S. 37

SECTION 131 FORM

File With _____

Appeal NO: ABP 314885

TO: SEO

Defer Re O/H ☐

Having considered the contents of the submission ~~dated~~/ received 21/12/24 from John G Law I recommend that section 131 of the Planning and Development Act, 2000 ~~be~~/not be invoked at this stage for the following reason(s):. no w used

E.O.: _____ Date: 8/1/25

To EO: _____

Section 131 not to be invoked at this stage. ☐

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

S.E.O.: _____ Date: _____

S.A.O: _____ Date: _____

M _____

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

to: _____

Allow 2/3/4weeks – BP _____

EO: _____ Date: _____

AA: _____ Date: _____

S. 37

File With _____

CORRESPONDENCE FORM

Appeal No: ABP_____

M _____

Please treat correspondence received on _____ as follows:

1. Update database with new agent for Applicant/Appellant _____

2. Acknowledge with BP _____
3. Keep copy of Board's Letter ☐

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

Amendments/Comments

4. Attach to file

(a) R/S ☐
(b) GIS Processing ☐
(c) Processing ☐
(d) Screening ☐
(e) Inspectorate ☐

RETURN TO EO ☐

	Plans Date Stamped ☐ Date Stamped Filled in ☐
EO:	AA:
Date:	Date:

Lodgement Cover Sheet - LDG-077152-25

An Bord Pleanála

Details

Lodgement Date	21/12/2024
Customer	John G. Law
Lodgement Channel	Email
Lodgement by Agent	No
Agent Name	
Correspondence Primarily Sent to	
Registered Post Reference	

Lodgement ID	LDG-077152-25
Map ID	
Created By	James Sweeney
Physical Items included	No
Generate Acknowledgement Letter	
Customer Ref. No.	
PA Reg Ref	F20A/0668

Categorisation

Lodgement Type	Observation / Submission
Section	Processing

PA Name	Fingal County Council
Case Type (3rd Level Category)	Normal Planning Appeal PDA2000

Fee and Payments

Specified Body	No
Oral Hearing	No
Fee Calculation Method	System
Currency	Euro
Fee Paid	0.00
Refund Amount	

Observation/Objection Allowed?	
Payment	
Related Payment Details Record	

Observation

	A proposed development comprising the taking of a 'relevant action' only within the meaning of Section 34C of the Planning and Development Act 2000, as amended, at Dublin Airport,

Run at: 08/01/2025 13:04

Run by: James Sweeney

		Co. Dublin, in the townlands of Collinstown, Toberbunny, Commons, Cloghran, Corballis, Coultry, Portmellick, Harristown, Shanganhill, Sandyhill, Huntstown, Pickardstown, Dunbro, Millhead, Kingstown, Barberstown, Forrest Great, Forrest Little and Rock on a site of c. 580 ha. 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 the hours of 11pm and 7am 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 the hours of 11.30pm and 6am 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. 2300 hrs to 2400hrs and 0600 hrs to 0700 hrs. Overall, this would allow for an increase in the number of flights taking off and/or landing at Dublin Airport between 2300 hrs and 0700 hrs over and above the number stipulated in condition no. 5 of the North Runway Planning

PA Case Number	F20A/0668	Development Description	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 0700hrs to 2300 hrs to 0600 hrs to 0000 hrs. The relevant action also is: To replace 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) 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. The proposed relevant action does not seek any amendment of conditions of the North Runway Planning Permission governing the general operation of the runway system (i.e., conditions which are not specific to nighttime use, namely conditions no. 3 (a), 3(b), 3(c) and 4 of the North Runway Planning Permission) or any amendment of permitted annual passenger capacity of the Terminals at Dublin Airport. Condition no. 3 of the Terminal 2 Planning Permission (Fingal County Council Reg. Ref. No. F04A/1755; ABP Ref. No. PL06F.220670) and condition no. 2 of the Terminal 1 Extension Planning

PA Decision Date	08/08/2022
County	
Development Type	
Development Address	Dublin Airport, Co. Dublin
Appellant	
Supporting Argument	

