



IATA comments on the Airports Commission's Discussion Paper 05 on aviation noise

IATA welcomes the opportunity to comment on the Airports Commission's Discussion Paper on aviation noise. Our comments will focus on Chapter 5 of the discussion paper.

Noise mitigation - the ICAO Balanced Approach

IATA strongly believes that aircraft noise must be dealt with in accordance with the ICAO Balanced Approach on Aircraft Noise Management ("the Balanced Approach"). The Balanced Approach, which was unanimously endorsed by ICAO's Assembly in 2001 (Resolution A33-7), provides a transparent process for managing demonstrated noise problems on an airport-by-airport basis. It consists in the evaluation of all available options with the goal to identify the most suitable measure or combination of measures to achieve the noise abatement objective with minimal negative impacts on the economy.

The Balanced Approach identifies four elements to address noise at airports: reduction at source, land-use management and planning, noise abatement operational procedures, and operating restrictions. Considering the impact operating restrictions may have on airlines, passengers and local economies, they should not be introduced as a first resort but only after a full assessment of all available measures to address a demonstrated noise problem at an airport.

Noise reduction at source: new noise certification standard

As noted in the discussion paper, the aviation industry has greatly reduced the noise emissions of aircraft since jet aircraft entered service. ICAO noise certification standards have been one of the key drivers for such technological improvements.

Since the first ICAO certification standards for aircraft noise were adopted in 1971, they have periodically been made more stringent. At its last meeting in February 2013, the ICAO Committee on Aviation Environmental Protection (CAEP) reviewed technological feasibility, environmental benefits and economic factors and reached a consensus to move forward with a new standard that will result in a reduction of 7 Effective Perceived Noise Decibels (EPNdB) compared to the current Chapter 4 Standard.

ICAO certification standards and the technological improvements achieved by the industry should however not be used to introduce operating restrictions on aircraft. Indeed, considering the international nature of air transport and the long lifespan of aircraft, operators must have the assurance that aircraft certified in accordance with all applicable international standards can be operated worldwide during their entire lifespan and without undue restrictions that hamper international air transport.

Land-use planning and management

IATA agrees with the Airport Commission's position that proper land-use planning policies, including those aimed at directing residential housing away from airports, are critical to preserve the noise reductions achieved through the introduction of quieter aircraft.



As recognised by ICAO's Assembly in Resolution A37-18, land-use planning and management are crucial to limit the encroachment of incompatible development into noise-sensitive areas and to preserve the improvements achieved through noise-reduction at source for the benefit of local communities.

IATA therefore regrets the lack of appropriate land-use planning policies around London's airports. For example, while other measures have allowed the 57 dB L_{aeq} contour around Heathrow to shrink by 52% between 1991 and 2009, competent authorities let 13,000 additional homes be built within the reduced contour.

Noise abatement operational procedures

IATA recognises the importance of operational procedures to mitigate noise and agrees that techniques such as noise concentration and noise dispersal can provide important benefits. We would however like to stress that the choice of specific procedures and techniques should be tailor-made to the local circumstances of each of the airports concerned and decided in consultation with local stakeholders.

Therefore, we do not believe it would be appropriate to recommend one technique over another for use at different airports. The use of noise concentration and noise dispersal should only be used where it has been identified by local stakeholders as an appropriate solution, taking into consideration the specific characteristics of the airport concerned.

Operating restrictions and night curfews

In accordance with the ICAO Balanced Approach, and considering the impact operating restrictions may have on airlines, passengers and local economies, they should not be introduced as a first resort but only after a full assessment of all available measures to address a demonstrated noise problem at an airport.

IATA fully shares the view mentioned in paragraph 5.32 that night flight restrictions can be detrimental to an airport's operation, limiting capacity, connectivity and efficient operation.

Night flights are in particular critical for cargo and express operators. Night curfews have a great impact on their activities and undermine the ability of the sector to support many industries' global supply chains. In particular, the delivery of time-sensitive products such as pharmaceutical freight and perishable products would be affected. Next-day delivery services also depend on night flights.

