

PLANNING APPEAL - F20A/0668

SECTION ON ENVIRONMENTAL ISSUES:

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Planning Authority: Aircraft Noise Competent Authority(ANCA) & Fingal County Council (FCC)

Planning Reference: F20A/0668 Amendment of conditions and ANCA regulatory Decision

Introduction

We submit this section as part of a group appeal of the above grant of planning permission we object to the grant for the reasons and considerations laid out in the document below.

1. Issues transpiring from recent opening of North Runway

We currently live under the flight path of Dublin airport and currently experience a substantial amount of sleep disturbance from night flights. Based on replies from DAA to complaints that we have made the decibel level of these disturbances regularly exceed 55LDB. Despite this our property (23 Portmarnock crescent) is not within the noise contour zones that would be allowed to apply for noise insulation.

The new runway became operational just over a week ago. The nuisance and disturbance from flights using the North Runway, and flights that have changed directionality on the original runway, in that short period of time has been substantial, shocking and negatively impactful. We are unable to open our windows during warm days and nights due to the noise, vibration and visual disturbance.

-No noise monitoring station has been installed in Portmarnock despite the direct impact of the opening of the North Runway. As a result we are unable to get accurate readings on decibel levels in our areas which I believe to be above 70LDB at night.

- The Webtrack online site is 1 hour behind and it is impossible to identify live flight disturbance as they go overhead and you must wait an hour and attempt to identify the flight(s) that caused disturbance retroactively which is difficult.

2. Planning background:

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 night-time 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 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.

3.. Appropriate Assessment incomplete

3.1 No appropriate assessment for entirety of North Runway development

The application to amend conditions from a previous grant of planning F04A/1755 appealed to An Bord Pleanála under PL06F.217429 and extended under F04A/1755/E1

At no point during any of these planning applications/ appeal/ consent was an appropriate assessment carried out in relation to the application. None. When commenting on the extension application heritage officer for Fingal CC Gerry Clabby refereed to section 42(1)(a)(ii)(IV) (we presume of the Planning and Development act of 2000) to state that an updated EIA and an AA were not required, in January 2017. This was contrary to the Birds Directive and Habitats Directive under EU primary law as entered into force at EU level, the Irish government had failed to transpose it into national law until 7 months later with S.I. No. 342 of 2017 PLANNING AND DEVELOPMENT (AMENDMENT) REGULATIONS 2017. A subsequent court case *Merriman v Fingal County Council and others*, Barrett J did not overturn the extension permission. This leaves us with an amendment to a grant of planning in 2022, which is based on an EIS that is informed by surveys and information only up to 2005 and no Appropriate Assessment since 2005 on a massive planning development.

Happily the Merriman judgment has been overtaken by *Friends of the Irish Environment V An Bord Pleanála* 2018 No. 734 J.R. and Court of Justice judgment C 254/19 which found that an extension to a permission was a project as defined under the EIA Directive and that definition was applicable to the Habitats Directive. In the CJEU decision which the high court used to quash the extension to original grant of planning, the court found;

- That account should be taken of any assessments carried out for earlier consents, this avoids the same project being subject to several environmental assessments, but by doing so cant rule out the risk that the consent will have significant effects on the Natura 2000 site unless the other assessments. In this case no

earlier assessment was carried out and so must now be carried out on the entirety of the development subject to the original planning, extension of planning and now the amendment of planning.

- That any assessments shall contain complete, precise and definitive conclusions capable of removing all reasonable scientific doubt as to the effects of the works; and provided that there are no changes in the relevant environmental and scientific data, and no changes to the project and no other plans and projects to be taken into account AS assessments or conclusions have ever been carried out and since grant of planning in 2007 there have been multiple changes in cumulative impacts, regulatory and legislative regime, impacts on environment then these must now be addressed with this planning application AND in this separate noise regulatory decision.

In the Shannon LNG case (as with this extension permission currently under amendment) The original consent was not preceded by an assessment under article 6(3) Therefore it cant be ruled out that such a project might have a significant effect on the Natura 2000 sites, and that such considerations are such, as to require a consent to be preceded by an appropriate assessment , such an assessment **cant be a simple update of the assessment that may have been carried out previously – it must consist of a full assessment of the implications of the entire project.**

This was summarised in paragraph 59 of the CJEU judgment C 254/19 which stated:

“It is for the competent authority to assess whether a decision extending the period originally set for carrying out a project..the original consent for which has lapsed, must be preceded by an appropriate assessment....and if so, whether that assessment must relate to the entire project or part thereof, taking into account, inter alia, previous assessments that may have been carried out and changes in the relevant environmental and scientific data as well as any changes to the project and existence of other plans or projects....A previous assessment of that project, carried out before the original consent for the project was granted, cannot rule out that risk unless it contains full, precise and definitive conclusions capable of removing all scientific doubt as to the effects of the works, and provided that there are no changes in the relevant environmental and scientific data, no changes to the project and no other plans or projects.”

As it is clear that no appropriate assessment has ever been carried out for any part of the North Runway project, it would be impossible for the current NIS(s) in relation to both the Planning application and the regulatory decision to be considered sufficient, as it only considers the impacts from the amendment of the conditions. As no AA has ever been carried out all potential impacts from the development since 2006 and any cumulative impacts with other developments granted since then must be assessed in order for a legal and valid appropriate assessment to be completed both by ANCA and by Fingal County Council.

Both competent authorities and their independent consultants Brady Shipman Martin only assessed and screened for the relevant action in terms of AA. This means that NO AA has been carried out on the development of a runway at an international airport within close proximity to Natura 2000 sites at all.

So to clarify the following planning applications which ALL relate to the North Runway did not have any appropriate assessments carried out.

F04A/1755	Parent Permission North Runway. (An Bord Pleanála Ref: PL06F.217429)
F04A/1755/E1	10 Year Extension to North Runway – No updated EIA or AA as required by law
F19A/0223	ABP-305298-19 Substantial amendments to runway and original permission NO AA or EIA carried out

4. Deficiencies in the NIS:

4.1 AA legislation

Some of the legislation that governs Appropriate assessment and the information to be contained in an Natura Impact Statement are listed below.

- Directive 92/43/EEC (the “**Habitats Directive**”) was adopted on 21 May 1992,
- The Birds Directive (Directive 79/409/EEC) was consolidated in Directive 2009/147/EC,

- Originally transposed by European Communities (Natural Habitats) Regulations 1997 (S.I. No.94/1997) Now transposed by Part XAB of the Planning and Development Act 2000 and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No.477/2011)

- article 6(3) of the Habitats directive states that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.

- Article 4(4) of the Birds Directive provides that Member States shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant

- Section 177U in Part XAB of the PDA 2000 requires the competent authority to consider 'best scientific knowledge' whereas Part 5 of the 2011 Regulations requires the public authority to consider both 'best scientific knowledge' and the 'conservation objectives' of the site.

4.2 Pertinent Case law:

- However, it is apparent from the Waddenzee case that all aspects of a plan or project must be identified "*in the light of the best scientific knowledge in the field*".

- In Case C-461/17, *Holohan & ors. v An Bord Pleanála* it was held that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the 'appropriate assessment' must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned.

- Following the appropriate assessment, consent can only be given if the competent authority has determined that it will not adversely affect the integrity of the relevant European sites which were considered as part of the assessment.

- In Case C-127/02, *Waddenzee* it was held that an 'appropriate assessment' means "*all the aspects of the plan or project which could affect the site's conservation objectives must be identified in light of the best scientific knowledge in the field*".

- In Case C-404/09, *Commission v Spain*, it was held that the obligation to carry out appropriate assessment is to be discharged "*in the light of the best scientific knowledge in the field*", with the test being that "*..no reasonable scientific doubt remains as to the absence of such effects*".

In summary authorisation may only be given on condition that the competent authorities are certain that the plan or project will not have lasting adverse effects on the integrity of that site, i.e. where no reasonable scientific doubt remains as to the absence of such effects, which leads us to specific lacunae in the NIS.

4.3 Lacunae, Omissions, lack of cumulative impacts:

- There is no assessment of the potential for increased bird strikes as a result of a) the Runway development and associated additional flights or b). the increase in night flights as a result of the change to the conditions and increase in noise impacts.

-No surveys were carried out at night. Despite the amendment conditions relating specifically to night flights.

