

# A balanced approach to aircraft noise management: The curious case of Dublin Airport's new runway

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#### **ABSTRACT**

The concept of a balanced approach to aircraft noise management was officially introduced by the International Civil Aviation Organization (ICAO) in 2001. At its core is a theme of sustainable development; to allow development of air travel without adversely impacting the acoustic environment. In Europe, Regulation 598/2014 embraces this Balanced Approach and sets out a number of procedures for its implementation. For example, it requires Member States to identify competent authorities responsible for the process to be followed when adopting operating restrictions. In the case of Dublin Airport, this regulation comes at an interesting time. Dublin Airport is Ireland's largest airport and serves as a chief hub connecting Ireland to the world. Dublin Airport Authority has plans to extend the operating capacity of the airport, and in 2007 was granted planning to build a new runway. However, this planning approval was subject to certain conditions and included particular restrictions related to noise. The paper outlines how Regulation 598/2014 has influenced the development at Dublin Airport since then, and summarizes the perhaps unintentional consequences of Regulation 598/2014.

**Keywords:** Community Noise, Aircraft Noise, Balanced Approach **I-INCE Classification of Subject Number:** 52

#### 1. INTRODUCTOIN

Aircraft noise is regarded as the most annoying source of environmental noise, and adversely effects affects about 5.5 million Europeans every year [1]. It is often cited as a reason against airport expansion and is one of the most common complaints raised by residents living in the vicinity of airports. In fact, aircraft noise is considered as one of the most influencing limiting factors of air traffic development, especially airports [2]. Due to its high profile, aircraft noise control has been a targeted research area since the 1970's, and, thanks to technological developments, individual aircraft have become 75% less noisy over the last 30 years [3]. Despite this, the total exposure to noise from aircraft is estimated to have increased worldwide, due to increased aircraft movements all across the world [4]. With noise levels expected to rise in the future, there is increasing pressure

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on authorities to develop innovative and reliable solutions to growing noise exposure. One framework to tackle aircraft noise is contained in the 'balanced approach' recommendation by the the International Civil Aviation Organization (ICAO).

## 1.1 The Balanced Approach

The concept of a balanced approach to aircraft noise management was officially introduced by the ICAO in 2001<sup>2</sup>. At its core is a theme of sustainable development; to allow development of air travel without adversely impacting the acoustic environment. It identifies four key actions for noise control, namely i) the reduction of aircraft noise at source; ii) land-use planning and management, iii) noise abatement operational procedures and iv) operating restrictions. Its goal is to address the noise problem in the most cost-effective manner possible. The ICAO encourages States to apply operating restrictions only after consideration of the benefits to be gained from the other elements of the balanced approach, and in such cases where operating restrictions are applied they should be introduced in a manner consistent with the approach set out in Appendix E of the Resolution. Amongst a range of measures is that such restrictions should be of a partial nature wherever possible, rather than the complete withdrawal of operations at an airport.

The balanced approach was adopted almost immediately by the EU through Directive 2002/30/EC on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports. This Directive allowed Member States to introduce new operating restrictions at individual airports, particularly on aircraft that are marginally compliant with Chapter 3³ [5]. However, a 2008 report on the implementation of the Directive noted that not all airports interpreted it in the same way; some airports felt that the Directive did not expressly prohibit any particular form of restriction [5]. This was evident in 2002, when after Belgium introduced strict bans on night-time flights above Brussels, the European Commission immediately questioned this ban before the European Court of Justice, on the basis of a breach of the 'balanced approach'. It followed that although Directive 2002/30/EC set no hierarchy of measures, operating restrictions are only applicable after all other noise management measures have failed to achieve the aims of the Directive [6].

In 2014 this Directive was repealed by Regulation 598/2014 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at EU airports. This regulation embraces the Balanced Approach methodology, and notes that 'noise-related operating restrictions should be introduced only when other Balanced Approach measures are not sufficient to attain the specific noise abatement objectives' [7], a caveat that was not included in Directive 2002/30/EC.