Night curfews also have negative consequences for passenger airlines and travellers. Night curfews limit the ability of airlines to schedule flights in an optimal manner and to facilitate connectivity for travellers. They worsen existing capacity constraints and may result in additional congestion particularly in the evening and early morning. Also, where night curfews do not provide for sufficient flexibility to allow delayed traffic to operate, airlines may have to divert flights to other airports or delay them to the following day, causing serious inconvenience to travellers both on the diverted or delayed flights and on other flights consecutively affected by the disruption to the airlines' operations.

The introduction of night time operating restrictions at an airport can also have a negative impact on the noise environment at other airports. Firstly, air traffic might shift to other airports, significantly increasing noise levels at other locations and resulting in additional



gaseous and noise emissions from road transport as the journeys between the travellers' destinations and the airport may be greater. Secondly, the scheduling constraints imposed by night curfews in one region may result in a significant greater number of night time departures or arrivals in other regions.

Landing charges

In IATA's view, the introduction of noise-related charges is not an effective means to reduce the exposure of local communities to airport noise. As observed in paragraph 5.25 of the discussion paper, noise-related charges do not drive the deployment of quieter aircraft to airports, nor their development. On the contrary, by taking away funds from airlines, taxes and charges do not incentivize investment in new technology but, on the contrary, weaken the ability of the sector to dedicate resources to newer, quieter equipment.

Noise-related charges should only be introduced as part of a comprehensive noise management program, in accordance with ICAO's Balanced Approach. They should only be levied at airports where a noise problem exists and after an assessment of the noise problem at the airport concerned, the evaluation of the costs and economic impact of available measures, and consultation with stakeholders.

In addition, any revenue from noise-related charges should be used to fund noise alleviation or prevention measures. The charging scheme must be revenue neutral for the airport and any unspent sums returned to the airlines.

IATA does not believe that it would be appropriate for the Airport Commission to formulate a general recommendation to use noise-related charges as a means to address noise problems. Such a decision should be taken on an airport-by-airport basis, taking into account local circumstances.

Conclusions on noise mitigation measures

In IATA's view, the noise reduction at source that will be achieved through new technologies combined with the implementation of new noise abatement procedures will allow to further shrink the noise contours around London airports, whilst allowing capacity to grow. However, it must be stressed that, in order to avoid compromising these improvements, noise reduction at source and operational procedures must be accompanied by robust land-use planning policies. It is the responsibility of governments to adopt, implement, and enforce effective land-use planning and management policies. The industry should not be penalised for the failure of authorities to prevent urban encroachment.

IATA would therefore invite the Commission to provide additional focus on the importance of land-use planning and note that ICAO has issued guidance on this subject that can be used as reference.¹

We would also urge the Airports Commission to refrain from recommending the use of specific measures, since such measures must be tailor-made to the local circumstances at the airports concerned and decided at local level in consultation with stakeholders.

¹ ICAO, *Airport Planning Manual* (Doc 9184), Part 2 – *Land Use and Environmental Control*.



Additional comments

Measuring aviation noise

In the discussion paper (chapter 3), the Airports Commission raises the question whether new metrics should be used to measure aviation noise. The Airports Commission notably solicits views regarding the metric(s) on which options to increase UK airport capacity should be assessed.

IATA believes the 57 dB L_{aeq16h} metric should continue to be the sole metric used for the purpose of assessing options to increase UK airport capacity and of land-use planning and management. We do not think there is enough evidence to support the use of a lower contour value. As noted by the Airport Commission in paragraph 3.49 of the discussion paper, this view is shared by the Government.

However, IATA thinks that other metrics may be useful for other purposes, such as in communications destined to local communities.

Use of “noise envelopes”

IATA believes that, in accordance with the ICAO Balanced Approach, the decision to use a “noise envelope” at an airport, and the details of its implementation, should be decided on an airport-by-airport basis, in light of the specific local circumstances and after a comprehensive evaluation of all available measures. A general “one-size-fits-all” recommendation to introduce or not noise envelopes would not be appropriate.

Importance of research

While a number of studies have been conducted into the effects of aviation noise on people, IATA notes that their conclusions have often been ambiguous and controversial. IATA would therefore support further research into the impacts of noise, but would underline the need for that research to be unbiased and led by an independent body such as the DfT.

In addition to research into the impact of noise, it is also very important that Governments continue to support research into technologies to reduce noise at source and in flight. To support both fields of research and improve our ability to evaluate and compare different measures, advanced simulation tools need to be developed and made available.

