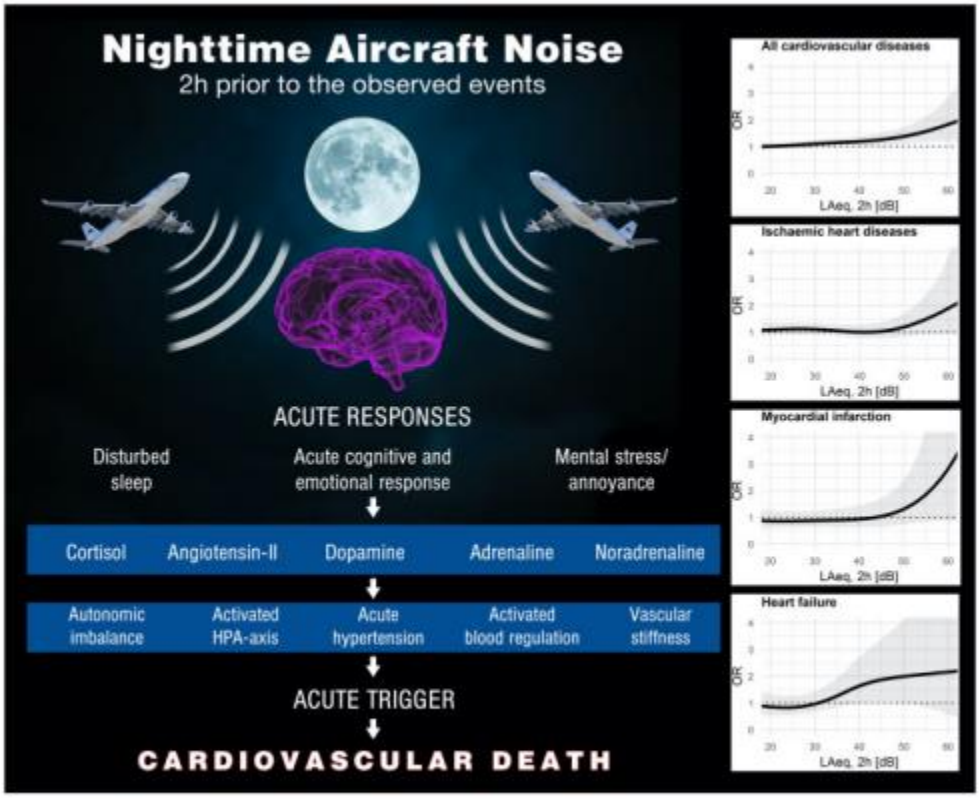



**Figure 1** Effects of acute nighttime aircraft noise exposure that lead to cardiovascular death. Inserts (right panel) show substantial odds ratios of nighttime mortality in relation to 2 h-$L_{Aeq}$ levels (energy-equivalent average A-weighted sound pressure level expressed in decibels) as adapted from Saucy *et al.*,[16] with permission.

Quite worryingly, the study found higher associations for people living in areas with low background noise and in buildings constructed before 1970. A large cohort of rural Fingal, Dublin West and Meath would fit into this category and so are more at risk.

The editorial asks the question about these findings: "What are the societal and political consequences?"

They state that this study describes for the first time the acute effect of noise on cardiovascular mortality, indicating that aircraft noise is a trigger for fatal acute coronary events.

The authors suggest that if these findings are confirmed by further studies at airports with higher night-time noise exposure, **a complete ban on night-time flights** must be the consequence and **reinforcing the WHO noise limits**.

Based on this study's findings, Fingal County Council and the Health Authorities should conduct a similar study around Dublin Airport. No such study has ever been carried out.

This editorial shows that LAmax single noise events during the night-time period can trigger fatal acute coronary events, and it's imperative that they should be minimized.

## SUMMARY

- No mention of ProPG Guidelines or use of LAmax in application
- LAmax highlighted by WHO Community Noise Guidelines 1999 and WHO Europe Night Noise Guidelines 2009
- LAmax highlighted by BAP pre-planning consultation document of March 2020
- The daa's noise reports for 2020 show how overflying height values recorded at noise monitor 1 (NMT1) are higher than previous years due to low passenger numbers
- Because of higher overflying heights for 2020, LAmax values are artificially lower than would be expected for normal airport activity
- 58% of movements detected at NMT1 had a LAmax > 75 dB, 18% > 78 dB and 2.5% > 81 dB based on data supplied in noise reports for the Jan-June 2020 period
- 68% of movements detected at NMT1 had a LAmax > 75 dB, 26% > 78 dB and 5% > 81 dB based on data supplied in noise reports for the June-Dec 2019 period
- From BAP presentation to CLG in April 2017, average LAmax at NMT1 from Jan-June 2016 was 77 dB
- From BAP presentation to CLG in April 2017, average LAmax at NMT3 from Jan-June 2016 was 72 dB
- From LAmax values supplied by the daa via an AIE request, in July 2019:
    - 1208 Noise events in the night-time period 23:00-07:00
    - Average of 39 movements per night at NMT1
    - Max value of 93.1 dB LAmax
    - Min value of 66.7 dB LAmax
    - Mean value of 76.1 dB LAmax
    - 6.7% of movements > 80 dB LAmax
    - 56.5% between 75-80 dB LAmax
    - 35.3% between 70-75 dB LAmax

    - 1.6% between 65-70 dB LAmax
- For September 2019:
    - 1101 Noise events in the night-time period 23:00-07:00
    - Average of 37 movements per night at NMT1
    - Max value of 106.7 dB LAmax
    - Min value of 66.4 dB LAmax
    - Mean value of 76.1 dB LAmax
    - 12.2% of movements > 80 dB LAmax
    - 52.0% between 75-80 dB LAmax
    - 34.7% between 70-75 dB LAmax
    - 1.2% between 65-70 dB LAmax
- NMT1 is 6.5km from the start of the South Runway and many dwellings are in closer proximity to the airport, subjected to higher LAmax values
- ProPG: - "Indoor sound pressure levels should not exceed approximately **45 dB LAmax more than 10-15 times per night**. This guidance on internal noise levels remains current. Accounting for sleeping with a bedroom window slightly open (and a reduction from outside to inside of 15 dB), this translates to an **outside sound pressure of 60 dB LAmax**".
- '2025 Relevant Action' equates to 61k people exposed to 10-25 noise events
- '2025 Relevant Action' has 42% more people exposed to N60 noise events compared to '2025 Baseline'
- 61k people will not be able to sleep with windows slightly open without being sleep disturbed
- EIAR states 'SEL' and 'LAmax' have been presented in the application which is factually incorrect and a serious deficiency of the application
- European Heart Journal December published an editorial on night-time aircraft noise events triggering cardiovascular death
- Population attributable fraction of 3% of deaths significantly associated with aircraft noise events 2 hours preceding death
- Editorial suggests that if these findings are confirmed by further studies, then a complete ban on night-time flights must be the consequence and reinforcement of the WHO noise limits
- Fingal County Council and the Health Authorities urgently need to conduct a survey on the populations exposed to noise at Dublin Airport to identify the vulnerable groups and identify risk factors leading to adverse health

# 8.0 ENVIRONMENTAL NOISE DIRECTIVE (END) ROUNDS 1,2 & 3

## ROUND 1 END

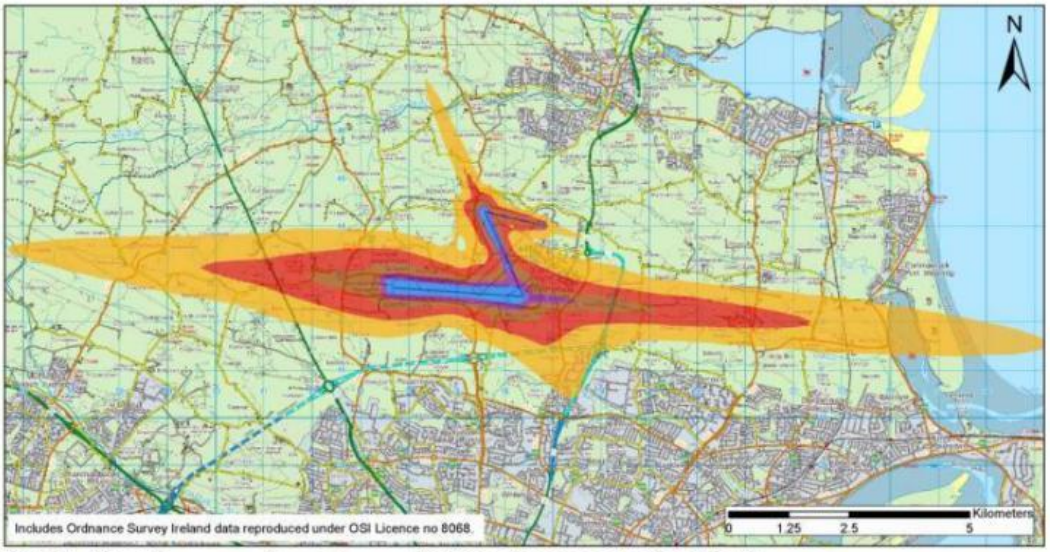
Under EU Directive 2002/49/EC (END) and transposed into Irish Law by the Environmental Noise Regulations, SI 140 of 2006, the EPA has been designated as the National Authority for the purposes of the regulations. The four local authorities in Dublin were designated as the noise-mapping and action planning bodies for the purpose of making and approving strategic noise maps action plans in Dublin. This aim of the Directive is to create strategic noise maps for major roads, railways, airports and agglomerations. These maps can then be used to assess the number of people affected by noise and used to compare the noise situation to other EU countries.

The first Noise Action Plan (NAP) was created with noise data from 2006 and can be found at https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-07/Noise_Action_Plan_2008.pdf.

Dublin Airport is considered a major airport under the END as it caters for greater than 50,000 movements. Noise data in relation to Dublin Airport can be found in Appendix 11 and 12.

| Lden (population) | 2006 | Lnight (population) | 2006 |
|---|---|---|---|
| 55-59.9 | 2800 | 50-54.9 | 0 |
| 60-64.9 | 200 | 55-59.9 | 0 |
| 65-69.9 | 100 | 60-64.9 | 0 |
| 70-74.9 | 10 | 65-69.9 | 0 |
| >=75 | 0 | >=70 | 0 |

**APPENDIX 12**




Dublin Airport Environmental Noise Regulations 2006

L-DEN Contours

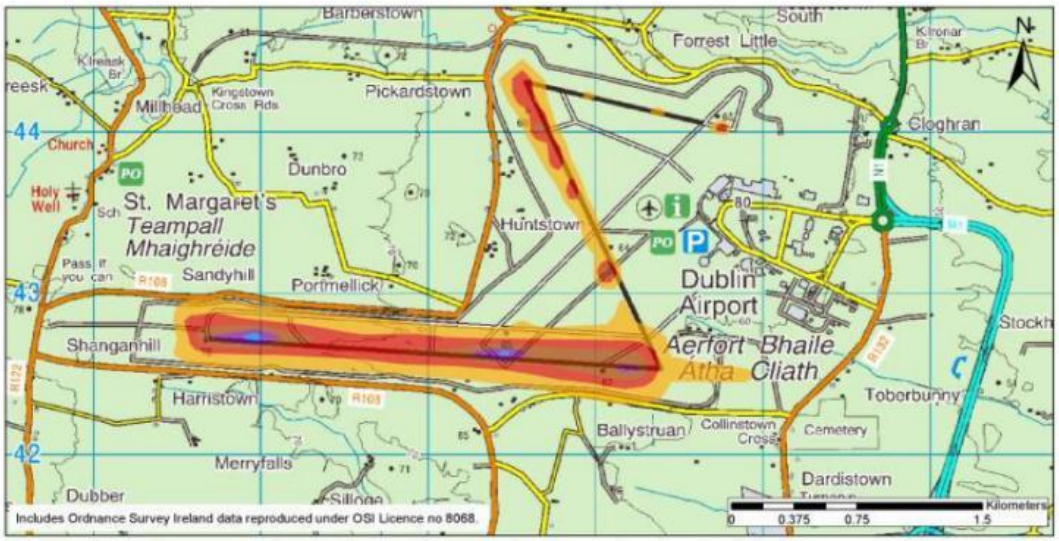
**Legend**

| |
|---|
| 55 - 60 |
| 60 - 65 |
| 65 - 70 |
| 70 - 75 |
| > 75 |

**Statistics (expressed as hundreds)**

| | | |
|---|---|---|
| Numbers of people Exposed to Lden 55-59 | agglomeration | 28 |
| Numbers of people Exposed to Lden 60-64 | agglomeration | 2 |
| Numbers of people Exposed to Lden 65-69 | agglomeration | 1 |
| Numbers of people Exposed to Lden 70-74 | agglomeration | 0.1 |
| Numbers of people Exposed to Lden >75 | agglomeration | 0 |

**APPENDIX 11**




Dublin Airport Environmental Noise Regulations 2006

L-Night Contours

**Legend**

| |
|---|
| 55 - 60 |
| 60 - 65 |
| 65 - 70 |
| 70 - 75 |
| > 75 |

**Statistics (expressed as hundreds)**

| | | |
|---|---|---|
| Numbers of people Exposed to Lnight 50-54 | agglomeration | 0 |
| Numbers of people Exposed to Lnight 55-59 | agglomeration | 0 |
| Numbers of people Exposed to Lnight 60-64 | agglomeration | 0 |
| Numbers of people Exposed to Lnight 65-69 | agglomeration | 0 |
| Numbers of people Exposed to Lnight >70 | agglomeration | 0 |

## ROUND 2 END

The second NAP was created based on noise data for 2011 and can be found at https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-07/Dublin_Noise_Action_Plan_2013-2018_Final.pdf.

A summary of the results can be found in table 5.9 of the NAP:



**Table 5.9** Noise exposure levels from aircraft – Dublin Agglomeration 2012

| Decibels dB(A) | Lden number people Exposed | Lden % people Exposed | Lnight number people Exposed | Lnight % people Exposed |
|---|---|---|---|---|
| <50 | 1260700 | 99% | 1271700 | 100% |
| 50-54 | 11900 | 1% | 1200 | 0% |
| 55-59 | 300 | 0% | 200 | 0% |
| 60-64 | 200 | 0% | 0 | 0% |
| 65-69 | 0 | 0% | 0 | 0% |
| 70-74 | 0 | 0% | 0 | 0% |
| >75 | 0 | 0% | 0 | 0% |

## ROUND 3 END

For the third NAP Fingal County Council created a separate NAP for Dublin Airport. It was created with data from 2016 and can be found at https://www.fingal.ie/sites/default/files/2019-04/NAP%20Final.pdf.

The results of the noise mapping are as follows:

**Table 2 2016 Noise Level Band Area Total $L_{den}$**

| Noise Band $L_{den}$ dB(A) | Area ($km^2$) | Dwellings | Population |
|---|---|---|---|
| **55 – 59.9** | 39.7 | 6,400 | 18,500 |
| **60 – 64.9** | 16.9 | 500 | 1,500 |
| **65 – 69.9** | 6.5 | 100 | 300 |
| **70 – 74.9** | 2.3 | 0 | 0 |
| **>= 75** | 1.6 | 0 | 0 |

**Table 3 2016 Noise Level Band Area Total $L_{night}$**

| Noise Band $L_{night}$ dB(A) | Area ($km^2$) | Dwellings | Population |
|---|---|---|---|
| **50 – 54.9** | 24.1 | 2,200 | 6,200 |
| **55 – 59.9** | 9.1 | 100 | 400 |
| **60 – 64.9** | 3.3 | 0 | 0 |
| **65 – 69.9** | 1.3 | 0 | 0 |
| **>= 70** | 1.0 | 0 | 0 |

## 2019 NOISE STATISTICS

2019 Noise statistics were submitted to ANCA as part of the planning application F19A/0449 to increase passenger numbers at Dublin Airport for all passenger buildings from 32mppa to 35mppa. The DAA subsequently withdrew their application on the 25th of June by email.

During the planning process the DAA submitted a report from BAP consultants titled 'DUBLIN AIRPORT AIRPORT NOISE METHODOLOGY REPORT' (https://www.fingal.ie/sites/default/files/2020-04/20200331-aircraft-noise-modelling-methodology-report-1.pdf).

The Lden and Lnight noise statistics for 2019 are as follows:

| 2019 Annual $L_{den}$ Contour | | | | | |
|---|---|---|---|---|---|
| Contour Value, $L_{den}$ | Area, $km^2$ | Excluding Permitted Developments | | Including Permitted Developments | |
| | | Dwellings | Population | Dwellings | Population |
| ≥ 45 dB | 745.7 | 304,600 | 847,100 | 316,200 | 883,600 |
| ≥ 50 dB | 218.7 | 119,900 | 339,700 | 130,800 | 374,000 |
| ≥ 55 dB | 88.3 | 26,000 | 73,700 | 33,400 | 96,300 |
| ≥ 60 dB | 35.6 | 6,500 | 17,600 | 11,300 | 32,500 |
| ≥ 65 dB | 12.2 | 1,100 | 2,700 | 3,900 | 11,800 |
| ≥ 70 dB | 4.4 | 0 | 0 | 0 | 0 |
| ≥ 75 dB | 1.7 | 0 | 0 | 0 | 0 |

**Table 16: Areas, dwelling and population counts – 2019 Annual $L_{den}$ contours**

| 2019 Annual $L_{night}$ Contour | | | | | |
|---|---|---|---|---|---|
| Contour Value, $L_{night}$ | Area, $km^2$ | Excluding Permitted Developments | | Including Permitted Developments | |
| | | Dwellings | Population | Dwellings | Population |
| ≥ 45 dB | 122.2 | 11,900 | 33,800 | 19,100 | 55,900 |
| ≥ 50 dB | 52.3 | 3,500 | 10,000 | 7,500 | 22,600 |
| ≥ 55 dB | 18.6 | 500 | 1,300 | 1,300 | 3,900 |
| ≥ 60 dB | 6.4 | 0 | 0 | 0 | 0 |
| ≥ 65 dB | 2.5 | 0 | 0 | 0 | 0 |
| ≥ 70 dB | 1.0 | 0 | 0 | 0 | 0 |

**Table 18: Areas, dwelling and population counts - 2019 Annual $L_{night}$ contours**

The 2019 Baseline Lden contour figures are also provided in table 13-11 of the EIAR:

**Table 13-11: Areas, number of dwellings and population in 2019 Baseline Annual $L_{den}$ contours**

| Scenario | | 2019 Baseline | | | |
|---|---|---|---|---|---|
| Contour $L_{den}$ (dB) | Area ($km^2$) | Excluding Consented Developments | | Including Consented Developments | |
| | | Dwellings | Population. | Dwellings | Population |
| **45** | 745.7 | 261,053 | 754,135 | 272,632 | 790,487 |
| **50** | 218.7 | 57,115 | 174,146 | 66,707 | 204,495 |
| **55** | 88.3 | 11,493 | 34,097 | 17,888 | 53,757 |
| **60** | 35.6 | 2,115 | 6,279 | 5,558 | 17,182 |
| **65** | 12.2 | 104 | 285 | 104 | 285 |
| **70** | 4.4 | 10 | 31 | 10 | 31 |

The 2019 Baseline Lnight contour figures are given in table 13-19:

**Table 13-19: Areas, number of dwellings and population in 2019 Baseline Annual $L_{night}$ contours**

| Scenario | | 2019 Baseline | | | |
|---|---|---|---|---|---|
| Contour $L_{night}$ (dB) | Area ($km^2$) | Excluding Consented Developments | | Including Consented Developments | |
| | | Dwellings | Population. | Dwellings | Population |
| **40** | 328.4 | 113,699 | 344,912 | 123,802 | 376,760 |
| **45** | 122.2 | 19,717 | 59,307 | 26,939 | 81,439 |
| **50** | 52.3 | 4,522 | 13,838 | 8,518 | 26,369 |
| **55** | 18.6 | 558 | 1,533 | 1,376 | 4,158 |
| **60** | 6.4 | 41 | 110 | 41 | 110 |
| **65** | 2.5 | 4 | 13 | 4 | 13 |

2019 Lden and Lnight noise statistics were also obtained via an AIE request to the DAA for 2019 noise contours. The DAA provided a document 'Ref 1_A11267_11_RP015_3.0 2019 Noise Contours.pdf' titled 'Dublin Airport 2019 Noise Contours, Areas, Dwelling and Population Counts, Community Building Counts'. The document is dated November 2020 and created by BAP. Tables 7 lists the Lden figures and table 9 lists the Lnight figures:

| 2019 Annual 24h Contour | | | | | |
|---|---|---|---|---|---|
| Contour Value, $L_{den}$ | Area, $km^2$ | Excluding Permitted Developments | | Including Permitted Developments | |
| | | Dwellings | Population | Dwellings | Population |
| ≥ 45 dB | 745.7 | 261100 | 754100 | 272600 | 790500 |
| ≥ 50 dB | 218.7 | 57100 | 174100 | 66700 | 204500 |
| ≥ 55 dB | 88.3 | 11500 | 34100 | 17900 | 53800 |
| ≥ 60 dB | 35.6 | 2100 | 6300 | 5600 | 17200 |
| ≥ 65 dB | 12.2 | 100 | 300 | 100 | 300 |
| ≥ 70 dB | 4.4 | 0 | 0 | 0 | 0 |
| ≥ 75 dB | 1.7 | 0 | 0 | 0 | 0 |

**Table 7: Areas, dwelling and population counts – 2019 Annual 24h contours, $L_{den}$ average mode (cumulative contour bands)**

| 2019 Annual Night Contour | | | | | |
|---|---|---|---|---|---|
| Contour Value, $L_{night}$ | Area, $km^2$ | Excluding Permitted Developments | | Including Permitted Developments | |
| | | Dwellings | Population | Dwellings | Population |
| ≥ 40 dB | 328.4 | 113700 | 344900 | 123800 | 376800 |
| ≥ 45 dB | 122.2 | 19700 | 59300 | 26900 | 81400 |
| ≥ 50 dB | 52.3 | 4500 | 13800 | 8500 | 26400 |
| ≥ 55 dB | 18.6 | 600 | 1500 | 1400 | 4200 |
| ≥ 60 dB | 6.4 | 0 | 100 | 0 | 100 |
| ≥ 65 dB | 2.5 | 0 | 0 | 0 | 0 |
| ≥ 70 dB | 1.0 | 0 | 0 | 0 | 0 |

**Table 9: Areas, dwelling and population counts - 2019 Annual Night contours, $L_{night}$ average mode (cumulative contour bands)**

The 2019 Noise statistics submitted to ANCA by the DAA as part of the planning application F19A/0449 in the document (https://www.fingal.ie/sites/default/files/2020-04/20200331-aircraft-noise-modelling-methodology-report-1.pdf) differ from the data provided in tables 13-11 and 13-19. The data supplied via the BAP 2019 November 2020 report also differs. The contour areas match but the dwellings and population numbers differ. Two sets of data have been provided by the DAA in planning applications to Fingal County Council and the other via an AIE request. Which set of data do we trust? This is real empirical data and should not be re-modelled. These errors in historical data calls into question all the figures supplied by the DAA in their EIAR.

## 2018 NOISE STATISTICS

In the EIAR document, table 13-10 provides the 2018 Baseline Lden figures:

**Table 13-10: Areas, number of dwellings and population in 2018 Baseline Annual $L_{den}$ contours**

| *Scenario* | | *2018 Baseline* | | | |
|---|---|---|---|---|---|
| *Contour $L_{den}$ (dB)* | *Area ($km^2$)* | *Excluding Consented Developments* | | *Including Consented Developments* | |
| | | *Dwellings* | *Population.* | *Dwellings* | *Population* |
| **45** | 703.2 | 245,806 | 716,719 | 257,385 | 753,071 |
| **50** | 209.3 | 61,726 | 184,770 | 71,332 | 215,161 |
| **55** | 85.9 | 11,887 | 35,476 | 18,100 | 54,562 |
| **60** | 33.5 | 1,639 | 4,710 | 4,953 | 15,248 |
| **65** | 11.6 | 92 | 251 | 92 | 251 |
| **70** | 4.1 | 8 | 25 | 8 | 25 |

In table 13-18 we have the 2018 Baseline Lnight figures:

**Table 13-18: Areas, number of dwellings and population in 2018 Baseline Annual $L_{night}$ contours**

| *Scenario* | | *2018 Baseline* | | | |
|---|---|---|---|---|---|
| *Contour $L_{night}$ (dB)* | *Area ($km^2$)* | *Excluding Consented Developments* | | *Including Consented Developments* | |
| | | *Dwellings* | *Population.* | *Dwellings* | *Population* |
| **40** | 304.4 | 102,538 | 307,457 | 112,422 | 338,671 |
| **45** | 118.2 | 18,815 | 55,492 | 25,998 | 77,477 |
| **50** | 48.4 | 4,131 | 12,316 | 7,808 | 23,926 |
| **55** | 16.8 | 276 | 753 | 328 | 950 |
| **60** | 5.8 | 19 | 56 | 19 | 56 |
| **65** | 2.3 | 3 | 10 | 3 | 10 |

## COMPARISON OF NOISE STATISTICS

| Lden (pop.) | 2006 | 2011 | 2016 | 2018 | 2019 (32m-35m) | 2019 (EIAR) |
|---|---|---|---|---|---|---|
| 45-49.9 | | | | 531949 | **507400** | **579989** |
| 50-54.9 | | | | 149294 | **266000** | **140049** |
| 55-59.9 | 2800 | 11900 | 18500 | 30766 | **56100** | **27818** |
| 60-64.9 | 200 | 300 | 1500 | 4449 | **14900** | **5994** |
| 65-69.9 | 100 | 200 | 300 | 226 | **2700** | **254** |
| 70-74.9 | 0 | 0 | 0 | 25 | **0** | **31** |
| >=75 | 0 | 0 | 0 | 0 | **0** | **0** |

Lden

- From 2006 -> 2019, population exposed to **>= 55 dB** Lden increased from 3100 -> 12400 -> 20300 -> 35476-> 34097
- WHO recommended safe Lden limit is **45 dB**.
- Therefore, there were **754135** people exposed to adverse effects of aircraft daytime noise in 2019 according to the WHO.

| Lnight (pop.) | 2006 | 2011 | 2016 | 2018 | 2019 (32m-35m) | 2019 (EIAR) |
|---|---|---|---|---|---|---|
| 40-44.9 | | | | 251965 | | **285605** |
| 45-49.9 | | | | 43176 | **23800** | **45469** |
| 50-54.9 | 0 | 1200 | 6200 | 11563 | **8700** | **12305** |
| 55-59.9 | 0 | 200 | 400 | 697 | **1300** | **1423** |
| 60-64.9 | 0 | 0 | 0 | 46 | **0** | **97** |
| >=65 | 0 | 0 | 0 | 10 | **0** | **13** |

Lnight

- From 2006 -> 2019, population exposed to **>= 50 dB** Lnight increased from 0 -> 1400 -> 6600 -> 12316 -> 13838
- WHO recommended safe Lnight limit is **40 dB**.
- Therefore, there were at least **344912** people exposed to adverse effects of aircraft night-time noise in 2019 according to the WHO.