-No individual assessment of Bird SCIs in SPAS affected were carried out. The NIS referred to generalised impacts on species. But for instance Lapwing and Golden Plover which are SCIs at some of the SPAs' and SACs are nocturnal feeders (Gillings S. & Sutherland W.J. 2007) and so would be more impacted and specifically impacted by an increase in night flights during the night when the baseline noise would generally be lower and visual impact of aircraft lights in a dark zone would be more visually arresting.

(Gillings S. & Sutherland W.J. 2007) in conclusion paragraph states: *Nocturnal foraging may allow plovers to exploit alternative more profitable prey types, yielding higher intake rates that may be essential for successfully balancing energy budgets. Indeed nocturnal foraging may be the preferred strategy*

the full scientific paper can be found here: <https://avibirds.com/wp-content/uploads/pdf/goudplevier6.pdf>

In the NIS it states at section 5.3. it states only three characteristics that have the potential for adverse impacts:

For both the 'with the 32mppa cap in place' and the 'without the 32mppa cap in place' scenarios the future baseline and the assessment case shows only three key change characteristics that have the potential to have an adverse impact on the integrity of any Natura 2000 sites:

- The effects of increases in the level and frequency of noise, and visual disturbance events caused by increases in aircraft overflying of Natura 2000 sites and potentially, also by this overflying occurring at differing times of the day and night.
- The effects of changes to air quality, particularly increases in the concentrations of NOx and levels of nitrogen deposition, caused by increased numbers of aircraft overflying Natura 2000 sites.
- The effects of emergency fuel dumping from overflying aircraft affecting Natura 2000 sites directly, or indirectly through surface water pathways.

An NIS is supposed to list the significant impact of all impacts. Notwithstanding the impact of the actual runway development that was never assessed even if you were just assessing the increase in flights as a result of the relevant action / regulatory decision you still have to include indirect impacts that may be significant. In this case this would include for example:

- increase in number of planes refuelling (use of fossil fuels, fuel spills and carbon emissions)
- Increase in chemical use during de-icing and wash off of said chemicals on hard surfaces into surface water network and streams which are pathway receptors to SAC/ SPA
- increase in service vehicles and associated carbon emissions to turn around additional planes for take off
- runoff to watercourses and application not identifying any mitigation measure to bring Cookoo, Ward, Mayne and Rivers to good status from current poor status. This is a breach of the Water Framework Directive.

There should also be cumulative impact of not just the aircraft disturbance but disturbance from traffic noise, construction, Dog walking, gun clubs/ hunting, tunnel boring etc unless the cumulative impacts are address in relation to noise and disturbance the NIS is not complete.

4.4 Assesment of increased flights based on passenger numbers.

In section 5.8 of the NIS its states the following;

What this means is that when then considering the effect of the NAO and RD whilst the 32mppa cap remains in place, compared to the likely future baseline, there will be more night-time flights albeit once the level of the cap is reached (in 2027), this will be offset by their being fewer daytime flights. As a result, on average, noise levels will therefore be, across the entire day / night period, the same.

In 5.9 it states:

The question therefore is whether specifically, increased night-time flights are more likely to compromise the conservation objectives of the Natura 2000 sites, these being, in particular, important birds.

5.10 it states:

According to daa forecasts, for 2025, actual numbers of night-time flights to occur within the night-time period will be, annually, just below 32,000 compared to the future baseline of just under 20,000 flights. This is an increase of just over 60%.

This method of calculating number of increases in night flight is highly flawed as it does not include cargo operations, transfers and nowhere does it identify a highly probable increase in the use of Dublin Airport for long haul flights due

to Brexit and the need for Aircraft operators to hold separate licences for the UK and Ireland. Having to double up on licences and regulatory red tape may make Dublin a more attractive stop over or cargo operator (Air to Dublin and Ro-Ro to Europe by road Ferry). The impact of cargo or non passenger operations and BREXIT must be properly considered in any NIS and AA.

Section 5.11 of the NIS states:

It is considered that birds are unlikely to be any more disturbed by aircraft at night when compared with the day. In fact arguably, because the aircraft themselves will be, except for its lighting, much less visible, birds would become less likely to be disturbed.

No scientific information is provided in support of this statement and they did not observe any changes in nocturnal behaviour because there were no surveys carried out at night. . The journal of zoology scientific paper [M. McBlain, K. A. Jones, G. Shannon](#) 2020, in fact found that oystercatchers do respond to increases in noise at night as they cannot rely on their vocal warnings and so use visual checks to see if they are in danger which disrupts sleeps patterns:

Little is known about which sense oystercatchers utilize the most during predator detection, however, they are known for their very noisy ‘peeping’ calls. Therefore, it can be expected that stronger winds will reduce the effectiveness of auditory signals, as demonstrated in the American pika (Ochotona princeps) (Hayes & Huntly, 2005). It is possible that visual surveillance is increasing in frequency with stronger winds because auditory signalling is compromised, as shown in other species exposed to noisy environments (Rabin, Coss & Owings, 2006; Shannon et al., 2014).

full article here:

<https://zslpublications.onlinelibrary.wiley.com/doi/10.1111/jzo.12812>

Nis goes on to state at 5.12 :

This lack of visual stimuli is backed up by research from Cutts et al (2009), who detailed that habituation by waterfowl flocks on the Humber Estuary, England, to regular commercial aircraft flights that operate to and from Humberside Airport, appears to occur (more is said on habituation later in this Report). The research states that birds showed no response to regular daily flights, except on two occasions, when they appeared “spooked” by the shadow of an aircraft that passed close to where they were congregated, though no comment is given as to the total flights observed. For these reasons it is believed that visual stimuli increases the potential for disturbance from overflying.

And at 5.13 : *Additionally the timings of these increased number of night-flights, being mostly late (0600- 0700) and early (2300-2330) in the night-time period are so close to the timings of flights that would occur outside of the night-time period (just after 0700 and just before 2300) that it is considered highly unlikely that they would lead to new effects. The behaviour of birds during these times might change somewhat during a year reflecting seasonal differences including the timing of sunrise and sunset, and the reasons the birds are using the sites i.e. roosting, breeding, foraging etc., but it is not considered likely that these additional night-flights given the timing they occur, would affect compromise the conservation objectives of any Natura 2000 site that occurs within the Zol.*

These effects only seem to dealing with disturbance recognised as “flushing” when birds move or fly as a result of disturbance. There is no assessment whatsoever of the effects of noise increases on the stress behaviours of birds, on their ability to fall into deep sleep, on their ability communicate or inability to communicate if frequent aircraft noise is drowning out communications in relation to predator warnings, feeding, breeding etc. It is interesting to note that in dealing with a NIS that is specific to noise impacts for a noise regulator to make a decision on, that there is NO scientific information on current decibel levels at monitoring stations in proximity to the SAC and SPA in question (which the DAA actually have) nor the decibel levels at which aircraft noise could be considered as interfering with avian communications on a 24 hour basis which could lead to a decline in species, through feeding loss, breeding reduction etc. Outside of the AA regime that calculation of noise impacts MUST be based on the factual data that the DAA hold in relation to actual recorded noise levels at monitoring stations. This information must be made available as part of any application for ANCA, FCC and the public concerned to analyse and make informed decisions on.

I submit Scientific papers at the following online locations which detail the importance of vocal communication in birds the impacts of vocal masking from noise impacts, and impacts of other forms of disturbance (not just flushing). Also

attached to the end of this submission is an expert paper which refutes the NIS claims to birds habituating to aircraft disturbance.

No up to date Bird surveys were submitted with the application and there is currently no Management plan in place for Baldoyle SPA which is a breach of statutory requirements under the Habitats Directive.

<https://seabirdprotectionnetwork.org/wp-content/uploads/2017/01/Aircraft-disturbance-literature-review.pdf>

<https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/1365-2656.13059>

<https://academic.oup.com/beheco/article/26/2/435/2578837>

<https://sora.unm.edu/sites/default/files/journals/iws/n005/p00006-p00019.pdf>

<https://www.sciencedirect.com/science/article/pii/S25300644193005984>

<https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/1365-2664.13742>

<https://www.sciencedaily.com/releases/2019/10/191025101507.htm>

<https://www.nature.com/articles/news020708-6>

5. Unauthorised development

5.1 Does this application to amend amount to retention permission or a form of substitute consent?

As per 34(12) of the Planning and Development Act(s) 2001 to present, A planning authority shall refuse to consider an application to retain unauthorised development of land where the authority decides that if an application for permission had been made in respect of the development concerned before it was commenced the application would have required that one or more than one of the following was carried out:

- (a) an environmental impact assessment,
- (b) a determination as to whether an environmental impact assessment is required, or
- (c) an appropriate assessment.

