

Joe Mahon
Aircraft Noise Competent Authority
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Friday, 23rd July 2021
[By email & courier]

Dear Joe,

RE: Direction 01 by the Competent Authority in relation to planning application F02A/0668 under Section 9(10) of the Aircraft Noise (Dublin Airport) Regulation Act 2019 to provide information and assessments for the purposes of the Noise Situation at the Airport.

ANCA Ref: ANCA-F20/0668-D01

Further to our recent correspondence dated 18th June 2021, we hereby provide additional information in response to the remaining points as set out in the Appendix A to ANCA's Direction 01, dated 24th February 2021.

We note that ANCA's Direction 01, dated 24th February 2021 sets out the date of 24th July 2021 as being 'reasonably practicable' to provide all the information identified in Appendix A to ANCA's Direction. It should be noted that a revised Environmental Impact Assessment Report (EIAR) is being prepared in response to Fingal County Council's (FCC) request for Further Information dated 19th February 2021. The revised EIAR includes the assessment of some of the information provided to ANCA to date, however the revised EIAR is yet to be finalised as such not all the information as set out in ANCA's Direction has been provided at this time. Notwithstanding this, it is advised that the final responses to ANCA's remaining 'Specific Information Requests' are being prepared and will be provided in due course. Further, it is noted that the submissions to ANCA to date remain in draft form until such time that the EIAR is finalised and submitted to the Planning Authority. A full and final copy of all information provided to ANCA will be submitted concurrently with a response to FCC's request for Further Information.

TOWN PLANNING CONSULTANTS

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What follows is the contents of this submission:

SPECIFIC INFORMATION REQUESTS

The following responses are provided in draft form and will be incorporated into the previously provided *Initial Response to ANCA Request for Further Information Report, AECOM, June 2021*, in the full and final submission.

These responses are set out in the below table:

Request No.	Document Reference	Request
15	EIAR Chapter 21	The Applicant is requested to clarify whether adopted plans or programmes, for example the Fingal Development Plan, have been considered in the cumulative assessment as given their adopted status, they could be considered foreseeable. This is particularly important given that they set the context for growth at the Airport, and this application is shown to facilitate part of this when considering the 1.1mppa difference between the constrained and the unconstrained cases. This may therefore mean that they are already accounted for and not cumulative development, but the implications should still be considered.

Response: *This will be clarified in the revised EIAR.*

Request No.	Document Reference	Request
38	DAA Operating Restrictions Report Page: 20 "Implementing the 65/night restriction requires a 43% reduction in current scheduled demand"	The Applicant is requested to clarify how the figures in the report with the spreadsheet [A11267_12_CA154_5.0 ANCA Reporting Template v2.0 - All CEA Scenarios] have been reconciled? The North Runway Condition 5 planning restriction of 65 ATMs per night is based on average movements over the 92 day summer period, in the spreadsheet, this figure would appear to be 102.7 (not 113) for Summer 2019 (9,445 / 92 = 102.7, with 9,445 ATMs coming from scenario 0002 > summer > summer night). Note it is not clear whether the 'summer' in this context refers to the whole summer season, or the 92-day summer period. If it refers to the whole summer season, then can the equivalent data be provided by the Applicant for the 92 day period (historic and forecasts)?

Response: *The figures in the ANCA Reporting Template are based on runway times, which are used for the noise modelling. The 113 referenced in the Motts Report is based on scheduled times which include a buffer as explained on Page 19 of the Motts Operating restrictions Report (Appendix E of the ANCA RFI Report submitted as part of Tranche 3).*

Request No.	Document Reference	Request
77	EIAR Main Report 2.1.2.3. The Proposed Quota Count System "in addition to the above"	It is noted that many of the controls being described here are existing requirements under the North Runway Planning Consent. For the avoidance of doubt the Applicant is requested to describe which noise management measures are new or being replaced as part of the Proposals, and which of the measures being relied on are outstanding actions under its Noise Action Plan.

