

Essex County Council Officer Response to the Discussion Paper 05

Aviation Noise

Introduction

The Airports Commission published Discussion Paper 05 entitled Aviation Noise in July 2013. The Discussion Paper provides an understanding regarding aviation noise including an appreciation of recent studies and research into the impact of noise, examines noise measurement methodologies, considers the assessment of noise and discusses approaches for noise mitigation. The County Council interest in responding to the Discussion Paper reflects our role as a -

- Key partner within Essex and the South East Local Economic Partnership promoting economic development, regeneration, infrastructure delivery and new development throughout the County;
- Guardian of the environment with an interest in safety for the County's existing and future residents and workers;
- Strategic highway and transport authority, including responsibility for the delivery of the Essex Local Transport Plan and as the local highway authority; and
- Major provider of a wide range of local government services throughout the county of Essex.

Structure and Summary of ECC Response

The response submitted by the County Council is structured to answer the questions raised by the Commission in paragraph 6.2 of the Discussion Paper. A summary of the principle issues raised by the County Council is set out below.

- **Comparing aviation noise impacts methods** – Consideration should be given to the local context therefore appreciate the differences between urban and rural environments.
- **Range of noise assessment methods** – Application of multiple methods demonstrating noise impacts.
- **Evidence for noise impacts** – Understand the impact aviation noise has on productivity and learning.
- **Land use planning and noise mitigation** – Fully appreciate the important role that land use planning plays in mitigating the impact of aviation noise.

Discussion Paper - Questions and Answers

This section of the County Council's response sets out the questions posed in the Discussion Paper and the County Council's response.

Question – *What is the most appropriate methodology to assess and compare different noise footprints?*

Response – The County Council appreciates that there are significant issues associated with aviation noise, and therefore it is welcomed that the Airports Commission is seeking to fully understand the impact of aviation noise. It is supported that the Airports Commission is considering the approaches and methods used to compare noise footprints. The Aviation Policy Framework and the National Planning Policy Framework refer to noise impacts, and seek to minimise the number of people in the UK significantly affected by noise associated with aviation. Hence when discussing noise and the impacts of airports, it is unsurprising that the impact of noise is usually outlined in terms of the size of the population affected by a specific noise threshold. The Discussion Paper included a table (2.1) listing the order that UK airports whose noise footprints affect the largest number of people.

Table 1 – Size of the Population Affected by 57LAeq 16h Contour for the Largest UK Airports

Airports	Population within the 57Leq 16h Contour
London Heathrow	258,500
Manchester	35,200
Birmingham	18,900
Glasgow	14,650
London City	6,700
Aberdeen	6,150
Southampton	4,000
London Gatwick	3,700
Edinburgh	3,100
Liverpool	2,400
London Luton	2,400
Leeds Bradford	2,000
London Stansted	1,900
Newcastle	1,800

East Midlands	1,200
Bristol	1,100
Bournemouth	900
Blackpool	400

(Source: Airports Commission; 2013; Table 2.1)

The County Council acknowledges that reducing the number of persons adversely affected by noise should continue to be used as a comparator; however other targets and methodologies should also be used to ensure an accurate understanding of local community noise impacts at airports is understood.

The Discussion Paper provides an understanding of airport noise productivity, measuring the number of aircraft movements per person affected within the 57LAeq 16h and the number of passengers per person affected within the 57LAeq 16h. This analysis indicates that 'of the UK's largest airports, all Luton, Gatwick, Stansted and Manchester position better under the revised metrics than they do under simple population survey comparison'. The County Council considers that these measurements fail to provide an appreciation of the impact associated with aircraft noise in more remote and sparsely populated areas.