34(12) as amended - A planning authority must now refuse to consider an application for retention planning permission for an EIA development

-Subsection (a) includes development for which EIA is mandatory (

Annex I and Schedule 5 Part 1)

-Subsection (b)

-Developments which are required to be screened as to whether an EIA is required (Annex II and Schedule 5 Part 2)

-Sub-threshold developments (PA must assess using criteria in Schedule 7)

-Extends to developments where if screened (before construction) would have led to the conclusion that an EIA was not required

-Subsection (c) Assessments regarding Habitats Directive (Natura) NIA

As has been made clear earlier in this submission there was no AA carried out on any part of the original development consent, nor on the extension. As this application and this regulatory decision includes an AA of sorts in relation to part of the overall development which related to specific conditions, and as no AA took place when it has been identified by the Shannon LNG case that an extension permission such as this one should be subject to an Article 6(3)

assessment which never took place, it could therefore be the case that this application is an attempt to regularise what under current jurisprudence and legislation amounts to unauthorised development (as the runway was already started in 2016 and is largely built now). Under the above legislation ANCA as the competent authority for Noise assessment and indeed Fingal County Council as the competent authority for planning are now precluded from considering a development consent that amends a previous consent that would have required an AA before it was commenced.

The difficulty is as this development was never subject to an EIA for the extension permission or an AA there is a knock on effect on all other developments that may have had cumulative impacts on the Natura 2000 Network also impacted by the North Runway development including impacts on water bodies (Cuckoo, Mayne, Sluice and tributaries run around the airport) that may be subject to Water Framework Directive and the subsequent Wesser judgment. It will also impact on local area plans, development plans and SEAs for plans linked to the North Runway development. Until this major legal issue is resolved ANCA and FINGAL county council are precluded from making a decision.

It is suggested that a legal opinion be sought and published on the issue above.

6. Insufficient EIA assessment in breach of EIA Directive:

6.1 EIS from Parent Permission

As already dealt with in detail no AA was carried out on the entirety of the North Runway Development.

It must be noted that the inspector in the parent permission recommended refusal of the application due to deficiencies in the then EIS. The board overruled their inspector for the following reasons.

In deciding not to accept the Inspector's recommendation to refuse permission, the Board considered that sufficient information had been submitted in the Environmental Impact Statement, in further information submitted both to the planning authority and the Board and at the oral hearing to enable it to make an assessment of the significant impacts of the proposed development on the environment and its acceptability in terms of proper planning and sustainable development. The Board considered that in overall terms, the inconsistencies or deficiencies in information referred to by the Inspector were not so significant as to warrant a refusal of permission and could be addressed by way of condition. In particular, the Board was satisfied, on the basis of the information submitted and the conditions attached, and, having regard to the fact that there are no planning restrictions on the current operation of the airport runways, 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.

No EIA was carried out on the Extension permission and limited screening for EIA on the application for a relevant action. This essentially means that this application is relating to an EIA from 2004/2005 which has no current assessment of cumulative impacts, current major risks, updated environmental surveys, so assessment of adherence to planning and environmental legislation enacted since 2004. We also now have a scenario where the country's largest airport has no EIA lodged on the EIA portal and so hinders the EIA cumulative assessments of other projects that may interact with it. This is a massive and concerning issue and a situation that cannot continue to stand.

An Bord Pleanála must carry out a robust and full EIA. This can only be done with if DAA submits a full EIAR that is compliant with most recent EIA regulations and is informed by up to date baselines and surveys. Without a complete

EIA (and AA) no proper mitigation measures can be put in place. It also means that there is project splitting between Dublin Airport individual grants of permission with no overview of the full impact of Dublin Airport operations which is a proposition the CJEU simply would not allow if it is raised through the courts. The Current situation with has been facilitated by Fingal County Council , An Board Pleanála and the DAA since 2004 simply cannot be allowed to continue. Some issues that a robust EIAR might address are as follows:

6.2. Fuel Dumping.

In relation to the Fingal CC request for additional information 2b in regard to fuel dumping the applicant answered at 2.16 as per below. When unscheduled and emergency landings occur in order to ensure that the structural landing weight limits are not breached upon landing (which may cause structural damage to an aircraft) planes particularly if they have a pan pan emergency on take off, must jettison or dump fuel before landing to avoid structural damage or increasing the risk of explosion upon crash landing. For example a number of bird strikes have happened over the years causing flames out in engines, damage to aircraft which require the aircraft to lower altitude, dump fuel before returning for unscheduled landing (referred to as a Go-Around).

Air ops personnel calculate aircraft operating empty weight, payload and fuel load and reserves in an exact manner, against fuel burn in flight so that the aircraft are within their landing weight limits are safe. I believe in 2018 there were 70 unscheduled landings a rate of almost 1.35 per week. Depending on the approach of the aircraft, while some may have been within safe weight limits for aircraft model it seems that 1 fuel dump for all scheduled and unscheduled landings since 2014 seems very low. Perhaps the use of “emergency fuel dumping” is too prohibitive and does not select the scale of fuel dumping of aircraft approaching Dublin airport. A request from the IAA of all reports of fuel jettison events relating to dublin airport as reported by IAA to EASA should be requested in order to have complete and definitive findings capable of removeing all reasonable scientific doubt, in relation to fuel dumping overland or at sea and its impacts on SACs and SPAs and receptor pathways such as rivers.

2.16 Item 2 b)

The AA Screening report should be revised to take account of statements within Chapter 8 of the EIAR regarding potential impacts on European-sites caused by emergency fuel dumping from the Relevant Action application, should this take place.

Applicant's Response

The AA Screening Report has been revised as requested above. It is noted that emergency fuel dumping has only happened once since 2014 and that no effects on European sites are identified.

It is submitted that AA Screening report now submitted suitably responds to item 2 b) of FCC's request for FI.

6.3 Bird Strikes :

The number of bird strikes involving aircraft reported should also be assessed. No Data was produced nor mitigation measures for increased movements and new take off and landing corridors for North Runway put forward.

6.4. Carbon Emission and Climate Change impacts:

In January 2021 I received the below information when I requested information relating to Dublin Airports carbon neutral accreditation.

Dublin Airport has participated in the Airport Carbon Accreditation program (<https://www.airportcarbonaccreditation.org/>) since 2011. Airport Carbon Accreditation (ACA) is an institutionally endorsed, global carbon management certification programme for airports. It independently assesses and recognises the efforts of airports to manage and reduce their carbon emissions and is the only global, airport-specific carbon standard which relies on internationally recognised methodologies. It provides airports with a common framework for active carbon management with measurable goalposts.

As part of daa's Sustainability Strategy, we made the commitment in 2017 to move from ACA Level 2 (reduction), which had helped daa reduce its emissions by 25% compared to 2013 emission levels to ACA Level 3+ Carbon Neutral by 2020. This involved Dublin Airport not only reporting our own direct emissions (scope 1 and 2) but it also included expanding our emission scope to contain the associated emissions (scope 3) of the airport operators such as airlines, ground handlers, transport operators and our concessionaires.

Additionally, we had to undertake ongoing engagement with these operators and have our calculations independently verified to ensure that the highest standards were adhered to in our reporting. As some of the information included in our calculations is from our third party operators and was provided to us on a confidential basis, we are unable to release the data to you.

In order to reach carbon neutrality for 2020 we worked with UK-based carbon neutrality specialist Natural Capital Partners to purchase carbon credits from an improved water infrastructure project in East Africa, which is run by the Irish NGO Vita. The credits that we purchased provide essential funds to restore community water points and enable easy access to clean water for rural families in Ethiopia and Eritrea.

Dublin Airport is now one of 52 carbon neutral airports in Europe under the ACA scheme. Achieving carbon neutrality is part of our journey to become Net Zero for our carbon emissions by 2050 at the latest and we intend to reduce our overall energy consumption by a further 30% by 2030.

Across the aviation sector globally airports are managing and reducing their carbon emissions. Aircraft emission are being dealt with separately through the global Carbon Off-Setting and Reduction Scheme for International Aviation (CORSIA) scheme, which was adopted by ICAO in 2016. (<https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx>) Ireland, as one of the 44 member states of the European Civil Aviation Conference, has made a declaration to adhere to the international scheme from its first implementation phase from 2021 which will enable carbon neutral growth from 2020 and, as such, will result in airlines paying to off-set their additional carbon emissions through the purchase of carbon credits.

I requested further information regarding the breakdown of the figures under AIE and received the following reply.

