

Virgin Atlantic Airways Response to Airports Commission Call for Evidence: Discussion Paper 5 - Aviation Noise

August 2013

Introduction

Virgin Atlantic Airways welcomes this opportunity to respond to the Airports Commission's Discussion Paper 5 on aviation noise.

Since 1984 we have grown from a start-up airline to the UK's second largest global airline. We carried 5.45 million passengers and 200,000 tonnes of cargo in 2012. We employ 9,000 people and operate 40 wide-bodied aircraft, serving 35 destinations across four continents from four UK airports. Our "Little Red" domestic operations connect Aberdeen, Edinburgh and Manchester with Heathrow, connecting passengers from the UK regions to the rest of the world.

Whilst VAA and the wider aviation industry may bring a number of social and economic benefits to the UK economy, we are also aware that our operations may have an adverse impact on communities around airports, particularly in relation to aircraft noise.

The extent to which aircraft noise becomes a source of tension and concern to local communities is dependent on a varying number of factors such as the location of the airport in relation to the centre of population and the quality of its relations and communications. Wherever possible, Virgin Atlantic strives to reduce its noise impact on local communities by investing in new and quieter aircraft and by utilising the latest operational techniques in the way we fly our aircraft.

Overview – Noise

Over the past 50 years the industry has worked to reduce the noise emitted from aircraft and has seen a 75% reduction in noise output during this period. However, given the growing amount of air traffic as flying has become more accessible; and that the UK has a particularly high population density, this has resulted in aircraft noise becoming an ever increasing issue in recent decades.

We welcome the approach adopted by the Government in the Aviation Policy Framework (APF) in the attempt to strike a fair balance between the negative impacts of noise (on health, quality of life and productivity) and the positive

economic impacts of flights. We believe that it is important both impacts are discussed in conjunction with one another and not in isolation.

It is evident that sensitivity to aircraft noise varies on an individual and case by case basis. This is complicated by the fact that there is no firm consensus on the way to measure aircraft noise. In the past noise exposure maps down to the 57 dB $_{16hr LAeq}$ have been used, and this has been a useful tool in illustrating historical trends. We continue to support the use of the 57 dB $_{16hr LAeq}$ metric as there is no clear evidence to suggest that an alternative metric should be set. This metric will also continue to be vitally useful in highlighting further historical trends as indicated in the APF.

When looking at how to better utilise metrics it is important that they aid a better understanding of noise impacts and inform the development of targeted noise mitigation measures. However, due to the highly complex nature of noise we believe the common use of a single metric is the most appropriate way forward, particularly with regards to land-use planning. The use of multiple metrics would only serve to make this issue more complex.

We also welcome that the Government fully recognises the ICAO 'Balanced Approach'. This approach consists of identifying the issue and then using various measures to reduce noise through four elements:

- Reduction at source (quieter aircraft);
- Noise abatement operational procedures;
- Land-use planning and management; and
- Operating restrictions

VAA understands aircraft noise is a significant challenge and we have continued to ensure that we are investing in new and quieter aircraft. In 2012 we welcomed the delivery of 10 more efficient Airbus A330-300 aircraft, an investment worth in excess of \$2.2 billion. In addition to this we are also preparing to introduce 16 Boeing 787-9 aircraft from 2014 which will provide a further considerable step-change to the noise output of our fleet.