In the United States, the Federal Aviation Authority formally accepted the ICAO guidance document on the Balanced Approach in an advisory circular in 2004. The circular notes that the guidance document is just that: a guidance document, and any existing U.S. laws, regulations, policies, and obligations incurred under Federal agreements for surplus property and airport development grants supersede the ICAO Guidance document. For example, access restrictions on the basis of noise have the potential to violate the federal obligation to make an airport available for public use on reasonable terms and without unjust discrimination [8].

Overall it is clear that the 'balanced approach' has a hierarchy of approaches that should be implemented. Any measure that impedes the operational capacity of an airport is deterred. This seems reasonable on the grounds that airports are part of an

<sup>&</sup>lt;sup>2</sup> Resolution A33-7 adopted by the 33<sup>rd</sup> ICAO Assembly

<sup>&</sup>lt;sup>3</sup> The ICAO regulations have undergone a series of major updates and enforcements called *Chapters*.

interconnected system, so one airport imposing operating restrictions may have significant impacts on other airports in the network. However, the 'balanced approach' has also been criticized as simply jargon, with the very specific agenda of discouraging the adoption of noise-related operating restrictions [6].

### 2. DUBLIN AIRPORT

Opened in 1940, Dublin Airport is Ireland's largest airport and serves as a chief hub connecting Ireland to the world. As a small island economy it is recognized that Ireland is critically dependent on air transport. The airport has been growing steadily and in 2018 it welcomed a record total of 31.5 million passengers [9]. Traffic growth was underpinned by a strong performance from transatlantic and other long-haul routes, coupled with healthy growth in continental European traffic and the continued expansion of Dublin Airport as a significant gateway between North America and Europe [9]. Dublin Airport is a key economic driver, both for Dublin and the whole country. Dublin Airport currently contributes approximately €6.9bn per annum to the Irish economy [10]. Due to expansion plans and increasing passenger numbers, the Dublin Airport Authority (DAA) has long held plans to extend the operating capacity of the airport.

There have been plans to develop a new parallel runway at Dublin Airport since the late 1960s when the DAA acquired the land needed. Indeed, the 'North Runway' has featured in successive Local Area and County Development Plans since the 1970s. In 2007 the DAA was granted planning permission to build a new runway (subject to certain operating restrictions during the nigh-time). However, around this time the aviation industry was significantly impacted by the global recession and passenger numbers dropped to such a degree that DAA put the new runway project on hold. Later in 2016, two years after Regulation 598/2014 entered into force, as passenger numbers had risen, the expansion plans were revived.

#### 3. A BRIEF TIMELINE OF KEY EVENT

# 2007 - Planning Granted for New Runway

An Bord Pleanála<sup>4</sup> grants DAA planning permission to build a 3110 metre runway, 1.6km north of the existing main runway. The decision to grant planning permission was not without debate. In 2006 the inspector for An Bord Pleanála recommended that planning actually be refused for three reasons [11]; i) the altered noise environment would seriously injure the amenities of property and community facilities within the affected areas, ii) the development would endanger the health and safety of persons attending schools, and iii) the proposal itself failed to comply with the requirements of the Planning and Development Regulations 2001 which sets out the information to be information to be contained in an Environmental Impact Statement (including a description of the likely significant effects).

Following an oral hearing which included many submissions from experts, and taking into account National Policy, including the National Development Plan, planning was ultimately granted with 31 different conditions, but two were specific to noise:

• Condition (3d): prohibits use of North Runway for landings and take-offs between the hours of 2300 to 0700.

<sup>&</sup>lt;sup>4</sup> An Bord Pleanála ('*The Planning Board'*) is an independent statutory body responsible for the determination of appeals and certain other matters under the Planning and Development Act 2000 (Ireland), and determination of applications for strategic infrastructure development.

