



Public consultation on the Communication on a sustainable future for transport

30th September 2009

The Aviation Environment Federation (AEF) is the principal UK non-profit making environmental association concerned with the environmental effects of aviation and supported by individuals and community groups affected by the UK's airfields and airports. We promote a sustainable future for aviation which fully recognises, and takes account of, all its environmental and amenity effects. These range from aircraft noise issues associated with small airstrips or helipads to the contribution of airline emissions to climate change. AEF has participated actively in the work of the European Commission including, for example, involvement in the inclusion of aviation in the EU ETS, and in the EC's aircraft noise working group, and we welcome this opportunity to contribute to the Commission's current consultation.

The consultation document acknowledges that tackling the environmental impacts of transport is one of the key challenges for the sector. Our response focuses entirely on these challenges and, specifically, on how the Commission could approach the challenges posed by the aviation sector. The document states that "Transport provides access to many of our freedoms" and that "demand for these freedoms will probably increase" in future. It is important to remember, however, that transport can also impinge on European citizens' freedom from noise, air pollution and the impacts of climate change. As both standards of living and environmental awareness increase we consider it likely that demand for *these* freedoms will also rise.

1. Infrastructure

Impacts on climate change

A proper consideration of the infrastructure needs for the aviation sector over the coming decade should, we believe, be informed (i) by an updated EC impact assessment for the inclusion of aviation in the EU emissions trading scheme and (ii) by an assessment of the impact of forthcoming EC legislation on cruise-level NO_x (nitrogen oxides) from aircraft,

In March 2007 EU leaders committed the EU to cutting its greenhouse gas emissions by 30% of 1990 levels by 2020 provided that under a global agreement other developed countries commit to making comparable reductions, or by 20% in the absence of such agreement.

Since then, the terms under which aviation is to be included in the EU's emissions trading scheme have been agreed. Emissions from aircraft entering or departing from the EU will, from 2012, be given a notional cap representing 97% of the average level

of emissions between 2004 and 2006 – a 90% increase compared with 1990¹ And while other sectors in the ETS will experience their caps reducing over time, for aviation the cap from 2013 to 2020 will be fixed at 95% of average annual 2004-2006 emissions, with 85% of emissions allowances being allocated for free.

The impact of this policy, within the wider framework of the Climate and Energy package is unclear. The 2002 impact assessment concluded that the impact on airline ticket prices was likely to be small and that traffic growth would be reduced by only marginally – from 142% by 2020 to 135%.

We believe that now the details of the final scheme are available, the Commission should publish an updated review of what impact aviation's introduction to the ETS is likely to have in terms of (a) the growth of the aviation sector itself and (b) the effect on other EU sectors of aviation's demand for permits. Such analysis would both inform decisions about future infrastructure needs and highlight any areas where additional policy measures – for example, to mitigate higher electricity prices resulting from airlines' demand for EUAs – may be required.

However, the ETS for aviation covers only CO₂ emissions. During negotiations about the scope of the scheme, the European Parliament argued that in order to take account of aviation's non-CO₂ impacts on the climate (from NO_x, contrails, cirrus cloud formation and soot) all aviation emissions should be subject to a multiplier of 2. The Council of Ministers opposed the multiplier on the basis that the scientific understanding of how to compare CO₂ and non-CO₂ impacts numerically was not sufficiently robust. The Parliament gave way, on the condition that the European Commission would, by the end of 2008, propose separate legislation to deal with emissions of NO_x.

This has not been achieved. AEF urges the Commission both to take this up as a matter of urgency and in the mean time to (i) advise states to delay the building of new infrastructure and (ii) not give any EU funding support for new infrastructure pending an EC review of what impact EC policy to tackle NO_x cruise emissions – such as a tax or a charge – may have on traffic growth.

Impacts on air pollution

Secondly, while we recognise that air quality in many European cities has improved as a result of European emissions standards, we are concerned that a number of EU states have failed to comply fully with EC legislation to control levels of nitrogen dioxide (NO₂) and particulate matter (PM). AEF's work on this issue is in relation to NO₂ exceedences around airports.

To help ensure the effectiveness of the existing air quality legislation, we believe that the EC should issue guidance to member states recommending that no new transport infrastructure that would contribute to increased levels of air pollution should be built

¹ European Environment Agency (Technical report No 6/2006) *Annual European Community greenhouse gas inventory 1990-2004 and inventory report 2006*

in regions where there is PM or NO₂ exceedance and that no EU funding should support the building of such infrastructure.