## COMPARISON OF CONTOUR AREAS

Lden

Table 13C-3: Contour Areas, $L_{den}$ Metric

| Metric Value, dB $L_{den}$ | Scenario and Contour Area, km² | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2018 Baseline | 2019 Baseline | 2022 Baseline | 2022 Relevant Action | 2025 Baseline | 2025 Consented | 2025 Relevant Action |
| ≥ 45 | 703.2 | 745.7 | 645.4 | 742.4 | 627.4 | 1110.9 | 737.5 |
| ≥ 50 | 209.3 | 218.7 | 196.1 | 221.3 | 193.5 | 321.3 | 220.3 |
| ≥ 55 | 85.9 | 88.3 | 83.7 | 93.2 | 82.6 | 127.3 | 92.8 |
| ≥ 60 | 33.5 | 35.6 | 32.4 | 36.5 | 32.0 | 50.7 | 36.3 |
| ≥ 65 | 11.6 | 12.2 | 11.5 | 13.7 | 11.2 | 21.0 | 13.5 |
| ≥ 70 | 4.1 | 4.4 | 4.1 | 4.9 | 4.0 | 7.5 | 4.9 |
| ≥ 75 | 1.7 | 1.7 | 1.6 | 1.9 | 1.6 | 2.7 | 1.8 |

Lnight

Table 13C-4: Contour Areas, $L_{night}$ Metric

| Metric Value, dB $L_{night}$ | Scenario and Contour Area, km² | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2018 Baseline | 2019 Baseline | 2022 Baseline | 2022 Relevant Action | 2025 Baseline | 2025 Consented | 2025 Relevant Action |
| ≥ 40 | 304.4 | 328.4 | 191.6 | 300.9 | 189.3 | 299.8 | 302.0 |
| ≥ 45 | 118.2 | 122.2 | 86.4 | 135.3 | 85.3 | 109.0 | 135.6 |
| ≥ 50 | 48.4 | 52.3 | 35.0 | 52.8 | 34.3 | 45.2 | 52.7 |
| ≥ 55 | 16.8 | 18.6 | 11.8 | 20.3 | 11.5 | 16.3 | 20.3 |
| ≥ 60 | 5.8 | 6.4 | 4.0 | 7.0 | 3.9 | 6.0 | 7.0 |
| ≥ 65 | 2.3 | 2.5 | 1.5 | 2.6 | 1.5 | 2.1 | 2.6 |
| ≥ 70 | 1.0 | 1.0 | 0.6 | 1.1 | 0.6 | 0.8 | 1.0 |

Lden and Lnight area contours for 2016 are given in the Noise Actin Plan for Dublin Airport 2019 – 2023:

| Contour Band | 2006 | | 2011 | | 2016 | |
|---|---|---|---|---|---|---|
| | Area ($km^2$) | # Dwellings | Area ($km^2$) | # Dwellings | Area ($km^2$) | # Dwellings |
| 55-59.9 dB $L_{den}$ | 35.5 | 4,500 | 29.9 | 4,100 | 39.7 | 6,400 |
| 60-64.9 dB $L_{den}$ | 13.0 | 300 | 10.7 | 100 | 16.9 | 500 |
| 65-69.9 dB $L_{den}$ | 5.4 | 100 | 4.6 | 100 | 6.5 | 100 |
| 70-74.9 dB $L_{den}$ | 2.1 | 0 | 1.7 | 0 | 2.3 | 0 |
| ≥75 dB $L_{den}$ | 1.6 | 0 | 1.4 | 0 | 1.6 | 0 |
| 50-54.9 dB $L_{night}$ | 17.0 | 600 | 14.6 | 400 | 24.1 | 2,200 |
| 55-59.9 dB $L_{night}$ | 6.6 | 100 | 5.9 | 100 | 9.1 | 100 |
| 60-64.9 dB $L_{night}$ | 2.8 | 0 | 2.3 | 0 | 3.3 | 0 |
| 65-69.9 dB $L_{night}$ | 1.0 | 0 | 0.8 | 0 | 1.3 | 0 |
| ≥70 dB $L_{night}$ | 0.9 | 0 | 0.8 | 0 | 1.0 | 0 |

Collating all contour areas from all years and forecasts:

Contour Areas square km

| dB Lden | 2006 | 2011 | 2016 | 2018 Baseline | 2019 Baseline | 2022 Baseline | 2022 Relevant Action | 2025 Baseline | 2025 Consented | 2025 Relevant Action |
|---|---|---|---|---|---|---|---|---|---|---|
| >=45 | | | | 703.2 | 745.7 | 645.4 | 742.4 | 627.4 | 1110.9 | 737.5 |
| >=50 | | | | 209.3 | 218.7 | 196.1 | 221.3 | 193.5 | 321.3 | 220.3 |
| >=55 | 57.6 | 48.3 | 67 | 85.9 | 88.3 | 83.7 | 93.2 | 82.6 | 127.3 | 92.8 |
| >=60 | 22.1 | 18.4 | 27.3 | 33.5 | 35.6 | 32.4 | 36.5 | 32 | 50.7 | 36.3 |
| >=65 | 9.1 | 7.7 | 10.4 | 11.6 | 12.2 | 11.5 | 13.7 | 11.2 | 21 | 13.5 |
| >=70 | 3.7 | 3.1 | 3.9 | 4.1 | 4.4 | 4.1 | 4.9 | 4 | 7.5 | 4.9 |
| >=75 | 1.6 | 1.4 | 1.6 | 1.7 | 1.7 | 1.6 | 1.9 | 1.6 | 2.7 | 1.8 |

Contour Areas square km

| dB Lnight | 2006 | 2011 | 2016 | 2018 Baseline | 2019 Baseline | 2022 Baseline | 2022 Relevant Action | 2025 Baseline | 2025 Consented | 2025 Relevant Action |
|---|---|---|---|---|---|---|---|---|---|---|
| >=40 | | | | 304.4 | 328.4 | 191.6 | 300.9 | 189.3 | 299.8 | 302 |
| >=45 | | | | 118.2 | 122.2 | 86.4 | 135.3 | 85.3 | 109 | 135.6 |
| >=50 | 28.3 | 24.4 | 38.8 | 48.4 | 52.3 | 35 | 52.8 | 34.3 | 45.2 | 52.7 |
| >=55 | 11.3 | 9.8 | 14.7 | 16.8 | 18.6 | 11.8 | 20.3 | 11.5 | 16.3 | 20.3 |
| >=60 | 4.7 | 3.9 | 5.6 | 5.8 | 6.4 | 4 | 7 | 3.9 | 6 | 7 |
| >=65 | 1.9 | 1.6 | 2.3 | 2.3 | 2.5 | 1.5 | 2.6 | 1.5 | 2.1 | 2.6 |
| >=70 | 0.9 | 0.8 | 1 | 1 | 1 | 0.6 | 1.1 | 0.6 | 0.8 | 1 |

It is very evident that the sizes of the contours have grown from Round 1 of the END. The contours did decline in size for Round 2 in 2011 due to the downturn in flights from the financial crisis.

'2025 Relevant Action' contours have grown considerably compared with '2016 Baseline' and '2025 Baseline'.

There were 589 submissions to the Dublin Airport Noise Action Plan for Dublin Airport 2019 – 2023, completed in December 2018, complaining of the increase in noise over the three rounds of the END. Unfortunately, Fingal County Council as the designated body for Noise Action Planning did not hold Dublin Airport to account and ignored the submissions to the NAPs and allowed noise levels to spiral out of control.

We contest the use of 2018 as the baseline year for this new planning application. 2016 saw all key noise metrics increase. The submissions from the public were ignored by Fingal County Council.

Under the European Communities (Environmental Noise) Regulations 2018, Fingal County Council as the designated body for Noise Action Planning, must report progress on their NAP to the EPA each year and are required to set out the steps that have been taken to prevent, protect against and reduce excessive transport noise, as identified in the NAP. Fingal have failed in this regard as noise levels have been increasing from 2006 -> 2016 -> 2018 -> 2019.

The EPA in their 2020 report, Ireland's Environment An Integrated Assessment 2020, state that "noise complaints around Dublin Airport have become a more significant issue in recent years, with the Dublin Airport Authority logging 1453 noise-related complaints in 2018".

The EPA further add that the roll out of Policy Objective 65 in the Project Ireland 2040: National Planning Framework (DHPLG, 2018) will be a significant driver of environmental noise policy in Ireland over the coming decades.

Policy Objective 65 requires the following:

"Promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans".

EPA Noise Summary stating that Local Authorities need national guidance and will help to implement the noise objective in Project Ireland – National Planning Framework 2040 and should consider the WHO 2018 Noise guidelines.

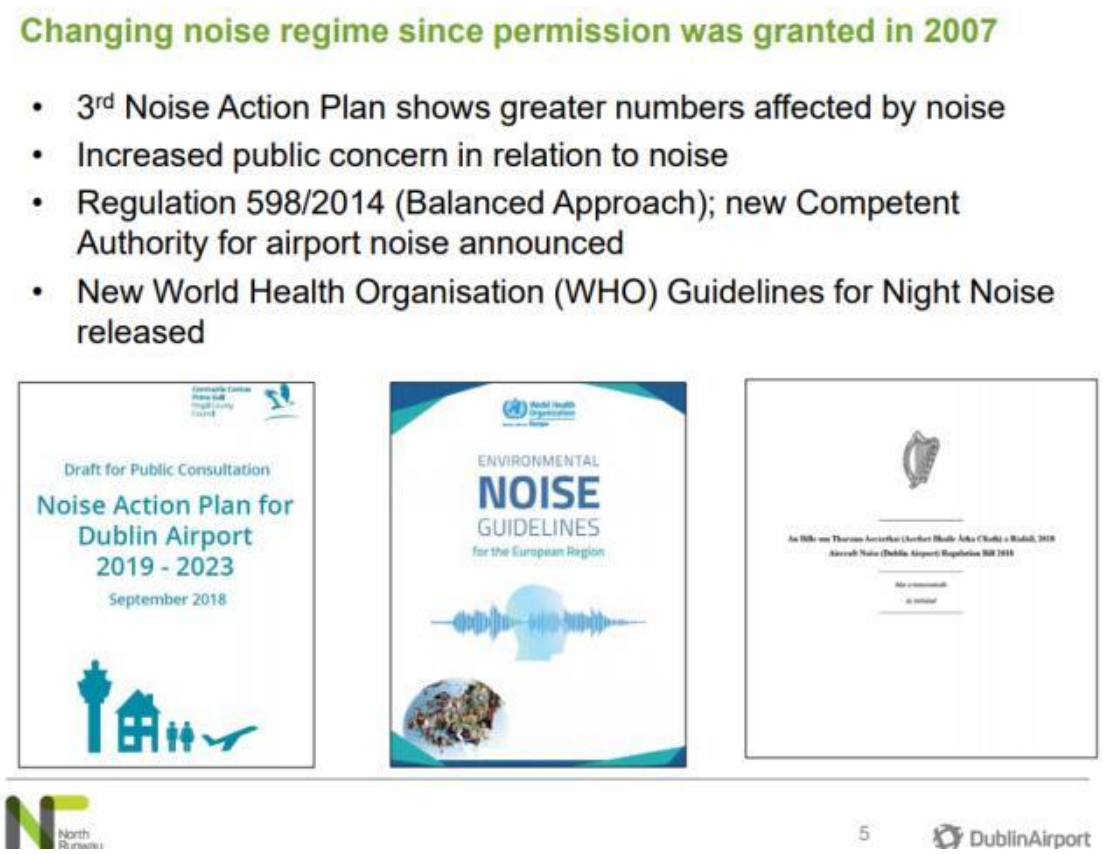
**Chapter Highlights for Environmental Noise**

National noise planning guidance for local authorities is needed. This will support and promote the proactive management of noise where it is likely to have significant adverse impacts on health and quality of life. The guidance will also help to implement the noise objective in Project Ireland – National Planning Framework 2040 and should also consider the 2018 WHO noise and health guidelines.

Noise pollution complaints from the public have been increasing and current measures do not always allow for them to be adequately addressed. Local authorities need to take a much stronger leadership role in dealing with noise issues, particularly in more urban areas.

Integrating air pollution and noise mitigation measures (and climate actions), particularly in transport management, can bring many benefits. Such integration of options could be explored under the plans for a clean air strategy for Ireland. Local authorities should also designate quiet areas in their cities for health and wellbeing value.

At an ICAO conference in Peru in May 2019 (https://www.icao.int/Meetings/GREENAIRPORTS2019/Green%20Airports%20Presentations/Martin%20Doherty%20session%206.pdf), Martin Doherty, Environmental & Planning Manager, North Runway Project Dublin Airport, outlined that Round 3 of the END showed a greater number of houses affected by noise and an increased public concern in relation to noise. This is clear evidence that the DAA agreed that the Round 3 NAP using data from 2016 identified a noise problem.




It is very evident that 2016 identified a Noise Problem as was identified by the DAA and the outcome of the NAP. 2016 is therefore the obvious choice as a baseline reference year in the past and one that ANCA should insist on.

ANCA were aware of the NAPs and the 2019 noise statistics from the F19A/0449 planning application and discontinued to evaluate the noise situation at Dublin Airport when the planning application was withdrawn. ANCA should have continued to assess the noise situation then but

instead waited for another planning application to continue with the process. This was a failure on behalf of ANCA and a dereliction of its duties under regulation 598/2014.

On June 25th 2020, the DAA wrote to ANCA informing them of their withdrawal of F19A/0449. In email correspondence from ANCA on July 15th 2020 when queried on the noise assessment, ANCA stated:

*"I can confirm that planning application F19A/0449 has been withdrawn by the DAA. Although the aircraft data as submitted by the airport authority as part of the planning application was informative, it was not sufficient to facilitate a full assessment of the noise situation at the airport. ANCA requested detailed additional information but a response to the request was not received in advance of the application being withdrawn. This information is on the planning section of our website. Notwithstanding this, it is the intention of ANCA that a full aircraft noise assessment will be undertaken for Dublin Airport.* ***I do not have a date for the assessment at this time*** *but can advise that there will be no pre-determined outcome."*

ANCA could still have requested the information irrespective of the DAA withdrawing F19A/0449 to carry out a noise assessment but declined to do so.

ANCA also neglected to inform the Environmental section of FCC about the increase in noise.

It is worth noting that Fingal County Council Planning Department updated their Development Plan with new Noise Zones to take account of night-time noise > 55 dB Lnight. That should have triggered the Environmental section of Fingal County Council to act to enforce mitigation measures at Dublin Airport under their NAP. Unfortunately, that did not happen. Nor did ANCA intervene with the noise problem identified by Fingal County Council Planning Department. ANCA turned a blind eye.

# SUBMISSION ON BEHALF OF THE ST. MARGARET'S, THE WARD RESIDENTS GROUP

## SUMMARY


- Large increase in population affected by noise from Rounds 1-3 of the END (2006 -> 2016)
- Population exposed to adverse noise levels increased significantly in 2018 and 2019
- Lden
    - From 2006 -> 2019, population exposed to **>= 55 dB** Lden increased from 3100-> 12400 -> 20300 -> 35476-> 34097
    - WHO recommended safe Lden limit is **45 dB** highlighting that **754135** people exposed to adverse effects of aircraft daytime noise in 2019
- Lnight
    - From 2006 -> 2019, population exposed to **>= 50 dB** Lnight increased from 0 -> 1400 -> 6600 -> 12316 -> 13838
    - WHO recommended safe Lnight limit is **40 dB**, highlighting that **344912** people exposed to adverse effects of aircraft night-time noise in 2019
- Differences in 2019 noise figures between this application and those provided in planning application F19A/0449
- 2019 is historical data and differences suggest data cannot be relied upon
- '2025 Relevant Action' Lden contours significantly larger than 2016 and '2025 Baseline' contours in terms of size
- 2025 Relevant Action' Lnight contours significantly larger than 2016 and '2025 Baseline' contours in terms of size
- 589 submissions to Dublin Airport NAP from members of the public
- Historical trail of failure by Fingal County Council to control noise at Dublin Airport
- EPA in their 2020 report state that noise around Dublin Airport has become a significant issue with the daa logging 1453 noise-related complaints in 2018
- EPA signals that Policy Objective 65 in Project Ireland 2040 requires to "Promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans"
- Night-time noise issue identified by Fingal County Council Planning Department when updating their Noise Zones. Neither the Environmental section of Fingal County Council nor ANCA saw it as their role under 2002/49/EC or under EU 598/2014 to mitigate this identified noise problem at Dublin Airport
- Martin Doherty, daa's Environmental Manger, publicly acknowledged the noise problem and increased public concern resulting from the 2016 noise data from the 3rd Round of the END at an ICAO conference in May 2019

- ANCA were presented with noise data as part of planning application F19A/0449 but failed to progress the noise assessment once the application was withdrawn

# 9.0 PUBLIC HEALTH

In the EIAR, chapter 7 is devoted to Population and Human Health.

The European Environmental Agency (EEA) published a report in 2020 titled 'Environmental Noise in Europe – 2020'. The report states that:

"Chronic exposure to environmental noise has significant impacts on physical and mental health and well-being. Exposure to environmental noise is a widespread problem in Europe, with at least one in five people exposed to levels considered harmful to health. Given the negative impacts on human health and the large number of people affected, environmental noise is therefore a significant concern for citizens and policy makers. Reducing environmental noise is a key objective under the Seventh Environment Action Programme (7th EAP) and the Environmental Noise Directive (END)."

Questions need to be asked of Fingal County Council and ANCA on how it expects to reduce environmental noise from aircraft as required under the 7th EAP.

Key findings of the report:

Environmental noise from road, rail, aircraft and industry sources affects millions of people, causing significant public health impacts

• Long-term exposure to environmental noise is estimated to cause

- 12000 premature deaths and
- contribute to 48000 new cases of ischaemic heart disease per year in the European territory.
- It is estimated that 22 million people suffer chronic high annoyance and
- 6.5 million people suffer chronic high sleep disturbance.
- As a result of aircraft noise, 12500 schoolchildren are estimated to suffer learning impairment in school.

• These significant health impacts are most likely to be underestimated, with new WHO evidence demonstrating effects at levels below the obligatory END reporting thresholds. In addition, the END does not comprehensively cover all urban areas, roads, railways and airports across Europe.

• Exposure to environmental noise does not affect everyone equally. Socially deprived groups, as well as groups with increased susceptibility to noise, may suffer more pronounced health-related impacts of noise.

The report further states that the policy objectives on environmental noise have not been achieved. The number of people exposed to high levels of noise has not decreased. The key objective of the 7th EAP of significantly reducing noise pollution in the EU and moving closer to the WHO recommended levels by 2020 has not been achieved. Fingal County Council and ANCA need to explain how they moved closer to the WHO recommended levels by 2020. Note this is recommended levels and not interim levels. The 7th EAP also categories 'High' noise levels as those levels **> 55 dB Lden and > 50 dB Lnight**. Fingal County Council and ANCA need to support these definitions of high noise.

The report states that 4 million people are exposed to high levels of aircraft noise. It also states how noise pollution is a threat to terrestrial and marine wildlife:

"Anthropogenic noise affects a wide variety of terrestrial and marine wildlife species causing a range of physiological and behavioural responses. These can reduce reproductive success and increase mortality and emigration, resulting in lower population densities."

The noise contours for Dublin Airport extend over the Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). What analysis has been carried out on the effects of aircraft noise on these areas?

The new divergent flight routes and potential night-time use of the North Runway has not been studied for their effects on existing wildlife and in particular bird species. These flight routes have changed since the original EIS in 2004-2007. It has become very apparent in Fingal that many bird species are now thriving under the quieter skies and the effects of changing flight routes and operation times need to be examined.

Environmental noise is the second biggest environmental killer after air pollution.

The WHO have strongly recommended that noise from aircraft should be reduced below 45dB Lden and 40dB Lnight as aircraft noise above these levels are associated with adverse health effects such as cardiovascular disease, hypertension and cognitive impairment in children. The WHO report states that "1 million healthy years of life are lost every year in the EU". A 2011 WHO report places "the burden of disease from environmental noise as the 2nd highest after air pollution". Interestingly the WHO 2018 report states that overall, the GDG "estimated that the

benefits gained from minimizing adverse health effects due to aircraft noise exposure outweigh the possible (economic) harms".

Questions need to be asked of Fingal County Council as to why no health study has ever been conducted on the residents of Fingal living in the vicinity of Dublin Airport. The Council is fixated on the economic benefits of the airport to the detriment of the population of Fingal.

In addition to the WHO report I would like to point to a recent paper at Euronoise 2018 titled 'Transportation noise and incidence of hypertension' (http://www.euronoise2018.eu/docs/papers/92_Euronoise2018.pdf).

The results "indicated a clear association for aircraft noise" and "a particularly high risk estimate for those exposed to both aircraft and road traffic noise, indicating that exposure to multiple sources of traffic noise may be especially harmful".

The new noise zones in the Fingal Development Plan are a clear recognition by Fingal County Council that serious adverse health effects occur at exposure levels well below those that are mitigated for in this application. All future properties that lie inside Zones A, B and C require to be thoroughly insulated as outlined by the ProPG Guidelines.

# 10.0 HIGHLY ANNOYED/ HIGHLY SLEEP DISTURBED

In the EIAR one of the key assessment tools is the use of the number of people 'Highly Annoyed' and 'Highly Sleep Disturbed'. This comes as no surprise as ANCA shared their candidate NAO with the DAA:

Part 3 - How we will measure the NAO

The NAO will be primarily measured through the number of people 'highly sleep disturbed' and 'highly annoyed' in accordance with the approach recommended by the World Health Organisation's Environmental Noise Guidelines 2018 as endorsed by the European Commission through Directive 2020/367, taking into account noise exposure from 45 dB Lden and 40 dB Lnight. These metrics help articulate the effect of aircraft noise on health and quality of life. Further to the above, additional metrics will also be used to help identify priorities. These include:

- 50 dB Lnight (a level of night-time noise exposure at which adverse impacts begin to clearly present over a population)
- 55 dB Lnight (a level of night-time noise exposure representing a clear risk to health)
- 55 dB Lden (which can be linked to other cognitive impacts from aircraft noise)
- 65 dB Lden (where a large proportion of those living around the airport can be considered 'highly annoyed')

The formulae to calculate HA and HSD were mentioned in the WHO 2018 Guidelines and were added to Annex III of Directive 2002/49/EC via Directive 2020/367.

HA:

$$AR_{HA,air} = \left(-50.9693 + 1.0168 * L_{den} + 0.0072 * {L_{den}}^2\right)/100 \quad \text{(Formula 6)}$$

HSD:

$$AR_{HSD,air} = \left(16.7885 - 0.9293 * L_{night} + 0.0198 * {L_{night}}^2\right)/100 \quad \text{(Formula 9)}$$

$$N_{x,y} = \sum_j [n_j * AR_{j,x,y}] \quad \text{(Formula 12)}$$

Where:

— $AR_{x,y}$ is the AR of the relevant harmful effect (HA, HSD), and is calculated using the formulas set out in point 2 of this Annex, calculated at the central value of each noise band (e.g.: depending on availability of data, at 50,5 dB for the noise band defined between 50-51 dB, or 52 dB for the noise band 50-54 dB),

— $n_j$ is the number of people that is exposed to the $j$-th exposure band.

The population figures provided were tabulated for Lden and Lnight for all the relevant case years.

| Lden | >40 dB | >45 | >50 | >55 | >60 | >65 | >70 |
|---|---|---|---|---|---|---|---|
| 2022 Relevant Action | | 458833 | 107643 | 23830 | 3207 | 227 | 32 |
| 2025 Relevant Action | | 448076 | 104907 | 23171 | 3247 | 218 | 32 |
| 2018 Baseline | | 716719 | 184770 | 35476 | 4710 | 251 | 25 |
| 2019 Baseline | | 754135 | 174146 | 34097 | 6279 | 285 | 31 |
| 2022 Baseline | | 430569 | 97385 | 20811 | 2410 | 133 | 26 |
| 2025 Baseline | | 419838 | 94122 | 19771 | 2389 | 128 | 23 |
| 2025 Consented | | 806461 | 193793 | 49135 | 5548 | 472 | 89 |

| Lnight | >40 dB | >45 | >50 | >55 | >60 | >65 | >70 |
|---|---|---|---|---|---|---|---|
| 2022 Relevant Action | 173582 | 44013 | 6761 | 1152 | 62 | | |
| 2025 Relevant Action | 174473 | 43855 | 6729 | 1157 | 62 | | |
| 2018 Baseline | 307457 | 55492 | 12316 | 753 | 56 | 10 | |
| 2019 Baseline | 344912 | 59307 | 13838 | 1533 | 110 | 13 | |
| 2022 Baseline | 143248 | 31447 | 6247 | 284 | 34 | | |
| 2025 Baseline | 141767 | 30882 | 6032 | 281 | 31 | | |
| 2025 Consented | 243163 | 51486 | 10511 | 495 | 156 | 13 | |

The HA formulae were then applied to generate the number of people Highly Annoyed:

| Case | Total Number HA | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 |
|---|---|---|---|---|---|---|---|
| 2022 Relevant Action | 74111 | 47669 | 18655 | 6455 | 1213 | 98 | 19 |
| **2025 Relevant Action** | **72356** | 46581 | 18193 | 6237 | 1233 | 94 | 19 |
| 2018 Baseline | 117009 | 72205 | 33229 | 9630 | 1815 | 114 | 15 |
| 2019 Baseline | 121192 | 78726 | 31172 | 8708 | 2440 | 128 | 19 |
| 2022 Baseline | 69025 | 45225 | 17044 | 5760 | 927 | 54 | 16 |
| **2025 Baseline** | **67189** | 44212 | 16549 | 5441 | 920 | 53 | 14 |
| 2025 Consented | 131316 | 83162 | 32198 | 13643 | 2066 | 193 | 54 |

The percentage of people highly annoyed attributed to each noise band is as follows:

| Case | Total Number HA | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 |
|---|---|---|---|---|---|---|---|
| 2022 Relevant Action | 74111 | 64.32 | 25.17 | 8.71 | 1.64 | 0.13 | 0.03 |
| **2025 Relevant Action** | **72356** | 64.38 | 25.14 | 8.62 | 1.70 | 0.13 | 0.03 |
| 2018 Baseline | 117009 | 61.71 | 28.40 | 8.23 | 1.55 | 0.10 | 0.01 |
| 2019 Baseline | 121192 | 64.96 | 25.72 | 7.18 | 2.01 | 0.11 | 0.02 |
| 2022 Baseline | 69025 | 65.52 | 24.69 | 8.34 | 1.34 | 0.08 | 0.02 |
| **2025 Baseline** | **67189** | 65.80 | 24.63 | 8.10 | 1.37 | 0.08 | 0.02 |
| 2025 Consented | 131316 | 63.33 | 24.52 | 10.39 | 1.57 | 0.15 | 0.04 |

From the percentage calculations, it's evident that the lower bands have a disproportional influence over the total number highly annoyed. The combination of the 45-50 and 50-55 dB Lden bands contribute approximately 90% to the total number highly annoyed.