	Permission (Fingal County Council Reg. Ref. No. F06A/1843; ABP Ref. No. PL06F.223469) provide that the combined capacity of Terminal 1 and Terminal 2 together shall not exceed 32 million passengers per annum. The planning application will be subject to an assessment by the Aircraft Noise Competent Authority in accordance with the Aircraft Noise (Dublin Airport) Regulations Act 2019 and Regulation (EU) No 598/2014. The planning application is accompanied by information provided for the purposes of such assessment. An Environmental Impact Assessment Report will be submitted with the planning application. The planning application and Environmental Impact Assessment Report may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of the Planning Authority during its public opening hours of 9.30 - 16.30 (Monday – Friday) at Fingal County Council, Fingal County Hall, Main Street, Swords, Fingal, Co. Dublin.
Applicant	
Additional Supporting Items	Yes

Run at: 08/01/2025 13:04

Run by: James Sweeney

David Behan

From:	John Law <jlaw@mckennalaw.ie>
Sent:	Saturday 21 December 2024 13:49
To:	Appeals2
Cc:	Alan Law
Subject:	An Bord Pleanala, case no. PL06F 314485
Attachments:	21122024ABP letter re airport noise.pdf

Good afternoon

Attached please find my submission in relation to An Bord Pleanala, case no. PL06F 314485.

Yours sincerely

John G. Law

McKenna Law Limited

Chartered Certified Accountants

The Archway, Malahide Marina Village,

Malahide, Co Dublin, K36NX79

Telephone no.: 353 -1-8456111

Fax no.: 353-1-8456128

The Secretary,
An Bord Pleanala,
64 Marlborough Street,
Dublin 1, D01 V902
Monday 23rd December 2024.

An Bord Pleanala, Case No. **PL06F 314485**
Planning Authority Case Reference. F20A/0668
Location of Planned Development. Dublin Airport.

Reply To Draft Decision by An Bord Pleanala (€50 already Paid)

Attachments. 1. Searson & Associates Acoustic Report Dated 11/12-07-23.
2. Searson & Associates Acoustic Report Dated 21/22-10-24.
3. Mr. Kenny Jacobs letter undated
4. Table 8.1 Aircraft Noise Zones, FCC, Development Plan, 2023-2029.
5,6 & 7 Location Maps and Illustrative Graphics.

References. Inspectors Draft Decision Report.
Vanguardia Report.

Dear Sir/Madam,

Thank you for your request to reply to the Inspectors Draft Decision at this stage of the Public Consultation Process, concerning the above Relevant Action (RA).

The substantive issue regarding our observation remains the same, the concerning issue of excessive aircraft noise. Attachment 1, previously submitted, is further supported by another acoustic survey conducted on the night of 21st/22nd October 2024, at three additional homes within the Blackwoods Estate, Malahide, Co. Dublin. The Blackwoods Estate is located at the junction of the R124 and Blackwood Lane, Malahide, some 5.7 kms (3.5mls) from Runway 28R and 266 metres from the Approach Flight Path of Runway 28R's Centre Line. See Graphic No 5.

Searson & Associates 1st & 2nd Acoustic Surveys Attachments 1 & 2.

Aircraft pass overhead as low as 289metres (950ft) and 396metres (1,300ft). The most common type of aircraft involved have a gross landing weight of approximately 96 tons descending overhead on a 3-degree slope, under powered slow flight; perse they are noisy.

Mr Searson's Second Report speaks for itself having recorded some 66 night-time flights, on finals for Runway (Rwy) 28R (the north runway), 10.6% of which were equal to or in excess of 80dBs L_{AFmax}. Mr. Searson makes a valid point in his report, drawing attention to the fact that all 66 flights would cause an internal bedroom reading, without adequate noise insulation, well in excess of the recommended 45 dBs L_{AFmax}. Please consult his attached report (21/22-10-2024) in conjunction with his initial report for a more studied explanation of his findings and

recommendations. Please also see Attachment Number 3 a letter in answer to the Searson Acoustic Report (1) from the DAA., CEO., Mr. Kenny Jacobs, indicating they have no intention of addressing their disturbing noise levels. Another note of interest is he did not question the acoustic findings of the Searson Report.

Point of Clarification.

Mr. Fiumicelli in his report refers to **LAmax.** Therefore, it is respectfully requested, for clarity's sake; is this the fast or slow metric he is referring to? Mr. Searson holds in his report that the fast metric is more appropriate to these particular acoustic events.