Impacts on noise

The European Council's 2006 strategy on sustainable development sets out an aim to reduce "transport noise both at source and through mitigation measures to ensure overall exposure levels minimize impacts on health". In the case of aircraft noise, the relevant EC legislation is principally Directive 2002/30, which implements the 'balanced approach' to aircraft noise management, and Directive 2002/49, which requires member states to develop noise action plans.

2002/49 has, after a number of delays, still not been fully implemented, though we believe its lack of any limit values will render it unlikely to have much impact. We return to this in section 4.

2002/30 has as its first objective "to facilitate the introduction of operating restrictions in a consistent manner at airport level so as to limit or reduce the number of people significantly affected by the harmful effects of noise". However, the EC's 2008 review of the Directive found that very few airports had exercised the powers given them by the EC (such as a phase out of noisier aircraft), and that the number of people affected by noise, including during the sensitive night period, had increased since the Directive came into force and was likely to continue going up in future.

AEF recommends that the EC needs to consider what further actions it should now take to remedy the failure of 2002/30 to meet its objective (we return to this issue in section 4) and that it should, in the interim, recommend no new infrastructure that could lead to an increase in aircraft noise.

2. Funding and pricing

Internalising the cost of air transport

Aviation benefits from a number of tax breaks and financial advantages:

- No duty is levied on aviation fuel for travel between states
- No VAT is charged on airline tickets or on sales of aircraft for international travel
- Airlines and airports often benefit from EU start-up funding
- Both the EC and member states give significant financial support for research and development in the aerospace sector

The consultation document refers to the inclusion of aviation in the EU ETS as an example of internalising external costs from the transport sector. AEF considers, however, that the ETS fails, for two reasons, to internalise the sector's costs fully. First, it deals only with climate change; the costs in terms of noise, air pollution, public safety and biodiversity loss are not covered.

Second, there a number of ways in which aviation's inclusion in the ETS fails fully to address even the climate impacts: the cap is much more lenient than that set for other sectors, only 15% of the initial allocation of permits will be auctioned, and no account is taken of aviation's non-CO2 impacts on climate change (from NO_x, condensation trails, soot, and aviation-induced cirrus). To help tackle this shortcoming, the EC was required to develop a parallel legislative measure for NO_x by December 2008. This has not been achieved.

AEF urges the Commission to consider how better to internalise aviation's environmental costs through, for example, the introduction of a harmonised ticket tax, and suggests that revenues raised from such tax could help to stimulate investment in low carbon technologies and green jobs.

3. Technology

AEF considers that new technologies have an important role to play in reducing the environmental impacts of aviation. For new aircraft and aero engines this primarily means setting standards that ensure that new technologies enter the market.

We were disappointed with the outcome of a relatively small increase in stringency for the Chapter 4 standard set by ICAO (the International Civil Aviation Organisation) as a driver for the uptake of new technology, and believe without further proposals on the table, that it will be some time before a new tier of stringency can be agreed. The EC should, we believe, support the ICAO process of setting technology goals for noise, NO_x and fuel burn by pushing ICAO to agree new, stringent standards for NO_x at CAEP 8, and to develop new standards for fuel burn and noise at CAEP 9.

There is a need, however, not only to stimulate the uptake of new technology onto the market but also to ensure that old technology is retired. The operational phase out of Chapter 2 aircraft by the EU and some other parts of the world has led to a significant improvement in the noise to which communities are exposed. The environmental benefit of further phase-outs should now be considered.

We would also like to see the EU to mandate minimum technology standards for general, leisure aviation in relation to noise. While it the EC may be reluctant to set more stringent standards than ICAO for aircraft travelling internationally because of competitiveness concerns, no such barriers exist in relation to general aviation within member states. Pioneering German legislation requires the use of noise mitigation technologies within German borders, but to date the technology has not been widely deployed elsewhere. AEF understands that there may be a role for EASA in helping to ensure harmonisation of good practice across the EU in this respect and would urge the EC to engage with EASA about how progress can be made.

4. Legislative framework

Targets for environmental noise

In section 2, we highlighted the need for the Commission to fulfil its requirement to develop legislation that tackles cruise level NO_x from aircraft.

In addition, AEF believes that the Commission needs to help tackle aircraft noise nuisance, strengthening the Environmental Noise Directive as it relates to airports. Specifically we believe the Commission should set limit values for the total acceptable level of aircraft noise, considering both (i) average noise levels expressed in L_{den} and L_{night} and (ii) numbers of aircraft.

Aircraft noise has always been a key issue for our members. Since aviation is exempt from noise nuisance claims, local communities have no legal protection from excessive aircraft noise, and must rely either on the goodwill of airport operators or on local or central government regulation of airports' noise impacts.

The effectiveness of the former approach has been put into question not only by many residents' own experiences, but also by the 2008 review of Directive 2002/30/EC, discussed above.