It is worth noting that these two lower bands are not mandatory reporting bands under 2002/49/EC and figures for these bands were never reported in the three Rounds of the END in 2006, 2011 and 2016 by Fingal County Council.

Therefore, the analysis should focus on the higher bands reported under the END. This also allows a direct comparison with the three Rounds of the END:

| Case | Total Number HA | 55-60 | 60-65 | 65-70 | 70-75 |
|---|---|---|---|---|---|
| 2022 Relevant Action | 7786 | 6455 | 1213 | 98 | 19 |
| **2025 Relevant Action** | **7583** | 6237 | 1233 | 94 | 19 |
| 2018 Baseline | 11575 | 9630 | 1815 | 114 | 15 |
| 2019 Baseline | 11294 | 8708 | 2440 | 128 | 19 |
| 2022 Baseline | 6756 | 5760 | 927 | 54 | 16 |
| **2025 Baseline** | **6428** | 5441 | 920 | 53 | 14 |
| 2025 Consented | 15957 | 13643 | 2066 | 193 | 54 |
| **2016** | **6553** | 5791 | 611 | 151 | 0 |
| 2011 | 3948 | 3725 | 122 | 101 | 0 |
| 2006 | 1008 | 876 | 81 | 50 | 0 |

It is clear that '2025 Relevant Action' will lead to an increase in over 1k people highly annoyed compared with '2025 Baseline' and '2016 Baseline'.

The HSD formulae were then applied to generate the number of people Highly Sleep Disturbed:

| Case | Total Number HSD | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 |
|---|---|---|---|---|---|---|---|
| 2022 Relevant Action | 24973 | 16918 | 6452 | 1266 | 314 | 22 | 0 |
| **2025 Relevant Action** | **25081** | 17055 | 6430 | 1258 | 316 | 22 | 0 |
| 2018 Baseline | 43209 | 32899 | 7478 | 2610 | 201 | 17 | 4 |
| 2019 Baseline | 48395 | 37291 | 7875 | 2778 | 410 | 35 | 6 |
| 2022 Baseline | 20393 | 14598 | 4365 | 1346 | 72 | 12 | 0 |
| **2025 Baseline** | **20164** | 14478 | 4304 | 1298 | 72 | 11 | 0 |
| 2025 Consented | 34540 | 25027 | 7097 | 2261 | 98 | 52 | 6 |

The percentage of people highly annoyed attributed to each noise band is as follows:

| Case | Total Number HSD | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 |
|---|---|---|---|---|---|---|---|
| 2022 Relevant Action | 24973 | 67.75 | 25.84 | 5.07 | 1.26 | 0.09 | |
| 2025 Relevant Action | 25081 | 68.00 | 25.64 | 5.02 | 1.26 | 0.09 | |
| 2018 Baseline | 43209 | 76.14 | 17.31 | 6.04 | 0.46 | 0.04 | 0.01 |
| 2019 Baseline | 48395 | 77.06 | 16.27 | 5.74 | 0.85 | 0.07 | 0.01 |
| 2022 Baseline | 20393 | 71.58 | 21.40 | 6.60 | 0.35 | 0.06 | |
| 2025 Baseline | 20164 | 71.80 | 21.35 | 6.44 | 0.36 | 0.06 | |
| 2025 Consented | 34540 | 72.46 | 20.55 | 6.55 | 0.28 | 0.15 | 0.02 |

From the percentage calculations, it's evident that the lower bands have a disproportional influence over the total number highly annoyed. The combination of the 40-45 and 45-50 dB Lnight bands contribute over 92% to the total number highly sleep disturbed.

It is worth noting that these two lower bands are not mandatory reporting bands under 2002/49/EC and figures for these bands were never reported in the three Rounds of the END in 2006, 2011 and 2016 by Fingal County Council.

Therefore, the analysis should focus on the higher bands reported under the END. This also allows a direct comparison with the three Rounds of the END:

| Case | Total Number HSD | 50-55 | 55-60 | 60-65 | 65-70 |
|---|---|---|---|---|---|
| 2022 Relevant Action | 1603 | 1266 | 314 | 22 | 0 |
| **2025 Relevant Action** | **1596** | 1258 | 316 | 22 | 0 |
| 2018 Baseline | 2832 | 2610 | 201 | 17 | 4 |
| 2019 Baseline | 3229 | 2778 | 410 | 35 | 6 |
| 2022 Baseline | 1430 | 1346 | 72 | 12 | 0 |
| **2025 Baseline** | **1381** | 1298 | 72 | 11 | 0 |
| 2025 Consented | 2416 | 2261 | 98 | 52 | 6 |
| **2016** | **1515** | 1400 | 115 | 0 | 0 |
| 2011 | 329 | 271 | 58 | 0 | 0 |
| 2006 | 0 | 0 | 0 | 0 | 0 |

It is clear that '2025 Relevant Action' will lead to an increase in over 200 people highly sleep disturbed compared with '2025 Baseline' and 80 people compared with '2016 Baseline'.

Focusing on the population affected > 55 dB Lnight, '2025 Relevant' contains 338 people versus 83 in '2025 Baseline' and 115 in '2016 Baseline'. This clearly shows a worsening noise problem at the levels that cause serious adverse health effects.

This is also very evident in the statistics for the population exposed to > 55 dB Lnight.

| Case (Lnight) | >55 | >60 | >65 | >70 |
|---|---|---|---|---|
| 2022 Relevant Action | 1152 | 62 | | |
| **2025 Relevant Action** | **1157** | 62 | | |
| 2018 Baseline | 753 | 56 | 10 | |
| 2019 Baseline | 1533 | 110 | 13 | |
| 2022 Baseline | 284 | 34 | | |
| **2025 Baseline** | **281** | 31 | | |
| 2025 Consented | 495 | 156 | 13 | |
| **2016** | **400** | | | |
| 2011 | 200 | | | |
| 2006 | | | | |

1157 people will be exposed to a Lnight value > 55 dB with '2025 Relevant Action' compared with 281 with '2025 Baseline' and 400 with '2016 Baseline'. This is also acknowledged in the EIAR in section 13.6.1.4:

> Comparing the 2025 Relevant Action scenario with the 2025 Baseline, the number of people exposed to aircraft noise is forecast to increase, for all contour levels. Consequently, the number of people assessed as highly sleep disturbed by aircraft noise increases by 26% from 19,464 to 24,456. The number of people exposed to at least a high level of noise (i.e. 55 dB $L_{night}$ or above) increases from 281 to 1,157 excluding consented developments.

In a pre-planning consultation document dated October 2nd 2019, ANCA make comments on documents received subsequent to the pre-planning consultation of September 12th 2019. In this document ANCA requested percentages of HA and HSD per noise level band. This information was not provided by the DAA in this planning application.

2. Quantifiable metrics for the NAO should include what is likely to be forthcoming from the revised END Annex III (which is expected to have a transposition deadline of 21 December 2021) and include as a minimum:
    a. Lden and Lnight;
    b. % Highly Annoyed (%HA) (per building or noise level band) and total number HA; and

6 | Page

    c. % Highly Sleep Disturbed (%HSD) (per building or noise level band) and total number HSD

On the pre-planning consultation document from ANCA, there are a number of points worth noting.

ANCA requested a 'Consented Situation' from the Oral Hearing of the of the North Runway planning application but taking the restrictions into account. From the noise statistics provided by the DAA in this application, it is evident that there is no comparison with the data provided by additional information requests during the original planning process with the 'constrained' and 'unconstrained' scenarios. 'Constrained' at that time meant without North Runway. The new modelling can therefore not be trusted.

Worryingly, ANCA never requested data from the three Rounds of the END from the DAA. Is ANCA going to use the publicly available data in the NAPs and reported to the EPA?

The first Round of the END in 2006 is very relevant as it shows the status of the noise situation during the original North Runway planning application.

Regulation 598/2014 states that:

"(12)Noise assessments should be based on objective and measurable criteria common to all Member States and should build on existing information available, such as information arising from the implementation of Directive 2002/49/EC. Member States should ensure that such information is reliable, that it is obtained in a transparent manner and that it is

accessible to competent authorities and stakeholders. Competent authorities should put in place the necessary monitoring tools."

It is clear from the 2016 statistics that noise escalated from 2006 to 2016 and that a noise problem existed:

- The number of people exposed to noise levels greater than 50 dB(A) Lnight increased by 5,200 in 2016 from 2011 figures;
- Of the 292,700 people living in the FCC administrative area, 2.3% of the population are exposed to aircraft noise above the desirable level of 50 dB(A) Lnight;
- 0% of the population are exposed to aircraft noise levels above 70 dB(A) Lnight; and
- The number of dwellings exposed to noise levels greater than 50 dB(A) Lnight increased by 1,800 in 2016 from 2011 figures;
- The number of people exposed to noise above 55 dB Lnight has increased from 200 in 2006 and 2011, to 400 in 2016. This is an increase in the number of people exposed to noise above the WHO 'Interim target' for night noise as set out in the Night Noise Guidelines for Europe10.

And

### 6.6 Identification of Noise Problems and Situations to be improved

The results of the noise mapping and the situation described above indicates that night noise and land-use planning are areas which may be a problem and may need to be improved. However, further work needs to be undertaken. To this end, actions have been proposed which will prompt further work.

Section 7 proposes actions to take but reviewing 2018 and 2019 noise levels, none of these had any effect as noise continued to escalate. It is very clear that the Noise Action Plan for Dublin Airport 2019-2013 using data from the three Rounds of the END (2006, 2011 and 2016) identified a noise problem at Dublin Airport. Fingal County Council in their capacity as the body responsible for the NAP failed in its duty and ANCA in its role as the Competent Authority for Noise at Dublin Airport failed to act when the noise problem was presented in the NAP and when contacted by local residents pointing out this fact.

In the BAP report titled "Dublin Airport North Runway Noise Information for the Regulation 598/2014 (Aircraft Noise regulation) Assessment", dated November 2020, on page 10 it refers to the NAO and suggests 2018 as the baseline year. It states the reason for this is that the Noise Action Plan and LAP suggest a noise problem might be emerging in the period up to 2018.

> At this time ANCA have not determined whether a noise problem exists at Dublin Airport and therefore, at present, a NAO has not been defined. If one is to be set in due course by the Aircraft Noise Competent Authority (ANCA) it is likely to contain a summary objective and details of how the NAO will be measured. For the purposes of this application a candidate NAO (cNAO) was developed which has the following summary objective "To limit and reduce the adverse effects of long-term exposure to aircraft noise, including health and quality of life, so that long-term noise exposure, particularly at night, does not exceed the situation in 2018. This should be achieved through the application of the Balanced Approach". The reason that 2018 was chosen as the baseline year is that the Noise Action Plan and Local Area Plan for Dublin Airport suggest that a noise problem at night might be emerging in the period up to 2018.

But the noise data in the Noise Action Plan was based on 2016 data in accordance with Round 3 of the END. Therefore, it's clear that a noise problem existed with the 2016 data and this is a more accurate year to use as a baseline than 2018. It is also noted in the NAP that 589 submissions were made from the public complaining of the noise levels. So clearly there was a noise problem identified with the data from 2016 and this is explained in the NAP.

The EIAR has tried to compare the '2025 Relevant Action' case to '2018 Baseline' and '2025 Consented'.

Section 13.3.4 of the EIAR states that '2025 Consented' is based on the 'constrained' scenario in 2004-2007. 'Constrained' in 2004-2007 meant without the North Runway. It makes no sense then to include in this comparison. Night noise was not deemed an issue in 2004-2007 as the North Runway was not approved for night-time use and the South Runway was limited to 65 movements.

> At the time of the North Runway planning process in 2004-2007, future forecasts were made of the night-time situation that would likely arise in 2025 in a 'constrained' scenario which was defined at that time as the scenario predicted to occur without North Runway being developed. This scenario equated to 65 flights per night in the 92-day summer period using the existing (south) runway in 2025 and no use of the North Runway. In terms of noise exposure, this 'constrained' scenario can be seen as equivalent to a consented night-time scenario with Condition 3(d) and 5 in place, where there is a 65 movement cap at the airport and no use of the North Runway or the crosswind runway at night.

The 'Constrained' situation without the North Runway was never approved by ABP. Attempting to use a scenario that was never granted planning permission is meaningless within this current planning application and attempts to mislead.

Included in the application for the North Runway planning were noise contour maps requested by way of an additional information request and received by An Bord Pleanala on August 30th 2006.

Dublin Airport Authority Northern Parallel Runway

An Bord Pleanála Ref. No. PL 06F.217429

AN BORD PLEANÁLA
TIME _____ BY _____
30 AUG 2006
LTR-DATED _____ FROM _____
PL _____

4. **Information Request Item 4**

Item 4 of the information request states:

**Submit a night-time noise contour for the current noise environment.**

**With respect to the airborne aircraft noise contours please submit the following in 3 dB steps i.e. 48, 51, 54, 57, 60, 63, 66 and 69 dB:**

**a) Figure 44, Part 4 of the EIS – Current Noise Exposure: Daytime**
**b) Figure 46, Part 4 of the EIS – Future Noise Exposure: Daytime (no second runway) his contour should be recomputed to allow for replacement of Boeing 727-200 aircraft by Boeing 737-800.**
**c) Figure 57, part 4 of the EIS – Future Noise Exposure: Night-time (no second runway). This contour should be recomputed to allow for replacement of Boeing 737-200 Aircraft by Boeing 737-800.**
**d) Figure 58, Part 4 of the EIS – Future Noise Exposure (with second runway). This contour should be recomputed to allow for replacement Boeing 733-200 aircraft by Boeing 737-800.**

The population values shown in figures 4.4 and 4.5 do not align with the '2025 Consented' statistics presented in the application. It is clear that this is not a like for like comparison. In 2006 the census data from 2002 was used. What population forecast for 2025 was used for '2025 Consented' modelling?

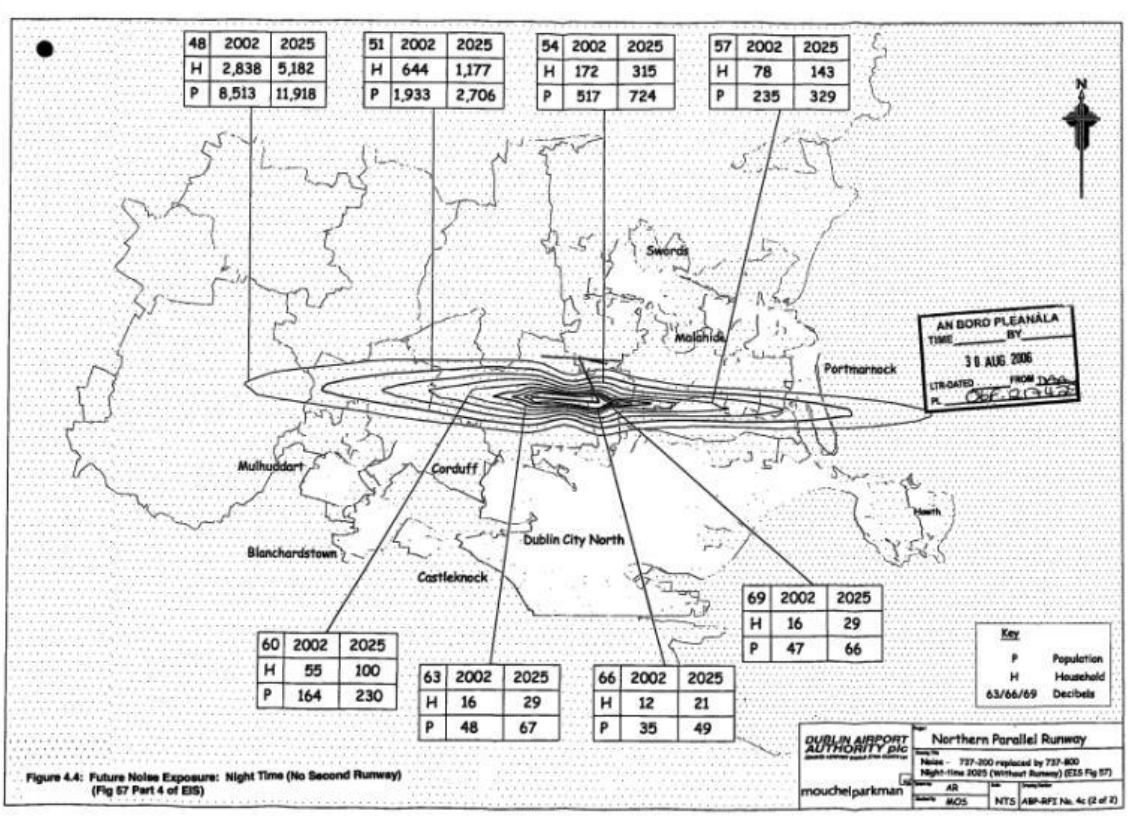



Figure 4.4: Future Noise Exposure: Night Time (No Second Runway) (Fig 57 Part 4 of EIS)

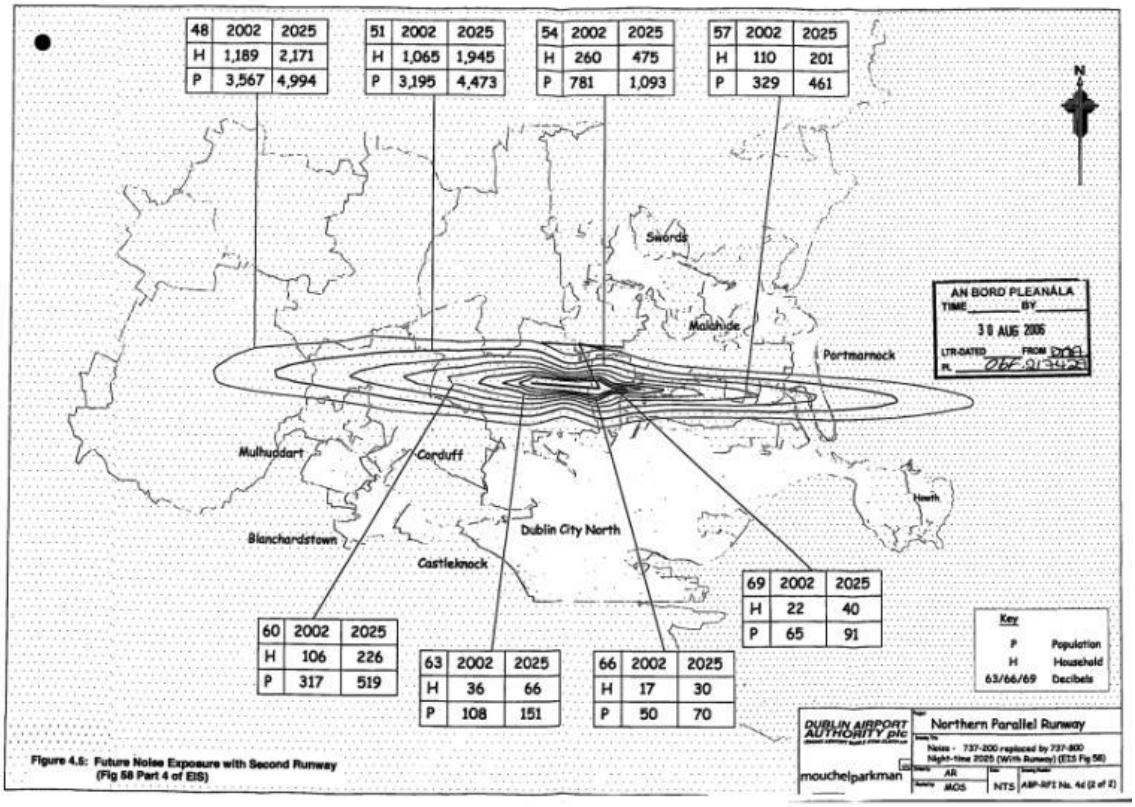



Figure 4.5: Future Noise Exposure with Second Runway (Fig 58 Part 4 of EIS)

It is also worth noting that the original 2025 forecast in 2004-2007 was 38m passengers, exceeding the 32m cap that exists today.

Using '2018 Baseline' and '2025 Consented' is a fundamental flaw in this whole application and should be disregarded by ANCA and Fingal County Council.

A much more meaningful and relevant future comparison is '2025 Baseline'. This is the current 2025 forecast with the current Conditions 3(d) and 5 in place and does not exceed the 32m passenger cap. This is the realistic scenario when the North Runway opens for operation.

We therefore propose that ANCA uses '2016 Baseline' as a reference year in the past and '2025 Baseline' as the reference year in the future for the comparison of the HA and HSD values.

Comparing '2025 Baseline' with '2025 Relevant Action' and '2022 Relevant Action', we see that both Relevant Action years exceed the '2025 Baseline' year with regard to Highly Annoyed and Highly Sleep Disturbed populations, therefore highlighting the increase in noise disturbance. The HSD figure has increased by 24.3% which is an alarming increase in noise levels leading to serious adverse effects.

| Case | Num HA | Num HSD |
|---|---|---|
| **2025 Relevant Action** | **72356** | **25076** |
| **2022 Relevant Action** | **74111** | **24967** |
| 2025 Baseline | 67189 | 20160 |

For the 2016 noise statistics, only noise values > 55 dB Lden and > 50 dB Lnight were collected as part of the Round 3 END reporting. The END Directive mandates data at these levels and data below these levels are voluntary. In fact, concentrating on these higher bands puts the focus on the more dangerous noise levels and those that lead to adverse health effects. The DAA in their submission go to great lengths to try make the case that mitigation measures such as noise insulation is only needed above 55 dB Lnight.

The calculation of HA and HSD was then performed using just the values > 55 dB Lden and > 55 dB Lnight and adding 2016 into the comparison.

The resultant table shows that the noise situation at the extreme end improves going from '2016 Baseline' to '2025 Baseline' but deteriorates significantly in '2022 Relevant Action' and '2025 Relevant Action'.

| Case | Num HA > 55 dB | Num HSD > 50 dB |
|---|---|---|
| **2025 Relevant Action** | **7583** | **1596** |
| **2022 Relevant Action** | **7786** | **1602** |
| 2025 Baseline | 6428 | 1381 |
| 2016 | 6553 | 1515 |

The HA and HSD results clearly show that the Relevant Action will lead to an increase in noise levels.

Doing a straight comparison of Lnight figures for '2025 Baseline' and '2025 Relevant Action', using the populations including consented developments (tables 13-49 and 13-21) shows the increase in Lnight figures in more stark contrast. A 949% increase in the population exposed to noise > 55 dB Lnight and 100% increase in the population exposed to > 60 dB Lnight.

This is a significant irreversible impact that is not clearly discussed in the EIAR. It should be clearly identified where the population actually is so that affected dwellings can find the information.

| Lnight | 2025 Baseline | 2025 Relevant Action | % increase |
|---|---|---|---|
| **>40 dB** | 167200 | 203977 | 22 |
| **>45** | 50879 | 64947 | 28 |
| **>50** | 17235 | 18358 | 7 |
| **>55** | 281 | 2948 | 949 |
| **>60** | 31 | 62 | 100 |
| **>65** | | | |
| **>70** | | | |

This is further evidence that the Relevant Action leads to a significant increase in night-time noise levels compared with the '2025 Baseline' case and '2016 Baseline' level used in Round 3 of the END, and which itself had increased significantly compared with the 2 previous Rounds of the END in 2006 and 2011.

| Lnight (population) | 2006 (original) | 2011 | 2016 |
|---|---|---|---|
| 45-45.9 | | | |
| 50-54.9 | 0 | 1200 | 6200 |
| 55-59.9 | 0 | 200 | 400 |
| 60-64.9 | 0 | 0 | 0 |
| 65-69.9 | 0 | 0 | 0 |
| >=70 | 0 | 0 | 0 |

The DAA have failed to show that noise can be addressed through their Relevant Action application.

It is also worth mentioning that the DAA failed to supply forecasts beyond 2025 and the 32m cap and therefore give no indication of what the future noise situation will be. Removing planning conditions laid down by An Bord Pleanala is not an action that should be taken lightly when the future noise situation is not presented.

The reason stipulated for introducing condition 3(d) is:

"Reason: In the interest of clarity and to ensure the operation of the runways in accordance with the mitigation measures set out in the Environmental Impact Statement in the interest of the protection of the amenities of the surrounding area."

The reason for condition 5 is:

"Reason: To control the frequency of night flights at the airport so as to protect residential amenity having regard to the information submitted concerning future night time use of the existing parallel runway."