Dear Mrs Joyce-Kemper,

I refer to your e-mail correspondence dated the 12th January 2021, requesting access to environmental information under the Access to Information on the Environment (AIE) Regulations 2007. A response to your request is set out below:

"I would like to make an AIE request for the report which supports Dublin Airports - Airport Carbon Accreditation (ACA) certification, together with the independent accreditation of any calculations in the report, and any underlying / supporting raw data."

There is no formal report, daa submits figures that are independently verified and accredited by ACA.

The figures are audited by a 3rd party consultancy and we enclose a copy of the verified figures.

The raw data comprises a large volume of records, accordingly, daa is granting you access to consolidated figures from scope 1 & 2 & 3 as provided for by Article 7 (3) (a) (ii). daa believes it is reasonable for daa to grant access in this form or manner because (i) of the large volume of data; (ii) disclosure of the non-consolidated raw data would adversely impact (a) commercial or industrial confidentiality, where such confidentiality is provided for in national or Community law to protect a legitimate economic interest, or (b) intellectual property rights.

Scope 1

Scope	Total	Metric
Natural Gas	44,964,132	kWh
Kerosene	31,734	Litres
Diesel	326,518	Litres
Green Diesel	11,920	Litres
LPG	17,715	Litres
Gas Oil	129,511	Litres
Petrol	1,542	Litres

Scope 2

	kWh
Electricity	42,995,732

Scope 3

Scope 3	tCO ₂
daa travel	2,609
3 rd Party emissions	21,925
Surface access emissions	80,818
Aircraft emissions	282,501

The difficulty with the lack of transparency is that it is impossible to ascertain if the non aircraft related CO2 emissions fall in line with the **Climate Action and Low Carbon Development (Amendment) Act 2021** and the draft emission targets released by the climate committee yesterday. It is also apparent that the above breakdown only relates to current operations and that there should be an appropriate calculation of CO2 emissions for the traffic and associated increase in cargo, passenger numbers and knock on emissions that will relate to the additional runway and increase in flights.

6.5. impacts from increasing night flight movements:

In relation to the increase in night-time movements, I wish to draw attention to a scientific paper from 2006, The impact of diurnal variations of air traffic on contrail radiative forcing N. Stuber¹ and P. Forster² ¹Department of Meteorology, The University of Reading, Earley Gate, P.O. Box 243, Reading, Berkshire, RG6 6BB, UK ²School of Earth and Environment, University of Leeds, Leeds, LS2 9JT, UK

The pdf of the paper can be found here.

https://www.researchgate.net/publication/26634389_The_impact_of_diurnal_variations_of_air_traffic_on_contrail_radiative_forcing/link/542d1c180cf277d58e8cad0f/download

A newspaper article summarising the paper can be found here

<https://www.theguardian.com/science/2006/jun/15/theairlineindustry.ethicalliving> but for convenience I have

reproduced from the guardian below. However it does raise the question in relation to are night flights too damaging in terms of carbon emissions and should the substantial additional contribution to warming that they make as opposed to day flights deter the council and competent noise authority from allowing any amendment to the planning conditions.

Night flights twice as bad for environment - study

David Adam, *environment correspondent*

A nationwide ban on night flights would significantly reduce the aviation industry's impact on the climate, a new study shows. Scientists have found that the warming effect of aircraft is much greater when they fly in the dark, because of the effects of the condensation trails (contrails) they leave.

Piers Forster, an environmental scientist at the University of Leeds who led the project, said: "Night flights are twice as bad for the environment. If the government wanted to reduce the likely impact of aviation on climate then it could ensure that more flew during the day."

Writing in the journal *Nature* today, Dr Forster and his colleagues say aircraft contrails enhance the greenhouse effect because they trap heat in the same way as clouds. During the day, their warming effect is not as pronounced because contrails reflect sunlight back into space, which helps to keep the planet cool. This means contrails are responsible for about half of the aviation industry's impact on climate.

Dr Forster added: "Aircraft currently only have a small effect on climate. However, the fact that the volume of air traffic is set to grow rapidly in coming years makes it important to investigate the effects of contrails on our climate."

Shifting all UK night flights to the daytime would save the equivalent of 2.5% of the UK's annual carbon dioxide emissions, he said.

The team studied flights crossing the UK at night, not takeoffs and landings from its airports, but campaigners say both will increase as air traffic increases. The number of overnight takeoffs and landings at so-called designated airports - Heathrow, Gatwick and Stansted - are currently restricted, but flights into other airports face few controls.

The scientists monitored air traffic over the UK and worked out that, although one in four flights occurred between 6pm and 6am, they contributed 60-80% of the warming that could be attributed to contrails. Winter flights had more effect than those in the summer, contributing 50% of the warming despite providing only 22% of traffic.

Nicola Stuber, a meteorologist at Reading University, said the warming effect of contrails was roughly the same as that caused by the carbon dioxide emitted from an aircraft's engines.

The team looked at contrails that lasted for an hour or more over south-east England, passed by aircraft heading for the north Atlantic. They combined flight data with measurements from weather balloons to predict whether flights would form contrails or not. They found that contrails formed more easily when conditions high in the atmosphere are very humid, as they are during the winter

6.6 Cumulative impact with Greater Dublin Drainage Project:

We were extremely surprised to see that the EIAR has no actual assessment of the cumulative impact of the development with The Greater Dublin Drainage Project (see Fig 1 for site location of GDD) , in particular the waste recovery facility (WRF) (referred to as a Sludge Hub Centre in GDD application) and biogas storage tanks that make up the part of the project see Fig 2. marked with an X for location of Biogas storage tanks. . The Biogas storage tanks in particular are on the current flight path for flights leaving the south Runway, the number of these flights leaving in the

direction of Clonshaugh appears to have increased since the opening of the Nort Runway based on our WEBTrack observations. T

1.2 The information on GDD which is a live An Bord Pleanála case (Board's Decision 301908 quashed by Order of the High Court (Perfected on the 16th July, 2021 New Case Number ABP-312131-21.) can be found at GDDapplication.ie with the planning report for GDD at <https://www.gddapplication.ie/planning-sites/greater-dublin-drainage/docs/planning-documents/planning-reports/SID-Planning-Report.pdf> all maps and reports should be available at this site. We have identified the development boundaries as they relate to the southern Runway flight path below.

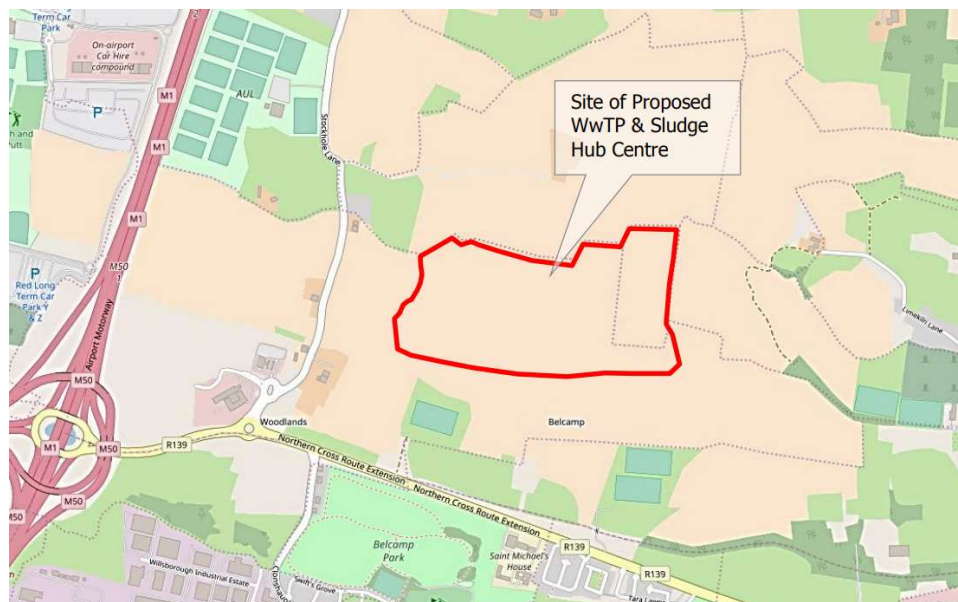


Fig 1. GDD site location map



Figure 2.2 Location & Indicative Layout of Proposed WwTP & Sludge Hub Centre Site Plan

Fig 2. GDD Clonshaugh WWTP indicative layout with red X beside biogas storage tanks.