Response: *Please refer to the attached Noise Abatement Measures – Existing, Planned and New RFI Response #77 prepared by Anderson Acoustics.*

Request No.	Document Reference	Request
78	EIAR Main Report 2.1.2.5 A Night Noise Insulation Scheme "every 2 years with revised forecasts."	It is noted that under the North Runway consent that compensation schemes are to be reviewed biannually using a retrospective review. The Applicant is requested to provide further information as to how eligibility under the proposed scheme be determined alongside the requirements of the existing schemes. The Applicant is requested to confirm what information will be provided as part of the forecasts and



Request No.	Document Reference	Request
		what aspects of the current schemes would be used as a template for the new scheme e.g., acoustic performance requirements, etc
<p>Response: <i>It is proposed that the eligibility for the grant scheme be based on the initial 2025 forecast presented in the revised EIAR. The reviews will in fact be retrospective to align with the review periods of the existing scheme. This will reduce complexity associated with the original proposal which was to be based on forecasts. It is proposed that both scheme reviews will be based on retrospective reviews of noise contours. The final details of the scheme will be agreed with the Competent Authority in due course but the approach will utilise the experiences gained on the existing insulation scheme in terms of products and specifications that would be recommended for use. A summary of the proposed grant scheme indicative eligibility contours is provided in the Anderson Acoustic document, Residential Sound Insulation Grant Scheme (RSIGS) overview. DRAFT</i></p>		

Request No.	Document Reference	Request
86	EIAR Main Report 13.2.4 Relevant UK Policy, Standards and Guidance “National Planning Policy Framework (NPPF, 2020) Noise Policy Statement for England (2010) (DEFRA, 2010)”	The EIAR refers to English noise and planning policy. The Applicant needs to describe the applicability of these documents to Ireland. Where the Applicant is using these documents to advocate a particular noise management policy, this should be identified.
<p>Response: <i>Please refer to attached Technical Memo: ANCA RFI Responses by Bickerdike Allen Partners.</i></p>		

Request No.	Document Reference	Request
87	EIAR Main Report 13.2.5 Other International Policy, Standards and Guidance	The Applicant is requested to ensure that the application applies the latest requirements of legislation. For example the Environmental Noise Regulations (S.I. No. 140/2006) was repealed and replaced in 2018.
<p>Response: <i>Please refer to attached Technical Memo: ANCA RFI Responses by Bickerdike Allen Partners.</i></p>		

Request No.	Document Reference	Request
94	EIAR Main Report Table 14-1: Ground Noise Impact Criteria (absolute)–residential	The Applicant is requested to demonstrate the impact criteria for ground noise. As a continuous noise emission which may be considered industrial in nature, it may be more appropriate to consider EPA NG4 on assessment of licensed activities, on implementing the IED. Noise limit values from such activities should not exceed 55 dB Lday, 50 dB Leve and 45 dB Lnight, which equates to 55.4 dB Lden The Applicant is requested to submit information that demonstrates wider consideration of noise levels during the night. An understanding of potential changes in the diurnal pattern of noise from ground operations during the night should be provided.
<p>Response: <i>Please refer to attached Technical Memo: ANCA RFI Responses by Bickerdike Allen Partners.</i></p>		

Request No.	Document Reference	Request
99	EIAR Main Report 14.8 Residual Effects and Conclusions “Allowing for the benefit of the residential sound insulation schemes in	The Applicant is requested to confirm the number of dwellings which are assumed to have been fitted with noise insulation for the purpose of the ground noise assessment and to provide their locations.



Request No.	Document Reference	Request
	general reduces the number of people assessed with significant adverse effects and increases the number of people assessed with significant beneficial effects.”	
Response: Please refer to attached Technical Memo: ANCA RFI Responses by Bickerdike Allen Partners.		

Request No.	Document Reference	Request
108	Noise Information for the Regulation 598/2014 (Aircraft Noise Regulation) Assessment 3.3 Significant Effects under the Scenarios “For the Lden and Lnight noise indicators the significance of effect has been determined by separately rating both the absolute noise levels and the change in noise level as set out below. The individual ratings are then combined to determine the significance of any effects. The absolute noise values and associated impact criteria for residential receptors that have been developed are given in Table 1. They commence with a negligible band which applies to noise levels that lie below a low threshold, specifically 45 dB Lden and 40 dB Lnight, as WHO 2018 states that aircraft noise above these levels is associated with adverse health effects. The subsequent bands are defined by values that are required to be reported under Directive 2002/49/EC. Taking Lden, the value of 55 dB 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 54 dB LAeq,16h which is now used in the UK as marking the approximate onset of significant community annoyance. The value of 55 dB Lden has therefore been assigned to medium impact, as it relates to the start of these effects. Taking the value of 65 dB Lden, this is where WHO 2018 reports an association between those exposed and those considering themselves highly annoyed of 45.5 %. Such a noise level is also comparable with the level of 63 dB LAeq,16h widely used in the UK for eligibility for acoustic insulation, following Government guidance, and is also used for eligibility at Dublin under the North Runway Permission. The value of 65 dB Lden has therefore been assigned to the start of a high impact.”	The Applicant is requested to clarify if the Applicant considered that the comparisons equating exposure levels in terms of Lden against LAeq, 16hr relate only to the level of noise exposure and not to the underpinning exposure dose response relationships for these metrics.
Response: Please refer to attached Technical Memo: ANCA RFI Responses by Bickerdike Allen Partners.		