Annexes

- IATA position on noise-related operating restrictions
- IATA position on noise-related charges



IATA Position on Noise-Related Operating Restrictions

Introduction

The ICAO Balanced Approach, which was unanimously endorsed by ICAO's Assembly in 2001, provides a transparent process for managing demonstrated noise problems on an airport-by-airport basis. It recognizes and is based on the principle that solutions need to be tailored to the specific characteristics of the airport concerned.¹

Operating restrictions are one of the four principal elements of the ICAO Balanced Approach, along with reduction of noise at source, land-use planning and management, and noise abatement operational procedures. An operating restriction is any noise-related action that limits or reduces an aircraft's access to an airport.²

Considering the impact operating restrictions may have on airlines, passengers and local economies, they should not be introduced as a first resort but only after a full assessment of all available measures to address a demonstrated noise problem at an airport.

IATA is committed to working with competent authorities, airports and local communities to develop tailored solutions to address demonstrated noise problems with minimal negative impact on airlines, passengers and local economies.

Night time operating restrictions

Night time operating restrictions have a negative impact on airlines, passengers and local economies.

Night flights are in particular critical for cargo and express operators. Night curfews have a great impact on their activities and undermine the ability of the sector to support many industries' global supply chains. In particular, the delivery of time-sensitive products such as pharmaceutical freight and perishable products would be affected. Next-day delivery services also depend on night flights.

Night curfews also have negative consequences for passenger airlines and travellers. Night curfews limit the ability of airlines to schedule flights in an optimal manner and to facilitate connectivity for travellers. They worsen existing capacity constraints and may result in additional congestion particularly in the evening and early morning. Also, where night curfews do not provide for sufficient flexibility to allow delayed traffic to operate, airlines may have to divert flights to other airports or delay them to the following day, causing serious inconvenience to travellers both on the diverted or delayed flights and on other flights consecutively affected by the disruption to the airlines' operations.

The introduction of night time operating restrictions at an airport can also have a negative impact on the noise environment at other airports. Firstly, air traffic might shift to other airports where no restrictions are in place; such a shift may increase noise levels at other airports and

¹ ICAO Assembly Resolution A37-18, Appendices C and E.

² *Guidance on the Balanced Approach to Aircraft Noise Management*, ICAO Doc 9829, p. vii.



result in additional gaseous and noise emissions from road transport as the journeys between the travellers' destinations and the airport may be greater. Secondly, the scheduling constraints imposed by night curfews in one region may result in a greater number of night time departures or arrivals in other regions.

Aircraft-specific operating restrictions

Aircraft-specific operating restrictions apply to aircraft based on individual noise performance.

The introduction of aircraft-specific operating restrictions can have an important impact on airlines as they may prevent them from operating to an airport using their most appropriate aircraft for that specific market. As a result, an operating restriction may result in a suboptimal use of airport capacity, higher operating costs and potentially also additional emissions if the replacement aircraft is less fuel efficient than a more appropriate aircraft for the market and associated flight distance.

Where operating restrictions aim at the withdrawal or phase-out of aircraft which are certified in accordance with ICAO's noise standards, they undermine the role of international standards in securing a high degree of uniformity and stability in regulations. ICAO's standards were indeed not intended to introduce operating restrictions, but have instead been an important means for securing technological improvements and creating the necessary regulatory predictability for airlines. Considering the international nature of air transport and the long lifespan of aircraft, airlines must have the assurance that aircraft certified in accordance with all applicable standards can be operated worldwide during their entire lifespan and without undue restrictions that hamper international air transport.

ICAO's Committee on Aviation Environmental Protection (CAEP) recognized this when it recommended that States be urged not to introduce operating restrictions on aircraft that comply with the noise certification Standard of Annex 16 Volume I, Chapter 4 and/or 14.³

Consultation and notification of stakeholders

The ICAO Balanced Approach requires States to institute a transparent process when considering noise-related measures. One of the building blocks of this process is the provision for consultation with stakeholders at different stages from assessment through implementation.⁴ Consultation with stakeholders is essential as it will help in identifying alternative solutions, discussing any technical, operational or safety concerns, and facilitating the dialogue between all parties. The consultation process may notably lead to the development of a voluntary agreement to resolve noise management issues, ensuring that the solution adopted is supported by all stakeholders.