1 Night-time Noise and the Insufficient Lnight Metric

As alluded to by Mr. Fiumicelli, in his Vanguardia Report, so many assumptive factors, variables and operational issues must form part of the modelling for **Lden** and **Lnight,** public confidence is eroded, especially in areas of concentrated noise as it is here in Blackwoods and immediate surrounds.

We very much welcome that the **Vanguardia Report** and the **Inspector's Report** recognises that using only the **Lnight** metric to assess night-time noise impact is inadequate. The **LAmax** metric, which measures the maximum noise of individual aircraft events is critical in understanding the disturbance caused by isolated, loud overflights.

More especially for us here in Blackwoods, during night-time operations on runway 28R, where the frequency of such loud overflights can be within 2 to 3-minute intervals for hours on end, covering a period of four nights per week, mostly during the summer season when Rwy **28L** is closed for maintenance purposes. A further 3 maintenance periods, lasting for four consecutive nights each, are envisaged for the future. These periods can be broken up further due to meteorological conditions thus we are never sure of their frequency or duration.

A further point of clarification is, what designates essential maintenance?

2 Proposed Qualification Limit of 80dBs

Extract from ABP-314485-22 Draft Decision Ref No F20A/0668

Residential dwellings subject to aircraft noise of 80 dB LAmax based on the noise footprint of the airport's westerly and easterly single modes of approach and departure (not averaging the modes of operation of the airport over the 92 days of summer) between 2300 hrs and 0700hrs.

The above extract from the Draft Decision is a most welcome inclusion recognising as it does the inadequacy of the previous modelling criteria i.e.., **Lden** & **Lnight.** However, I would make the following observation.

It is not possible for the human ear to differentiate between say 76dBs and 80dbs nor for that matter 80dBs and 84dBs; they are experienced as exceptionally loud noise. Despite the very technical and complicated world of acoustic measurement, it would be fair and reasonable to assert, the average person being exposed to such levels of noise, would conclude it is very noisy indeed but not be able to distinguish between the severity of the two, other than conclude they were noisy.

Take Events 2 and 3 of Mr. Searson's Second Acoustic Report for instance. Despite both dwellings being within 160 metres of each other (approximately), both acoustic events recorded the same results for each dwelling but inversely. Neither occupant could distinguish between both aircraft, to their ears, they were disruptive noisy events. Acoustic equipment is far more sensitive and precise compared to the human ear but all eleven households within Blackwoods experience these events in the same moment, as they occur, they are disruptively noisy aircraft; all be it they have differing acoustic values. Mr. Searson records 10.6% of over flights at 80bBs or greater and 37.9% at 78dBs or greater; some 25 night-time events. I will return to this point later on in this submission.

3 Dublin Airport Authority Noise Insulation Scheme.

The current qualification for inclusion in the above scheme is a maddening 63 **LAeq** 16hrs and then only amounts to €20,000. In other words, the qualification is onerously hard to achieve and the grant comparatively low by comparison with the remedial cost. The figure was proffered by the DAA and endorsed by ANCA.

This figure takes no account of building size, type, location, or replication within a specific area/estate. Is the concerned premises a detached, semi-detached, or terraced dwelling or, a single apartment, one of many, within a scheme of taller buildings? How many bedrooms are involved or indeed how many family members or others reside within the premises.

Where did the grant amount originate? How was it evaluated and costed? Under such a scheme what input did relevant professional bodies like the Institute of Cost and Management Accountants or the Society of Chartered Surveyors of Ireland have? Was the figure cost indexed to take account of building materials inflation, Ireland having the highest building costs in Europe?

Not a Question of Affordability

On the other side of the equation should the RA meet with approval all those who occupy commercial premises neighbouring Dublin Airport will be the beneficiaries of significantly increased valuations, of which the DAA will enjoy the largest gains. Because of this proposed increase in passenger volumes retail trade at the airport will grow demonstrably. Some remarkably simple numbers will demonstrate my point.