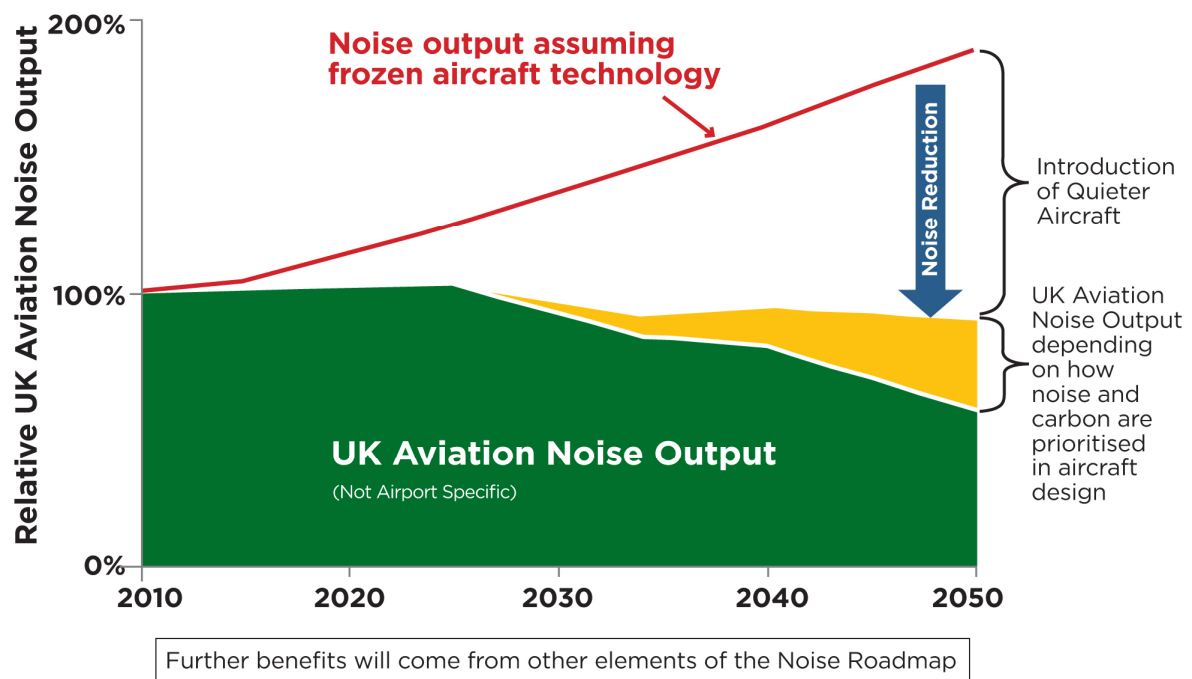
We are not only investing in quieter aircraft but also continuing to look at how we can further adopt noise abatement operational procedures to reduce our noise impacts. This includes the use of continuous climb operations, noise preferential routes and if shown to be possible, steeper approaches.

We also understand the importance of land-use planning in the process of noise mitigation and the significant difference this can make for local communities around airports. As noise around airports is reduced, it is vitally important that going forwards the land-use planning system does not permit the encroachment of noise sensitive developments.

VAA takes the view along with ICAO that the application of operating restrictions should only be used as a last resort, and once the other element of the 'Balanced Approach' have been pursued first.

Sustainable Aviation Noise Road-Map

In April 2013, the cross industry group Sustainable Aviation (SA) published its Noise Road-Map detailing how UK aviation can accommodate significant growth to 2050 whilst achieving a potential reduction in UK aviation's total noise output compared to 2010. This can be achieved through the development and introduction of quieter aircraft, alongside the implementation of better operating procedures and improved land-use planning.



The graph shows an aggregated UK picture of noise output and how this is predicted to change between 2010 and 2050. The graph is not airport specific and cannot be read as the projection of noise output for any particular airport. This will depend on the aircraft types and rates of penetration of new aircraft at individual airports.

In conjunction with the SA Noise Road-Map, VAA will also be publishing its own Noise Strategy illustrating how we specifically have reduced our aircraft noise output

and looking at fleet projections to 2020 to see how this will be further improved. This document will be published in Autumn 2013.

Consultation Questions

1. What is the most appropriate methodology to assess and compare different airport noise footprints? For example:

a. What metrics or assessment methods would an appropriate 'scorecard' be based on?

There is a need for a clear and consistent framework through which to evaluate aviation noise. Any metric or assessment used needs to be based on these objectives at an international level.

Previous policy to use 57 dB_{16hr LAeq} as the level of daytime noise marking the approximate onset of significant community annoyance is one which has gone on to influence planning terms and historical contour maps. As with any metric utilised there will always be upsides and downside to its use and this is particularly the case given the differences in perception towards aircraft noise. With this in mind we understand that people within the 57dB_{16hr LAeq} contour will experience varying levels of annoyance dependent upon the time and location, but also that people outside of this contour can also be affected.

However, our view is that there is not enough clear evidence to indicate that an alternative metric would be appropriate. VAA continues to support the use of the 57dB_{16hr LAeq} metric. Also given its broad use this metric will continue to play a vital role in being able to highlight historical trends.

If an appropriate 'scorecard' is to be developed in the future, is it important that this is not only based upon an agreeable metric but one which is able to show relative changes in noise performance over time in a consistent fashion.

b. To what extent is it appropriate to use multiple metrics, and would there be any issues of contradiction if this were to occur?