• Condition (5): on completion of construction of the new runway, the average number of night time aircraft movements at the airport shall not exceed 65 per night (between the hours of 2300 to 0700).

#### 2008 - Project Put on Hold

The economic downturn results in a significant drop in passenger numbers and plans for the new runway are put on hold.

# April 2016 - DAA announce north runway project to go ahead.... On conditions...

DAA announce that it was progressing with the building of a new runway. It the announcement, the DAA Chief Executive discussed the two conditions related to noise, "We have stated previously that two of these conditions are onerous and would severely reduce the future operational capacity of the airport at key periods. This has implications on our ability to support future traffic growth at the airport and we are looking at how this can be addressed" [12].

It is also reported that Minister for Transport Tourism and Sport, Shane Ross TD, was told that while the DAA had made a decision to move ahead with the second runway, it was "doing so only on the understanding that a new legislative framework relating to operating restrictions will be put in place with a view to paving the way for the operating restrictions imposed under the planning process to be reviewed by a new competent authority" [13].

# June 2016 – DAA publishes EIS Scoping Report

In light of Regulation 598/2014, DAA foresee that there may be a proposal to change the permitted operations under the application of the balanced approach. They publish an EIS scoping report, with the objective of identifying potential environmental topics which may be relevant to the change of use of the operation of the runway system.

# September 2016 - New airport noise management regime in Ireland announced

Minster Ross announces that, pursuant to EU Regulation 598-2014 there will be a new aircraft noise management regime in Ireland [14]. This includes the intention to designate the Irish Aviation Authority (IAA) as the competent authority required to take responsibility for consideration of all airport noise issues in Ireland. The IAA advertise for two positions to fulfil this role including a 'Manager for Aviation & Airport Noise Regulation' and a 'Noise Determination Coordinator'.

### April 2017 - Fingal County Council votes to defend night-time flight rules

A majority (25-5-1) of Fingal County<sup>5</sup> Councillors vote in favour of keeping night-time flying restrictions placed on the development of the new runway[15]. The vote is largely symbolic and simply results in the Council writing to the Minister for Transport to reflect the views of the Councillors. A number of councillors were concerned that the new regime on noise control could allow the new regulator to overturn the controversial planning conditions, thus undermining the planning process and An Bord Pleanála. For example, Cllr David Healy is reported as saying the change to national legislation being proposed had the "primary purpose of allowing the DAA get out of the conditions in the planning permissions that protect is neighbours from the effects of night time noise" [15].

<sup>&</sup>lt;sup>5</sup> Fingal County Council is the Local Authority for the administrative county of Fingal, in which Dublin Airport is located.

# July 2017- Clarification sought from the European Commission

Irish MEP Brian Hayes seeks clarification from the European Commission as to whether Regulation 598/2014 could be used to overturn restrictions implemented by a national planning authority through a written question, "With regard to the development of a second runway at Dublin Airport, following the enactment of the required statutory instrument at national level to give effect to EU Regulation 598/2014, would the Commission provide clarity regarding whether the designated authority at national level, under this regulation, would have the authority to overturn restrictions implemented by the national planning authority regarding noise reduction and operating hours, either of its own accord, or under appeal?" [16]. The written answer is somewhat non-committal, and does not clarify if restrictions implemented in the planning process could be overturned.

# May 2017 - Legal challenges begin

Friends of the Irish Environment, an environmental group, seek a judicial review of Fingal County Council's decision to extend planning permission for the development at Dublin Airport.

## May 2017 - Delay in Legislation

In a Dáil Debate regarding Dublin airport, Minister Ross recognizes that legislation to recognise the IAA as a competent authority is delayed [17]. The delay is due to 'serious legal problems' and the matter is with the Attorney Generals Office.

## June 2017 - Further delays...

Delays continues and in response to a question asked in the Dáil, Minister Ross states "The statutory instrument to give effect to EU Regulation No. 598/2014, which deals with the regulation of aircraft noise emissions, is not yet in place, much against my expectations and hopes. I had fully expected that it would have been by now. It is a source of equal frustration to me as it is to the Deputy. I spoke with the new Attorney General yesterday morning, and he has assured me that the matter is being given top priority in his office" [18].