Request No.	Document Reference	Request
109	Noise Information for the Regulation 598/2014 (Aircraft Noise Regulation) Assessment 3.3 Significant Effects under the Scenarios “The effect of a change in noise level tends to increase with the absolute level of noise experienced at a receptor. If, for example, the night-time noise level at a dwelling were to change from 45 dB to 50 dB Lnight, the overall effect for the occupants would be less than if the night-time noise level were to increase by the same amount from 55 dB to 60 dB Lnight.”	The Applicant is requested to provide further justification of the significance matrix adopted. In keeping with the health effects of aircraft noise, the matrix should be demonstrated in terms of how changes in noise exposure at various magnitudes translate into changing effects i.e., increases in dose-response and corresponding changes in annoyance and sleep disturbance. This analysis will help ANCA determine whether the change magnitudes proposed are appropriate when considering annoyance and sleep disturbance effects and whether the approach adopted by the Applicant aligns with the exposure response functions underpinning health.
Response: Please refer to attached Technical Memo: ANCA RFI Responses by Bickerdike Allen Partners.		



Request No.	Document Reference	Request
113	Noise Information for the Regulation 598/2014 (Aircraft Noise Regulation) Assessment APPENDIX 2 Table A2.15: Modifications to AEDT Default Assumptions	The Applicant is requested to confirm the process adopted for the modification of the AEDT default profiles as part of its modelling? The evidence provided confirms that radar information has been used to validate profiles however no example is provided as to how this has been carried out. This is important as it is expected that the approach adopted as part of this Application would be carried forward as part of any regulatory requirements which arise. As a minimum information demonstrating the height of aircraft against distance from departure and landing should be provided in terms of modelled performance alongside information taken from the radar.
Response: <i>This will be provided in the revised EIAR, Appendix 13B.</i>		

Request No.	Document Reference	Request
114	Noise Information for the Regulation 598/2014 (Aircraft Noise Regulation) Assessment APPENDIX 2 Table A2.16: Expected Change in Noise Levels between Current and Modernised Aircraft Types	For the avoidance of doubt, the Applicant is requested to provide reference information to confirm the expected change in noise levels between the Current and Modernised Aircraft Types.
Response: <i>This will be provided in the revised EIAR, Appendix 13B.</i>		

Request No.	Document Reference	Request
117	Dublin Airport North Runway, Regulation 598/2014 (Aircraft Noise Regulation) Forecast Without New Measures and Additional Measures Assessment Report Table 2- (1 of 3) Existing Planned Noise Management Measures NS-2 (Work with airline partners to introduce quieter aircraft, particularly at night, including consideration of incentives. Approaches to incentives under development and expected to be in place by 2022.)	The Applicant is requested to provide evidence that the forecasts prepared with the application responds to NS-2. For example, some forecasts do not include any 737max operating during the night. This appears to be counter to the objective of NS-2
<p>Response: <i>In 2019, Ryanair had a fleet of over 450 B737 800s and 1 B737 700, with 32 of the B737 800s (7%) based at DUB. The B737 800s were delivered between 2002 2018 and are assumed to retire after 20 years' service.</i></p> <p><i>Ryanair has orders and options for 210 of the new B737 8 MAX 200s, due for delivery over a 5 year period. The B737MAX was grounded in March 2019 following two accidents related to its flight control systems. However, the B737MAX has now been approved and resumed operations in early 2021.</i></p> <p><i>Our fleet modernisation analysis assumes that Ryanair will switch its DUB base to B737MAX mainly after 2025 (but before 2030). Even with two year delayed MAX deliveries, Ryanair could have enough MAX in its fleet to switch DUB as early as 2023, but a post 2025 fleet renewal was deemed consistent with a 'centreline' forecast case and the assumption that Ryanair will switch its full fleet at particular bases in one go as opposed to gradually. This was used in order to show a conservative assumption. It does not mean that Dublin Airport will not aim to increase the rate of modernisation faster than that modelled. This will include the introduction of noise charges at night and if approved by the Relevant Action application, through the introduction of a Quota Count system. In response to RFI 117, a scenario with a faster rate of 737-Max deployment has been assessed in the revised Anderson Quota Count document.</i></p>		