Airline operations are planned many months in advance, *inter alia* to allow airlines to apply for airport slots, where necessary, and ensure that operations are coordinated optimally across their entire network. If an airline has to make significant modifications to its schedules after they have been planned, the consequences may be very detrimental: passengers may have

³ CAEP/9-DP/6, Paragraph 3.9.32.1.

⁴ *Guidance on the Balanced Approach to Aircraft Noise Management*, ICAO Doc 9829, p. I-2-2.



to be rebooked on different flights or their reservations cancelled, connections with other flights may no longer be possible, alternative slots may not be available, etc. Furthermore, as aircraft are usually allocated to different routes, a single change on one route may have repercussions over the rest of an airline's network. Consequently, it is of utmost importance that airlines are informed of all applicable operating restrictions in due time. At slot coordinated airports, the notification should take place before the deadline to apply for slots each season. At all other airports a notification period of at least nine months is recommended.

The responsibility of Governments

States have an important role to play in the management of noise at airports. They are responsible for the proper implementation of the ICAO Balanced Approach within their jurisdiction and ensure the principles summarised in the Annex are followed. They should also facilitate the application of measures other than operating restrictions, including noise reduction at source, operational procedures and land-use planning and management.

As a result of technological improvements, aircraft produced today are 75% quieter than they were 50 years ago.⁵ Since the first ICAO international standards for aircraft noise were adopted in 1971, certification standards have periodically been made more stringent. At its last meeting in February 2013, the ICAO Committee on Aviation Environmental Protection (CAEP) reviewed technological feasibility, environmental benefits and economic factors and reached a consensus to move forward with a new standard that will result in a reduction of 7 Effective Perceived Noise Decibels (EPNdB) compared to the current Chapter 4 Standard.

As land-use planning has a direct effect on the number of people affected by aircraft noise, proper land-use planning policies are critical to preserve the noise reductions achieved through the introduction of quieter aircraft. IATA therefore urges competent authorities to take measures to prevent further urban encroachment from happening. In addition, land-use management measures such as noise insulation programmes can help reduce the impact of aircraft noise on communities around the airport.

Noise abatement operational procedures are another means to mitigate aircraft noise. For example, noise preferential routes can be used to avoid noise-sensitive areas on departure and arrival. The implementation of continuous descent approaches (CDA), which allows aircraft to descend according to a continuous vertical profile, can also contribute to addressing the impact of noise, in addition to reducing CO₂ emissions. Governments should work with the industry to identify best practices and implement noise abatement operational procedures when appropriate. The participation and support of air traffic management organizations in this process is essential.

It is also very important that States promote research into technologies to reduce noise at source and in flight and research aimed at improving the understanding of the impacts of noise. To support both fields of research and improve our ability to evaluate and compare different measures, advanced simulation tools need to be developed and made available.

⁵ ICAO, *Environmental Report 2010*, p. 22.



Annex: Essential principles for the introduction of operating restrictions

Operating restrictions should only be introduced based on the ICAO Balanced Approach and relevant ICAO guidance⁶.

When the introduction of operating restrictions is considered, IATA strongly urges competent authorities to follow the principles endorsed by ICAO in Assembly Resolution A37-18 including, in particular, the following rules:

- Operating restrictions should only be introduced at airports with a demonstrated noise problem.
- Operating restrictions should not be introduced as a first resort but only after a full assessment of available measures and of the benefits to be gained from other elements of the balanced approach.
- Operating restrictions should only be introduced if they address the noise problem in the most cost-effective manner.
- All relevant stakeholders, including airlines, should be consulted before a decision is made to introduce operating restrictions.
- Operating restrictions should be based on the certified noise levels of aircraft and not on other criteria such as the type of operations.
- Airlines must be given a sufficient period of advance notice and operating restrictions should be introduced gradually over time where possible.
- Operating restrictions should not aim at the withdrawal of aircraft that comply with the noise standards in Volume I, Chapters 4 and/or 14 of Annex 16.