### October 2017 - IAA not the Noise Regulator

One year after announcing the intention to designate the IAA as the airport noise regulator, Minister Ross announces he has learned that this plan was legally flawed and will not be progressing, "Influenced by recent case law at European level, which has laid out a more strict interpretation of on what constitutes "functional independence" within an organisation, the IAA is now deemed to have too much of a potential conflict of interest to take responsibility for noise regulation, given its commercial interest in growth in traffic volumes at Dublin" [19].

## October 2017 - More Legal Challenges

There are three court cases now listed for the Commercial Court challenging the New North Runway:

- 1) 22 Individuals from St Margarets Kilreesh Lane, St Margaret's, Co Dublin against Fingal County Council and the State, with DAA plc as a notice party. Residents claim that the development will make their house uninhabitable.
- 2) The second case is by the St Margaret's Concerned Residents Group of which the individual residents are members against the DAA and it seeks injunctions under the Planning and Development Act 2000. The proceedings arise from Fingal County Council's decision of March 7th last to extend a planning permission for

- development of the new 3,110m runway. The five-year extension was sought by the DAA because an August 2007 permission for the development is due to expire in August 2017.
- 3) Friends of the Irish Environment are also taking a case against Fingal County Council and the State, with DAA plc as a notice party. The environmental group claims the permission was not granted in compliance with EU directives or the 2000 planning and development act.

## November 2017- Legal challenges unsuccessful

The three challenges against plans for the new runway are rejected by the High Court [20].

# January 2018 - A New Noise Regulator

In a surprising development, Fingal County Council is announced as the new independent airport noise regulator for Dublin Airport [21]. The decision to appoint Fingal County Council is met with some concern, most notably because the DAA is the single largest source of rate revenue for the council [22]. In response to this concern Minister Ross notes it is "unfair to suggest that local authorities would have a conflict of interest between their statutory regulatory environmental protection and enforcement responsibilities and wider economic and physical development roles. Local authorities already have a wide range of statutory-based regulatory and enforcement functions in relation to environmental quality, planning, enforcement and other areas which necessarily must sit alongside their rateable income and property tax collection functions" [22].

# September 2018 - The Airport Noise Regulation Bill

Minister Ross publishes the General Scheme for the Airport Noise Regulation Bill. This General Scheme sets out how EU Regulation 598/2014 will be applied in Ireland. Under the Bill, noise at Dublin airport will now be subject to full review every five years, and it will also be monitored and managed on an ongoing basis, with the DAA required to fully comply with the ruling of a noise regulator.

# November 2018 - Fingal County Council warn Government of lack of expertise

In a letter to the Department of Transport a senior official from Fingal County Council raises concerns about their proposed role as the noise regulator. The letter states that the Council does not have the requisite competencies available in areas of "aviation operations, noise and economic feasibility assessments", and suggests that other independent bodies should instead be considered for the role [23].

# December 2018 - Bill enters Committee Stage

The Aircraft Noise (Dublin Airport) Regulation Bill 2018 enters into Committee Stage. In this stage the Bill is examined section by section and amendments may be made

**February 2019** - At the time of writing this paper, debate over the Bill and the appointment of Fingal County Council is continuing, but the Bill has completed the Committee Stage and amendments arising out of this stage are currently being considered.

#### 4. DISCUSSION

It is clear that Irelands needs Dublin Airport, and Dublin Airport needs to develop a new runway. It is also clear that i) the current planning conditions attached to the proposed runway will likely impede development at the airport, and ii) the community will be adversely impacted by noise levels if the planning conditions related to noise are completely lifted (and Dublin Airport operates with no restriction).