Request No.	Document Reference	Request
134	<p>Dublin Airport North Runway, Regulation 598/2014 (Aircraft Noise Regulation) Cost Effectiveness Analysis Report 2.1 Unit of Effectiveness (Change in Lden levels:</p> <ul style="list-style-type: none"> — Exposed to noise levels between 45 dB and 50 dB Lden and an increase at or higher than 9 dB increase — Exposed to noise levels between 50 dB and 55 dB Lden and an increase at or higher than 6 dB increase — Exposed to noise levels between 55 dB and 65 dB Lden and an increase at or higher than 3 dB increase — Exposed to noise levels between 65 dB and 70 dB Lden and an increase at or higher than 2 dB increase — Exposed to noise levels 70 dB Lden or higher and an increase at or higher than 1 dB increase <p>Change in Lnight levels:</p> <ul style="list-style-type: none"> — Exposed to noise levels between 40 dB and 45 dB Lnight and an increase at or higher than 9 dB increase — Exposed to noise levels between 45 dB and 50 dB Lnight and an increase at or higher than 6 dB increase — Exposed to noise levels between 50 dB and 55 dB Lnight and an increase at or higher than 3 dB increase — Exposed to noise levels between 55 dB and 60 dB Lnight and an increase at or higher than 2 dB increase — Exposed to noise levels at or higher than 60 dB Lnight and an increase at or higher than 1 dB increase) 	<p>It is noted that the same change criteria are adopted for night-time noise as for daytime noise. The Applicant is requested to provide detail against the exposure response functions reported in Directive 2020/367.</p>
<p>Response: Please refer to attached Technical Memo: ANCA RFI Responses by Bickerdike Allen Partners.</p>		

Request No.	Document Reference	Request
142	<p>Dublin Airport Proposed Night Quota System Total Annual ATM and QC. Arrivals and departures. ATM</p>	<p>The Applicant is requested to further explain the ATM increase in night period while total ATMs are assumed flat. Additionally, the Applicant is requested to demonstrate that there will not be a consequence of inflating the QC allowance calculated as part of the scheme. The Applicant should note comments made by ANCA in relation to the forecasts and fleet mix assumptions.</p>
<p>Response: The proposed ANQ (the QC allowance) is unchanged as a result of revised forecasts. As explained in the previous December 2020 documentation, the proposed ANQ required a tolerance to account for the inherent limitations of forecasts. The revised analysis presented in the updated Operating Restrictions Report (as submitted as Appendix E of the Tranche 3 ANCA RFI report) demonstrates the need for that flexibility, with the proposed tolerance being reduced significantly by the revised forecasts. The revised documentation also includes a sensitivity assessment for the faster modernisation rate of 737-Max at the airport.</p>		



ATTACHMENTS

In support of the responses provided above, please find 1 No. hard copy of the below additional information. 1 no. electronic copy has also been provided.

- Noise Abatement Measures – Existing, Planned and New RFI Response #77 by Anderson Acoustics.
- Residential Sound Insulation Grant Scheme (RSIGS) overview, DRAFT, by Anderson Acoustics, July 2021
- Technical Memo: A11267_19_MO027_2.0 ANCA RFI Responses by Bickerdike Allen Partners, dated 22nd July 2021

In addition to the above referenced Technical Memo's the following information has been provided in electronic format only¹

- BAP Contour Report: Noise Information – ANCA Request

CONCLUSION

As noted above, the responses referenced in this submission and those provided to date are provided in preliminary form at this time. This is to ensure that any modifications required to be made as a result of the outcomes of other interrelated dependencies can be made without prejudice and as part of daa's final and complete submission in response to ANCA's Direction and FCC's Request for Further Information. Should any revisions be made to the documents attached to this letter in the full and final response these revisions will be highlighted accordingly.

For the avoidance of doubt, the final submission by daa will include a copy of all information provided to ANCA up to that point in final form.

Further to this, and in the interest of providing a clear outline of the intended submission(s) going forward, we wish to advise ANCA that daa are currently progressing a draft response to any remaining outstanding Specific Information Requests as well as an update to the Cost Effectiveness Analysis (CEA) to incorporate the revisions as a result of the material submitted to date. This additional material will be provided as soon as reasonably practicable.

In accordance with Section 34C(3)(b) of the Planning and Development Act 2000 [as amended], copies of this information has been provided to the Planning Authority.

Please feel free to contact the undersigned if you have any queries on the above.

Yours faithfully

Gavin Lawlor

Director

cc. Planning Department, Fingal County Council, County Hall, Main Street, Swords, Co. Dublin and via email planning@fingalcoco.ie

¹ As agreed with Mr. Joe Mahon of ANCA