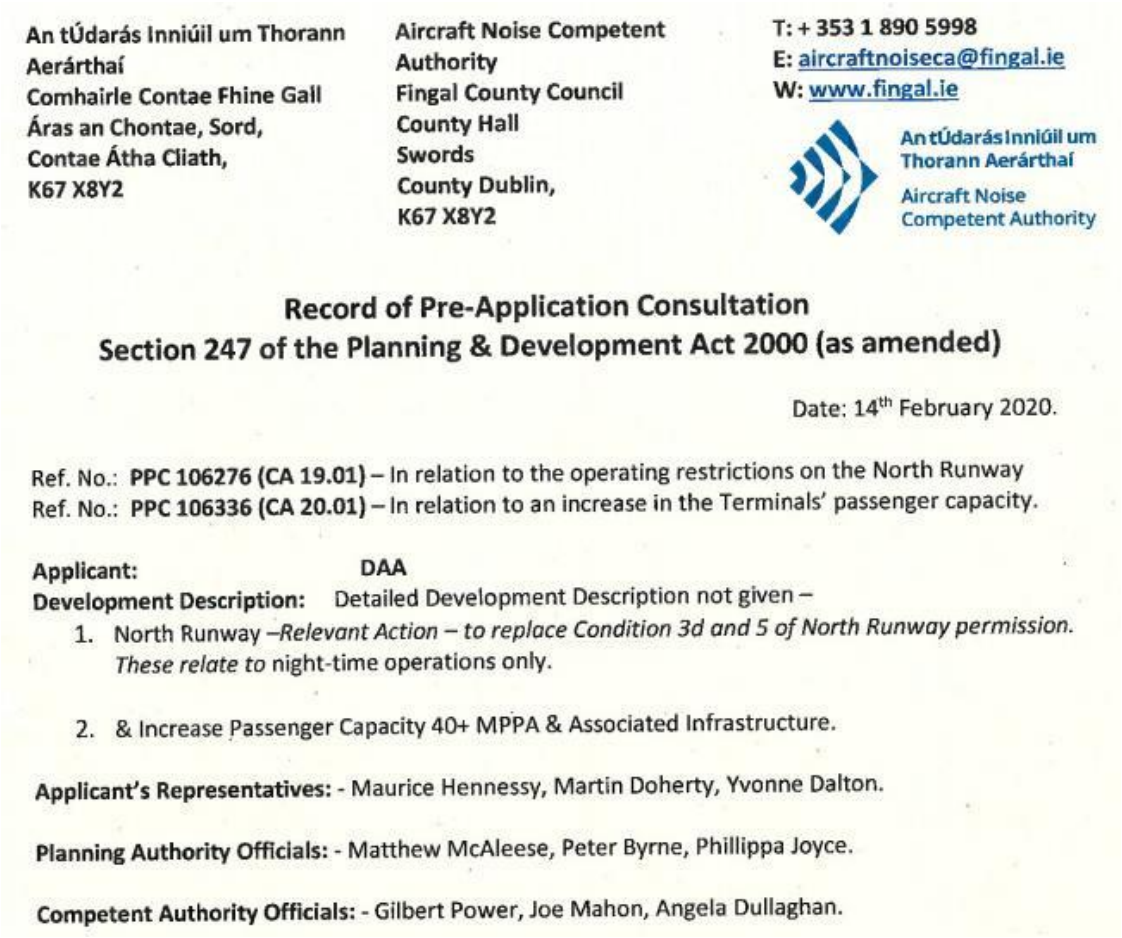
There is insufficient information provided by the DAA "concerning future night time use". It is shown by the pre-planning consultation documentation that the DAA were consulting with Fingal

County Council to submit both a passenger cap increase and an application to remove the planning restrictions.

The DAA made an attempt to increase passenger numbers with the planning application F19A/0449. They withdrew from that application at the last moment at the end of June 2020.

One should also be mindful of the fact that the DAA themselves put forward the night-time restriction ban on the North Runway during the 2004-2007 planning process.

In a pre-planning consultation document, the records clearly show that the DAA were intending to apply to have the operating restrictions removed as well as apply for an increase in passenger numbers to 40+m.This consultation took place in February 2020 and shows the intent then to increase passenger numbers.



An tÚdarás Inniúil um Thorann Aerárthaí
Comhairle Contae Fhine Gall
Áras an Chontae, Sord,
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An tÚdarás Inniúil um Thorann Aerárthaí
Aircraft Noise Competent Authority

**Record of Pre-Application Consultation**
**Section 247 of the Planning & Development Act 2000 (as amended)**

Date: 14th February 2020.

Ref. No.: **PPC 106276 (CA 19.01)** – In relation to the operating restrictions on the North Runway
Ref. No.: **PPC 106336 (CA 20.01)** – In relation to an increase in the Terminals' passenger capacity.

**Applicant:** **DAA**
**Development Description:** Detailed Development Description not given –

1. North Runway –*Relevant Action – to replace Condition 3d and 5 of North Runway permission. These relate to* night-time operations only.

2. & Increase Passenger Capacity 40+ MPPA & Associated Infrastructure.

**Applicant's Representatives:** - Maurice Hennessy, Martin Doherty, Yvonne Dalton.

**Planning Authority Officials:** - Matthew McAleese, Peter Byrne, Phillippa Joyce.

**Competent Authority Officials:** - Gilbert Power, Joe Mahon, Angela Dullaghan.

Therefore, the current application is pre-mature if future forecasts beyond 32m are not included, as stipulated in 598/2014 Annex I subsection 2.

## 2. Forecast without new measures

2.1. Descriptions of airport developments, if any, already approved and in the pipeline, for example, increased capacity, runway and/or terminal expansion, approach and take-off forecasts, projected future traffic mix and estimated growth and a detailed study of the noise impact on the surrounding area caused by expanding the capacity, runways and terminals and by modifying flight paths and approach and take-off routes.

Regulation 598/2014 states in Article 5.1 that the noise situation is assessed in accordance with Directive 2002/49/EC:

*Article 5*

**General rules on aircraft noise management**

1. Member States shall ensure that the noise situation at an individual airport as referred to in point (2) of Article 2 is assessed in accordance with Directive 2002/49/EC.

Annex IV (6) in 2002/49/EC requires the existing situation to be "compared with various possible future situations". It is well signalled by the DAA that an increase in passenger numbers beyond 2025 is forecast and required for Dublin Airport to meet demand and in line with Government policy. Therefore, future scenarios to 40+m should be included.

# SUBMISSION ON BEHALF OF THE ST. MARGARET'S, THE WARD RESIDENTS GROUP

## SUMMARY


- Lower bands have a disproportional influence on the number of people highly annoyed and highly sleep disturbed
- No discussion on local rural communities and the impact on them
- Lower bands are not mandatory reporting bands under the END
- Lowest 2 bands account for 90% of people calculated as highly annoyed
- Lowest 2 bands account for 92% of people calculated as highly sleep disturbed
- Focusing on lower bands, more people highly annoyed in '2025 Relevant Action' than 2016 and '2025 Baseline'
- Focusing on lower bands, more people highly sleep disturbed in '2025 Relevant Action' than 2016 and '2025 Baseline'
- Using all bands, more people highly annoyed in '2025 Relevant Action' than '2025 Baseline'
- Using all bands, more people highly sleep disturbed in '2025 Relevant Action' than '2025 Baseline'
- Population > 55 dB Lnight for '2025 relevant Action is 1157 compared with 281 with '2025 Baseline' and 400 with 2016
- No percentages of HA and HSD per noise band were supplied by the daa, as requested by ANCA
- '2025 Consented' is inappropriate as it involved a 'constrained' situation without the North Runway. It was never granted planning permission. Night-noise on the North Runway was never considered by An Bord Pleanala as the no night-time flights proposal was introduced by Aer Rianta as their solution.
- Noise figures presented in 2007 do not match the forecasts generated by the daa
- '2025 Consented' forecast was 38m passengers. Not relevant with the current 32m operating restriction cap.
- 24.3% increase in HSD figures between '2025 Baseline' and '2025 Relevant Action'
- HA and HSD figures show that Relevant Action leads to an increase in people affected by noise

- Condition 3(d) reason – "To control the frequency of night flights at the airport so as to protect residential amenity having regard to the information **submitted concerning future night time use** of the existing parallel runway"
- No noise data presented beyond 2025 and therefore fails to take Condition 3(d) into account
- Pre-planning consultation documents show that the daa were planning to apply for 40+m passenger application, in line with Government policy
- Failure to supply the medium to long term data makes this application deficient
- Opportunistic attempt by the daa to use Covid-19 period to amend the planning restrictions
- Application fails to satisfy Annex 1(2) of 598/2014 with regard to future projected traffic mix and estimated growth

# 11.0 PROPOSED INSULATION SCHEME

In section 2.1.2.5 of the EIAR, the DAA provide an outline of the proposed night-time insulation scheme:

An Insulation Grant of 20k euro for dwellings:

- Forecasted to be exposed to night-time noise levels of at least 55 dB Lnight in 2025 or
- Forecasted to be expose to noise levels greater than 50 dB Lnight in 2022 arising from a change of at least 9 dB when compared to 2018

Eligibility within the 55 dB Lnight contour will be reviewed every 2 years with revised forecasts.

It states that the noise insulation scheme is considered additional to the existing daytime noise insulation scheme currently provided in accordance with Condition 7 of North Runway planning permission.

Condition 7 states:

"*Prior to commencement of development, a scheme for the voluntary noise insulation of existing dwellings shall be submitted to and agreed in writing by the planning authority. The scheme shall include all dwellings predicted to fall within the contour of 63 dB LAeq 16 hours within 12 months of the planned opening of the runway for use. The scheme shall include for a review every two years of the dwellings eligible for insulation.*

*Reason: In the interest of residential amenity*"

Why is the new night-time insulation scheme not on the same basis as the daytime scheme? The night-time scheme should provide the same level of insulation and full costs covered by daa.

The DAA have provided 63 dB LAeq16 contour maps in order to identify the dwellings that will be contained within these contours. These maps have been forwarded to Fingal Council and ANCA and the number of dwellings has been approved.

A serious flaw in this proposal is that the contours were modelled using Option 7b as per the original planning permission. This modelling took no account of divergence or mixed-mode operations of the runways.

The proposed use of the runways with the divergent routes and mixed mode operations has never received planning permission. The DAA appear to be suggesting that Option 7b allows them flexibility to add whatever divergence they want and to use the runways in whatever

manner suits their needs. This is not what was granted planning permission for in 2007 by An Bord Pleanala. Condition 3 states in the first paragraph that:

"*On completion of construction of the runway hereby permitted, the runways at the airport shall be operated in accordance with the mode of operation – Option 7b – as detailed in the Environmental Impact Statement Addendum, Section 16 as received by the planning authority on the 9 th day of August, 2005*"

In the Inspector's report (http://www.pleanala.ie/documents/reports/217/R217429.pdf) in section 3.1.2 it states:

"*While originally seeking to operate the runway system in mixed mode, the applicant by way of further information, put forward a further option – 7B. In this scenario when winds are westerly Runway 28L will be preferred for arriving aircraft. Either Runway 28L or 28R will be used for departing aircraft as determined by Air Traffic Control (ATC). When winds are easterly, either Runway 10L or 10R as determined by ATC will be preferred for arriving aircraft. Runway 10R will be preferred for departing aircraft. (see Figures 16.1 and 16.2 of EIS Addendum)*."

Condition 3 states:

"*(a) the parallel runways (10R-28L and 10L-28R) shall be used in preference to the cross runway, 16-34,*

*(b) 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,*

*(c) when winds are easterly,* ***either*** *Runway 10L* ***or*** *10R as determined by air traffic control shall be preferred for arriving aircraft. Runway 10R shall be preferred for departing aircraft, and*

*(d) Runway 10L-28R shall not be used for take-off or landing between 2300 hours and 0700 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.*"

It is very clear that the approved planning permission is for segregated mode only and not mixed mode.

Operations on the North Runway cannot commence until all houses that fall within the predicted 63 dB LAeq16 contour within 12 months of the opening. It is very evident that the insulation scheme approved by Fingal County Council needs to be revised by ANCA.

In the current Fingal Development Plan the noise zones were updated by variation to the plan. The new noise contours are a clear recognition by Fingal County Council that serious adverse health effects occur at exposure levels well below those that were mitigated for in the outdated

planning conditions on the new North Runway. All properties that lie inside Zones A, B and C should be thoroughly insulated as outlined by the ProPG Guidelines.

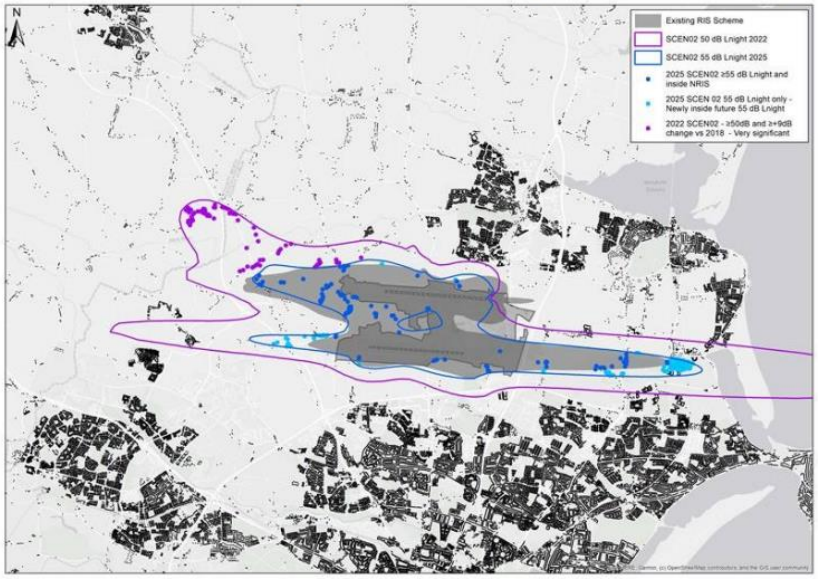
In a pre-planning document, titled 'Presentation to Fingal County Council North Runway Relevant Action Application Pre-Application Consultation PPC106276' November 2020, the daa provide a slide showing a map on the proposed Noise Insulation Scheme. This map attempts to show all dwellings covered by the scheme. This is the first time that such a map has been seen. Nowhere in the entire planning submission is there a map highlighting what properties are affected. Yes, there are contours showing predicted '2025 Relevant Action' 55 dB Lnight contours but no map is provided to show what other dwellings qualify under the > 50 dB (2022) and > 9 dB increase in noise levels.

For this reason alone, a full Public Consultation is required to help explain to local communities who qualify under the scheme and who would not. It is impossible for residents to understand the vast amount of technical documentation in the submission. This map is of very poor quality.

Why wasn't a high-quality map provided online and as part of the planning application? Local communities left in the dark and no communication from the daa or Fingal County Council through the CLG.

## Night Noise Insulation Grant Scheme

Based on exposure to noise levels >=55dB $L_{night}$ 2025 or $L_{night}$ >= 50dB (2022) and change >=+9dB
325 additional properties eligible noise insulation grant (over that currently covered by the NRIS).




| | Dwellings |
|---|---|
| Total >=55dB Lnight 2025 | 360 |
| Total >=50dB with +9dB change (2022 compared with 2018) | 83 |
| TOTAL DWELLINGS IN SCHEME | 443 |
| Dwellings already covered by existing NRIS | 118 |
| NEW DWELLINGS ELIGIBLE FOR NEW NIGHT NIS Grant | 325 |

There are additional properties eligible under the current daytime scheme not included in these numbers = approx. 90 additional.

# 12.0 NOISE ABATEMENT OBJECTIVE

## PRE-PLANNING CONSULTATION DOCUMENTATION

In the pre-planning document, 00683472.pdf, ANCA make a presentation on the identification of a potential noise problem and the setting of a candidate Noise Abatement Objective (NAO). This presentation is dated April 30th, 2020. Whilst the planning legislation allows for section 247 pre-planning consultation to take place, it does not override Regulation 598/2014/EU and the role of independence of the Competent Authority:

"*The competent authority responsible for adopting noise-related operating restrictions should be **independent** of any organisation involved in the airport's operation, air transport or air navigation service provision, or representing the interests thereof and of the residents living in the vicinity of the airport*.", and

"*The competent authorities shall be **independent** of any organisation which could be affected by noise-related action."*

Presenting the candidate NAO to the DAA outside of the statutory 598 framework is wholly inappropriate and calls into question the leadership of both ANCA and Fingal County Council's planning department. At no stage were other stakeholders made aware of the candidate NAO. Concerns were raised during the framing of the Aircraft Noise Bill, by the current CEO of Fingal County Council, of Fingal's independence as the Competent Authority. This workshop on the candidate NAO appears to be a realisation of these fears and concerns.

In the presentation, ANCA provide their 'current thinking' on the candidate NAO. They outline the next steps involved, one of which is to "receive feedback from DAA on proposed approach and candidate NAO". They also request a "workshop to take place on potential measures to be proposed by DAA". The pre-planning consultation phase is for the applicant to engage with the planning authority. This request from ANCA for a workshop appears to stretch the boundaries of section 247.

DRAFT

# ANCA current thinking

**Candidate Noise Abatement Objective for Dublin Airport for the Period to (2027?)**

Part 1 – Summary Objective

*"To limit and reduce the adverse effects of long-term exposure to aircraft noise, including health and quality of life, so that long-term noise exposure, particularly at night, does not exceed the situation in XXXX. This should be achieved through the application of the Balanced Approach."*

Part 2- Further Explanation

Aircraft noise from Dublin Airport should be limited so that impact on health and quality of life is no worse than in XXXX. Being no worse than XXXX should not be considered a desirable or target outcome but instead a limit from which daa should reduce its noise impacts downwards from. The Balanced Approach should be used to ensure that all practicable and sustainable measures are implemented to reduce the noise impact from aircraft operations at Dublin Airport. This should be demonstrated through the publication of annual compliance reports.

Part 3 - How we will measure the NAO

The NAO will be primarily measured through the number of people 'highly sleep disturbed' and 'highly annoyed' in accordance with the approach recommended by the World Health Organisation's Environmental Noise Guidelines 2018 as endorsed by the European Commission through Directive 2020/367, taking into account noise exposure from 45 dB Lden and 40 dB Lnight. These metrics help articulate the effect of aircraft noise on health and quality of life. Further to the above, additional metrics will also be used to help identify priorities. These include:

- 50 dB Lnight (a level of night-time noise exposure at which adverse impacts begin to clearly present over a population)
- 55 dB Lnight (a level of night-time noise exposure representing a clear risk to health)
- 55 dB Lden (which can be linked to other cognitive impacts from aircraft noise)
- 65 dB Lden (where a large proportion of those living around the airport can be considered 'highly annoyed')

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Following on from ANCA's presentation, on May 11th 2020, the DAA presented their feedback on the candidate NAO. The DAA acknowledge that prioritization should be given to higher noise exposure areas.

**daa observations on draft NAO**

- daa support the principle of prioritisation to higher noise exposure areas. This is important for guiding selection and assessment of mitigation where there are inevitably compromises with respect to lower noise areas.
- daa consider further work is required to develop a set of measures/metrics against which limits are applied and compliance measured against (eg area, QC etc) with mitigation developed and prioritised to higher noise exposure (eg HSD > 50dB) where there is greater potential influence.

The DAA comment that population should be fixed with the reference year. This does not make sense. The real true population figures per year should be used.

- Underlying population and dose-response relationships should be fixed as that associated with the reference year (eg 2018) for the purposes of comparison.

The DAA go on to discuss fleet replacement plans. It should be noted that Aer Lingus are now intending to move their new A320neo aircraft to Manchester.

The plans for delivery of the 737 MAX also need to be updated to reflect latest regulatory decisions.

As a result, the forecast plans for aircraft types need to be updated and noise models and contours recreated.

**EU Regulation 598/2014 Annex I**
**Reduction of noise at source**

- This refers to the fleet renewal process, as new aircraft are typically quieter than the equivalent aircraft they replace
- At Dublin Airport, the key replacement aircraft are the Airbus A320neo (Aer Lingus) and the Boeing 737 MAX 8 (Ryanair)
- Specific fleet renewal plans for these two airlines have been considered in the forecast noise contours
- There is some uncertainty (aside from Covid-19) due to the ongoing delays to the Boeing 737 MAX project, although it is not expected to impact long term forecasts significantly
- daa plan to incentivise fleet renewal through the introduction of *environmental charges*. This action is included in the approved Dublin Airport Noise Action Plan 2019-2023 and work is ongoing within the NAP to address this

The DAA outline the noise zones currently in place in the Fingal Development Plan. The NAO should reflect this noise zone planning. The planning noise zones mandate applicants in Zones A, B and C to carry out a noise assessment in accordance with the ProPG Planning Guidelines with respect to internal noise levels. The ProPG guidelines make use of LAmax as the key indicator for internal bedroom at night. Individual noise events should not exceed 45 dB LAmax more than 10 times a night. The guidelines also make reference to open windows and "*where it is proposed that windows need to be closed to achieve the internal noise level guidelines, then full details of the proposed ventilation and thermal comfort arrangements must be provided*".

| ACTIVITY | LOCATION | 07:00 – 23:00 HRS | 23:00 – 07:00 HRS |
|---|---|---|---|
| Resting | Living room | 35 dB $L_{Aeq,16\,hr}$ | - |
| Dining | Dining room/area | 40 dB $L_{Aeq,16\,hr}$ | - |
| Sleeping (daytime resting) | Bedroom | 35 dB $L_{Aeq,16\,hr}$ | 30 dB $L_{Aeq,8\,hr}$<br>45 dB $L_{AmaxF}$ (Note 4) |

*NOTE 1 The Table provides recommended internal $L_{Aeq}$ target levels for overall noise in the design of a building. These are the sum total of structure-borne and airborne noise sources. Ground-borne noise is assessed separately and is not included as part of these targets, as human response to ground-borne noise varies with many factors such as level, character, timing, occupant expectation and sensitivity.*

*NOTE 2 The internal $L_{Aeq}$ target levels shown in the Table are based on the existing guidelines issued by the WHO and assume normal diurnal fluctuations in external noise. In cases where local conditions do not follow a typical diurnal pattern, for example on a road serving a port with high levels of traffic at certain times of the night, an appropriate alternative period, e.g. 1 hour, may be used, but the level should be selected to ensure consistency with the internal $L_{Aeq}$ target levels recommended in the Table.*

*NOTE 3 These internal $L_{Aeq}$ target levels are based on annual average data and do not have to be achieved in all circumstances. For example, it is normal to exclude occasional events, such as fireworks night or New Year's Eve.*

*NOTE 4 Regular individual noise events (for example, scheduled aircraft or passing trains) can cause sleep disturbance. A guideline value may be set in terms of SEL or $L_{AmaxF}$, depending on the character and number of events per night. Sporadic noise events could require separate values. In most circumstances in noise-sensitive rooms at night (e.g. bedrooms) good acoustic design can be used so that individual noise events do not normally exceed 45dB $L_{AmaxF}$ more than 10 times a night. However, where it is not reasonably practicable to achieve this guideline then the judgement of acceptability will depend not only on the maximum noise levels but also on factors such as the source, number, distribution, predictability and regularity of noise events (see Appendix A).*

In Appendix A.10 the ProPG Guidelines make reference to the UK Government's Planning Practice Guidance and highlights the distinction between detectable impacts and adverse and significant adverse effects of noise on sleep.

- "Noise with the "potential for some reported sleep disturbance" is an "Observed Adverse Effect" that should be mitigated and reduced to a minimum; and

- Noise with the "potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep" is a "Significant Observed Adverse Effect" that should be avoided; and

- Noise that causes "regular sleep deprivation/awakening" is a "Significant Observed Adverse Effect" that should be prevented."

This focus on LAmax is also highlighted in the WHO Community Noise Guidelines 1999. It is therefore imperative that LAmax should form part of the NAO.

The WHO Community Noise Guidelines 1999 are referenced in the BAP report titled "Dublin Airport Aircraft Noise Methodology Report" dated March 2020 and which was submitted to ANCA as part of their planning application to have the passenger numbers increased from 32m to 35m (F19A/0449).

In appendix A2.33 it states:

"The 1999 WHO guidelines provide advice that for a good sleep**, indoor sound pressure levels should not exceed approximately 45 dB LAmax more than 10-15 times per night**. This guidance on internal noise levels remains current. Accounting for sleeping with a bedroom window slightly open (and a reduction from outside to inside of 15 dB), this translates to an outside sound pressure level of 60 dB LAmax.".

The BAP report goes on further to explain how N60 contours can be used to show differences in scenarios for individual noise events:

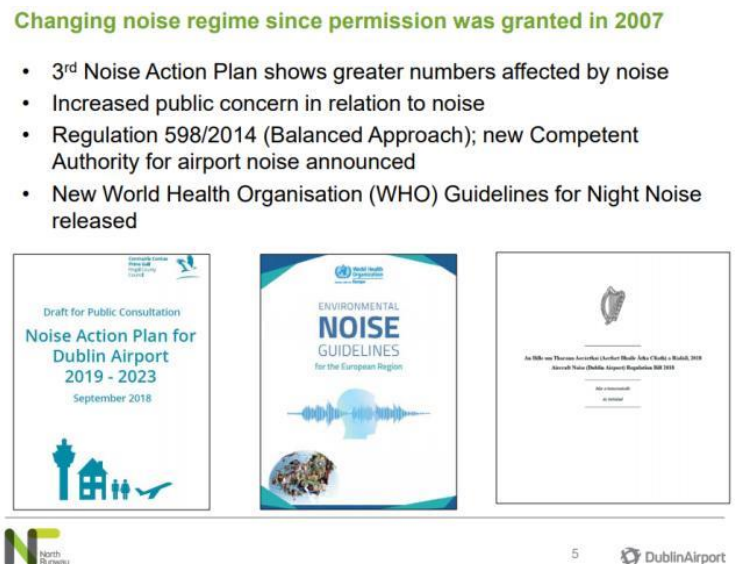
N60 contours are therefore used in this assessment to illustrate how, for a given point on the ground, the number of aircraft events producing a level of 60 dB LAmax or more will change between various scenarios."

In the BAP report titled "Dublin Airport North Runway Noise Information for the Regulation 598/2014 (Aircraft Noise regulation) Assessment", dated November 2020, on page 10 it refers to the NAO and suggests 2018 as the baseline year. It states the reason for this is that the Noise Action Plan and LAP suggest a noise problem might be emerging in the period up to 2018.

But the noise data in the Noise Action Plan was based on 2016 data in accordance with Round 3 of the END. Therefore, it's clear that a noise problem existed with the 2016 data and this is a more accurate year to use as a baseline than 2018.

> At this time ANCA have not determined whether a noise problem exists at Dublin Airport and therefore, at present, a NAO has not been defined. If one is to be set in due course by the Aircraft Noise Competent Authority (ANCA) it is likely to contain a summary objective and details of how the NAO will be measured. For the purposes of this application a candidate NAO (cNAO) was developed which has the following summary objective "To limit and reduce the adverse effects of long-term exposure to aircraft noise, including health and quality of life, so that long-term noise exposure, particularly at night, does not exceed the situation in 2018. This should be achieved through the application of the Balanced Approach". The reason that 2018 was chosen as the baseline year is that the Noise Action Plan and Local Area Plan for Dublin Airport suggest that a noise problem at night might be emerging in the period up to 2018.