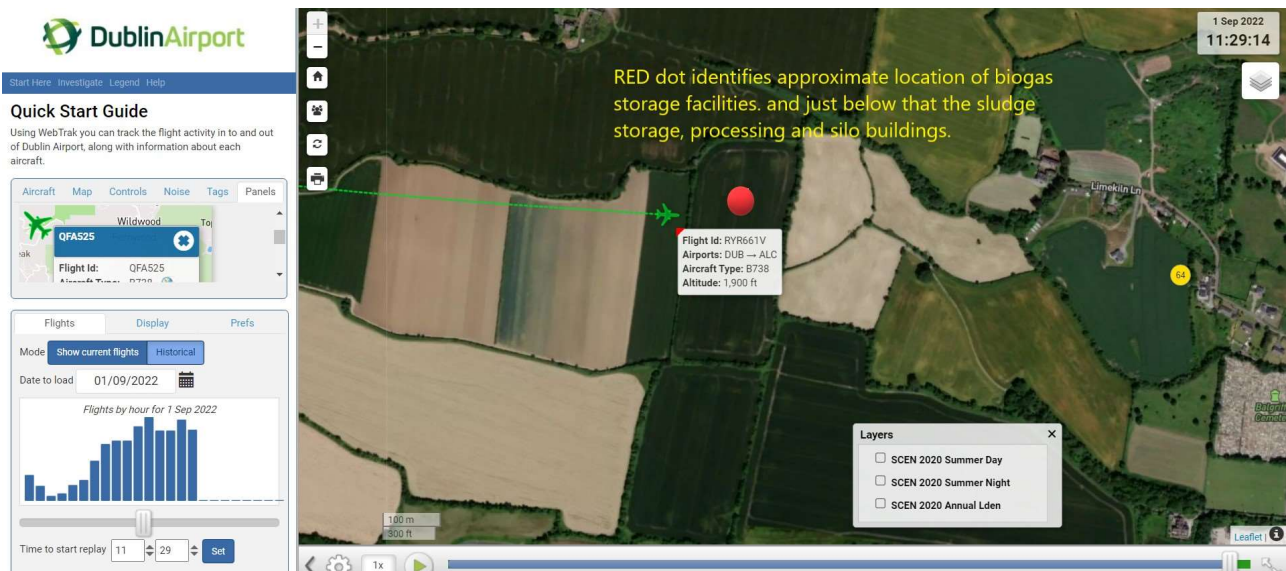


Fig 3. Site Locations overlap between flight path and GDD application site.

7.2. Risk of Major accidents:

Our main concern is the potential risk of having the Biogas Storage tanks from the GDD under the flight path and also so close to such a major residential development (Belcamp lands) together with the sports playing fields to be used by children immediately adjacent to the Gas storage tanks. In addition to the potential impact from the tanks and an aircraft accident a combined impact of the Biogas Storage tank explosion which would cause major smoke and incendiary events, the tanks are within the outer safety zone for the airport flight path. An explosion could increase the risk of an aircraft emergency situation. Via Versa and emergency PAN PAN event with an aircraft or potential terrorist event could involve a plane catching into the Biogas storage tanks and cause a major accident impacting on the residents and sports clubs nearby.

We also wish to draw the inspectors attention to the Avonmouth disaster that occurred in a Wessex Water sewage treatment plant and explosion in the Biogas biosolids Silo caused debris and the body of 1 of 5 victims to be thrown 500 feet. There was a fire which the emergency services brought under control. The GDD application DID NOT carry out any assessment of an explosion in the Biogas Storage area. There is no assessment of the radius of impact that such as blast could have on surrounding land or aircraft on landing/ take off just above the plant. As such a major risk of accident assessment with competent experts must be carried out. Such an explosion could impede airport operations for a significant time and force all landings and takeoff through the North Runway. This may require HSA involvement as waste recovery facility and biogas storage facility may require seveso registration. The potential proximity of a SEVESO site should be flagged as part of the EIA into this application.

Below is an article on the accident and details of what contributed to it.

<https://www.sciencefocus.com/news/avonmouth-explosion-what-are-biosolids-and-did-they-cause-it/>

Avonmouth explosion: What are biosolids and did they cause it?

Published: 04th December, 2020 at 09:37 by Sarah Ridley in Science Focus

Police say the explosion at a water recycling centre in Avonmouth happened in a biosolid treatment silo, though the cause of the blast is unknown. Police have said the explosion at Wessex Water's Bristol water recycling centre in Avonmouth happened in a silo used to treat biosolids, though the exact cause of the blast is still to be determined.

What are biosolids? Biosolids are “treated sludge” – a by-product of the sewage treatment process. According to Wessex Water, the sludge is treated in anaerobic digesters – oxygen-free tanks – to produce agricultural fertiliser and [renewable energy](#).

So how does the sewage treatment process work?

Wessex Water says during the sewage treatment process debris such as rags and large objects are removed first using screens. The sewage flows into tanks where the solids sink to the bottom and are removed as sludge. The sewage is then treated biologically by passing through filters with bacteria growing on them that feed off the waste and clean the water.

Why do we use biosolids?

According to Bristol-based waste management service GENeco, biosolids provide a “cost-effective alternative to bagged fertiliser” and help improve the fertility of agricultural land. “Increasing the organic matter helps improve soil structure, giving plants better roots and helping them to yield more,” said Neil Sims, biosolid recycling controller.

[Sean Hill](#), director of waste management, adds that recycling sewage sludge helps supply essential nutrients back to the soil and provides “a successful blueprint for a sustainable future” for the planet.

Are biosolids dangerous?

Biosolids can produce flammable methane gas when treated with bacteria, though police could not comment as to whether this was the cause of the explosion and said the investigation was ongoing. “The substance responsible for the explosion might well have been methane which, as is well known, is formed in sewage treatment,” said [Professor Clifford Jones](#), visiting professor at the University of Chester. “Sewage at an advanced state of treatment can form sewage sludge dust, which is capable of a dust explosion.”

Will there be any fallout from the explosion in Avonmouth?

Luke Gazzard, from Avon Fire and Rescue Service, said there was not thought to be any further safety concerns to people living in the nearby area following the incident. There will be an investigation into the blast involving the Health and Safety Executive and a number of agencies.

Other new articles on Avonmouth Disaster.

<https://www.bbc.com/news/uk-england-bristol-55183959>

<https://www.mirror.co.uk/news/uk-news/avonmouth-explosion-victim-thrown-150-23114784>

7.3 Aircraft Accident/ Hijacking:

An aircraft accident or a terrorist hijacking must be considered at this site as it is near to the flight path and is further exposed to risk due to the Biogas Storage tanks that make up part of the Greater Dublin Drainage Project that shares the application lands. There have been a number of incidents involving aircraft component failures, and birdstrikes at Dublin airport. One such event happened in July 2019 when a bird strike damaged the engine of an Aer lingus flight taking off at Dublin Airport. The video showing takeoff with flash of fire and transcripts of the pilot and ATC are available here <https://www.youtube.com/watch?v=uUg2aeKCvf0>. The plane had time to dump its fuel load at sea before coming into land, taking the flight path just immediately north of the application lands. (see full flight path Fig 4.) . any potential for such an event needs to be assessed as part of an EIA, AA and any planning application.

7.4 Terrorist high jacking: A recent Audit by the EU Aviation Authority found Dublin Airports security systems to be dangerously deficient with a number of dangerous prohibited items passing through security without detection. This adds to the potential for Dublin Airport to be seen as a target for a terrorist attack. The proximity of Major Infrastructure such as a Waste Water Treatment Plant with hazardous gas storage also increases the potential for

Dublin to be a target on approach and take off. The fact that everyone is severely restricted in what they can bring onboard an aircraft illustrates that international authorities still see aircraft hijacking as a major threat to security. The potential impact such an attack could have on such a large residential area such as the one in this application must be assessed in great detail. We ask that ABP ensure that these assessments take place as part of EIA and AA.