VAA believes it is important, particularly for planning purposes, that a single noise metric is adopted for consistency. The use of multiple metrics will only further complicate what is already a highly complex issue.

Where possible the use of other metrics can be used to evaluate noise performance more generally. We would particularly encourage this if this resulted in a clear communication of noise impacts for those affected by aircraft noise in specific locations.

c. Are there additional relevant metrics to those discussed in Chapter 3 which the Commission should be aware of?

We are aware that there are a number of ways in which aircraft noise can be measured along with the plethora of metrics that have been developed and referenced in this discussion paper. Further measures include the use of continuous decent approach performance, track keeping performance and continuous climb operations performance.

In our view it is important for the Airports Commission to clearly evaluate what each chosen metric adopted is set to achieve. Given that perceptions towards aircraft noise are so wide and varied, we would note that no single noise metric is going to be able to appease everyone affected.

Whilst a variety of metrics can be used to add some further context, our view is that a single robust metric is essential for decision making and land-use planning purposes.

We would welcome the Government commissioning further work into metrics and their implications.

d. What baseline should any noise assessment be based on? Should an assessment be based on absolute noise levels, or on changes relative to the existing noise environment?

For planning purposes there is a definite need for consistency and therefore a single metric is necessary.

Our view is that the 57 dB_{16hr LAeq} contour continues to be the most appropriate basis, and we have not viewed any further evidence to suggest that there should be a move away from this metric. Further to this, after a recent consultation the Government also came to the same conclusion that the 57dB_{16hr LAeq} contour is the most appropriate baseline to adopt. This is set out in the Aviation Policy Framework document.

We understand that further metrics can be beneficial from a communication perspective and also provide more insight into specific issues. However, only a clear single metric should be used for the basis of a decision being taken.

We would also make the point that it is important that any noise metric chosen is able to taken into account both historic impacts as well as future impacts.

e. How should we characterise a noise environment currently unaffected by aircraft noise?

Noise is a highly complex issue and despite how the onset of significant annoyance is quantified, those outside of a metric may still be impacted or affected to some degree.

VAA is not able to take a stance as to how this should be defined going forwards, but we would welcome further research in this area.

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

As the Commission has identified the relationship between noise and stated levels of annoyance are constantly evolving. Therefore, a single noise assessment method will be unlikely to encompass all reactions to aircraft noise.

We would welcome further research into an improved assessment methodology.

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

VAA welcomes the attempts to monetise the noise impact and effects. However, our view is that there is a need for the impacts to be evaluated in conjunction with the benefits that aviation also brings.

We would encourage further research being taken up on this subject in order to be able to take a more informed decision.

4. Are there any specific thresholds that significantly alter the nature of any noise assessment, e.g. a level or intermittency of noise beyond which the impact or effect significantly changes in nature?

Individual perceptions towards aircraft noise can vary hugely; therefore it is important that this is taken into consideration when evaluating potential thresholds towards aircraft noise annoyance.

Our view is that further research is necessary prior to any outcomes being concluded.

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

VAA is of the view that trying to predict an individuals or community reaction to noise whether it is new or increased will always be a highly difficult task.

The debate around concentration versus dispersal continues, and as aircraft navigational equipment have improved we have seen a greater adherence to procedures such as noise preferential routes. This has resulted in a focusing of flights over particular navigational paths, and reducing the breadth of the areas where local impacts have been felt.

This trend will only continue to improve and further research needs to be carried out to ensure that an appropriate decision is taken whether to continue to concentrate or tactically disperse such flights.

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

We continue to support the concept of noise envelopes; however, we are still awaiting the detail that would sit behind such a concept.

It should also be noted that such proposals may not address all local community concerns with regards to aircraft noise.

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

VAA would recommend that the Airports Commission allows this decision to be taken by each airport individually.

Decisions on where to concentrate or disperse flights will be very dependent on the geographic and demographic make-up of the areas around an airport and the views of the communities that live there.

Therefore, it is imperative that this decision is a localised one, and that a blanket UK approach is not adopted.

8. 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?

VAA believes it is important that the appropriate set of noise mitigation schemes are in place ensuring that the communities most affected by aircraft noise are included. Given that this is a highly localised issue, this decision must be taken on an airport by airport basis.