As regards the identification of a noise problem, it is clear that Martin Doherty, Environmental & Planning Manager, North Runway Project Dublin Airport, was aware of a noise problem with the data from Round 3 of the END when he made this presentation to an ICAO seminar in Peru in May 2019 (https://www.icao.int/Meetings/GREENAIRPORTS2019/Green%20Airports%20Presentations/Martin%20Doherty%20session%206.pdf):



Page 11 of the BAP report discusses the options for baseline years that BAP and the DAA considered. No mention of 2016 or 2006 and 2011 as per the END. Therefore, all 'alternatives' have not been considered and addressed.

The criterion is for the effects to not exceed a baseline, which could be a past or future year. Several options are available, the first being the recent activity at the airport, for example the 2018 situation or the 2019 situation. Another option is the situation that was consented when the North Runway was given permission.

There is also reference in the cNAO to the Balanced Approach, as summarised above, and so this has influenced the scenarios that are considered by the CEA and are set out in Section 4.0.

For the purposes of the CEA undertaken to date the project team and daa has developed a NAO based on the above summary objective, with the baseline taken as the 2018 Situation, although corresponding noise information on the 2019 Situation has also been prepared. This has been considered in terms of the air noise from the airport, the noise from airborne aircraft and aircraft on the runways, which is the main source of noise from the airport and is the source that has been modelled in response to the requirements of EU Directive 2002/49/EC[4].

Other concerns about the DAA feedback is their proposed grant for night-time insulation which does not equate to the planning condition 7 imposed by An Bord Pleanala on insulation:

"7. Prior to commencement of development, a scheme for the voluntary noise insulation of existing dwellings shall be submitted to and agreed in writing by the planning authority. The scheme shall include all dwellings predicted to fall within the contour of 63 dB LAeq 16 hours within 12 months of the planned opening of the runway for use. The scheme shall include for a review every two years of the dwellings eligible for insulation. Reason: In the interest of residential amenity."

Why the difference in insulation schemes? Are the DAA suggesting that night-time noise exposure is less harmful than day-time noise? What is their justification apart from corporate greed?

There is also no mention of a voluntary buy-out scheme based on night noise exposure.

In 'Aviation 2050 – the future of UK aviation' (https://www.gov.uk/government/consultations/aviation-2050-the-future-of-uk-aviation), there are a number of points that are applicable to Dublin Airport and this planning application.

People find night-time flights more disturbing and there's a ban on night-time flights at Heathrow for 6 and a half hours:

3.110 People find night flights the most disturbing and for many years the government has placed restrictions on these flights at Heathrow, Gatwick and Stansted airports. Many other airports have similar restrictions in place which have been agreed locally. The current night flights regime at these three airports expires in October 2022 and the government expects to begin the process to review the rules in the second half of 2019. In the Airports NPS the government has set out its expectation for a ban of six and a half hours on scheduled night flights at an expanded Heathrow.

Proposing extensions of the noise insulation schemes to 60 dB LAeq16 contour and assistance for those in the 54 dB LAeq16 contour with an increase of 3 dB LAeq:

3.121 The government is also:

- **proposing new measures to improve noise insulation schemes for existing properties, particularly where noise exposure may increase in the short term or to mitigate against sleep disturbance**

3.122 Such schemes, while imposing costs on the industry, are an important element in giving impacted communities a fair deal. The government therefore proposes the following noise insulation measures:

- **to extend the noise insulation policy threshold beyond the current 63dB LAeq 16hr contour to 60dB LAeq 16hr**
- **to require all airports to review the effectiveness of existing schemes. This should include how effective the insulation is and whether other factors (such as ventilation) need to be considered, and also whether levels of contributions are affecting take-up**
- **the government or ICCAN to issue new guidance to airports on best practice for noise insulation schemes, to improve consistency**
- **for airspace changes which lead to significantly increased overflight, to set a new minimum threshold of an increase of 3dB LAeq, which leaves a household in the 54dB LAeq 16hr contour or above as a new eligibility criterion for assistance with noise insulation**

In the EIAR document in section 13.3.7.1 it discusses residential receptors and shows tables for an effect scale. For absolute values it cites 55-59.9 dB Lnight as 'High'. 55 dB is the threshold for night-time insulation. However, for relative values it cites 6-8.9 dB as 'High'. But the night-time noise insulation scheme only uses the 'Very High' scale. This is inconsistent and the same relative scale should be applied in both. Therefore, any relative change above 6 dB should qualify for insulation. The relative change should also be compared to the '2016 Baseline' or '2025 Baseline' and not '2018 Baseline' as previously discussed.

The EIAR report also quotes from the UK's National Planning Practice Guidance (NPPG, 2020) which states:

"In cases where existing noise sensitive locations already experience high noise levels, a development that is expected to cause even a small increase in the overall noise may result in a significant adverse effect occurring even though little or no change in behaviour would be

likely to occur."

The EIAR document produces table 13-3 to show the potential significance effect of absolute and relative changes in noise. Adding in the Lnight absolute and relative values shows the range of noise scenarios that cause significant effects.

| Absolute Noise Level Rating Lnight | Change in Noise Level rating | 0-0.9 | 1-1.9 | 2-2.9 | 3-5.9 | 6-8.9 | >=9 |
|---|---|---|---|---|---|---|---|
| < 40 | | Imperceptible | Imperceptible | Imperceptible | Not Significant | Slight | Moderate |
| 40-44.9 | | Imperceptible | Imperceptible | Not Significant | Slight | Moderate | Significant |
| 45-49.9 | | Imperceptible | Not Significant | Slight | Moderate | Significant | Significant |
| 50-54.9 | | Not Significant | Slight | Moderate | Significant | Significant | Very Significant |
| 55-59.9 | | Slight | Moderate | Significant | Significant | Very Significant | Profound |
| >=60 | | Moderate | Significant | Significant | Very Significant | Profound | Profund |

Currently the DAA are only proposing to insulate the dwellings shaded dark red (Very Significant and Profound effects). This is not acceptable and all dwellings in the light red shading (Significant effects) should be insulated.

For example, a dwelling in the 50-54.9 dB Lnight contour and which encountered a > 3 dB change should be insulated. Likewise, a dwelling in the 45-49.9 dB Lnight contour that experienced a > 6 dB increase in noise should also be insulated. And a dwelling in the 40-44.9 dB Lnight contour that experienced a noise increase >= 9 dB should also be insulated.

If the night-time period is being redefined by the daa from 00:00 to 06:00, then the daytime contours to be used for insulation should change to 63 dB LAeq18.

It is also worth noting that LAeq1 and LAeq2 data should be presented to show the concentration of noise levels at the busiest hours of the airport's operation.

## COMPLIANCE REPORTS

Under the Aircraft Noise (Dublin Airport) Regulation Act 2019, the daa are required to prepare a compliance report on an annual basis in respect of noise mitigating measures and operating restrictions at Dublin Airport.

The daa provided a Compliance Report for 2019 but ANCA have acknowledged that it is severely lacking in detail. ANCA have requested additional information and sought clarification on further information (https://www.fingal.ie/sites/default/files/2020-11/20201116-clarification-of-further-information.pdf). What is totally unacceptable is that ANCA have allowed the daa 12 months to put in place "measures to ensure that all airport users comply with all noise mitigation measures". The legislation is very specific for annual compliance reports. A 12-month extension shows that ANCA have a light touch regulation with regard to the daa. The daa exceeded their 32m cap in passenger numbers in 2019 and this 32m cap is an operating restriction that comes under ANCA's remit. Yet ANCA have not demonstrated any intent to pursue this matter and therefore their position has to be called into question.

# SUBMISSION ON BEHALF OF THE ST. MARGARET'S, THE WARD RESIDENTS GROUP

## SUMMARY


- The daa and ANCA have been sharing candidate NAOs since September 2019, to the exclusion of local communities and other stakeholders
- Fingal County Council have failed to address the escalating noise over the 3 rounds of the END and should have assessed the noise problem prior to this application
- The sharing of candidate NAOs and provisions for Workshops on the topic goes above and beyond what is required of a section 247 pre-planning consultation.
- ANCA's independence is called into question
- The daa have tried to provide undue influence over ANCA by using 2018 as their Baseline year
- The candidate NAO makes a reference to Compliance reports, yet ANCA have allowed the daa a 12-month extension
- ANCA have failed to ensure the 32m passenger cap operating restriction is adhered to
- Dublin Airport NAP used noise data from 2016 for the 3rd Round of the END and not 2018
- Martin Doherty, Environmental Manger daa, acknowledged publicly that the 3rd NAP shows a noise problem
- Major flaw in the candidate NAOs not to refer to and use data from the END
- No mention of LAmax in the candidate NAOs presented, even though Fingal County Council's Noise Zone maps focus on the ProPG Guidelines and single LAmax noise events, therefore candidate NAOs conflict with Development Plan
- LAmax is a key cornerstone of the ProPG Guidelines, WHO Community Noise Guidelines 1999, WHO Night Noise Guidelines 2009
- ANCA incorrectly attempting to use 'Interim' target metrics as permanent metrics in their candidate NAO

# 13.0 QUOTA COUNT SYSTEM

The proposed Quota Count system only covers the time period from 23:30 to 06:00 and not the full night-time period, 23:00 to 07:00.

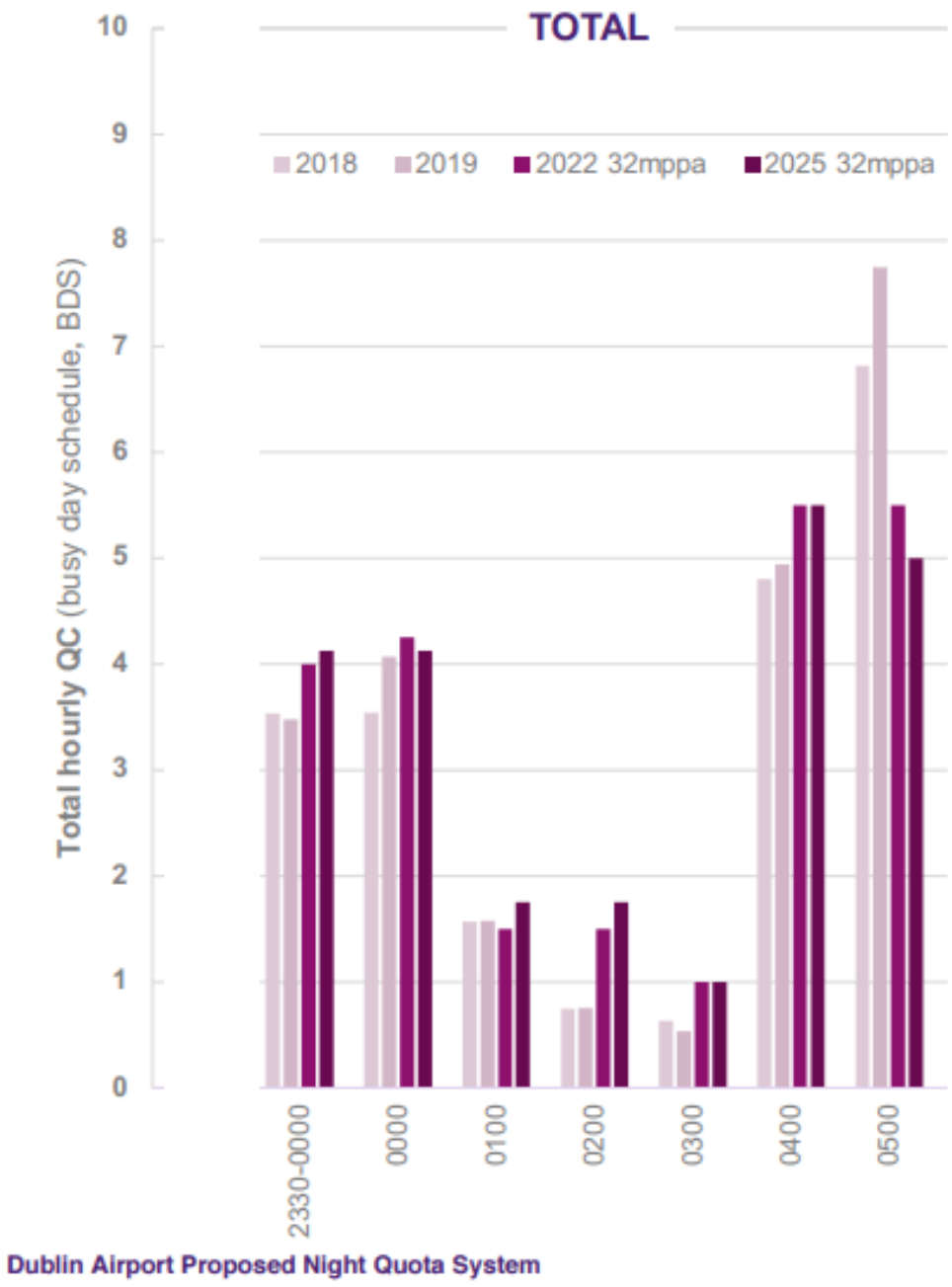
Based on the 'Total hourly QC (BDS)' chart, it can be extrapolated that the QC for 2018 (31.5m passengers) is ~ 21.25 and ~ 22.5 for 2025 (32m passengers forecast).

In July 2018, there was an average of 98 ATMS per day between 23:00 and 07:00, and an average of 53 flights between 23:30 and 06:00 (Flight data for 2018 was provided by the DAA to the 'St Margarets and The Ward residents' group following an email request on April 4th 2019). The average NQP ATMs in July 2018 were:

| 2018 | ATMs | QC | QC/ATM |
|---|---|---|---|
| 23:30 – 24:00 | 11 | 3.5 | 0.32 |
| 24:00 – 01:00 | 14 | 3.5 | 0.25 |
| 01:00 – 02:00 | 8 | 1.5 | 0.19 |
| 02:00 – 03:00 | 3 | 0.75 | 0.25 |
| 03:00 – 04:00 | 1 | 0.5 | 0.5 |
| 04:00 – 05:00 | 8 | 4.75 | 0.6 |
| 05:00 – 06:00 | 8 | 6.75 | 0.84 |
| | | | |
| Total in NQP | 53 | 21.25 | 0.4 |

The average daily number of ATMs in July 2018 during the NQP was 53 and with a QC cumulative value of 21.25, equating to:

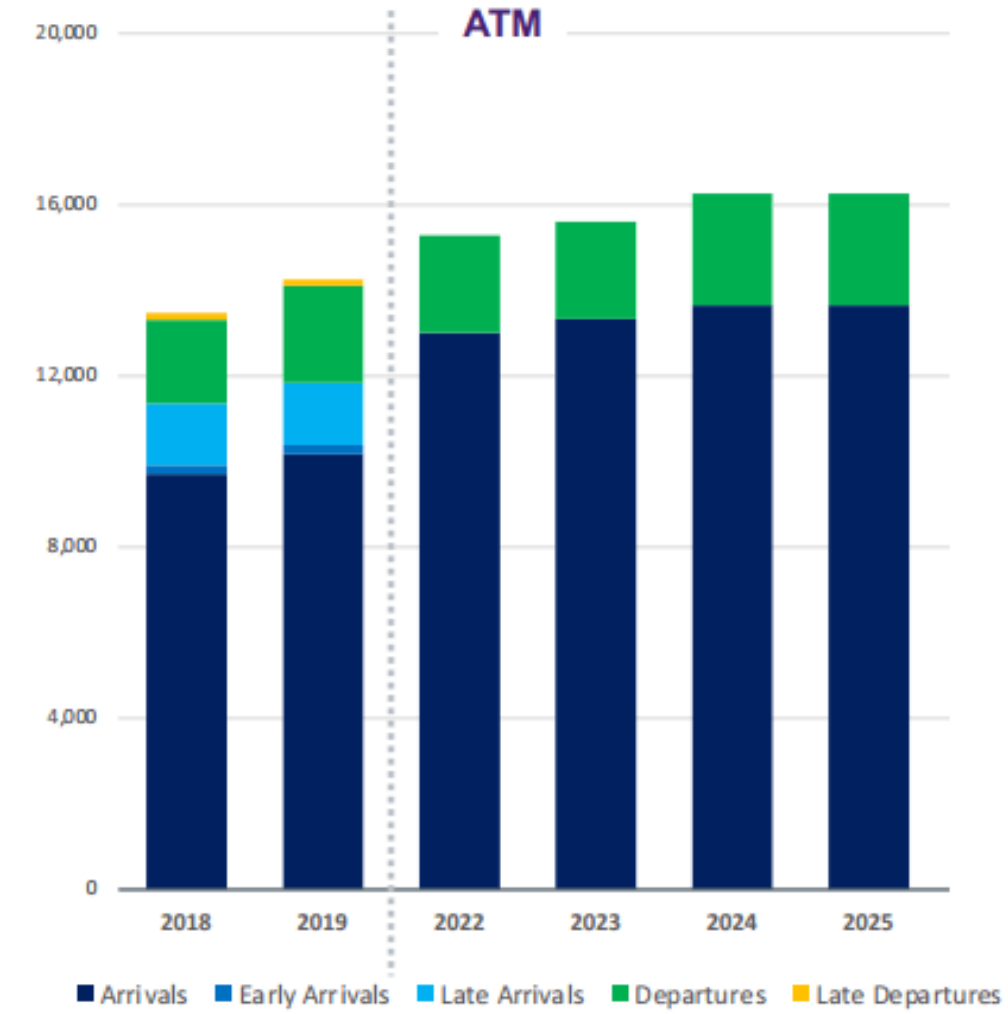
Average QC/ATM value of 0.4.




Dublin Airport Proposed Night Quota System

In 2018, there were approximately 13480 ATMs between 23:30 – 06:00 which equates to:

Annual average of 37 ATMs in the NQP per night.



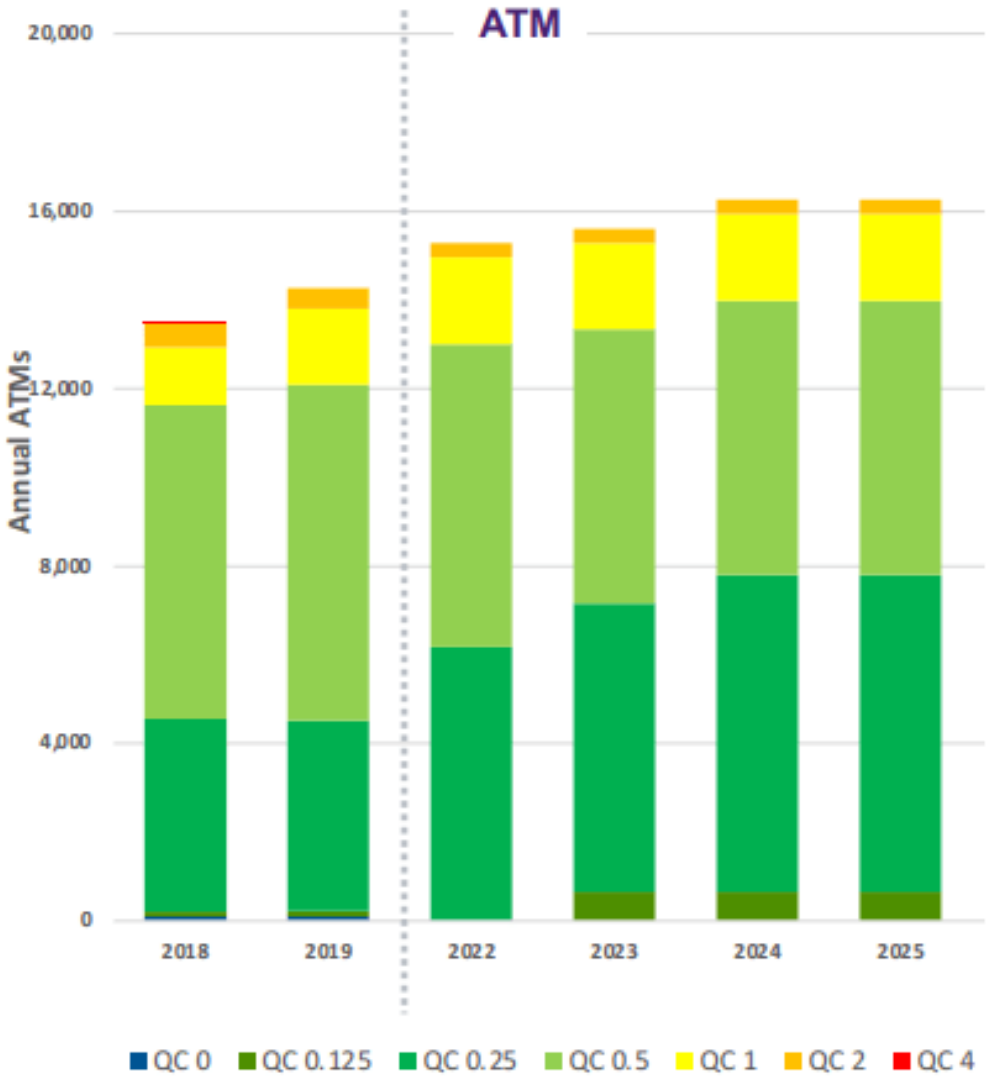

**Dublin Airport Proposed Night Quota System**

13480 (ATMs) x 0.4 (QC per ATM) = 5392 (Annual Night Quota Count)

This figure of 5392 does not match the figure of approximately 7000 presented by Anderson Acoustics in their QC bar chart for 2018.


In 2025, the number of ATMs is forecast to increase to 16k during the NQP.

The Anderson Acoustics document makes the assertion that there'll be an increased contribution of 0.125 and 0.25 QC ATMs, going from 2018 to 2025. But there is no link to any data to validate the figures in the bar chart presented.




**Dublin Airport Proposed Night Quota System**

The number of ATMs is forecast to increase by 21% but the QC will only increase by 7%.

A QC system in general is intended to reduce with the introduction of quieter aircraft. It is not meant to be a static value to enable more movements. It should be reduced on a yearly basis to encourage airlines to introduce quieter aircraft.

As part of a FOI request, ANCA provided access to a BAP report titled 'Dublin Airport – Relevant Action Modelling to assist Development of Noise Abatement Objective (NAO) Draft January 2020'. It is worth noting that this report was received by ANCA on February 10th 2020, yet it was not provided to the public via the planning portal. Fingal County Council need to explain the reason for not making all documents used in the pre-planning consultations available for public scrutiny.

In section 4.2 it discusses the 2018 annual movements and Quota Count. In table 4 it lists the 2018 Annual Average Daily Movements and Annual Average Nightly Quota Count on an hourly basis. The data is reproduced here:

| Hour (local) | 2018 Current Annual Average Daily Movements | 2018 Current Annual Average Nightly Quota Count |
|---|---|---|
| 00:00 – 00:59 | 7.9 | 3.2 |
| 01:00 – 01:59 | 4.5 | 1.4 |
| 02:00 – 02:59 | 1.7 | 0.7 |
| 03:00 – 03:59 | 1.2 | 0.6 |
| 04:00 – 04:59 | 6.8 | 4.3 |
| 05:00 – 05:59 | 7.7 | 6.1 |
| 06:00 – 06:59 | 29.9 | 16.1 |
| 07:00 – 07:59 | 41 | - |
| 08:00 – 08:59 | 32.7 | - |
| 09:00 – 09:59 | 34.4 | - |
| 10:00 – 10:59 | 35.6 | - |
| 11:00 – 11:59 | 36.6 | - |
| 12:00 – 12:59 | 39.7 | - |
| 13:00 – 13:59 | 39.9 | - |
| 14:00 – 14:59 | 38.1 | - |
| 15:00 – 15:59 | 35.5 | - |
| 16:00 – 16:59 | 38.2 | - |
| 17:00 – 17:59 | 39.8 | - |
| 18:00 – 18:59 | 38 | - |
| 19:00 – 19:59 | 34 | - |
| 20:00 – 20:59 | 29.8 | - |
| 21:00 – 21:59 | 24.5 | - |
| 22:00 – 22:59 | 22.4 | - |
| 23:00 – 23:59 | 16.8 | 7.5 |
| **Total** | **636.7** | **39.9** |

The annual average nightly quota count (23:00-07:00) was 39.9. To try compare this with the figures arrived at by Anderson Acoustics for the 23:30-06:00 NQP, subtract the 06:00-07:00 contribution (16.1) and subtract half of the 23:00-24:00 contribution (3.75):

39.9 – 16.1 – 3.75 = **20.05**

From the 2018 flight data statistics, the average daily number of ATMs in July 2018 during the NQP (23:30-06:00) was 53 and with a QC cumulative value of 20.05, resulting in an average QC/ATM value of **0.38**.

In 2018, there were approximately 13480 ATMs between 23:30 – 06:00 resulting in a total Annual Quota Count of 13480 x 0.38 = **5122.4**.

So even using the QC data provided by BAP for 2018, it is clearly evident that the Quota Count for 2018, which catered for 31.5m passengers, is 5122. The earlier calculation using Anderson Acoustics bar charts equated to 5392. Both these figures are very far from the figure of 7990 that Anderson Acoustics are quoting. There is clearly a very large error in their calculations, or they are attempting to inflate the Quota Count to allow for unlimited growth in movements.

## SUMMARY

- Figures produced by Anderson Acoustics do not match the charts they presented
- Quota Count figure of 7990 is hugely inflated
- Quota Count proposal attempts to redefine the night-time period. During the original planning application in 2004-2007 the daa attempted to use 23:00-06:00 and following legal arguments they accepted the period 23:00-07:00 as the definition.
- The figures do not align with data produced in the BAP pre-planning consultation report from January 2020
- Quota Count Systems used in the UK in tandem with movement limits

# 14.0 FLIGHT STATISTICS

## 2018 FLIGHT DATA

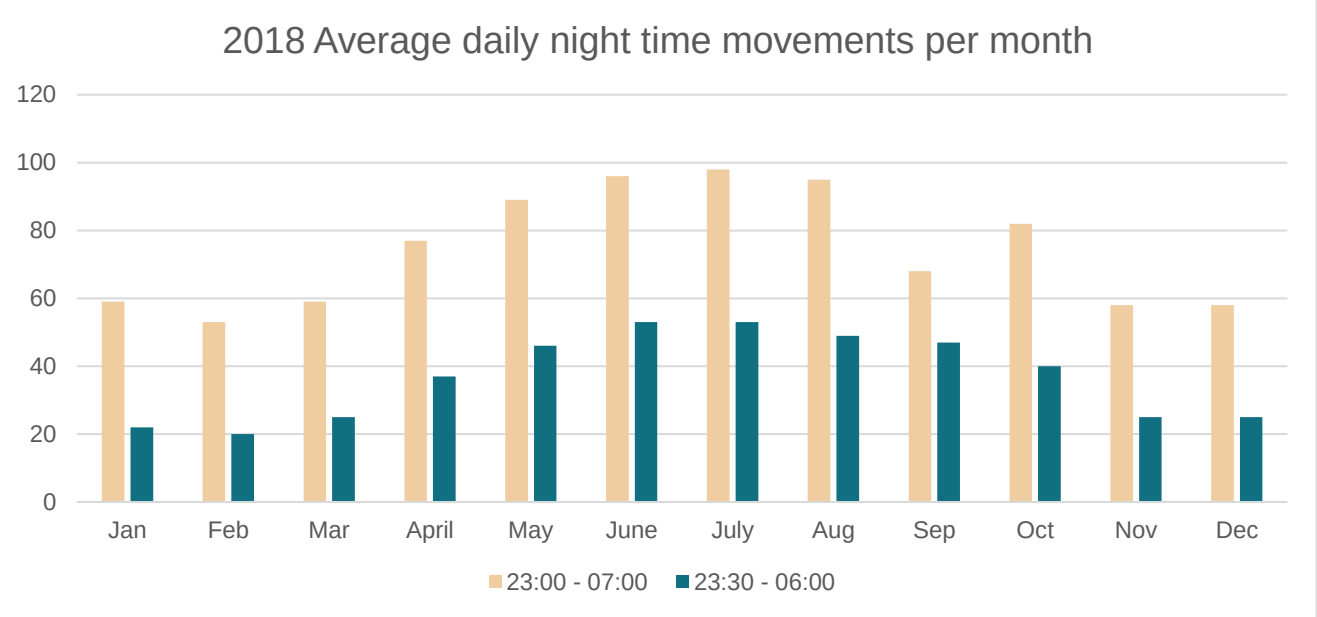
Flight data for 2018 was requested by the St Margaret's and The Ward residents' group through the CLG on Aril 4th 2019.