7.5 links to further info an Aer lingus incident and Dublin Security issues below:

<https://www.irishtimes.com/news/ireland/irish-news/aer-lingus-flight-makes-emergency-landing-in-dublin-after-birdstrike-1.3962890>

<https://extra.ie/2022/05/22/news/guns-and-bombs-passed-undetected-through-dublin-airport-security>

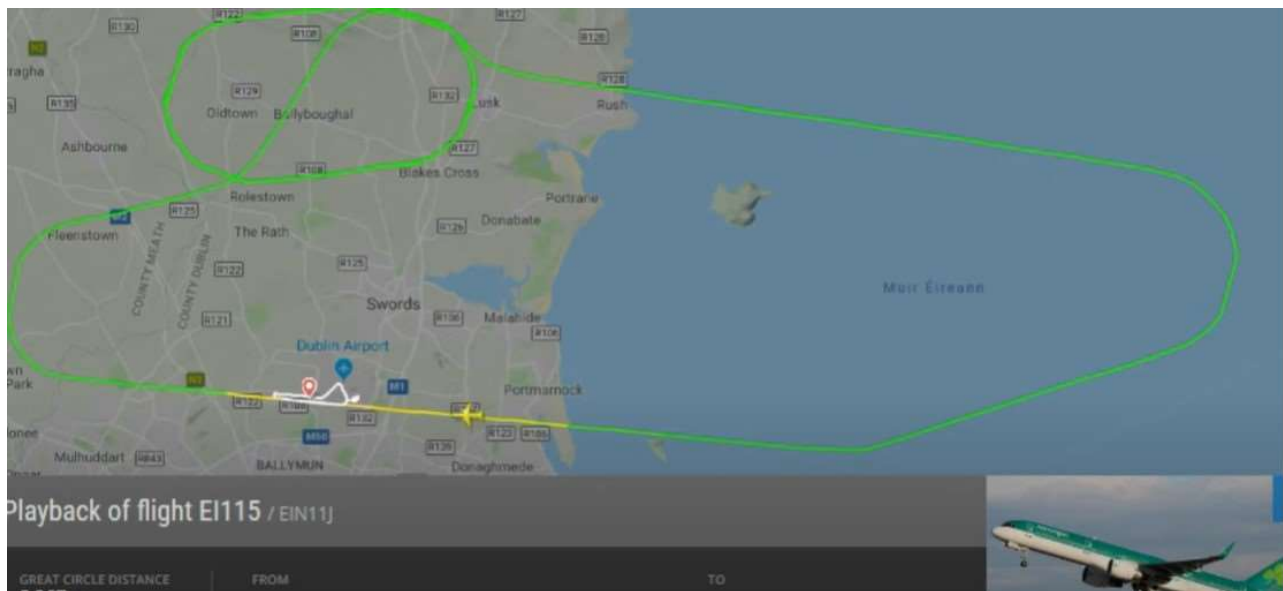


Fig 4 route Aer lingus flight with damaged engine took just over Gannon and GDD lands.

A cumulative assessment in the EIAR and AA of the Greater Dublin Drainage Project needs to be carried out as part of this application in addition to all other relevant planning developments that have been progressed since 2005.

Yours Sincerely
Sabrina Joyce-Kemper

Appendix 1.

1 WHAT EFFECT DO AIRPLANES HAVE ON BIRDS? – A SUMMARY Norbert Kempf and Ommo Hüppop, Institute for Ornithological Research, Helgoland Ornithological Station

No one will expect this short question to produce an equally short and simple answer. The diversity of animal species and individual situations results in a wealth of barely classifiable and predictable responses. Outside in wild a lot of individual events can be observed that often appear contradictory. And opinions on the implications of a conflict between protection of birds and air traffic are correspondingly divergent. Representatives of authorities and associations nevertheless frequently expect a decision that is brief and unequivocal as possible. Attempts are often made to quantify and predict the effects of air traffic on birds in expert appraisals. The plethora of local individual situations and the different approaches to studies lead to results that are barely comparable with each other or generally capable of extrapolation. Against this background, the results widely scattered in publications and the “grey

literature" (appraisals, dissertations etc.) have been compiled and their variability and identifiable universally applicable correlations have been presented. In this article, an earlier publication (Kempf & Hüppop 1998) has been partly updated and summarized on the basis of new developments and findings.

Why do birds react at all to flying objects? Almost all species of bird have to live with the threat of dangerous predators swooping on them out of the sky. The fastest possible escape flight as soon as a predator appears is the only sensible reaction in many cases. In the process, mistakes may also occur, so that birds respond to the sudden approach of animals that are essentially harmless by suddenly flying off. Airplanes can also prompt birds to take flight, even though the aircraft do not appear as predators. In experiments on birds with different dummies, it was found that escape flight reactions are the natural response to all flying objects. Fear of dummies used many times quickly subsided, but not their attentiveness towards them. Individual features of the flying object, such as shape, size, angular speed etc., are of differing significance as trigger mechanisms. But since wild animals react to enemies according to a complex system, virtually no useful rules can be derived from this for air traffic. What kinds of reaction occur? When an airplane appears, all possible levels of excitation are described in birds, from outwardly non-visible physiological reactions to protection, ducking, increased calling activity, restless pacing back and forth, running away, flying off and returning to the same place or a place close by, flying off and leaving the area, right through to panic-like flight reactions. In addition, during the breeding period, various predatory species of bird repeatedly carry out pseudo-attacks and also genuine attacks on gliders, hang-gliders and paragliders.

Curlews sometimes launch vicious attacks on model aeroplanes that fly over their breeding grounds, which can also lead to accidents. Waterfowl which take to the air because of an airplane usually stay in the air for one to three minutes, but sometimes also considerably longer. After this, it takes some time before the birds calm down again and resume their previous activity. Using modern electronic instruments, it is possible to measure the heart rate of brooding birds. Measurements show that these birds often react to the appearance of airplanes with a marked increase in heart rate, in other words they become nervous, even if no outward reaction is visible. It thus becomes clear that the loss of time immediately associated with taking flight is not the only effect of an airplane on birds which has to be taken into account. What are the effects of these reactions? A crucial question that needs to be answered is the extent to which effects can be anticipated on individual life expectancy, reproduction rate and ultimately on population size.

First of all, any reaction leads to changes in energy conversion. In species which fly a lot (e.g. swallows) the energy conversion during flight increases only to three times the base energy conversion, in poor flyers or at high speeds (e.g. in ducks) it sometimes increases to more than 20 times the base figure. In the case of escape and attack flights of e.g. waders of wet meadows, it has to be assumed that the energy consumption corresponds to twelve times the base energy conversion. Even when there is no outwardly visible excitation, the heart rate may show a fifteen-fold increase and energy consumption may at least treble even without physical activity. In resting snow geese, it has been found that the time of food intake during the day may be reduced by up to 51 % if they are disturbed. Brent geese which are frightened every 30 minutes by aircraft or people must spend 30 % more time feeding compared with birds of the same species in less intensely disturbed areas. When the period of daylight and other resources are limited, it is not always possible to compensate for such loss of time. Disturbances can thus influence the time and energy budget of birds and hence, for example, the ability to lay down fat reserves for migration and breeding. In many species there is documentary evidence to indicate that breeding success depends on the available energy reserves at the start of the breeding periods. Birds try to make up for the energy deficits that come from constant disturbances by feeding at different times of the day, by feeding at the expense of other activities, e.g. preening, by increased feeding rates or by increased risk taking.

Even if it is hardly possible to provide any direct evidence in methodological terms, it becomes clear that individual life expectancy and reproductive capacity may be impaired. Disturbances can also lead directly to expulsion and thus loss of territory for certain species of bird. In geese, a rate of more than two disturbances an hour can lead to a decrease in the bird population in the area concerned. Breeding birds may for example be driven to the edge of their territory or out of their territory altogether by aircraft, which has obvious consequences for feeding and breeding success. In some cases, breeding areas are abandoned altogether for this reason. Many bird species in Central Europe have been reduced to small scattered populations as the result of a deterioration and decrease in habitat. Thus even the slightest additional damage can lead to further decreases.

Which birds react to airplanes? Most reports on disturbances by aircraft concern ducks and waders (plovers). Geese are particularly sensitive to airplanes. Aircraft disturbances are especially striking in those places where the birds

gather in large swarms, in our case especially in the area of the Wadden Sea. · In the literature, negative effects of aircraft at breeding time are documented in particular for meadow-breeding waders (including curlews, godwits and lapwings) in relation to model aircraft. Flight reactions of breeding lapwings to powered airplanes have also been documented. In the case of breeding waders (Limicolae), however, air traffic with powered airplanes – in contrast to model aircraft – and low-flying ultralight aircraft (up to 1994, see UL article) – lead more rarely to visible reactions. The fact that the interests of meadow birds and air sports in particular often come into conflict is explained by their matching “habitat preferences”: expansive, open and as far as possible unwooded areas that are remote from residential districts and are or can be extensively used. Apart from ducks and waders, disturbed reactions to flight activities have been reported for other waterfowl, great bustards, black grouse, various predatory birds and crows. Particular sensitivity to aircraft is shown by breeding colonies, especially those of larger bird species.