The proposed increase in passenger volumes will increase by 10 million. If the current 30 million passenger cap can yield an annual profit of €176,000,000 (2023 Audited Accounts) by the same correlation 40 million passengers can yield an annual profit of €235,000,000, enough to insulate **11,750 Dwellings ANNUALLY, at a cost of €20k per Dwelling!!**

4 ANCA, Fingal County Council (FCC) and the DAA.

Fingal County Council's total budget for 2023 amounted to €333.7 million of which some €33.5 million came from commercial rates levied on Dublin Airport; some 10% of their overall budget. Outside of Government funding Dublin Airport is their single largest source of revenue. FCC are also the sole source of funding, staffing, facilities and management for ANCA (Aircraft Noise Competent Authority). In a country with an independent self-financing local authority (municipal entity) with controlling powers rested in elected officials (councillors) this may not be a significant factor. However, it is not the case here, bearing in mind Ireland is the most centrally governed country within the European Community. Our county councillors have no executive function and limited voting rights.

I site the following factors for your consideration with the caveat that such close and interlocking associations have a stimming effect on decision making, much to the detriment of Fingal's populace; especially when it comes to issues concerning the Dublin Airport Authority.

a) On 15th October 2024 Fingal County Council requested submissions for a **Dublin Airport Noise Action Plan**, primarily in my opinion as a result of An Bord Pleanala's work on the subject. This was the first time the executive sought public opinion.

b) Whilst ANCA have it within their remit to request submissions from anybody other than the DAA they have never done so, to my knowledge. On several occasions they refused to consider Mr. Searson's Acoustic Report (1) as they have sole discretion in the matter of submissions.

c) In the **Fingall Development Plan 2023-2029** the county is split into several Aircraft Noise Zones; Blackwoods is categorised in Zone B (≥54dBs <63 **LAeq** 16hrs and/or 55dB **Lnight**). Should there be a requirement for planning permission within this zone, an acoustic survey must be conducted by a suitably qualified person at the expense of the applicant, the results of which must be incorporated in any subsequent build by way of suitable noise insulation.

d) Resulting from ANCA's Noise Contour Modelling, Blackwoods, is considered to be in an 40-44 **Lnight** Zone. Considering the aforementioned c) above this is a total contradiction in realities and only benefits both the DAA and FCC to the detriment of the Fingal citizen.

e) When the aforementioned Fingal Development Plan 2023-2029 was in its final stages Fingal's elected councillors voted to include the WHO Strong Guidelines for Dwellings

Affected by Airport Noise of **Lden** 45dBs into the document; all be it vigorously opposed by the executive in the form of the County Manager. The Department of Housing and Local Government forced the executive under threat of Central Exchequer Funding Reduction to remove the clause despite public opposition.

Proposed Conditions in Granting Relevant Action

1. **Point of Clarification.** Precise clarity should be stipulated as to the fast or slow metric in measuring night- time acoustic levels e.g., **L_{AFmax}** or **L_{ASmax}**. **L_{AFmax}** should be the designated metric.

2. **Essential Maintenance Must be Defined and Approved.** Is it reasonable communities neighbouring the north runway (28R) should be subject to excessive night-time aircraft noise several nights in a row, for the purposes of cutting grass.

3. **A Proposed Qualification Limit of 80dBs.** For the reasons set out in item 2 above, it is requested this condition be further enhanced, taking into consideration the following,

   a. With the exception of north Portmarnock most the dwellings along the approach flight path for Rwy., 28R, are either single residences or a small number of estates consisting of between 10 and 20 properties. Small estates similar to Blackwoods experience the aircraft noise similarly and simultaneously, after all we live cheek by jowl.

   b. When Rwy.,28R is operational for arriving aircraft they pass overhead generally at a frequency of one aircraft at between 2- and 6-minute intervals throughout the night. The second acoustic survey showed 49 of the 66 flights were in excess of 77dBs.

Proposed Remedy.

Two possible solutions with solution 1 being the preferred.

(1) An independent suitably qualified person/entity conduct an approved acoustic survey to designate areas of **Concentrated Noise** when Rwy., 28R is operational for inbound aircraft with **L_{AFmax}** the deciding metric to give a qualifying in bedroom noise level below 45dBs. Please refer to Mr. Searson's Second Report

(2) A condition that any dwelling disturbed by aircraft noise in excess of 76dBs more than five times in any 60-minute period should qualify for sound insulation

grant.

4. **3 Dublin Airport Authority Noise Insulation Scheme.**
   Proportionality must play a part in evaluating size and scope of the noise insulation to be provided. Human Beings, Old and Young and Families are at the heart of this proposed solution. One size for all is not a remedy.