An important reason why people choose to reside within the countryside is because it offers a tranquil environment in comparison to urban living. The County Council considers it is important that due consideration is given to the environmental characteristics provided in more remote and rural areas, especially given the National Planning Policy Framework states "take account of the different roles and character of different areas, promoting the vitality of our main urban areas, protecting the Green Belts around them, recognising the intrinsic character and beauty of the countryside and supporting thriving rural communities within it" (paragraph 17). The County Council therefore considers that for comparing noise footprints at airports, it is recommended that a range of measurements be used to ensure consideration is given to appreciate the geographical specific implications associated with airports at different locations. The County Council is particularly interested in ensuring there is a robust understanding regarding the impacts for local communities experiencing aviation noise in more remote rural areas where ambient noise levels are lower.

Question – How could the assessment methods described in Chapter 4 be improved to better reflect noise impacts and effects?

Response – The County Council acknowledges that the UK has used the LAeq 16h metric to determine long-term noise impact at airports. However it is considered that airports should also provide information on noise performance using other agreed assessment methods. The Discussion Paper highlights that the European noise measurement is the 55Lden. The County Council therefore concludes that given there is evidence to suggest that community annoyance associated with aviation noise is increasing, the 55Lden would be welcomed. Over time this would allow comparisons to be drawn in terms of the changing noise footprints at airports in the UK and Europe.

The County Council is interested in the Australian noise assessment methods highlighted in Chapter 3 of the Discussion Document. The Australian method provides information based on a metric based on the number of noise events (aircraft movements) that reach or exceed a certain dB(A) threshold within a given time period. This measure, called Number Above or N contours (or, in Europe, Frequency contours), may be more easily understood by the public than LAeq. The benefit of using this noise assessment is that it provides an appreciation of the number of aircraft flyovers, rather than purely providing an understanding on the noise event. The County Council considers there is a need for using multiple methods for demonstrating noise impacts to ensure that layman appreciate the noise likely to be encountered at an airport, and how the noise is changing overtime.

Question - *Is monetising noise impacts and affects a sensible approach? If so which monetisation methods described here hold the most credibility, or are most pertinent to noise and its various effects?*

Response – The County Council's as an educational service provider for persons in their early years to adult learning has an interest in ensuring there is comprehensive understanding of the impact aviation noise may/does have on productivity and learning. Monetising the impacts is therefore important. The Discussion Paper indicates that there is a lack of research to address and understand the impacts of noise on productivity and learning. The County Council welcomes a robust understanding regarding productivity losses associated with aviation noise caused by sleep disturbance, health effects, and workplace distraction. It is recommended that the Commission advises Government that there is a need to agree a methodology for undertaking relevant research to appreciate the productivity and learning impacts associated with aviation noise, and then develop appropriate evidence.

Question - To what extent does introducing noise as a previously unaffected area represent more or less of an impact than increasing noise in already affected areas?

Response – The County Council considers that if noise is to be introduced within areas previously unaffected there needs to be robust, effective and informative consultations provided to the local living, working and investing community as well as key stakeholders. The consultations should clearly set out options considered in a manner that layman and technical experts understand. The County Council considers that a detailed understanding of future aviation needs ensure effective mitigation is imposition to minimise aviation noise impacts on local communities. It also provides certainty to communities that may or may not experience aviation noise.

In seeking to mitigate noise impacts the County Council recognises the role land-use planning plays in minimising aviation noise through –

- Planning – comprehensive planning, noise zoning, sub division regulations, transfer of development rights and land and property acquisition;
- Mitigation - Building regulations, sound insulation Grant Schemes, land acquisition and relocation, transaction assistance. Local property searches, physical mitigation.
- Financial – Capital improvements, tax incentives, noise related charges that assist in funding for mitigation and community initiatives.

The publication of the National Planning Policy Framework resulted in the demise of Planning Policy Guidance 24 which provided detailed national noise guidance. The County Council recommends that the Government urgently provides detailed national planning and noise guidance. The County Council is aware that the Government is seeking to provide supportive guidance for the NPPF, and it is recommended that this guidance provide effective guidance to local authorities to ensure adequate measures are taken to address aviation noise impacts.

Question – To what extent is the use of a noise envelope approach appropriate, and which metrics could be used effectively in this regard?