"*On behalf of the St Margaret's The Ward Residents Group, we would like the DAA to furnish us with the full set of flight data for Dublin Airport for 2018, showing departures and arrivals and their times for each day*."

The DAA replied with the data via email on April 18th, 2019. The data was analysed and a table of average daily night-time flight movements per month produced.

| Month | 23:00 - 07:00 | 23:30 - 06:00 |
|---|---|---|
| Jan | 59 | 22 |
| Feb | 53 | 20 |
| Mar | 59 | 25 |
| April | 77 | 37 |
| May | 89 | 46 |
| June | 96 | 53 |
| July | 98 | 53 |
| Aug | 95 | 49 |
| Sep | 68 | 47 |
| Oct | 82 | 40 |
| Nov | 58 | 25 |
| Dec | 58 | 25 |

(note: There was an issue with night-time data reported for April 27th. Therefore, night-time data for April 26th was used for April 27th)




5 months of the year (January, February, March, November and December) the average nightly movements were less than the 65 movements stipulated in Condition 5. And September had 68 average movements.

**Condition 5**

> "On completion of construction of the runway hereby permitted, the average number of night time aircraft movements at the airport shall not exceed 65/night (between 2300 hours and 0700 hours) when measured over the 92 day modelling period as set out in the reply to the further information request received by An Bord Pleanála on the 5th day of March, 2007.
>
> Reason: To control the frequency of night flights at the airport so as to protect residential amenity having regard to the information submitted concerning future night-time use of the existing parallel runway."

For the original planning permission for the North Runway, the DAA stated that the number of night movements in the modelling period (2007 – Option 7b 2025 high growth) would increase from 45 to 65 in the constrained case (no runway) and from 49 to 95 in the unconstrained case (with runway). Based on the 2018 flight data, Dublin Airport had already reached a value of 95 movements without the runway and so the modelling in 2007 underrepresented the growth in movements.

July 2018, 23:00-07:00 versus 23:30-06:00

| Jul-18 | 0->7 | 23->24 | 23->7 | 23:30->24 | 0->6 | 23:30->6 |
|---|---|---|---|---|---|---|
| 1-Jul | 71 | 19 | **90** | 9 | 40 | **49** |
| 2-Jul | 73 | 21 | **94** | 10 | 40 | **50** |
| 3-Jul | 73 | 22 | **95** | 12 | 41 | **53** |
| 4-Jul | 75 | 25 | **100** | 12 | 39 | **51** |
| 5-Jul | 88 | 20 | **108** | 12 | 51 | **63** |
| 6-Jul | 77 | 27 | **104** | 12 | 39 | **51** |
| 7-Jul | 66 | 21 | **87** | 9 | 34 | **43** |
| 8-Jul | 71 | 25 | **96** | 11 | 36 | **47** |
| 9-Jul | 74 | 23 | **97** | 6 | 39 | **45** |
| 10-Jul | 70 | 19 | **89** | 10 | 36 | **46** |
| 11-Jul | 77 | 22 | **99** | 9 | 39 | **48** |
| 12-Jul | 76 | 20 | **96** | 10 | 40 | **50** |
| 13-Jul | 81 | 18 | **99** | 11 | 48 | **59** |
| 14-Jul | 72 | 20 | **92** | 12 | 38 | **50** |
| 15-Jul | 69 | 21 | **90** | 7 | 38 | **45** |
| 16-Jul | 81 | 22 | **103** | 7 | 47 | **54** |
| 17-Jul | 74 | 18 | **92** | 8 | 42 | **50** |
| 18-Jul | 83 | 23 | **106** | 13 | 45 | **58** |
| 19-Jul | 76 | 26 | **102** | 16 | 42 | **58** |
| 20-Jul | 87 | 19 | **106** | 7 | 54 | **61** |
| 21-Jul | 76 | 16 | **92** | 8 | 39 | **47** |
| 22-Jul | 78 | 25 | **103** | 13 | 44 | **57** |
| 23-Jul | 78 | 24 | **102** | 10 | 45 | **55** |
| 24-Jul | 71 | 19 | **90** | 13 | 38 | **51** |
| 25-Jul | 73 | 24 | **97** | 12 | 36 | **48** |
| 26-Jul | 77 | 19 | **96** | 11 | 41 | **52** |
| 27-Jul | 79 | 20 | **99** | 14 | 46 | **60** |
| 28-Jul | 79 | 19 | **98** | 9 | 48 | **57** |
| 29-Jul | 81 | 22 | **103** | 7 | 51 | **58** |
| 30-Jul | 75 | 29 | **104** | 15 | 43 | **58** |
| 31-Jul | 76 | 18 | **94** | 11 | 44 | **55** |
| average | **76** | **21** | **98** | **11** | **42** | **53** |

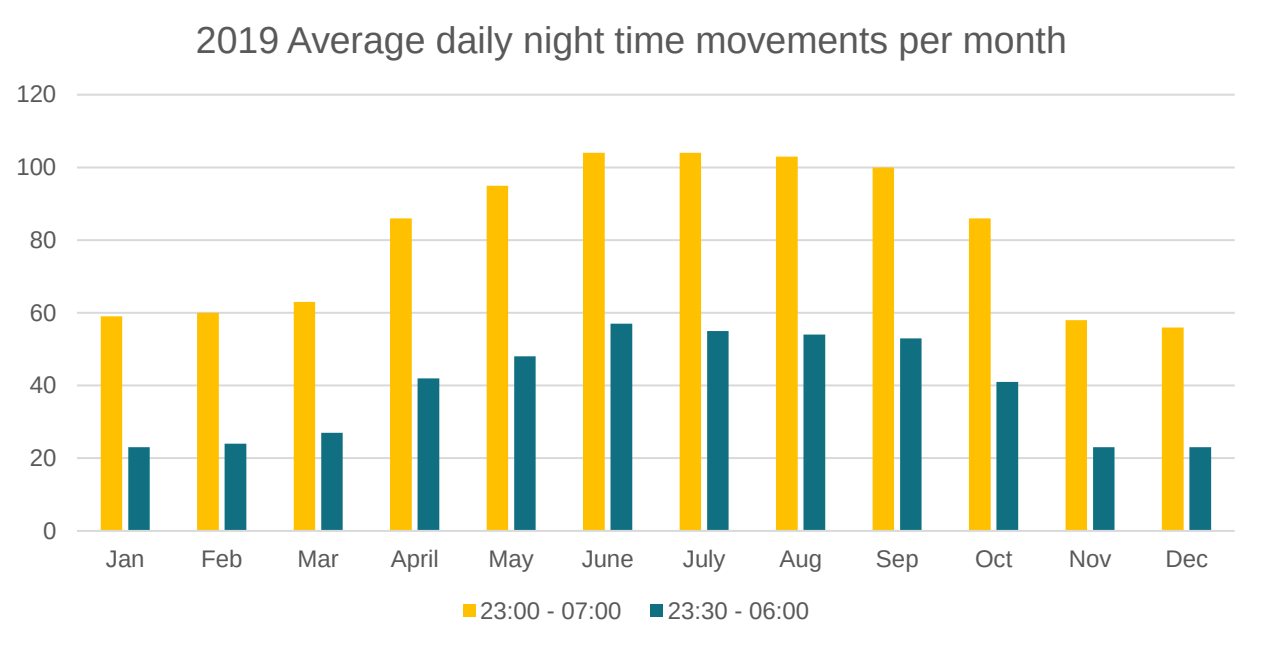
## 2019 FLIGHT DATA

Flight data for 2019 was requested via an Access to Information on the Environment (AIE) request on February 25th, 2020:

"*Could you please furnish me with a list of all flight details for 2019 at Dublin Airport. Please provide them in electronic format in CSV format (comma separated values). Please do not add any restrictions to the file as this data is public data under the AIE Regulations. Please provide the date and time and flight number of each movement and whether the movement is an arrival or departure*."

The DAA replied with the data in locked Excel format via email on March 24th, 2020. The data was analysed and a table of average daily night-time flight movements per month produced.

| Month | 23:00 - 07:00 | 23:30 - 06:00 |
|---|---|---|
| Jan | 59 | 23 |
| Feb | 60 | 24 |
| Mar | 63 | 27 |
| April | 86 | 42 |
| May | 95 | 48 |
| June | 104 | 57 |
| July | 104 | 55 |
| Aug | 103 | 54 |
| Sep | 100 | 53 |
| Oct | 86 | 41 |
| Nov | 58 | 23 |
| Dec | 56 | 23 |




As can be seen by the table and chart above, 5 months of the year (January, February, March, November and December) the average nightly movements were less than the 65 movements stipulated in Condition 5.

July 2019, 23:00-07:00 versus 23:30-06:00

| Jul-19 | 0->7 | 23->24 | 23->7 | 23:30->24 | 0->6 | 23:30-6 |
|---|---|---|---|---|---|---|
| 1-Jul | 73 | 32 | **105** | 16 | 38 | **54** |
| 2-Jul | 84 | 24 | **108** | 10 | 49 | **59** |
| 3-Jul | 77 | 26 | **103** | 12 | 42 | **54** |
| 4-Jul | 81 | 21 | **102** | 11 | 41 | **52** |
| 5-Jul | 86 | 25 | **111** | 11 | 49 | **60** |
| 6-Jul | 73 | 23 | **96** | 9 | 33 | **42** |
| 7-Jul | 80 | 25 | **105** | 12 | 45 | **57** |
| 8-Jul | 79 | 23 | **102** | 8 | 44 | **52** |
| 9-Jul | 77 | 17 | **94** | 8 | 40 | **48** |
| 10-Jul | 81 | 22 | **103** | 9 | 45 | **54** |
| 11-Jul | 87 | 18 | **105** | 6 | 47 | **53** |
| 12-Jul | 86 | 20 | **106** | 8 | 47 | **55** |
| 13-Jul | 80 | 20 | **100** | 8 | 45 | **53** |
| 14-Jul | 84 | 28 | **112** | 13 | 50 | **63** |
| 15-Jul | 70 | 25 | **95** | 13 | 37 | **50** |
| 16-Jul | 82 | 16 | **98** | 6 | 45 | **51** |
| 17-Jul | 80 | 23 | **103** | 10 | 43 | **53** |
| 18-Jul | 81 | 23 | **104** | 9 | 43 | **52** |
| 19-Jul | 76 | 27 | **103** | 12 | 45 | **57** |
| 20-Jul | 81 | 19 | **100** | 6 | 43 | **49** |
| 21-Jul | 88 | 26 | **114** | 13 | 51 | **64** |
| 22-Jul | 77 | 21 | **98** | 10 | 39 | **49** |
| 23-Jul | 77 | 17 | **94** | 3 | 41 | **44** |
| 24-Jul | 85 | 25 | **110** | 9 | 50 | **59** |
| 25-Jul | 89 | 23 | **112** | 8 | 50 | **58** |
| 26-Jul | 92 | 23 | **115** | 8 | 56 | **64** |
| 27-Jul | 83 | 22 | **105** | 8 | 48 | **56** |
| 28-Jul | 86 | 28 | **114** | 12 | 53 | **65** |
| 29-Jul | 78 | 28 | **106** | 15 | 41 | **56** |
| 30-Jul | 81 | 20 | **101** | 11 | 45 | **56** |
| 31-Jul | 80 | 26 | **106** | 14 | 49 | **63** |
| average | **81** | **23** | **104** | **10** | **45** | **55** |

## DISCUSSION ON RESULTS

From the flight statistics for 2018 and 2019 there's a significant difference in the number of night-time flights between the period November-March and April-October.

Condition 5 of the North Runway's planning permission states:

> "On completion of construction of the runway hereby permitted, the average number of night time aircraft movements at the airport shall not exceed 65/night (between 2300 hours and 0700 hours) when measured over the 92 day modelling period as set out in the reply to the further information request received by An Bord Pleanála on the 5th day of March, 2007.
>
> Reason: To control the frequency of night flights at the airport so as to protect residential amenity having regard to the information submitted concerning future night time use of the existing parallel runway."

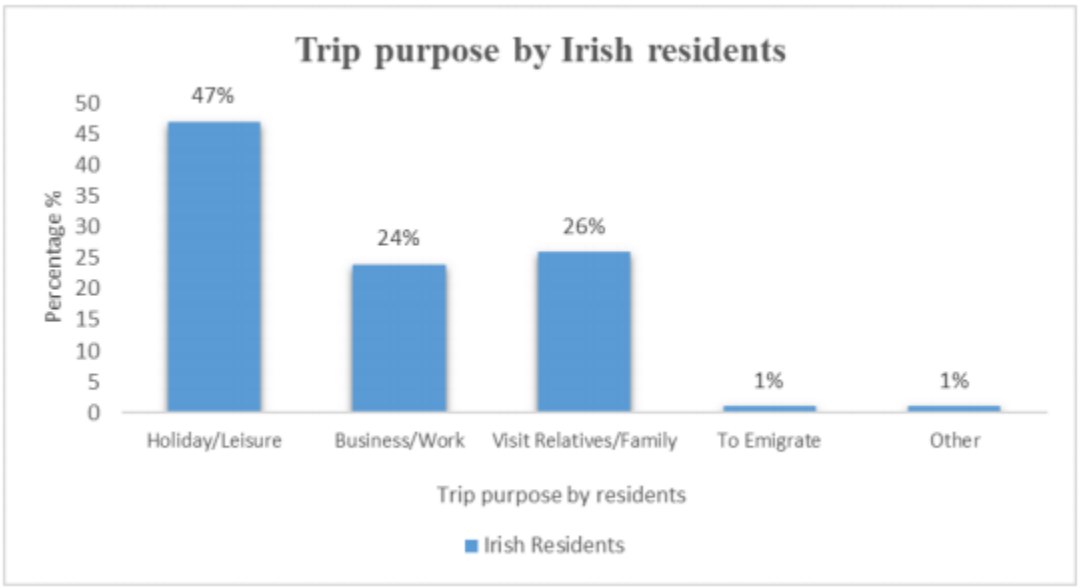
During the planning process for the North Runway, the DAA stated that the number of night movements in the modelling period (2007 – Option 7b 2025 high growth) would increase from 45 to 65 in the constrained case (no runway) and from 49 to 95 in the unconstrained case (with runway). Based on the 2018 and 2019 flight data, Dublin Airport had already reached a value of 95 movements without the runway and so the modelling in 2007 underrepresented the growth in movements.

The DAA in their submission on this new 'relevant action' have stated that pre-Covid-19 demand levels for night flights (23:00-07:00) is over 100/night. It is evident from the 2018 and 2019 flight statistics that there were no months in 2018 where the average daily night-time per month exceeded 100, and only 4 months in 2019 where the value equalled or exceeded 100.

The data clearly shows that the high demand for night-time flights during the Summer is due to recreational travel during the Summer months and not business travel.

In a study carried out by the National Transport Authority (NTA) in 2016 at Dublin, Cork and Shannon Airports (NTA_StateAirportSurvey2016_ReportNovember2017.pdf (nationaltransport.ie)), section 3.8 provides a breakdown of the trip purpose for Irish residents at Dublin Airport. Of the Irish Residents, only 24% of the trips were for 'Business/Work' reasons.

| Trip Purpose | Irish Residents | % | Confidence Interval @ 95% +/- | Confidence Range % |
|---|---|---|---|---|
| Holiday/Leisure | 1201 | **47** | 1.9 | 45 – 49 |
| Business/Work | 602 | **24** | 1.7 | 22 – 26 |
| Visit Relatives/Family | 662 | **26** | 1.7 | 24 – 28 |
| To Emigrate | 30 | **1** | 0.4 | 1 |
| Other* | 37 | **1** | 0.4 | 1 |
| Total | 2532 | 100 | | |



| Trip Purpose | Visitors | % | Confidence Interval @ 95% +/- | Confidence Range % |
|---|---|---|---|---|
| Holiday/Leisure | 1157 | **46** | 1.9 | 44 – 48 |
| Business/Work | 737 | **29** | 1.8 | 27 – 31 |
| Visit Relatives/Family | 572 | **23** | 1.6 | 21 – 25 |
| To Emigrate | 5 | **0** | 0.0 | 0 |
| Other* | 39 | **2** | 0.4 | 1 |
| Total | 2510 | 100 | | |

The DAA provided details on the purpose of passenger journeys in a consultation document submitted to the CAR (http://www.aviationreg.ie/_fileupload/2019%20Determination/Dublin%20Airport%20Consultation%20-%20CIP%202020%20.pdf). In this document in section 1.2 it states:

"Leisure passengers account for approximately 80% of overall traffic. The proportion of business passengers is significantly higher on UK routes, at 27%."

In section 4.7.1, it states that:

"A high-level breakdown between business and non- business shows that while we have seen both segments of the market grow it has been the non-business segment that has delivered the majority of the growth over the last ten years."

Figure 51 provides a breakdown of the difference in numbers for business and non-business journeys from 2008 to 2017.

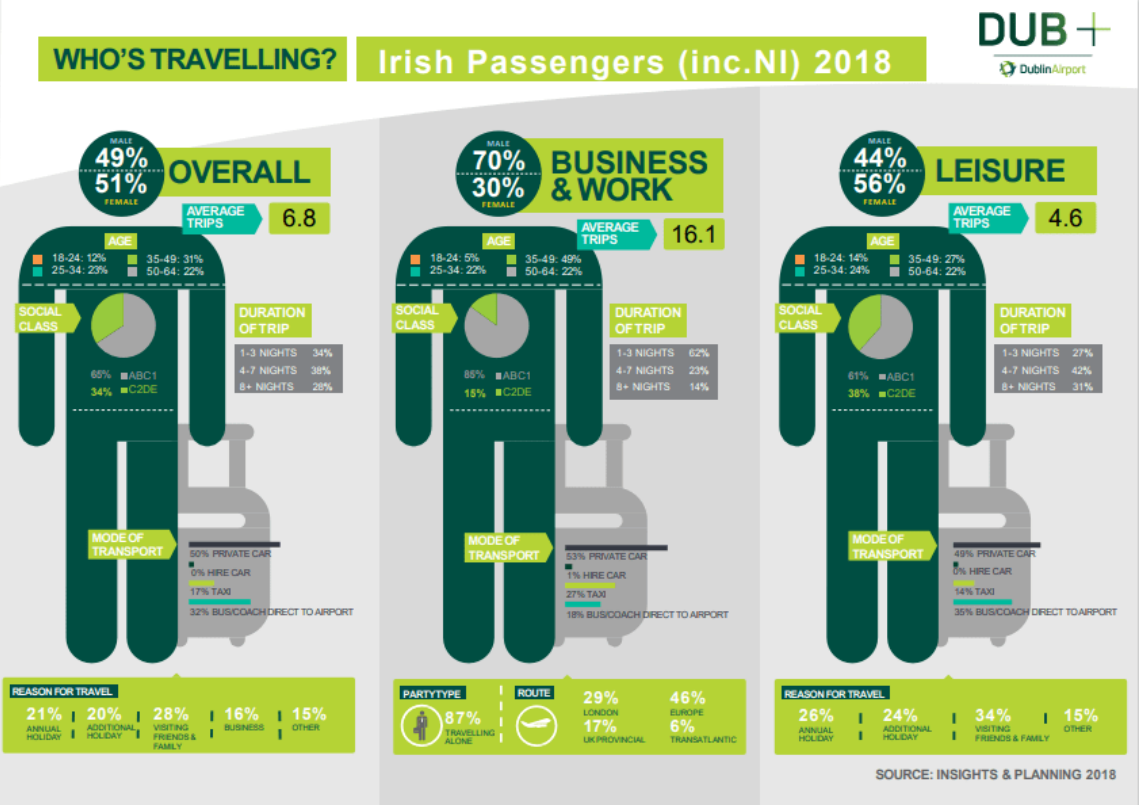
**Figure 51: Scheduled Passengers – Purpose of Journey**

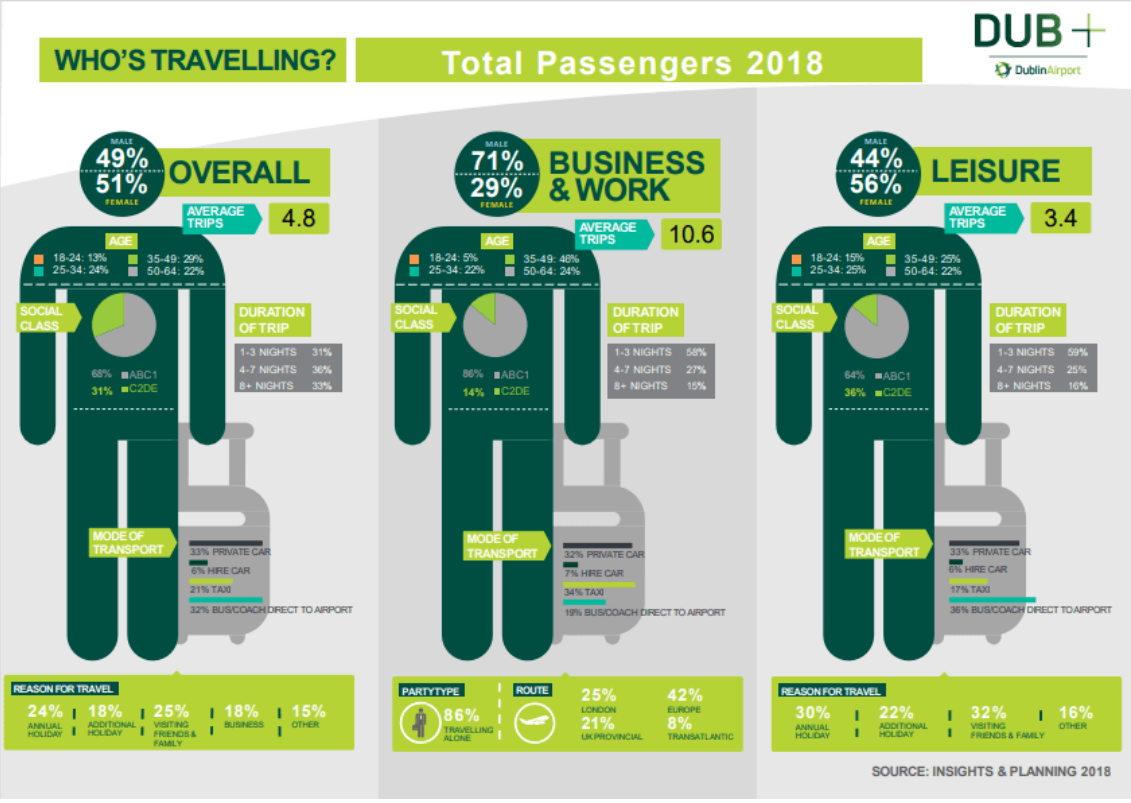
| Dublin Airport Scheduled Passengers | | | |
|---|---|---|---|
| Purpose of Journey | 2008 | 2017 | Diff |
| Business | 4.2m | 5.1m | 0.9m |
| Non-Business | 17.6m | 23.9m | 6.3m |

The breakdown of 2018 and 2019 passenger journeys is provided at Dub Plus| B2B Marketing|Performance Data| Dublin Airport.

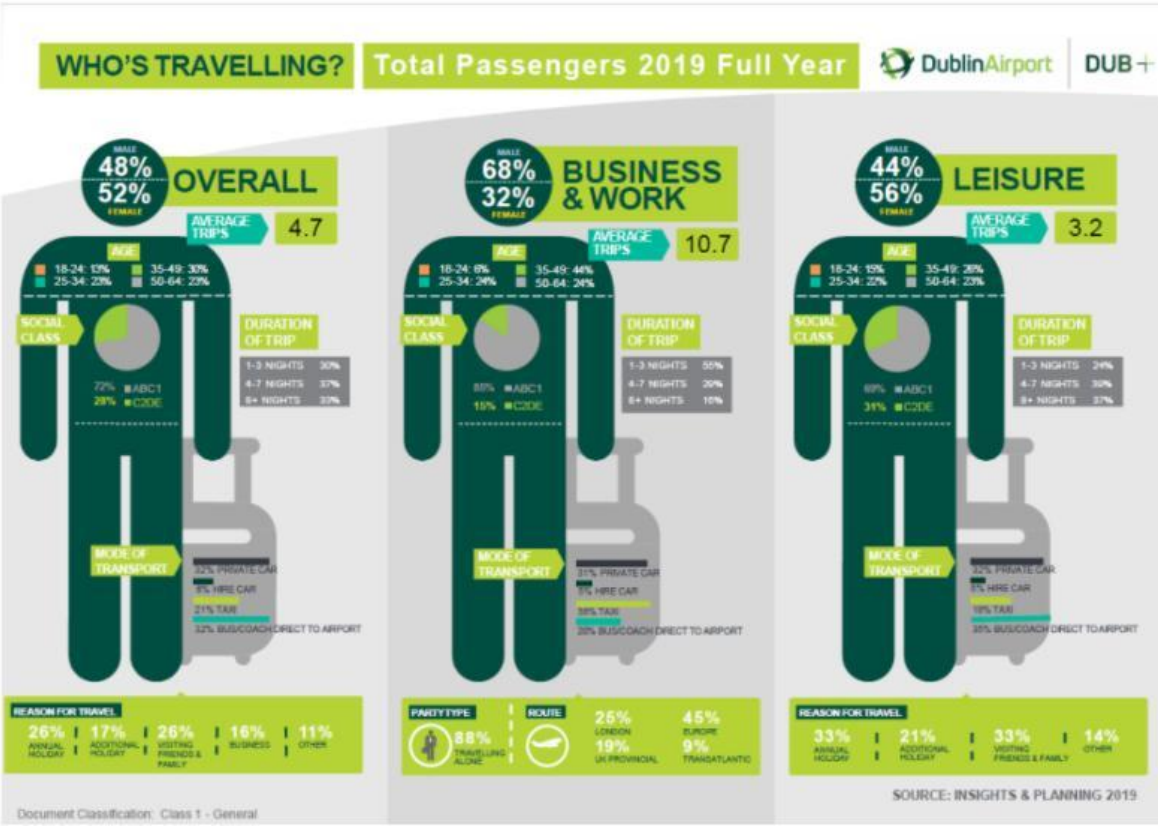
In 2018 just 18% of all travelers travelled for business purposes. The destination of the business travelers was 46% to the UK, 42% to Europe and 8% transatlantic.