   A Suitably Approved Noise Insulation Scheme be provided by the DAA with Proportionality at its Core. Both the Size and Scope of each Insulation Project Form a Program of Works.

5. **4 ANCA, Fingal County Council (FCC) and the DAA.**

   For the reasons stated above Aircraft Noise Monitoring MUST be placed under the stewardship of a truly INDEPENDENT body and financed by the DAA.

To conclude, thank you for accepting this submission. Yours is an onerous task made all the harder due to our system of local and municipal government. In truth much of the work and decision making forced upon you, should and could have been avoided had the required legislation been in place,

Name(printed) JOHN G. LAW

Address(printed) WESTVIEW, 2 BLACKWOODS, BLACKWOOD LANE, MALAHIDE, CO. DUBLIN, K36 PK72

Signed John G. Law

Date. . 21 December 2024.

SEARSON

ASSOCIATES

CONSULTING
ENGINEERS

KARL V SEARSON

C Eng MIEI MIOSH MIOA ACIArb

Phone (087) 2588061
(089) 2158958
Email searsonassociates@gmail.com

OUR REF: 8569/23 rev 2.1 YOUR REF: BG

DATE: 5th October 2023.

Mr Bart Glover,
4, Blackwoods,
Blackwood Lane,
Malahide
Bart@kayskitchen.ie

Re: No 4, Blackwoods: Aircraft Noise Assessment, index of noted events.

Dear Mr. Glover,

I am setting out below details of the 101 *significant events* which were recorded at/in your home over the measurement period which commenced shortly after 15:00 hours on 11th July and terminated at 09:00 hours on 22nd July 2023. During this 127 hour-odd period specific attention was paid to night time events, night-time commencing at 23:00 hours and terminating at 07:00 hours the next morning. The specific events were proximate aircraft fly-by's which provoked excessive in-bedroom noise levels. You had been advised that certain "test periods" had been selected by DAA for new flight paths and the measurement sessions were intended to analyse the levels associated with these new night-time fly-by events.

An aircraft identification application - with acronym FR - was initially used to identify those in-bedroom noise signals which characterised "events", but that application left many events unidentified. A subsequent package, with acronym WT and available on the internet, was accessed. It proved useful in reviewing the flight passes with respect to Dublin Airport during the above-mentioned measurement period and traces of specific fly-paths were noted and compared to the gathered acoustical data. It proved possible to identify the flight identification number and aircraft type and time of passage (with respect to Blackwoods) and correlate such results with the time stamp of the fast-logged acoustical data. In this respect the primary time metric was that accompanying the highest in-bedroom fast level (defined below as L_{AFmax}) and the corresponding flight, gauged from "inching" the incoming aircraft icon proximate to Blackwoods and noting the corresponding time, aircraft type and flight identification number. In all the 101 events noted, the maximum time difference between the fast logged (primary) acoustical data and the WT time display was 22 seconds. As the minimum interval between incoming flights was typically six times this interval, no significant error arises.

The acoustical data refers to both indoor and outdoor locations, the indoor location being in a bedroom with the window ajar for fresh air admission and the outdoor location being some 3,5m out from the façade of that bedroom, and at a height of 4m overground.

There are a number of acoustical metrics of interest, as follows:

- L_{AFmax}. This is the noisiest portion of an event, assessed with the fast time constant and expressed in A-Weighted decibels, dB(A).
- L_{ASmax}. This is the noisiest portion of an event, assessed with the slow time constant and expressed in A-Weighted decibels, dB(A).
- SEL. This is the total acoustical energy associated with a given event but normalised back to a 1-second time interval. It is expressed in A-Weighted decibels, dB(A). It is an acronym for "single event level" or, alternatively, "sound energy level".

Considerable data have been gathered and to present same in a coherent fashion I have prepared appendices showing the relevant data for each day and, additionally, tabulated the L_{AFmax} trace from outdoors and indoors directly under each other to enable the contours to be visualised. For each outdoor event provoking excessive in-bedroom levels, I have tabulated and included the above metrics. The primary time is the Brüel & Kjær time (B & K time).

I Report as follows:

1 The first series of data refers to the night-time profiles on 11th July 2023. There were six notable events, numbered accordingly, and I have tabulated the metrics, times and details in table 1A, below. I have also prepared and attached, as appendix 1, the Comparative fast trace 23:29 – 00:00, 11th July 2023.This trace depicts the outdoor profile in the upper (1A) portion and, directly below, the corresponding provoked in-bedroom level (1B).