IATA also urges competent authorities to follow the recommendation made by ICAO's Committee for Aviation Environmental Protection (CAEP) at its ninth meeting and refrain from introducing operating restrictions on aircraft that comply with the noise standards in Volume I, Chapter 4 and/or 14 of Annex 16.⁷

⁶ *Guidance on the Balanced Approach to Aircraft Noise Management*, ICAO Doc 9829.

⁷ CAEP/9-DP/6, Paragraph 3.9.32.1.

Noise-related charges

In accordance with the ICAO Balanced Approach, airport noise should be addressed in the most cost-effective manner and noise-related charges only introduced as part of a broader noise management program.

SITUATION

Environmental issues are at the top of the aviation industry's agenda, alongside safety and security. For many decades, airlines, manufacturers, and airports have taken measures to limit noise at and around airports. According to ICAO, aircraft being produced today are 75% quieter than those manufactured 50 years ago.¹

In spite of technological and operational advances, many airports have responded to community pressure by introducing noise-related charges on aircraft. However, the introduction of noise-related charges is often not an effective means to reduce the exposure of local communities to airport noise. Noise-related charges do not drive the development of quieter aircraft nor their deployment to airports. Additionally, noise-related charges are often introduced without a proper airport noise management plan and are often based on criteria that are inconsistent across airports and lack transparency. Funds generated by such charges are also not always dedicated to noise alleviation and prevention measures. Furthermore, the additional financial burden they put on airlines and passengers has a negative impact on the local economy.

IATA POSITION

Noise-related charges should only be introduced as part of a comprehensive noise management program. In accordance with ICAO's Balanced Approach, noise must be addressed in the most cost-effective manner through the exploration of four principal elements, namely reduction at source, land-use planning and management, noise abatement operational procedures and, not as a first resort, operating restrictions². Decisions on noise-related measures should be preceded by an assessment of the noise problem at the airport concerned, the evaluation of the costs and economic impact of available measures, and consultation with stakeholders.

If, after conducting the proper analyses and consultations, noise-related charges are deemed necessary, the charging methodology should be simple, auditable and harmonized across airports. Additionally, charges should be set in accordance with the ICAO Policies on Charges for Airports and Air Navigation Services³ and be cost-related, non-discriminatory and fairly distributed amongst all users.

KEY ELEMENTS TO TAKE INTO CONSIDERATION

ICAO guidance and policies on the balanced approach and on airport charges should be applied.

1. Noise-related charges should only be levied at airports where a noise problem exists. In accordance with the balanced approach, noise-related charges should be defined in agreement with airport users on an airport by airport basis.
2. If, following a comprehensive assessment of all available measures and stakeholder consultation, noise-related charges are considered as an appropriate measure to address the noise problem at an airport in the most cost-effective way, airlines should be involved in decisions related to the scope, costs, duration and charging criteria of noise-related charges prior to their implementation. The decision-making process should be transparent and all relevant information available to consulted parties.
3. Noise-related charges should be cost-related, non-discriminatory and fairly distributed amongst all users. Furthermore:
 - The charging methodology should be simple, auditable and harmonized across airports. Charges should be based on published ICAO noise data for the aircraft and engine type⁴.
 - Any income from noise-related charges should be used to fund noise alleviation or prevention measures. The charging scheme must be revenue neutral for the airport and any unspent sums returned to the airlines.
 - The financing, implementation and performance of noise alleviation or prevention measures funded through noise-related charges should be transparent and monitored through key performance indicators and defined milestones agreed at consultations.
 - Charges should not have the effect of distorting competition among airlines.
 - The costs of noise mitigation measures should be shared equitably among all stakeholders benefiting from the activities of an airport.
 - As airport noise and emissions are interrelated, the noise charging scheme should be harmonized with that of emissions or any other emissions related charges so as to appropriately reflect the overall environmental footprint of an aircraft.
 - Charges should not overlap with other national or regional environmental charging schemes.
 - Government regulatory guidance at regional level (for example from the European Civil Aviation Conference) should be used where applicable and appropriate.

¹ ICAO, Environmental Report 2010, p. 18.

² Part V, Vol. I, Annex 16 to the Chicago Convention ; ICAO Assembly Resolution A37-18, Appendix C.

³ ICAO Doc 9082/9 – Section II - Article 4

⁴ ICAO Noise Data Bank, <http://noisedb.stac.aviation-civile.gouv.fr>