Of the Irish passengers in 2018 just **16%** were travelling for business purposes.


WHO'S TRAVELLING?
Irish Passengers (inc.NI) 2018
DUB
DublinAirport
OVERALL
49% MALE
51% FEMALE
AVERAGE TRIPS 6.8
AGE
18-24: 12%
25-34: 23%
35-49: 31%
50-64: 22%
SOCIAL CLASS
65% ABC1
34% C2DE
DURATION OF TRIP
1-3 NIGHTS 34%
4-7 NIGHTS 38%
8+ NIGHTS 28%
MODE OF TRANSPORT
50% PRIVATE CAR
0% HIRE CAR
17% TAXI
32% BUS/COACH DIRECT TO AIRPORT
REASON FOR TRAVEL
21% ANNUAL HOLIDAY
20% ADDITIONAL HOLIDAY
28% VISITING FRIENDS & FAMILY
16% BUSINESS
15% OTHER
BUSINESS & WORK
70% MALE
30% FEMALE
AVERAGE TRIPS 16.1
AGE
18-24: 5%
25-34: 22%
35-49: 49%
50-64: 22%
SOCIAL CLASS
85% ABC1
15% C2DE
DURATION OF TRIP
1-3 NIGHTS 62%
4-7 NIGHTS 23%
8+ NIGHTS 14%
MODE OF TRANSPORT
53% PRIVATE CAR
1% HIRE CAR
27% TAXI
18% BUS/COACH DIRECT TO AIRPORT
PARTY TYPE
87% TRAVELLING ALONE
ROUTE
29% LONDON
17% UK PROVINCIAL
46% EUROPE
6% TRANSATLANTIC
LEISURE
44% MALE
56% FEMALE
AVERAGE TRIPS 4.6
AGE
18-24: 14%
25-34: 24%
35-49: 27%
50-64: 22%
SOCIAL CLASS
61% ABC1
38% C2DE
DURATION OF TRIP
1-3 NIGHTS 27%
4-7 NIGHTS 42%
8+ NIGHTS 31%
MODE OF TRANSPORT
49% PRIVATE CAR
0% HIRE CAR
14% TAXI
35% BUS/COACH DIRECT TO AIRPORT
REASON FOR TRAVEL
26% ANNUAL HOLIDAY
24% ADDITIONAL HOLIDAY
34% VISITING FRIENDS & FAMILY
15% OTHER
SOURCE: INSIGHTS & PLANNING 2018


WHO'S TRAVELLING?
Total Passengers 2018
DUB
DublinAirport
OVERALL
49% MALE
51% FEMALE
AVERAGE TRIPS 4.8
AGE
18-24: 13%
25-34: 24%
35-49: 29%
50-64: 22%
SOCIAL CLASS
68% ABC1
31% C2DE
DURATION OF TRIP
1-3 NIGHTS 31%
4-7 NIGHTS 36%
8+ NIGHTS 33%
MODE OF TRANSPORT
33% PRIVATE CAR
6% HIRE CAR
21% TAXI
32% BUS/COACH DIRECT TO AIRPORT
REASON FOR TRAVEL
24% ANNUAL HOLIDAY
18% ADDITIONAL HOLIDAY
25% VISITING FRIENDS & FAMILY
18% BUSINESS
15% OTHER
BUSINESS & WORK
71% MALE
29% FEMALE
AVERAGE TRIPS 10.6
AGE
18-24: 5%
25-34: 22%
35-49: 46%
50-64: 24%
SOCIAL CLASS
86% ABC1
14% C2DE
DURATION OF TRIP
1-3 NIGHTS 58%
4-7 NIGHTS 27%
8+ NIGHTS 15%
MODE OF TRANSPORT
32% PRIVATE CAR
7% HIRE CAR
34% TAXI
19% BUS/COACH DIRECT TO AIRPORT
PARTY TYPE
86% TRAVELLING ALONE
ROUTE
25% LONDON
21% UK PROVINCIAL
42% EUROPE
8% TRANSATLANTIC
LEISURE
44% MALE
56% FEMALE
AVERAGE TRIPS 3.4
AGE
18-24: 15%
25-34: 25%
35-49: 25%
50-64: 22%
SOCIAL CLASS
64% ABC1
36% C2DE
DURATION OF TRIP
1-3 NIGHTS 59%
4-7 NIGHTS 25%
8+ NIGHTS 16%
MODE OF TRANSPORT
33% PRIVATE CAR
6% HIRE CAR
17% TAXI
36% BUS/COACH DIRECT TO AIRPORT
REASON FOR TRAVEL
30% ANNUAL HOLIDAY
22% ADDITIONAL HOLIDAY
32% VISITING FRIENDS & FAMILY
16% OTHER
SOURCE: INSIGHTS & PLANNING 2018

The following image is from Data Insights|Route Development| Dublin Airport and represents total passenger for the 2019 full year and shows just **16%** of travelers were business travelers.




European business travel accounted for 46% of business travel in 2018 and 45% in 2019. Coupled together with the predicted permanent loss of 19-36% of business travel post Covid-19 based on the research carried out by IdeaWorks (Journey-Ahead-Airline-Business.pdf (ideaworkscompany.com)) on behalf or CarTrawler, it is evident that the necessity for night time flights to Europe is diminishing and not a priority.

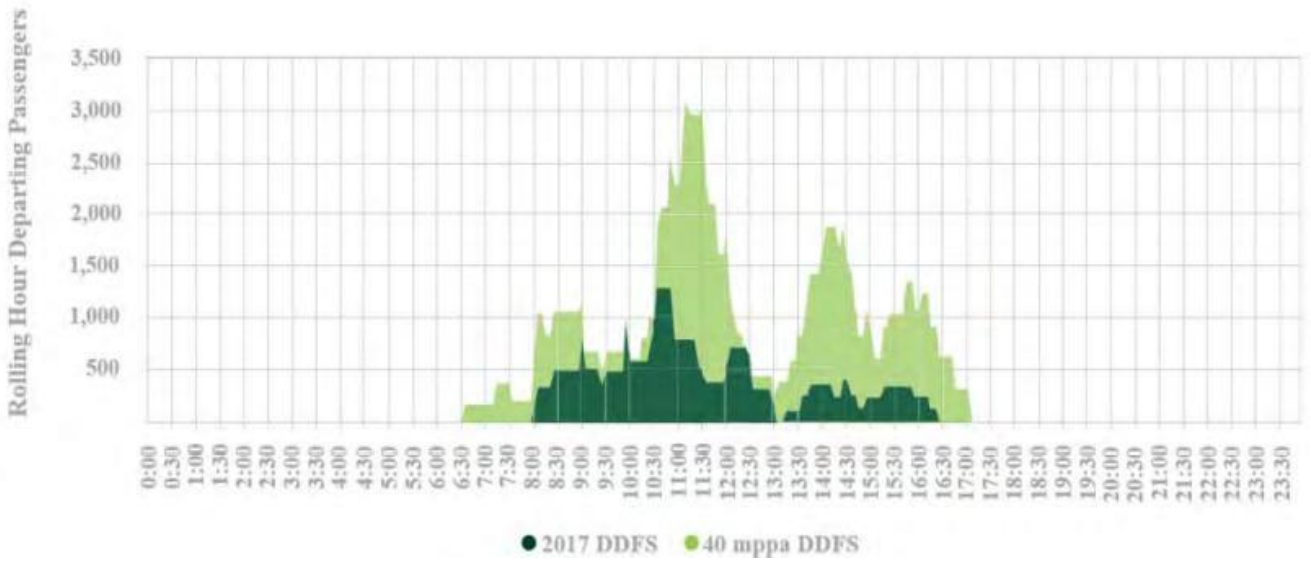
The DAA have repeatedly stated that one of the main reasons to fly before 7am was to facilitate business travelers with the 1-hour time difference with mainland Europe.

16% of travel is for business and 45% of this is to Europe, equating to just 7.2% of all travel. And if a minimum of 19% of this business travel will be permanently lost due to technological advances adopted by companies during the Covid-19 pandemic, then only 5.8% of all travel at Dublin Airport will be European business travel.

Growth in passengers from 2008-2017 has been 7 times larger in non-business travel.

It is also worth noting from the consultation document submitted to the CAR that US bound departing flights do not start operating until 8am (figure 11) and peak utilisation is between 11-12.

Figure 11: Rolling Hour US – Bound Departing Passenger Volumes by Design Day Flight Schedule




In section 4.1 of the consultation document, it lays out the key strategic objectives that frame the Capital Investment Programme 2020. The first key objective is to develop 40mppa capacity in order to facilitate growth beyond 2024. The submission for a 'relevant action' only specifies passenger details up to 2025 and is therefore an incomplete submission when it's both Government policy and DAA policy to grow passenger numbers beyond 40mppa.

During the consultation phase in 2016 on removing the planning restrictions attached to the new North Runways planning permission, the DAA provided forecasts for 2022 and 2037 (https://www.dublinairport.com/docs/default-source/resources/consultation-on-flight-paths-and-change-to-permitted-operations.pdf).

It would be a failure on Fingal County Council's behalf not to include future planned development at Dublin Airport beyond 2025. If the current airport infrastructure with the South Runway could cater for 32.9m passengers in 2019, then the current single South Runway is sufficient for capacity demand up to 2025. If the North Runway is used in conjunction with the South Runway before 2025 then there's ample capacity with the additional runway even with the current restrictions in place.

- Develop 40mppa capacity as it is essential to have the necessary infrastructure in place to accommodate the growth on the horizon, beyond 2024
- Provide increased choice and competition on all routes
- Double transfer traffic to 10% by 2025
- Develop and promote Dublin Airport as an International Hub
- Grow the transatlantic network
- Maximise scale and usage of US Preclearance facility
- Provide for an elevated passenger experience where passengers feel 'cared and looked after'.

In a report sponsored by CarTrawler, the World's leading B2B Car Rental & Mobility Platform, and carried out by IdeaWorks (Journey-Ahead-Airline-Business.pdf (ideaworkscompany.com)), it predicts that between 19-36% of pre-Covid-19 business trips by air will be permanently lost due to technological advancements made by companies during the Covid-19 pandemic.

**Some business travel will not return**

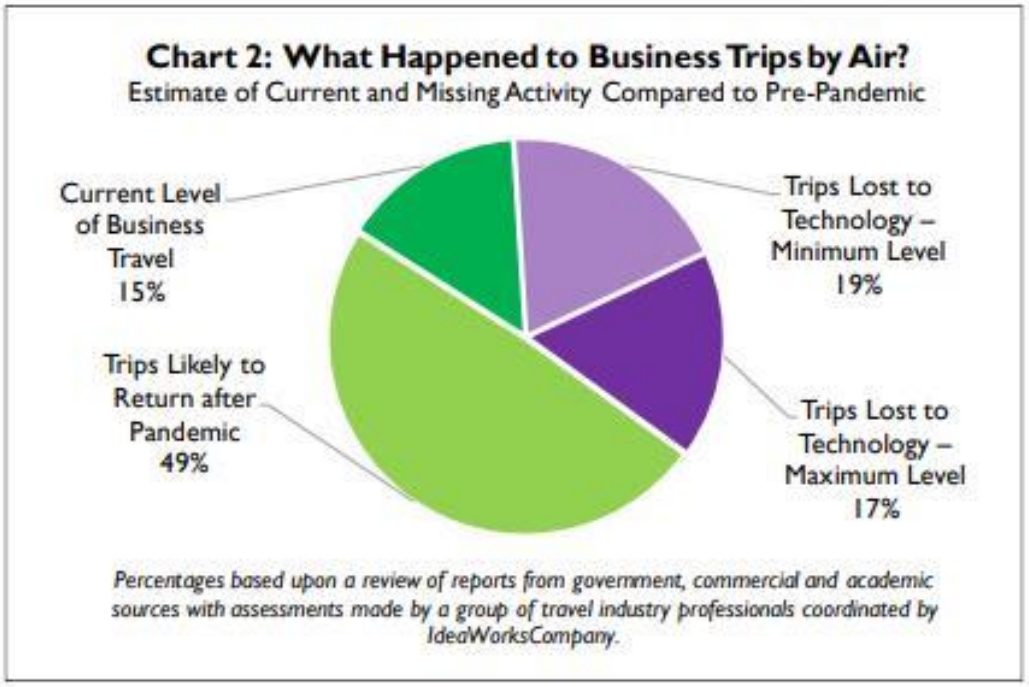
The majority of business travel will return as the pandemic recedes but a portion of airline trips will be replaced by technology. It's a factor that's important to identify as airlines plan for the recovery of travel. Airlines want to know if they should reduce capacity, lower fares, or reconfigure aircraft interiors to address lower demand. For each business trip purpose category, a low and high loss percentage was assigned by the group of four and was subsequently reviewed by the 15 executives. Table #2 lists each category, low and high percentages, and explains the rationale behind the percentages.

**Table 2: Permanent Airline Trip Loss Due to Technology**

| Categories | Trip Loss | | Rationale |
|---|---|---|---|
| | Low | High | |
| Sales and Securing Clients | 0% | 20% | Business development will stay consistent with pre-pandemic levels with 80 to 100% of trips kept because "being there" remains an important attribute for sales. |
| Support of Existing Customers | 20% | 30% | Travel occurring after the "sale is made" is a moderately good candidate for replacement by technology, with a drop of 20 to 30%. |
| Conventions and Trade Shows | 10% | 20% | The need to be physically present will remain a strong allure, but technology will flow to this category to create online events, resulting in losses of 20% or less. |
| Professional Services – Clients and Research | 30% | 50% | This category is a prime candidate for technology replacement, resulting in a loss of 30 to 50%. But a portion of this category involves clients and there is pressure to "be there" because of this. |
| Technical Support – Equipment and IT | 20% | 40% | Physical plant support will stay consistent with pre-pandemic levels. The large majority of the drop would occur with non-physical support, ranging from 20 to 40%. |
| Intra-Company Meetings | 40% | 60% | This category will be a strong candidate for cost savings and in-person activity will be condensed to fewer events. Technology suppliers will eagerly create products to replace the need for trips for meetings, with an overall reduction of 40 to 60%. |
| Commuters by Air | 40% | 60% | The need to be always present in the office, courtesy of a weekly trip, will diminish in the era of remote working. In effect, many commuters could be reclassified as remote workers with fewer trips to headquarters. |
| **Overall Loss** | **19%** | **36%** | *Overall Loss is the weighted average, determined by multiplying trip loss rates and trip purpose shares.* |

The Journey Ahead: Airline Business Travel IdeaWorksCompany.com LLC © 2020 Page 10

Chart #2 displays how the pandemic will affect total airline business trip activity. For the final months of 2020 the level of business trip activity is at 15 percent of pre-pandemic levels. As a recovery occurs in 2021, approximately half of the former trip activity (the 49 percent slice) will return as the business environment normalizes. But beyond this, 19 percent of business trips at a minimum will not return, and the loss could be as high as 36 percent (17 percentage points higher). That's a potential for 1 out of 3 airline business trips to be permanently lost as employers continue the technological replacements adopted during the pandemic.




In an article in the Financial Times (https://www.ft.com/content/867a5342-c94c-43f6-9783-a817443c9471) titled "Business travel: 'We don't know how many people will choose to fly'" from January 14th 2020, it confirms that Business travel has been growing as a far slower pace than leisure travel:

"*Yet the growth in business travel had been slowing globally, according to the GBTA. In the UK, the fourth-biggest economy in terms of business travel expenditure, for example, data from the Office for National Statistics shows that while international air travel for leisure increased 3.4 per cent per year between 2000 and 2019, international business travel grew just 0.2 per cent annually*."

The article also comments on how Corporations are rebranding "reductions in travel as environmental initiatives that will bring companies closer to net-zero emissions targets".

There is also a reference that "*despite rising optimism around vaccinations, a Deloitte survey of 90 finance directors across the UK's largest companies in January showed that 44 per cent expected to reduce discretionary spending such as travel even further over the next 12 months*".

"*Among the companies that have already pledged to reduce travel include consultancies such as Deloitte and PwC, consumer goods group Nestle and Allied Irish Banks, which said a commitment to permanently reduce business travel had been "naturally" accelerated by the pandemic*".

## CONSULTATION ON FLIGHT PATHS AND CHANGE TO PERMITTED OPERATIONS

In 2016 the DAA embarked on a consultation process with the intention of removing the planning restrictions attached to the new North Runways planning permission. The consultation document (https://www.dublinairport.com/docs/default-source/resources/consultation-on-flight-paths-and-change-to-permitted-operations.pdf) contains forecasts for 2022 and 2037. These forecasts include predicted movements based on the existing planning conditions imposed by An Bord Pleanala in 2007 which come into effect on both runways when the new North Runway is operational, and the predicted movements with the removal of Condition 3(d) and Condition 5.

The cumulative flight movements for the operations in 2016, predicted 2022 and 2037 movements with existing planning restrictions and proposed operations, were calculated for Westerly operations on a representative Summer's day.

The DAA's figures show that Dublin Airport can facilitate **947** flight movements and **45m** passengers with the existing planning restrictions of 65 flights between 23:00-07:00 and no night-time flights on the North Runway.

| | 2016 Current Operations | 2022 With existing Planning Restrictions | 2022 With Proposed Operations | 2037 With existing Planning Restrictions | 2037 With Proposed Operations |
|---|---|---|---|---|---|
| **Total Movements per day** | 668 | 772 | 815 | 947 | 1080 |
| **Total Passengers per year** | 31,696,600 | 36,631,400 | 38,671,750 | 44,935,150 | 51,246,000 |
| **(assuming 130 passenger per movement)** | | | | | |

**1. NORTH RUNWAY DEPARTURES**

| Time | 2016 | 2022 | | 2037 | |
|---|---|---|---|---|---|
| | Current Operations | With Existing Planning Conditions | With Proposed Operations | With Existing Planning Conditions | With Proposed Operations |
| | No. Flights | No. Flights | +/- No. Flights | No. Flights | +/- No. Flights |
| 0400–0500 | N/A | 0 | 0 | 0 | 0 |
| 0500–0600 | N/A | 0 | 0 | 0 | 0 |
| 0600–0700 | N/A | 0 | +16 | 0 | +19 |
| 0700–2200 | N/A | 311 | +22 | 378 | +11 |
| 2200–2300 | N/A | 6 | 0 | 12 | -3 |
| 2300–0000 | N/A | 0 | 0 | 0 | 0 |
| 0000–0400 | N/A | 0 | 0 | 0 | 0 |

**2. NORTH RUNWAY ARRIVALS**

| Time | 2016 | 2022 | | 2037 | |
|---|---|---|---|---|---|
| | Current Operations | With Existing Planning Conditions | With Proposed Operations | With Existing Planning Conditions | With Proposed Operations |
| | No. Flights | No. Flights | +/- No. Flights | No. Flights | +/- No. Flights |
| 0400–0500 | N/A | 0 | 0 | 0 | 0 |
| 0500–0600 | N/A | 0 | 0 | 0 | 0 |
| 0600–0700 | N/A | 0 | 0 | 0 | 0 |
| 0700–2200 | N/A | 12 | -12 | 25 | +6 |
| 2200–2300 | N/A | 0 | 0 | 0 | 0 |
| 2300–0000 | N/A | 0 | 0 | 0 | +6 |
| 0000–0400 | N/A | 0 | 0 | 0 | 0 |

**3. SOUTH RUNWAY DEPARTURES**

| Time | 2016 | 2022 | | 2037 | |
|---|---|---|---|---|---|
| | Current Operations | With Existing Planning Conditions | With Proposed Operations | With Existing Planning Conditions | With Proposed Operations |
| | No. Flights | No. Flights | +/- No. Flights | No. Flights | +/- No. Flights |
| 0400–0500 | 0 | 0 | 0 | 0 | 0 |
| 0500–0600 | 6 | 3 | +2 | 3 | +2 |
| 0600–0700 | 37 | 25 | -1 | 25 | +8 |
| 0700–2200 | 284 | 39 | -15 | 55 | +26 |
| 2200–2300 | 4 | 0 | 0 | 0 | 0 |
| 2300–0000 | 1 | 0 | 0 | 0 | +2 |
| 0000–0400 | 2 | 1 | 0 | 1 | +2 |

**4. SOUTH RUNWAY ARRIVALS**

| Time | 2016 | 2022 | | 2037 | |
|---|---|---|---|---|---|
| | Current Operations | With Existing Planning Conditions | With Proposed Operations | With Existing Planning Conditions | With Proposed Operations |
| | No. Flights | No. Flights | +/- No. Flights | No. Flights | +/- No. Flights |
| 0400–0500 | 4 | 3 | +2 | 3 | +6 |
| 0500–0600 | 6 | 7 | +5 | 7 | +8 |
| 0600–0700 | 3 | 4 | +3 | 4 | +5 |
| 0700–2200 | 265 | 310 | +15 | 379 | +17 |
| 2200–2300 | 16 | 29 | -9 | 33 | -5 |
| 2300–0000 | 22 | 12 | +15 | 13 | +20 |
| 0000–0400 | 18 | 10 | +1 | 9 | +3 |

| | | 2016 | 2022 | | 2037 | |
|---|---|---|---|---|---|---|
| Existing Planning Restrictions:<br>65 movements between 23:00 and 07:00 on South Runway<br>No movements on North Runway between 23:00 and 07:00 | Time | Current Operations | With existing Planning Restrictions | With Proposed Operations | With existing Planning Restrictions | With Proposed Operations |
| | | No. Flights | No. Flights | No. Flights | No. Flights | No. Flights |
| | | | | | | |
| **North Runway Departures** | 0400–0500 | | 0 | 0 | 0 | 0 |
| | 0500–0600 | | 0 | 0 | 0 | 0 |
| | 0600–0700 | | 0 | 16 | 0 | 19 |
| | 0700–2200 | | 311 | 333 | 378 | 389 |
| | 2200–2300 | | 6 | 6 | 12 | 9 |
| | 2300–0000 | | 0 | 0 | 0 | 0 |
| | 0000–0400 | | 0 | 0 | 0 | 0 |
| | | | | | | |
| **North Runway Arrivals** | 0400–0500 | | 0 | 0 | 0 | 0 |
| | 0500–0600 | | 0 | 0 | 0 | 0 |
| | 0600–0700 | | 0 | 0 | 0 | 0 |
| | 0700–2200 | | 12 | 0 | 25 | 31 |
| | 2200–2300 | | 0 | 0 | 0 | 0 |
| | 2300–0000 | | 0 | 0 | 0 | 6 |
| | 0000–0400 | | 0 | 0 | 0 | 0 |
| | | | | | | |
| **South Runway Departures** | 0400–0500 | 0 | 0 | 0 | 0 | 0 |
| | 0500–0600 | 6 | 3 | 5 | 3 | 5 |
| | 0600–0700 | 37 | 25 | 24 | 25 | 33 |
| | 0700–2200 | 284 | 39 | 24 | 55 | 81 |
| | 2200–2300 | 4 | 0 | 0 | 0 | 0 |
| | 2300–0000 | 1 | 0 | 0 | 0 | 2 |
| | 0000–0400 | 2 | 1 | 0 | 1 | 3 |
| | | | | | | |
| **South Runway Arrivals** | 0400–0500 | 4 | 3 | 5 | 3 | 9 |
| | 0500–0600 | 6 | 7 | 12 | 7 | 15 |
| | 0600–0700 | 3 | 4 | 7 | 4 | 9 |
| | 0700–2200 | 265 | 310 | 325 | 379 | 396 |
| | 2200–2300 | 16 | 29 | 20 | 33 | 28 |
| | 2300–0000 | 22 | 12 | 27 | 13 | 33 |
| | 0000–0400 | 18 | 10 | 11 | 9 | 12 |
| | | | | | | |
| **Total Movements per day** | | **668** | **772** | **815** | **947** | **1080** |
| | | | | | | |
| **Total Passengers per year** | | **31,696,600** | **36,631,400** | **38,671,750** | **44,935,150** | **51,246,000** |
| 130 per flight | | | | | | |

## COMPARISON OF FLIGHT MOVEMENTS

Summarising tables 13B-1 to 13B-7 in Appendix 13B of the EIAR, the average night-time movements can be calculated and total passengers per year, assuming a loading factor of 137 passengers per flight.

| | 2018 Actual | 2019 Actual | 2022 Baseline | 2022 Relevant Action | 2025 Baseline | 2025 Relevant Action | 2025 Consented |
|---|---|---|---|---|---|---|---|
| 07:00-23:00 | 204442 | 208682 | 201781 | 199182 | 211830 | 209552 | 286188 |
| 23:00-07:00 | 27896 | 29320 | 21120 | 29569 | 21150 | 31238 | 20326 |
| | | | | | | | |
| **Total** | **232338** | **238002** | **222901** | **228751** | **232980** | **240790** | **306514** |
| per full day | 637 | 652 | 611 | 627 | 638 | 660 | 840 |
| per night | 76 | 80 | 58 | 81 | 58 | 86 | 56 |
| 137 | | | | | | | |
| Population | 31830306 | 32606274 | 30537437 | 31338887 | 31918260 | 32988230 | 41992418 |

It is very evident that Dublin Airport can cater for 32m passengers in 2025 with the existing restrictions in place (2025 Baseline), assuming load factors return to pre-Covid levels as stated by the daa

Using tables 13B-11 and 13B-13 of Appendix 13B.3.25 of the EIAR, a comparison can be made of forecast movements per full day and per night-time period and extrapolated for a full year for the following scenarios:

| | Time | 2022 Baseline | 2025 Baseline | 2025 Consented | 2022 Relevant Action | 2025 Relevant Action |
|---|---|---|---|---|---|---|
| | | No. Flights | No. Flights | No. Flights | No. Flights | No. Flights |
| | | | | | | |
| **North Runway Departures/Arrivals** | 0400–0500 | | | | | |
| | 0500–0600 | | | | | |
| | 0600–0700 | | | | 27 | 27 |
| | 0700–2200 | 242 | 259 | 335 | 263 | 281 |
| | 2200–2300 | 6 | 6 | 18 | 6 | 6 |
| | 2300–0000 | | | | 1 | 1 |
| | 0000–0400 | | | | | |
| | | | | | | |
| **South Runway Arrivals/Departures** | 0400–0500 | | | | | |
| | 0500–0600 | 5 | 5 | 4 | 7 | 7 |
| | 0600–0700 | 15 | 15 | 17 | 3 | 4 |
| | 0700–2200 | 279 | 293 | 408 | 254 | 268 |
| | 2200–2300 | 23 | 23 | 22 | 22 | 12 |
| | 2300–0000 | 16 | 16 | 16 | 17 | 18 |
| | 0000–0400 | 18 | 18 | 18 | 19 | 21 |
| | | | | | | |
| **Total Movements per day** | | **608** | **639** | **842** | **627** | **653** |
| Total Movements per year | | 221920 | 233235 | 307330 | 228855 | 238345 |
| **Total Passengers per year (Assuming 137 per flight)** | | **30,403,040** | **31,953,195** | **42,104,210** | **31,353,135** | **32,653,265** |
| Movements 23:00 - 07:00 | | 58 | 58 | 59 | 82 | 86 |
| Movements 07:00 - 23:00 | | 550 | 581 | 783 | 545 | 567 |

From the two sets of figures above from the EIAR Appendices, the '2025 Baseline' forecast shows that Dublin Airport can cater for 32m passengers with an annual average of just 58 flights per night-time period. 581 movements can be catered for during the day-time period.