TABLE 1: 6 noted events of 11th July, # 1 - #7.

				OUTDOORS - A			INDOORS - B		
#	B & K time	WT Flight Id.	Type	SEL	L_{AFmax}	L_{ASmax}	SEL	L_{AFmax}	L_{ASmax}
1	23:31:27	RYR2PC	B738	85	76	73	65	56	55
2	23:33:38	EIN40W	A320	86	81	77	67	61	59
3	23:36:24	GEC 8582	A321	85	77	75	66	59	57
4	23:39:24	EIN611	A320	86	79	77	66	61	58
5	23:47:02	RYR9M	B738	85	79	76	65	60	58
6	23:50:43	EIN24K	A320	87	79	77	67	60	58
7	23:57:57	SWR878C	BCS3	83	73	71	62	54	53

The above table give a useful insight into the reduction in certain acoustic metrics going from outside to inside via a window ajar for ventilation (fresh air admission). While the SEL values have a significant effect on the 5-minute (or 15-minute) L_{AEQ} level obtained, the maximum values (fast or slow) are subject to a numerical ceiling. This ceiling applies during night-time, from 23:00 to 07:00 hours, and, in the case of the L_{AFmax}, the in-room level should not exceed 45 dB(A) and in the case of the L_{ASmax}, the level should not exceed (about) 42 dB(A).

Taking the two periods from the 23:00 hours until 23:30 (no significant events) and the following period from 23:30 until midnight (7 notable events as set out above), there are significant differences. Via the B&K Evaluator software the following results a have been established.

TABLE 2: 30-minute night-time comparisons, no events Vs 7 events

		OUTDOORS - A			INDOORS - B		
[illegible]	Events ?	L_{AeqT}	L_{AFmax}	L_{ASmax}	L_{AeqT}	L_{AFmax}	L_{ASmax}
23:00 – 23:30	No	47	63	60	27	42	39
23:30 – 00:00	Yes. 1 - 7	61	81	77	42	61	59

There are good and reliable criteria for a bedroom, at night, with fresh air admission. The L_{AeqT} (sometimes called the decibel average) should not exceed 30 dB(A), and this should be maintained for the duration of the night. The first 30-minute test (no events) has all three metrics comfortably within their guideline values. Once the "events" occur (itemised and recorded as 1 to 7) those levels are *grossly* exceeded.

2. The next day (in a 24-hour sense) was 12th July. 32 night-time events were noted, and their cumulative result are set out in table 2 below:

TABLE 2: parts 1 & 2, 32 notac events of 12th July, #8 - #40.

			OUTDOORS - A			INDOORS - B		
[illegible]	WT Flight Id.	Type	SEL	L_{AFmax}	L_{ASmax}	SEL	L_{AFmax}	L_{ASmax}
[illegible]	RYR1YC	A320	83	75	73	66	61	58
[illegible]	RYR2WK 779	B38M	83	76	73	64	58	55

10	00:08:24	EIN70V	B752	92	86	82	70	62	59
11	00:11:27	RYR5YV	B738	87	80	78	67	61	58
12	00:14:56	RYR11YP	B738	85	76	74	66	59	57
13	00:18:01	EIN459	A320	86	76	74	66	61	59
14	00:23:38	RYR9QY	B738	86	79	76	66	58	57
15	00:29:21	RYR275Y	B38M	84	78	75	64	57	55
16	00:31:55	RYR56SP	B738	85	76	73	66	59	57
17	00:34:44	RYR38ZY	B738	85	78	75	65	60	57
18	00:38:00	RYR72GD	B738	86	78	76	66	59	58
19	00:40:26	RYR4JW	B38M	83	74	73	64	56	55
20	00:42:56	RYR212	7M8	85	77	74	65	58	56
21	00:45:49	EIN4RL	A320	86	80	77	67	60	58
22	00:48:19	RYR9Q2	B38M	83	80	77	65	56	54
23	00:51:14	RUK95CX	B738	85	76	74	65	58	56
24	00:57:24	EIN4GJ	A320	87	79	76	67	61	58
25	01:01:50	EIN43N	A320	89	79	76	67	62	58

TABLE 2: Continued.

