



An tÚdarás Inniúil um
Thorann Aerárthaí

Aircraft Noise
Competent Authority

Noise Abatement Objective for Dublin Airport

20th June 2022



Noise Abatement Objective for Dublin Airport

Policy Objective

Limit and reduce the long-term adverse effects of aircraft noise on health and quality of life, particularly at night, as part of the sustainable development of Dublin Airport.

Explaining the Objective

Noise from Dublin Airport should be limited and reduced in line with principles of sustainable development. As Dublin Airport grows, the long-term adverse effects on human health and quality of life should progressively reduce over the lifetime of this NAO. The Balanced Approach will be used to ensure that cost-effective, practicable and sustainable measures are implemented to achieve this objective.

Measurable Criteria

The NAO will be primarily measured through the number of people highly sleep disturbed and highly annoyed in accordance with the approach recommended by the World Health Organisation's Environmental Noise Guidelines 2018 as endorsed by the European Commission through Directive 2020/367, taking into account noise exposure from $45 \text{ dB } L_{\text{den}}$ and $40 \text{ dB } L_{\text{night}}$. These metrics describe those chronically disturbed by aircraft noise.

These metrics help articulate the effect of aircraft noise on health and quality of life. The following will also be used to help identify where noise exposure results in the populations experiencing the harmful effects. These are the number of people exposed to aircraft noise above:

- $55 \text{ dB } L_{\text{night}}$ (a level of night-time noise exposure described by the WHO as representing a clear risk to health)
- $65 \text{ dB } L_{\text{den}}$ (where a large proportion of those living around Dublin Airport can be considered highly annoyed)

In order to measure performance, these metrics shall be completed using a noise model prepared in accordance with the methodology described in Directive 2015/996 (European Civil Aviation Conference (ECAC) Doc.29 4th Edition or as amended). The noise model shall be validated using local noise and track keeping performance data from Dublin Airport's systems.

The calculation of the number of people exposed to aircraft noise shall have regard for the most recent population data available and assessed against the population exposed to aircraft noise in 2019.

Expected Outcomes

In context of its recovery from the global pandemic, noise exposure from Dublin Airport is expected to increase up to 2025. Whilst the resultant health effects are expected to be lower than those which occurred prior to the pandemic and in the years 2018 and 2019, these effects should then reduce over the medium to long-term, to improve the noise situation at Dublin Airport whilst allowing for sustainable growth. ANCA therefore expects the following outcomes to be achieved through this NAO as set against the measures described in Part 3.

The number of people highly sleep disturbed and highly annoyed shall reduce so that compared to conditions in 2019:

- The number of people highly sleep disturbed and highly annoyed in 2030 shall reduce by 30% compared to 2019;
- The number of people highly sleep disturbed and highly annoyed in 2035 shall reduce by 40% compared to 2019
- The number of people highly sleep disturbed and highly annoyed in 2040 shall reduce by 50% compared to 2019 and;
- The number of people exposed to aircraft noise above $55 \text{ dB } L_{\text{night}}$ and $65 \text{ dB } L_{\text{den}}$ shall be reduced compared to 2019.

Monitoring

Monitoring of the NAO will be informed by annual reports which will be reviewed by ANCA as part of its obligations under the Aircraft Noise (Dublin Airport) Regulation Act 2019.