Response - The County Council considers that a noise envelope is accepted and welcomed, provided that it sets down meaningful and effective controls to safeguard the interests of local communities. Currently at Stansted a planning condition defines a maximum contour area (16 hour average day 57dBA Leq) which together with a further condition limiting the total number of aircraft movements provides the local community with certainty as to the

maximum (annual day) noise climate that could eventually be experienced. It is considered that the noise envelope approach does not provide a constraint on existing noise levels (as it is related to the maximum permitted capacity) and cannot address present issues.

A noise envelope of the 16-hour 57dBA Leq contour does not relate to the area of significant community disturbance. The work of the 2007 Attitudes to Noise from Aviation Sources in England study (ANASE) showed that if a noise contour could be said to relate to community disturbance it would be 54 or even 51dBA Leq. The use of the daytime 16-hour 57dBA Leq noise contour as the measure of the onset of significant community annoyance was established following the 1984 Aircraft Noise Index Study (ANIS) report.

The County Council welcomes that the Government has commissioned the CAA to develop further the noise envelope concept and produce guidance on the use and types of noise envelopes that may be used. The County Council also welcomes that consideration is being given to using various types of noise metrics and resultant envelopes.

The noise envelope is an essential part of the noise compensation regime at Stansted. The scheme that is applied at Stansted is based on the regime utilised at Heathrow and Gatwick. The County Council considers that noise envelopes and associated compensation regimes should be imposed to reflect local circumstances.

Question – To what extent should noise concentration and noise dispersal be used in the UK? Where and how could these techniques be deployed most effectively?

Response - The County Council recognises that there are positive and negative impacts associated with concentrating routes or allowing dispersion. At Stansted the aim is to achieve as near to the Noise Preferential Route (NPR) centre line departure as possible. The routes have been designed to blend the abilities of departing aircraft but also acknowledging the locations of various local communities. The communities recognise the existing routes and it would require specific community agreement to direct aircraft from the optimal designed NPR centreline.

Where new routes are considered necessary it is recommended that routes avoid high population densities and aim to preserve tranquil areas. In determining the balance it is considered that due consideration be given to 'legacy routes'. Ultimately safety and reliability is important as well as minimising noise and reducing disturbance to residents. The County Council considers that where solutions are agreed between the airport, airlines

and the local community they should be introduced by the appropriate bodies and stakeholders as quickly and flexibly as possible.

The County Council would also like to draw the Commissions attention to the NATS public consultation for the London Airspace Management Programme (LAMP) introducing local airspace changes. Phase 1(a) is expected in the Autumn 2013, with further consultations for Phase 1(b) and Phase 2. Complete implementation of the LAMP airspace changes is anticipated in 2020. The NATS LAMP consultation will include questions that seek to understand the balancing impacts and local requirements including issues such as concentration and dispersion. It is recommended that the Commission discusses with NATS how the outcomes of the consultations may be considered and inform future work being undertaken by the Airports Commission.

Question – What constitutes best practice for noise compensation schemes abroad and how do these compare to current UK practice? What noise assessments could be effectively utilised when constructing compensation arrangements?

Response – The County Council considers that there is a need to develop key principles for compensation and mitigation measures for all major infrastructure proposals. Although there are separate National Policy Statements for major infrastructure there are common issues that should be addressed in a coherent manner. Similarly the publication and research for best practice guidance is welcomed so that schemes can consider whether compensation measures are applicable for differing types of projects.

It is considered by the County Council that compensation schemes to mitigate impacts on local communities should have the following attributes –

- Appropriate compensation and mitigation measures for major infrastructure schemes should be agreed at the planning stage;
- Compensation measures should be delivered at the start of the process; and
- All measures should be assessed to ensure that they effective and appropriate.

The County Council recommends that the operator of the scheme (in this case airport operator) should deliver the necessary compensation and confirm when works have been completed. It is important that mechanisms for requiring compensation are robust so that local communities are aware of the rate of delivery for the agreed measures.