#	Time	WT Flight Id.	Type	OUTDOORS - A			INDOORS - B		
				SEL	L_{AFmax}	L_{ASmax}	SEL	L_{AFmax}	L_{ASmax}
26	01:04:37	EIN7VT	A320	89	79	72	66	60	58
27	01:08:40	RYR927E	B38M	83	75	72	63	57	54
28	01:09:50	RYR8L	B738	84	79	76	64	60	57
29	01:13:42	RYR8VL	B738	84	76	74	65	59	57
30	01:20:39	TOM239	A320	85	79	76	66	61	58
31	01:23:20	EIN79S	A320	86	78	76	66	60	58
32	01:27:07	AZB353	AT72	87	80	76	66	59	56
33	01:33:41	EIN40J	A320	87	79	77	67	62	59
34	01:36:36	EIN3JC	A320	86	79	76	67	60	58
35	01:51:08	EIN5HL	A320	87	81	78	67	63	60
36	01:58:30	EIN4JY	A320	87	80	77	68	63	60
37	02:12:56	EIN5J4	A320	86	79	77	67	60	58
38	02:18:37	EIN3DV	A320	87	81	78	67	62	59
39	02:22:57	EIN2JV	A320	87	79	77	67	61	59
40	04:26:50	EIN1J4	A333	89	79	77	69	61	59

Appendices 2, parts 1 and 2, show the indoor and outdoor traces. Considerable air traffic movements ensued from just after midnight (event #8) until 02:22 (event #39). A single event (#40) occurred at 04:26 - 04:27 hours.

3. The next few days – until the early hours of 18th July - passed without any ***significant*** night-time activity occurring.

4. A single event occurred in the early hours of 18th July. There were other signature passes both before and after the particular event, but the in-room level associated therewith were all below the threshold L_{AFmax} level of 45 dB(A). Appendix 3 details the relevant combined trace, the results being set out in table 3 below

TABLE 3: Noted single event of 18th July.

#	Time	WT Flight Id.	Type	OUTDOORS - A			INDOORS - B		
				SEL	L_{AFmax}	L_{ASmax}	SEL	L_{AFmax}	L_{ASmax}
1	04:26:50	AZB168	AT72	77	70	66	58	55	51

5. There were no notable event on 19th July.

6. The 20th July proved to be particularly busy - from the point of view of notable events. A total of 9 events were recorded and analyzed. Appendix 4, the comparative L_{AFmax} traces, is broken down into three parts, the tabular data being set out below in table 4:

TABLE 4: parts 1, 2 & 3, noted events of 20th July, #42 - #72.

#	Time	WY Flight Id.	Type	OUTDOORS - A			INDOORS - B		
				SEL	L_{AFmax}	L_{ASmax}	SEL	L_{AFmax}	L_{ASmax}
42	00:53:55	RYR275Y	B738	85	75	74	64	57	55
43	00:55:58	RYR7120	B38M	85	75	74	65	61	57
44	00:58:17	RYR77JN	B738	84	75	74	64	57	56
45	01:00:42	TOM7DX	A320	82	72	71	62	54	53
46	01:00:42	RYR1391	B738	84	74	74	65	57	56
47	01:04:54	EIN4RL	A320	84	75	74	65	57	56
48	01:08:04	RYR7FL	B738	85	75	74	65	57	56
49	01:11:34	RYR6E	B738	85	75	74	65	58	57
50	01:13:48	RYR30UE	B738	85	75	75	65	56	55
51	01:16:34	EIN4S9	A320	85	77	76	65	58	56
52	01:26:56	AZD 359	AT72	84	78	76	65	60	58
53	01:29:17	EIN58R	A320	84	74	73	654	55	54
54	01:34:22	RYR3TD	B38M	84	75	74	665	57	56

TABLE 4: continued.