For colonies of terns, gannets, guillemots and pelicans, almost complete breeding failure has been documented following just a few aircraft fly-overs. The group of smaller song-birds has hardly been studied. Apart from in two reports on a military jet exercise and an air display, where some small birds reacted with panic-like flight movements, we did not find any reports in the literature about corresponding behavioral impairments. However, the reactions of small birds are difficult to observe. We know from our own observations that starlings at least frequently take flight in response to airplanes. In wine-growing regions, airplanes are used to drive away starlings. How do birds respond to different types of aircraft? Most studies on the effects of model aircraft are primarily concerned with meadowbreeding waders during the breeding season. · In an area that has already been used by model aircraft enthusiasts for 17 years, lapwings reacted in two-thirds of fly-overs with protection-seeking behavior (in 50 % of cases as a result of powered airplanes), and sometimes also with escape reactions. A strong reaction was found when several sources of disturbance occurred in combination. ·

A newly arrived female lapwing showed substantially greater anxiety than the well established birds. Even if the meadow birds in this study region appeared to have grown accustomed to the model aircraft to a certain extent, the flying of model aircraft still frequently led to disturbances, especially in combination with people and dogs running 4 around. · One author measured escape distances from model aircraft of 150 - 250 m for meadowbreeding waders in the breeding area, and 300 - 450 m for resting birds. On three occasions he observed that breeding lapwings were driven from their nests by model aircraft. The escape distances were in the range 130-200 m. As long as the aircraft flying continued, the birds did not return to their nests. · In studies on curlews in Southern Germany, losses of egg clutches were detected on several occasions as a result of flying model aircraft. The birds evacuated the areas completely or partly during model aircraft flying and often did not return for the whole day. Young curlews hatched more frequently in areas with no aircraft flying activity than in those where model aircraft were flown.

After a model aircraft site was set up, the curlew population in Isarmoos fell from a maximum of 15 to 3 - 4 pairs of birds. The short-eared owl, Montagu's harrier, snipe and corncrake all migrated away from the area. Since the habitat was progressively worsening at the same time, however, it is not possible to identify the factor that was ultimately responsible for this migration. · In almost every large curlew breeding area in the southern region of the Upper Rhine there is at least one site used for flying model aircraft. The illustrates the potentially grave consequences of this type of aerial sports. · One author studied the propensity of model aircraft for perpetually frightening off birds. Remote-controlled model aircraft resulted in a marked frightening effect on almost all groups of birds. Geese reacted most strongly. It was observed that the main advantage of this frightening technique was that no acclimatization effects occurred. Other authors also assume that acclimatization to model aircraft is hardly possible. It is worth noting that hang-gliders and paragliders can induce greater anxiety in chamois goats and ibexes than other aircraft, including helicopters. In some cases, these animals respond with panic-like flight reactions and no longer appear in the same area again for the rest of the day. A corresponding effect in birds has only once been documented, and this was in black grouse. In the aerial sports regions of Oberallgäu, no decline was observed in any members of the grouse family. In the few direct encounters that were observed, black grouse did not flee. Larger predatory birds may feel disturbed in their area by hang-gliders and paragliders, and pilots even have to expect attacks. The abandonment of breeding grounds or breeding losses appear to be occurring from time to time by golden eagles as a result of disturbances by aerial sports enthusiasts, although it is difficult to provide any direct evidence of a link.

Reports on the marked negative effects of ultralight aircraft are essentially attributable to the low-flying practices (at a maximum height of 150 m) that were required by law until 1994. · There is evidence to show that, on the landing area of Reichelsheim, Hessen, a small brood of black-tailed godwits (over half the population in Hessen) and curlews died out in the 80s as a result of ultralight aircraft activities. On active flying weekends, the district hunting system of the birds broke up. The many years of air traffic with other aircraft apparently had no negative impact. · The numbers of

resting and foraging Bewick's swans in an area of the Dutch delta region declined from 1400 - 4300 in the period from 1986 to 88 to a few individual 5 birds in 1989 after a take-off and landing strip for ultralight aircraft was installed nearby and had been in operation for a year. With the flying laws that have also been in place for ultralight aircraft since 1994 (e.g. minimum flying altitude of 600 m above the ground on cross country flights) and in view of the type of construction of modern ultralight aircraft, their effect on wild birds today can probably be regarded as similar to that of powered airplanes. With normal glide r operations, disturbing effects on birds are hardly to be expected: Except at take-off and landing, the thermal-dependent gliders mostly fly at a great height. In the literature there are few specific data on the reactions of birds to gliders/motor gliders. · The flight pattern of gliders with large wing-spans and a slowly gliding flight movement at what is usually a great height does however seem to fit the generalized pattern of an airborne enemy. In a study on breeding and resting birds in the Wadden Sea, the disturbing effect of motor gliders was considerably greater than that of powered airplanes. ·

The scarcity of gliders would also seem to play a role here: the only registered motor glider on the Wange raage during the period of the study triggered the strongest and longest-lasting reaction of all. As soon as the motor glider came into view, all the birds resting on the salt flats – even the usually unruffled gulls and oyster catchers – took to the air, making calling sounds as they circled the area for a long time. · In the case of black grouse in an aviary used to reintroduce birds into the wild, paniclike flight reactions were observed with the direct approach flight and fly-over of gliders and motor gliders – much more often than in the case of fly-overs by fighter jets. · Flight reactions of goats to gliders have been reported from the Alps. The effects of powered airplanes on birds have been reported in particular from the Wadden Sea. · On various East Frisian islands, resting birds showed a reaction to direct aircraft flyovers in 50 – 90 % of cases. Resting birds reacted more by taking to the air (57 % of reactions) than breeding birds (22 %) (see “What other parameters influence the reaction?”).

While there no marked differences were seen in the effects of aircraft flying at low and medium altitude, there was overall a discernible tendency for higher-flying aircraft to cause less of a disturbance than lower-flying aircraft. In a study on the impact of human disturbance on Brent geese, aircraft or helicopters were the cause of geese taking to the air in 26 % of all cases. While helicopters had the greatest impact, the reactions to airplanes were only slightly weaker. No clear difference was discernible between the impact of aircraft fly-overs at altitudes above or below 150 m. · In a study on the factors disturbing birds at a high-tide sanctuary in the Dutch Wadden Sea, airplanes and walkers were found to be by far the most importance causes of reactions. · According to a literature review on the disturbing effects on waders in the Dutch Wadden Sea, airplanes were among the most disruptive factors in the Wadden Sea.

The authors presented a model which can be used to calculate the area affected by a disruptive object. This model is based on data relating to escape flight distance, the distance within which birds interrupt their search for food, and the time it takes for the 6 various disturbing effects to disappear again. In the case of oyster catchers, the affected area for a mud-flats hiker walking at a speed of 3.6 km/h is 20 ha and for an airplane flying at an altitude of 150 m over the mud-flats 15,000 ha. This large area is produced with a 1000 m breadth of impact to the right and left, a speed of 150 km/h and a duration of 30 minutes. · A group of authors observed the flight of breeding meadow birds from powered airplanes in many cases – both at low altitudes (50 - 100 m) and also at very high altitudes (in some cases then very long protection-seeking behaviour). Powered airplanes induced protection-seeking behaviour in half of cases, and model aircraft in about two-thirds of cases. In terms of the intensity of the impact which they have on birds, powered airplanes lie between helicopters and jet fighters which are used comparatively little, if at all, in air sports. The disturbing effect of military jet fighters on birds is often less than one would expect in view of their rather unpleasant effects for humans.