For the '2025 Consented' forecast, just 59 movements are forecast for the average night-time period and 783 movements for the day-time period, accommodating 42m passengers in total.

These forecasts provided by the DAA illustrate clearly that the DAA are not dependent on night-time slots to grow passenger numbers at Dublin Airport.

It is also worth pointing out that during the Oral Hearing into the North Runway, it was Aer Rianta that proposed the option to limit the number of flights at Dublin Airport to 65 and not to use the North Runway between 23:00 and 07:00. That was how they sought to overcome the planning process and it is now contemptuous of the DAA to overturn these conditions of planning and suggest that it's imperative to remove them. One must ask the question why the DAA built the runway in the first place without first having these conditions removed.

Another important point from the Oral Hearing into the original planning permission, is that the DAA figures showed that there would be an increase in movements on the South Runway at night even if the North Runway was not used at night. This increase stemmed from the extra capacity added as a result of the North Runway being in use during the day period. This increase in South Runway capacity at night has not been factored into the DAA's figures for this submission. Therefore, the 'Do Nothing' scenario for Condition 3(d) has not been fully modelled correctly.

It is worth noting that the 2016 Consultation did not include any modelling to include levels as low as 50 dB Lden and 40 dB Lnight. This was highlighted in a BAP report submitted to Fingal Council (Dublin Airport Local Area Plan Noise Contours and Grids, April 2019). This is another reason why a new full Public Consultation is required.

> FCC have requested specific noise parameters and minimum values of them, including 50 dB $L_{den}$ and 40 dB $L_{night}$. These low noise levels extend to areas outside those modelled for the North Runway Project. Consequently aspects of that modelling, which is utilised here, may introduce some additional uncertainties for locations distant from the airport. The key areas where this is the case are the arrival and departure routes, flight profiles and terrain. These issues are discussed in more detail in the relevant methodology sections; 4.3, 4.4 and 4.5 respectively.

## 2025 BASELINE AS BASELINE FOR NAO

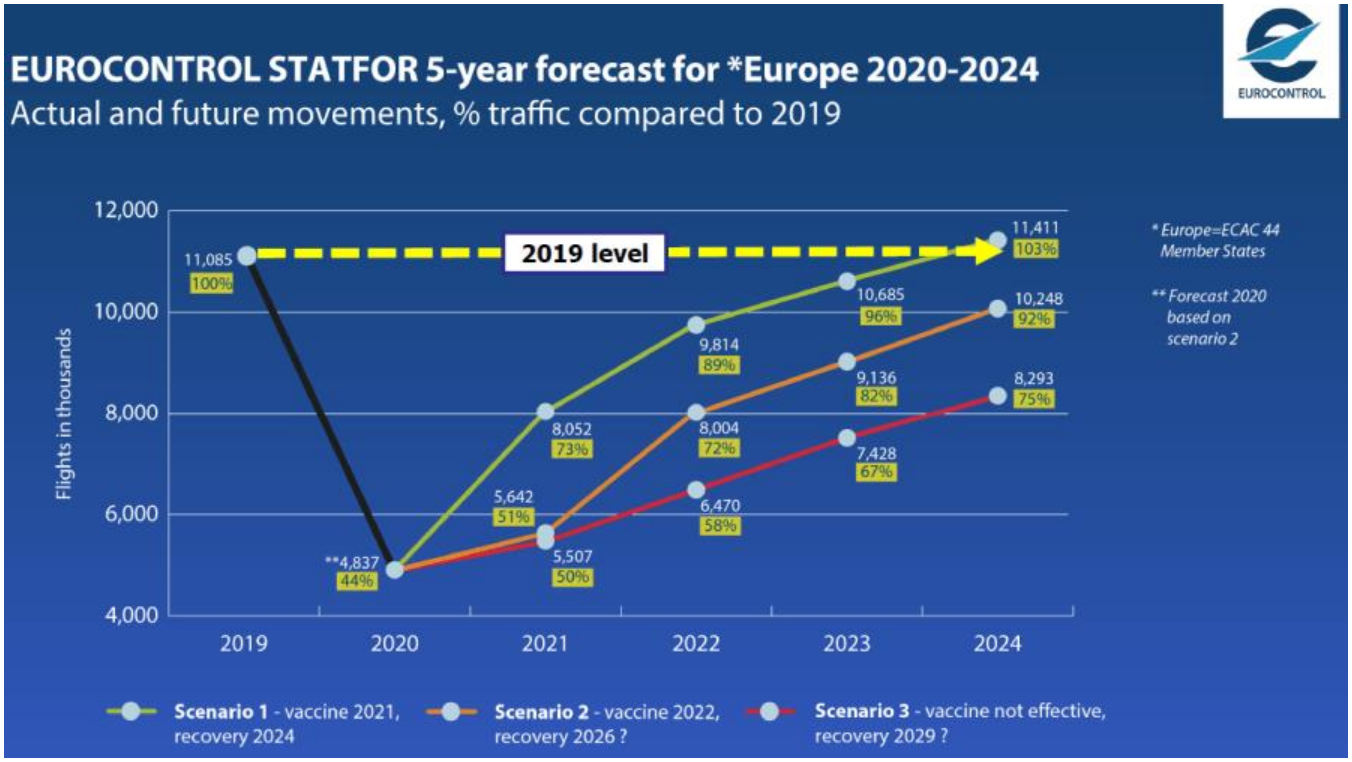
The 2025 Baseline is the most relevant as the NAO baseline year as it's what the 2007 planning permission allows for based on a 32m airport cap.

Comparing the number of people Highly Annoyed and Highly Sleep Disturbed, 2025 Relevant Action exceeds 2025 Baseline

| Case | Num HA | Num HSD | Num HA > 55 dB | Num HSD > 50 dB |
|---|---|---|---|---|
| **2025 Relevant Action** | **72356** | **25076** | **7583** | **1596** |
| 2025 Baseline | 67189 | 20160 | 6428 | 1381 |

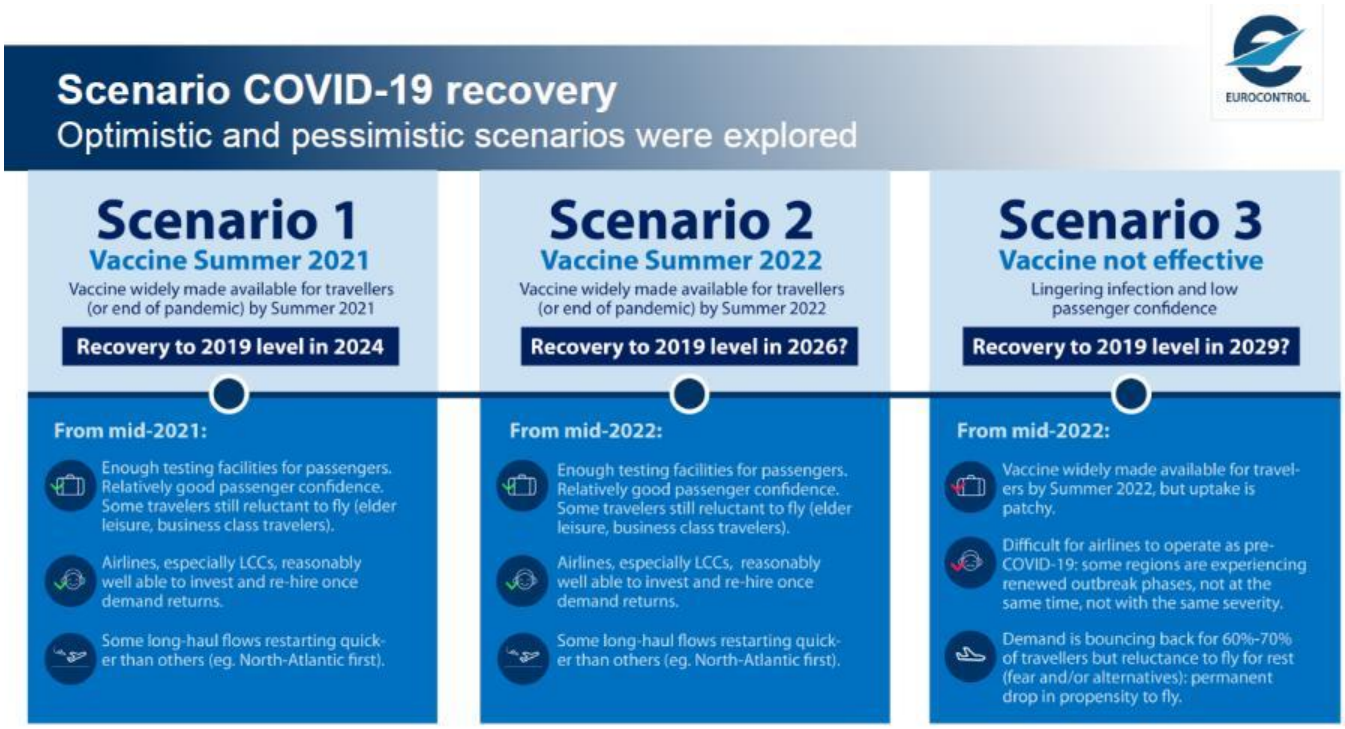
## EUROCONTROL FORECASTS

Eurocontrol, the pan-European aviation organistion, produced a forecast document (https://www.eurocontrol.int/publication/eurocontrol-five-year-forecast-2020-2024) on November 4th, 2020 for the period 2020 – 2024. The most optimistic scenario has traffic levels to return to 2019 levels by 2024.The most likely scenario is that 2024 traffic would only be at 92% of the 2019 figures. The third scenario sees traffic at 75% of the 2019 figure by 2024.




Eamonn Brennan, Director General of EUROCONTROL, has stated that:

*"Even in the most positive scenario, we do not expect a recovery to 2019 levels before 2024. There is a very real prospect that this recovery could take even longer, perhaps to as far out as 2029. This is a catastrophic picture for the aviation industry and shows clearly why it is so important for States to take consistent and coherent measures to support the aviation industry and make passengers feel safe to fly again."*




Scenario 1 is based on a vaccine being widely available for travelers by Summer 2021.

In a letter sent by Health Minister Stephen Donnelly to TDs, (https://www.rte.ie/news/coronavirus/2021/0113/1189463-vaccine-ireland/), the Irish Government is hoping to have 4m people vaccinated by the end of September 2021. The last cohort to get vaccinated will be children under 18 years of age (https://www.gov.ie/en/publication/39038-provisional-vaccine-allocation-groups/). Based on these estimates, it is highly unlikely that foreign family holiday levels will be close to normal levels in Summer 2021 and therefore Scenario 2, as advocated by Eamonn Ryan, is the most likely scenario with 2019 levels being reached in 2026. Therefore, the DAA's forecasts of passenger numbers reaching 32m by 2025 is incorrect. This provides further evidence that this planning application is not needed and that the current single runway usage is sufficient to meet capacity demands until 2026. The DAA have not taken into consideration in their 'Do Nothing' scenario to continue to just use the existing South runway.

It is also a requirement of Regulation 598/2014/EU Annex 1(2) that any future approved or in the pipeline developments such as increased capacity and terminal expansion requires a detailed study:

## 2. Forecast without new measures

2.1. **Descriptions of airport developments, if any, already approved and in the pipeline, for example, increased capacity, runway and/or terminal expansion**, approach and take-off forecasts, projected future traffic mix and estimated growth and a detailed study of the noise impact on the surrounding area caused by expanding the capacity, runways and terminals and by modifying flight paths and approach and take-off routes.

2.2. In the case of airport capacity extension, the benefits of making that additional capacity available within the wider aviation network and the region.

2.3. A description of the effect on noise climate without further measures, and of those measures already planned to ameliorate the noise impact over the same period.

2.4. Forecast noise contours — including an assessment of the number of people likely to be affected by aircraft noise — distinguishing between established residential areas, newly constructed or planned residential areas and planned future residential areas that have already been granted authorisation by the competent authorities.

2.5. Evaluation of the consequences and possible costs of not taking action to reduce the impact of increased noise, if it is expected to occur.

The current intent of the application is to limit the application to 32m and not take account of future capacity and terminal expansion. This limitation conflicts with Annex 1 (2).

From pre-consultation documentation dated the 14th of February 2020 (http://documents.fingalcoco.ie/NorthgatePublicDocs/00683442.pdf) uploaded to Fingal's planning website it is shown that the DAA had a pre-planning consultation with Fingal County Council and ANCA on increasing the terminal capacity from 32m to 40m and on removing the operating conditions 3(d) and 5.

**File Note:**
Following a request to Planning & Strategic Infrastructure from the North Runway project team, daa to recommence pre planning on the proposal to amend the operating restrictions on the North Runway (PPC 106276 refers), and from the Planning division daa to commence pre planning consultations for increasing the passenger cap to 40 mppa (PPC 106336).

The PA facilitated ANCA to engage in the consultation. As these are interrelated issues and all operating restrictions were being discussed, a joint meeting was held.

The document states that the "P&SI Dept considers that any proposed amendment to the operating restrictions identified at Dublin Airport for noise assessment purposes, should go in

tandem, for planning and EIA purposes, with any planned increase in passenger capacity at the airport".

It is therefore very evident that the DAA were actively planning to increase terminal capacity and were advised by Fingal's Planning Dept that both operating restrictions and increase in passenger capacity should be addressed together.

Another important factor to take into account is that the Dublin Airport LAP contains new noise zones that cater for capacity beyond 32m.

Therefore, this future capacity increase should have been taken into account as per Regulation 598/2014/EU Annex 1 (2).

In a pre-planning document from BAP dated October 4th 2019 (http://documents.fingalcoco.ie/NorthgatePublicDocs/00683849.pdf), BAP state in the introduction that at a meeting held on October 3rd 2019, the "the DAA agreed to provide further information to the ANCA, after their consideration of which a workshop is planned to develop the NAO."

Bickerdike Allen Partners
Architecture
Acoustics
Technology

Project: **A11267 DUBLIN AIRPORT CTPRO**
File Ref: A11267_12_MO014_1.0
Date: 04 October 2019
Subject: **DRAFT Proposed Noise Modelling to Assist Development of NAO**
From: Nick Williams / David Charles / Peter Henson
To:

| Name | Company |
|---|---|
| Martin Doherty | daa |

**1.0 INTRODUCTION**

A meeting was held on 3rd October 2019 between daa, Fingal County Council (FCC) Planning, and the Airport Noise Competent Authority (ANCA). This was to discuss daa's proposed Change to Permitted Runway Operations (CTPRO) application and the associated Regulation 598/14 assessment. At the meeting the ANCA ran through their earlier note of 2nd October 2019 which sets out noise modelling for various scenarios that would help them in their consideration of the noise situation at the airport and the development of a Noise Abatement Objective (NAO).

daa agreed to provide further information to the ANCA, after their consideration of which a workshop is planned to develop the NAO. Much of this information is to be prepared by BAP, and as this is not an insignificant amount of work, it is useful to confirm precisely what is to be provided. This memo sets out the various scenarios and parameters to be modelled.

This "workshop" with ANCA calls into question the independence of ANCA and its role as the Competent Authority. At no stage were the public or representative bodies allowed attend these workshops.

In the same document BAP state in section 3.1 that for the Consented Situation, it will be based on the 2025 forecast used in the consented North Runway application, with 65 movements per night. This data will be used with the same noise model as the other scenarios in order to produce comparable results for all of the metrics".

The 2025 Consented forecast had a movement total of greater than 306k movements with an average daily value of 840. This movement total facilitated a passenger capacity of 42m, assuming 137 passengers per movement. This analysis makes no sense seeing as the DAA have stated that no increase in terminal capacity will be considered in this planning application. The DAA cannot have it both ways. Either factor in movement levels beyond 32m or restrict the modelling of all scenarios to 32m

There is an anomaly in the datasets provided in the EIAR appendices.

Table 13B-2 shows '2019 Actual Movements':

*Table 13B-2: 2019 Actual Movements*

| Aircraft Type | 2019 Actual Movements | | | | |
|---|---|---|---|---|---|
| | Annual | | | 92-Day Summer | |
| | Day 07h-19h | Evening 19h-23h | Night 23h-07h | Day/ 07h-23h | Night 23h-07h |
| Airbus A306 | 162 | 301 | 377 | 463 | 377 |
| Airbus A319 | 3,159 | 911 | 370 | 4,070 | 370 |
| Airbus A320 | 41,840 | 10,109 | 6,796 | 51,949 | 6,796 |
| Airbus A320neo | 1,000 | 119 | 13 | 1,119 | 13 |
| Airbus A321 | 5,461 | 907 | 1,086 | 6,368 | 1,086 |
| Airbus A321neo | 619 | 87 | 158 | 706 | 158 |
| Airbus A330 | 8,905 | 40 | 2,031 | 8,945 | 2,031 |
| Airbus A330neo | 0 | 0 | 0 | 0 | 0 |
| Airbus A350 | 214 | 0 | 220 | 214 | 220 |
| ATR 42 | 14,398 | 2,481 | 1,089 | 16,879 | 1,089 |
| ATR 72 | 4,280 | 767 | 207 | 5,047 | 207 |
| BAe 146/Avro RJ | 196 | 547 | 527 | 743 | 527 |
| Boeing 737-400 | 1,001 | 298 | 104 | 1,299 | 104 |
| Boeing 737-700 | 58,447 | 18,855 | 12,136 | 77,302 | 12,136 |
| Boeing 737-800 | 251 | 6 | 103 | 257 | 103 |
| Boeing 737 MAX | 2,939 | 23 | 528 | 2,962 | 528 |
| Boeing 757 | 1,845 | 541 | 693 | 2,386 | 693 |
| Boeing 767 | 1,536 | 587 | 1,121 | 2,123 | 1,121 |
| Boeing 777 | 0 | 0 | 0 | 0 | 0 |
| Boeing 777X | 2,576 | 63 | 947 | 2,639 | 947 |
| Boeing 787 | 1,030 | 5 | 3 | 1,035 | 3 |
| Bombardier CS300 | 2,355 | 921 | 6 | 3,276 | 6 |
| Bombardier Dash 8 | 4,323 | 940 | 275 | 5,263 | 275 |
| Embraer E190/195 | 10 | 0 | 0 | 10 | 0 |
| Other | 11,384 | 2,243 | 530 | 13,627 | 530 |
| **Total** | **167,931** | **40,751** | **29,320** | **208,682** | **29,320** |

It is clear that the figures for the 92-Day Summer movements are incorrect when compared to the Annual movements.

In the pre-planning consultation document dated October 2nd 2019, ANCA make comments on documents received subsequent to the pre-planning consultation of September 12th 2019.

On page 4 ANCA make comments on the Mott MacDonald report 'Dublin Airport operating Restrictions. Quantification of Impacts on Future Growth'.

2. Slide 4

*"Condition 3d (limiting night operations to a single runway) does not in itself act as an additional constraint, as it provides sufficient capacity for a 65/night limited schedule. However, in the absence of the Condition 5-night movement limit, there is a requirement for dual runway operations between 06:00-07:00 and 23:00-23:59 to meet demand."*

4 | Page

At the moment there is understood to be 114 movements per night. This statement about using dual runway operations does not seem justified when the current single runway operation appears to meet this demand?

It is noted that Slide 26 assumes 45 movements per hour for single runway operation, which is in line with a previous report prepared by NATS in 2003 which suggested 43 per hour off the main south runway. If the main use in the night period is from 23:00 to 00:00 and 05:00 to 07:00, 135 movements are provided within these 3 hours plus a few overnight, suggesting up to 160 movements over 8 hours before capacity is insufficient off one runway, which could take them to 2032 according to Slide 13.

ANCA questions the need for a second runway as the figures clearly show that demand can be met with single runway use and satisfy demand up to 2032.

# SUBMISSION ON BEHALF OF THE ST. MARGARET'S, THE WARD RESIDENTS GROUP

## SUMMARY


- 2018 flight data shows that average monthly night-time movements exceeded 65 only in 7 months (April, May, June, July, Aug, Sep and Oct) with September's figure just 68.
- 2019 flight data shows that average monthly night-time movements exceeded 65 only in 7 months (April, May, June, July, Aug, Sep and Oct).
- It is evident that Dublin Airport only exceed 65 flights at night in 7 months of the year
- The demand for night-time flights is from recreational travel during the Summer months and not business travel
- Business travel expected to decline by 19-36% post Covid due to technological advances
- Just 16% of Irish passengers in 2018 were travelling for Business purposes
- Growth in passengers from 2008-2017 has been driven by leisure travel and the growth in leisure has been 7x that of business travel
- No future projections beyond 2025 and 32m passengers provided in the application, just rending the EIAR deficient
- Based on pre-planning consultation documents, the daa were intending to apply for a dual application of 40+m passengers and removal of operating restrictions
- The future medium- and long-term forecasts and situations need to be examined and not a short-term timeframe, for the removal of ABP planning restrictions
- Regulation 598/2014 Annex 1(2) requires future development to be taken into account
- The 2016 consultation documents from the daa showed that Dublin Airport can facilitate 772 movements (36m passengers) in 2022 and 947 movements (45m passengers) in 2027 with the existing planning restrictions in place
- In this application, the daa's own figures show that Dublin Airport can cater for 638 movements (32m) in 2025 with the existing restrictions in place
- '2025 Baseline' is the appropriate year to compare to in the future as it's with the conditions attached by An Bord Pleanala
- '2025 Consented' had a movement total of 306k and a passenger total of 42m. The current operating restriction on the Terminal capacity renders this comparison meaningless. An Bord Pleanala assumed no night-time noise on the North Runway. And An Bord Pleanala made reference to 2002/49/EC which was in the pipeline but not enacted by the Ireland at that stage, and that 2002/49/EC would regulate the noise at Dublin Airport and keep it under control into the future. Unfortunately, both ANCA and Fingal County Council have failed in this regard.
- Incorrect data in table 13B-2
- ANCA acknowledged that a single runway is sufficient to meet demand until 2032

# CONCLUSION

In this report we have outlined serious deficiencies with the daa's planning application F20A/0668. A project of this magnitude requires a thorough public consultation. 459k people will be captured in the > 45 dB Lden daytime contour and 173k people in the > 40 dB Lnight night-time contour as a result of the 'Relevant Action'. These contours have been identified by the World Health Organisation as noise limits beyond which leads to adverse health effects. This vast number of people need to be properly consulted and informed. Failure to hold a public consultation is in breach of the North Runway's planning permission conditions.

This application is deficient and flawed on a number of grounds. It does not consider medium to long term forecasts and the impacts of this proposal. The daa have plans to grow the passenger numbers to 40+m. Why aren't they included? The daa are trying to suggest that the noise situation in 2018 was 'acceptable', when the data from the 3 rounds of the Environmental Noise Directive clearly shows escalating noise. The noise data used in the Dublin Airport Noise Action Plan 2019-2023 is based on noise data from 2016. The daa have publicly acknowledged that the 3 rounds of the END show a noise problem.

The proposal from the daa also fails to take account of the communities most affected. It fails to acknowledge and discuss these communities and the devastating impact the airport's operations have had and will continue to impose on these families. They are only referenced as numbers. The EIAR's definition of significant effects fails these communities.

The daa has attempted to redefine the term night-time. At the oral hearing into the North Runway's permission, it was clear that night-time is 23:00-07:00. No noise quota can redefine a person's right to a full night-time's sleep.

Based on the noise report conducted on properties already insulated by the daa, it clearly shows that noise insulation is not a solution and that the occupants of these properties are at noise exposure levels that are a serious risk to their health. Only a complete ban on night-time flights can safeguard their health.

A serious flaw with this application is that the daa have failed to justify why they need this 'Relevant Action' to cater for 32m passengers by 2025. The existing South Runway catered for 32.9m passengers in 2019. On those grounds alone, the application should be thrown out.

The daa have lodged their application over the Christmas period during a nationwide Level 5 lockdown to try and quietly remove planning restrictions enshrined by An Bord Pleanala to protect the health and amenity of local residents.

We call on Fingal County Council to reject this application.

# APPENDIX A

# PRESENTATION TITLED "NORTH RUNWAY PROJECT, NOISE AND COMMUNITY",

# PRESENTED BY MR MARTIN DOHERTY TO AN ICAO GREEN SEMINAR IN LIMA PERU IN MAY 2019

# APPENDIX B

# AIRCRAFT ENVIRONMENTAL NOISE SURVEY REPORT

# BY

# MLM GROUP

# SUBMISSION ON BEHALF OF THE ST. MARGARET'S, THE WARD RESIDENTS GROUP

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