#	Time	WY Flight Id.	Type	OUTDOORS - A			INDOORS - B		
				SEL	L_{AFmax}	L_{ASmax}	SEL	L_{AFmax}	L_{ASmax}
		TOM3HD	A320	83	73	72	63	54	53
		EIN5HL	A320	84	75	75	65	56	55
		EIN1C4	A333	86	76	75	66	58	57
		AAL724	B772	87	76	75	66	57	56
		EIN4TC	A21N	83	73	72	63	54	53
		EIN3JL	A333	87	77	76	67	58	57
		BCS2886	B734	87	78	78	67	60	59
		FPO7SN	B738	86	81	79	66	62	60
		UPS240	B763	86	76	75	66	57	56
		BCS5CD	A321	85	77	76	66	58	57
		RYR65PG	B738	83	72	71	63	54	53
		6FT	A320	85	77	75	65	59	57
		RYR6RY	B738	86	78	76	66	60	57
		RYR3JM	B738	84	74	73	64	56	55
		GEC3252	A321	84	75	74	64	56	55
		RYR5JB	B38M	84	75	74	64	56	55
		RYR66EY	B38M	84	75	74	64	56	55
		RYR5UX	B38M	84	73	72	63	55	54

7. The [illegible] notable events carried on into the early hours of 21st July. A further 28 events were noted and analysed. Appendix 5, divided into two parts, sets out the comparative L_{AFmax} traces with the individual results being tabulated in table 5 below.

TABLE 5, parts 1& 2, 28 notable events of 21st July.

#	Time	WY Flight Id	Type	OUTDOORS - A			INDOORS - B		
				SEL	L_{AFmax}	L_{ASmax}	SEL	L_{AFmax}	L_{ASmax}
		EIN3AV	A320	85	78	76	66	59	57
		RYR3GY	B738	85	76	75	65	57	56
		RYR43TC	B38M	83	74	73	63	55	53
		EIN7DV	B752	89	82	79	69	62	59
		EIN7VF	A320	84	77	75	65	57	55
		RYR5WX	B738	85	75	74	65	57	56
		RYR46EY	B38M	85	76	75	63	55	54
		EIN2HD	A320	84	75	74	65	57	56
		RYR5UX	B738	85	76	75	64	56	55
		EIN7[illegible]	A320	85	76	75	65	58	57
		EIN3[illegible]	A320	85	76	75	65	57	56
		RYR3BW	B738	85	73	75	65	59	57
		TOM2[illegible]	E190	84	77	75	65	59	57

86	00:39:49	FIA711	A320	86	77	76	66	58	57
87	00:50:57	NYX300	SF34	80	70	69	59	50	49
88	00:59:56	RYR8TE	B738	85	75	74	65	56	55
89	00:59:28	RYR38ZG	B38M	84	73	72	64	56	54
90	00:59:07	EIN4GJ	A320	85	76	76	66	58	57
91	01:01:42	RYR37YJ	B738	85	75	74	65	57	56
92	01:11:19	RYR11YP	B738	85	76	74	65	58	56
93	01:16:18	EIN56V	A320	85	78	76	66	60	58
94	01:24:20	AZD658	AT72	84	76	74	63	54	52
95	01:34:34	EIN53R	A320	85	76	75	65	59	57
96	02:00:48	EIN46G	A320	85	78	76	66	59	58
97	02:02:46	EIN54L	A320	85	77	75	65	59	57
98	02:32:26	TOM50H	A320	83	73	72	63	55	54
99	02:52:50	EIN71T	A333	88	79	77	68	60	59
100	03:03:54	AAL734	B772	87	77	75	67	58	57
101	03:08:52	EIN72K	A333	88	78	77	68	60	58

8. The above results – and appendices – indicate a clear and significant issue in respect of the given events. You have indicated that the DAA e-contacted you (and others) indicating that "tests were being conducted.

9. From my interpretation of the WT trace, these events are all associated with incoming aircraft, at night, awaiting on the North Runway.

10. The crux of the night-time issues, in respect of the 101 events tabulated above, mean that each and every one of the above tests provoked in-bedroom noise levels well in excess of the published levels geared towards a good night's sleep. Furthermore, on the occasions when these tests were ***not being conducted*** proper and suitable levels were measured, post 23:00 hours, in your bedroom, the window ajar for fresh air admission.

11. These findings are applicable to your immediate neighbours, assuming they rely on natural ventilation for fresh air admission.

12. Even were these tests to have been conducted for potential "emergency" or "one-off operational conditions", the data, now to hand, means that ***unless*** and ***until*** significant upgrades/modifications to your home (and that of your immediate neighbours) are completed (and then being suitably commissioned, confirmed and maintained) these flight paths must not be utilised.

Yours sincerely,

Karl Slot 2312

Chartered Engineer