By contrast, almost all authors come to the conclusion that, of all aircraft, helicopters most frequently lead to reactions in birds and at the same time to the strongest disturbance reactions. Systematic studies on the effect of free balloons on animals do not appear to have been carried out to date. In 1996, the Society of Wildlife Biology in Munich (Wildbiologische Gesellschaft München) carried out an extensive survey of experiences on this subject among balloonists, hunters, farmers, nature lovers, biologists and others. In many respects, the evaluation suggests a situation similar to that with other flying devices: most balloon rides are carried out without any discernibly negative consequences for animals. To some degree, many different species of bird and mammal show reactions of fear towards free balloons (flying at low altitude). Through a combination with the burner, which may ignite precisely when the animal is already in a state of nervous tension, panic flight reactions are possible with dramatic consequences for the individuals concerned. However, the effects of silent gas balloons is no less marked. The latest example of an unfortunate incident: a pair of sea eagles which had nested in the Segeberg district for the first time in 2000 suffered enormous disturbance from a landing hot-air balloon, whereupon they abandoned their brood. What

other parameters influence the reaction? Since the visual faculties of birds tend to be essentially far better developed than their auditory faculties, they respond less to noise than is generally assumed. Silent flying objects can induce reactions similar in intensity to those induced by noisy aircraft. However, visually comparable loud airplanes on average induce more and stronger reactions in birds than quiet ones. ·

In breeding bald-headed eagles in North America, the parameter of noise (in contrast to distance or duration of visibility) played no role in disturbances caused by aircraft. · In a study on a colony of terns, it was not until jet noise reached 90 and 95 dB (A) that two and four percent, respectively, of the birds took to the air, and a further four percent showed a fright reaction. · With motorized model aeroplanes, it is above all the irregular changes of volume and frequency that play an important part in the disturbance effect. 7 There are more conclusive findings on the influence of flight altitude than there are on the influence of noise volume, but these findings are rarely based on measured altitude data. · In one expert appraisal on military air traffic, the altitude of helicopters was calculated from distance with reference to land markings and from the angle.

The frequency of bird reactions was clearly dependent on the altitude of the helicopters (at 50 – 80 m there was a reaction in 83 % of cases, at 120 - 150 m in 56 % and at 200 - 300 m in 27 %). But strong reactions were still induced even at greater altitudes. This is confirmed by various other authors. · Brent geese in Alaska reacted in 68 % of cases to airplanes flying at altitudes lower than 610 m and in 33 % to higher flying aircraft (altitude calculation via land markings, experimental fly-overs and listing into radio communications). · In two literature reviews for the Wadden Sea, it is concluded in the summary that effects on birds are very marked at altitudes below 500 m (1700 ft) and decrease substantially above this altitude. The disruptive effect of an airplane depends on the lateral distance of the fly-over. · In various studies, the frequency and intensity of the reaction decreased in inverse proportion to the lateral distance. From 700 to 1000 m upwards, no birds took to the air. · Geese, however, flew off up to a lateral distance of 1.5 km. The first unrest at the approach of an aircraft occurred on average at a distance of 2.6 km. In general, it can be said that an airplane travelling at high speed in a straight trajectory has less impact on birds than a slow airplane flying in a curved trajectory. A stronger reaction is often observed in combination with several sources of disturbance (stimulus summation). Such a situation frequently occurs precisely in those places where air sports attract spectators: flying model aircraft, flying sites for hang-gliders and paragliders and also in areas around airfields, day-tripping activities, people walking and dogs off the leash can cause additional disturbances.

The stress caused by people seeking relaxation produces stronger and longer-lasting reactions to airplanes in birds than are seen at times when there are no such leisure activities. Conversely, air traffic, even if it does not cause birds to take to the air, can lead to a substantial increase in the distance of the animals' escape flight from humans. Some stimulus-independent factors also affect the reaction of a bird. For example, breeding birds are inhibited from leaving the nest and for this reason alone react differently to disturbances. The willingness of parent birds to take risks may increase in the course of the day or with advancing incubation and rearing of chicks. Weather and season can also play a role. During the wing moulting period, when they are incapable of flight, ducks show substantially greater sensitivity in their reactions to airplanes than at other times. Birds in relatively large swarms tend more towards escape flight reactions than groups of a few individuals. In mixed groups, species may influence each other in their reactions. In the Wadden Sea, the birds are substantially more sensitive before high tide than after high tide. 8 Do birds become accustomed to air traffic?

Almost all authors report on habituation effects. It would seem that the frequency and above all the regularity with which an airplane flies past have a decisive influence on the reactions of birds. This is especially striking during military exercises or in the vicinity of airfields, where bird species that are regarded as sensitive can also be found. · The same bird species which developed a certain tolerance to air traffic on Wadden Sea islands that have an airfield showed considerable flight reactions to comparable flyovers on Mellum, where there is no airfield in the vicinity. · Rare types of aircraft in a certain area also produce conspicuously strong reactions. These correlations provide an explanation for the different results, e.g. with regard to critical flight altitudes, in the various studies or for unusual observations that contradict the results of most other studies. But there are limits to the capacity for habituation. The uneven and unpredictable movements of model airplanes and to a certain degree also of gliders, hang gliders and low-flying trikes do not generally allow any habituation. In sensitive species (e.g. resting curlews or Brent geese) even regular air traffic does not lead to a greater degree of tolerance. At least some bird species or individuals react to heavy air traffic by leaving the area, and no habituation takes place. If only insensitive birds are then observed, there is a tendency for this to be confused with habituation. Demands of nature conservation · Many authors recommend maximum possible flight altitudes for airplanes to avoid disturbances of birds or mammals. The minimum altitude figures here range between 150 and 750 m. Most experts recommend a flight altitude of at least 500 m. · In various projects, there was

also seen to be a need for an adequate lateral distance. Depending on the sensitivity of the animals studied, this minimum distance ranges from one to eight kilometres (for helicopters). · In several studies, authors demand that air traffic keep to routes and certain areas.

A separation into areas with regular traffic and areas free of air traffic on the one hand facilitate habituation and on the other effective protect the rest of the landscape. · In addition to this proposal not to fly over areas with especially sensitive and threatened species, seasonal or day-time restrictions of air traffic are recommended where there are specific or local problems. Examples of this are to set flight shows on a date in late summer or not to fly over ice-free places of refuge for waterfowl during periods of frost. The original article Kempf, N. & O. Hüppop (1998): "Wie wirken Flugzeuge auf Vögel? - Eine bewertende Übersicht" in Naturschutz und Landschaftsplanung 30, (I), pp.17 - 28, is based on a review of 161 publications and expert reports. These also list the citations of these studies, which are not given in this short summary. 9 Dr. Ommo Hüppop, 48, biologist, studied zoology, general botany, hydrobiology and fishing sciences and obtained his doctorate at the University of Hamburg. Since 1988 Director of the Island Station of the Institute of Ornithological Research, "Vogelwarte Helgoland". Main areas of work: ecology of seabirds and coastal birds, bird migration research, effects of human activities on birds {fishing, disturbances, offshore wind energy plants) Norbert Kempf, 45, biologist, worked mostly on the North Sea and Baltic Sea since 1983. Main areas of work: ornithological studies, effects of human activities on animals, aerial registration of animal populations, appraisal of nature conservation conflicts

full online version here. https://www.fai.org/sites/default/files/documents/In_3-1_aircraft_effects_on_birds.pdf

Ms. S Joyce-Kemper
23, Portmarnock Crescent
Portmarnock
Co. Dublin
D13TX84

Date: 4 February, 2021

ACKNOWLEDGEMENT of RECEIPT of SUBMISSION or OBSERVATION on a PLANNING APPLICATION

THIS IS AN IMPORTANT DOCUMENT!

KEEP THIS DOCUMENT SAFELY, YOU WILL BE REQUIRED TO PRODUCE THIS ACKNOWLEDGEMENT TO AN BORD PLEANALA IF YOU WISH TO APPEAL THE DECISION OF THE PLANNING AUTHORITY. IT IS THE **ONLY** FORM OF EVIDENCE WHICH WILL BE ACCEPTED BY AN BORD PLEANÁLA THAT A SUBMISSION OR OBSERVATION HAS BEEN MADE TO THE PLANNING AUTHORITY ON THE PLANNING APPLICATION.

PLANNING AUTHORITY NAME: FINGAL COUNTY COUNCIL

PLANNING APPLICATION REFERENCE NO. F20A/0668

A submission/observation has been received from Ms. S Joyce-Kemper, in relation to the above planning application.

The appropriate fee of €20.00 has been paid. (Fee not applicable to prescribed bodies).

The submission/observation is in accordance with the appropriate provisions of the Planning and Development Regulations, 2001 -2013 and will be taken into account by the Planning Authority in its determination of the planning application.

Amy Finn

for Senior Executive Officer

23 of 26 pages – SJK section F20A/ 0668

Development: 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, Co. Dublin, in

22 of 25 pages – SJK section F20A/ 0668

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 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 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.

Location: Dublin Airport, Co. Dublin.

Area: Swords

Applicant: daa plc

Application Type: Permission

Date Received: 18 December, 2020

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ACKNOWLEDGEMENT TO AN BORD PLEANALA IF YOU WISH TO APPEAL THE DECISION OF
THE PLANNING AUTHORITY.

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