From the onset the development has been controversial. In 2007 planning was actually recommended to be refused on the basis of noise exposure, but it was ultimately granted with strict operating procedures for the purpose of noise control. Once built, if the runway were to be operated in an unrestricted capacity, there would be significant adverse impacts on nearby communities. The restriction of night-time operation is currently the chief mechanism to control night-time noise. In recent years, the DAA have offered to buy the homes of those most affected with a 30% increase above market value and also rolled out a sound insulation programme. However, the level of take-up of the buy-out scheme is not yet clear.

The planning conditions also reduce the current night-time capacity of the airport; there are currently 100 flights per night, but once the new runway is complete the allowable number will be reduced to 65. In any case, the DAA have decided to progress under the understanding that the conditions be changed - enter Regulation 598 and its 'balanced approach'. There is now a narrative, true or otherwise, that these regulations will be used to supersede the planning conditions laid down by An Bord Pleanála. This narrative has been fed by local concerns, but also by DAA themselves (who have openly admitted that they are seeking to get the conditions changed) and an MEP who asked as much of the European Council. Minister Ross spoke to this in the Dáil: "It would be completely and utterly wrong to second-guess what the noise regulator will decide. We are not doing that. We are not second-guessing that. We do not know. The noise regulator will be utterly independent and free to make a decision, as will An Bord Pleanála when the appeal is made. We do not know what decision will be made by an independent noise regulator and to assume that something will be different or the same, or better or worse, is wrong. We do not know what it will be doing. We are responding to a European directive and appointing an entity which we believe is the best possible one to do the job. What decision it will make is an unknown. That is what good regulators do. I would be perfectly happy to accept that. We may not like its decision but we will have to abide by it." It is also interesting to note that Fingal County Council, the proposed noise regulator, has already voted to defend the night-time flight rules - although the noise regulator itself would be completely independent of these past policies.

The challenge for any airport noise regulator will be to balance the needs of Dublin Airport with the health of the surrounding community. There are noise abatement strategies that can be employed before restrictions, but they require investment and expertise. A competent authority will need to be supported with real expertise and complete independence. A mechanism to hold breaches accountable will also be required.

Since 2007, the development of Dublin Airport has had plenty of false dawns. At the time of writing (February 2019) debate is still raging as to the appointment of Fingal County Council, with many commentators recommending the Commission for Aviation Regulation (CAR) be the competent authority. It does seem odd that a local authority in Dublin be appointed as the noise regulator for Ireland's largest airport. The next largest airport in Shannon on the west coast of Ireland, with just under 25,000 movements per year, does not meet the threshold to be defined a major airport (yet). If this threshold was reduced (which is quite possible) it is likely a second independent noise regulator would

be required to oversee Shannon airport. There is also concern over the independence of Fingal County Council as the DAA is its single largest source of rate revenue, while the council themselves have also expressed concern that they lack the necessary expertise to fulfil the role of regulator. These concerns would not exist with a national agency such as CAR being appointed.

Regardless of the choice, the new regulator will soon be in the position to decide on appropriate operating restrictions of Dublin Airport, and will certainly be a key player in any revision of the existing planning conditions. The best path forward may not be an "all or nothing" type solution. In any review of the conditions it may be appropriate to consider slight changes to the planning conditions, rather than the complete removal of them (assuming any such review does happen). It is worth remembering that the current restrictions were put in place following extensive hearings considering various inputs from many experts – the conditions are there for a valid reason, and that reason will not disappear regardless of who is in charge.

In order to effectively manage noise from Dublin Airport the new noise regulator will need to have the expertise to ensure the balanced approach is fully complied with. This will have to mean operational noise abatement procedures being implemented, with a procedure to monitor and validate their effectiveness. This can not be a bit-part operation that is farmed out on a yearly basis to an external consultant; real investment into establishing expertise in the assessment and control of aircraft noise should be a priority for Ireland.

Lessons should be learned – the initial approach to noise control from the airport in 2007 was found wanting and has led to the current situation. Let's hope those authorities have learned from the mistakes of the past.

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