In the UK, the Competent Authorities for the drawing up of airport noise action plans are the airport operators themselves. It is hard to believe that operators would impose any constraints on their own operations that may lose them business; rather, the EC's evidence suggests that European airports do not take such measures.

Limit values set by a central authority are therefore essential if these Regulations are to achieve anything meaningful rather than simply acting as a licence for airports to do as they wish. Offering no certainty for those affected by aircraft noise about how bad things could get can only, we believe, generate antagonism among local communities who are likely to feel that they must fight every possible increase in noise exposure.

5. Behaviour

Alternatives to air transport

AEF believes that if, following the recent recession, the aviation sector continues to grow in line with industry, government and academic forecasts, then both noise and climate impacts will worsen. While technological improvements have a part to play in reducing the sector's environmental damage, they will be unable to keep pace with the overall growth of the sector. While new aircraft are undoubtedly quieter than older models, the increase in the total number of planes in European skies is such that people are now more annoyed by aircraft noise than in the past, while between 1990

and 2007, despite improvements in aircraft fuel efficiency, emissions from European aviation grew by 4.5% per annum.²

We therefore consider demand management to be an essential component in sustainable aviation policy and would encourage the Commission to research and promote alternatives to air travel that could meet citizens' needs for connectivity and leisure with lower environmental impacts. As the EEA report *Transport at a Crossroads*, published earlier this year, notes: "Very little transport happens for its own sake but rather because it facilitates the flow of people and resources through the economy."³

The report also argues, however, that "A first step in addressing transport demand is to understand the purposes for which transport is undertaken. Numerous studies of this issue have been conducted across Europe but differing formats mean that their findings are often incommensurable". We suggest that the Commission is well placed to conduct Europe-wide research on what demand management measures would be most effective over the next decade in meeting the needs of EU citizens while reducing the environmental damage from the transport sector.

We welcome the Commission's suggestion in the consultation document to consider how member states could capitalise on the advantages of teleworking and we would urge the EC to consider what funding support could be provided to stimulate the development of videoconference and 'telepresence' facilities. As an alternative to international business travel this could make a significant contribution towards your goal to decouple transport growth from GDP growth.

With regard to leisure travel, we encourage the Commission to consider support for domestic tourism, which could provide both a boost to member states' tourism industries and a reduction in emissions. Meanwhile, little is currently known about the volume and type of European air freight and we urge the Commission to conduct an analysis of whether it is possible to increase the environmental efficiency of how goods are transported.

6. Coordinated action

Public safety

AEF acknowledges that effective coordination among EU member states and other countries in relation to aviation safety has helped to ensure that the number of aircraft crashes is low. Nevertheless, it is important to note that when planes do crash it is not only those in the aircraft that may be affected but also people on the ground.

² European Environment Agency (Technical report No 04/2009) *Annual European Community greenhouse gas inventory 1990–2007 and inventory report 2009: Submission to the UNFCCC Secretariat*. Page 18

³ European Environment Agency (No3/2009) *Transport at a crossroads. TERM 2008: indicators tracking transport and environment in the European Union*. Page 28

Around 80 percent of jet aircraft accidents occur during takeoff and landing. Some member states, including the UK and the Netherlands, have therefore put in place land use policies that aim to control the number of people living near to airport runways. In the UK this is managed by the Department for Transport, which publishes ‘public safety zones’ at the busiest airports, within which certain planning restrictions operate. The policy has a number of shortcomings, however, including, for example, the fact that it operates retrospectively; in the case of an airport expansion the public safety zone will simply be enlarged, rather than impacts on third party risk and the disadvantages of consequent land use restrictions being consistently assessed at the time of the planning application.

AEF suggests that the Commission consider how a coordinated approach towards third party risk around airports might be developed for all European states, such that citizens are appropriately protected from the heightened risk of living or working near to an airport.

7. The external dimension

AEF supported the inclusion of aviation in the EU ETS as a first step towards bringing the sector into line with EU climate policy. We recognise that there has been resistance to this policy from some states outside Europe. We believe, however that since European citizens travel more by air than the large majority of the world’s population it is right for Europe to take the lead in developing appropriate environmental mitigation measures for the sector. We would encourage the EC to be equally bold in setting and enforcing targets for noise and air quality, which would both benefit European citizens and raise the bar in terms of international standards.

For such external communications to be successful, however, it will be important for the EU to be able to demonstrate action within its own borders. The EU ETS currently permits up to 50% of emissions reductions to take place in third countries and to enter the ETS in the form of ‘project credits’. The EC needs to consider how aviation emissions will be reduced in absolute terms *within* Europe and should reaffirm the importance of states putting in place policies that are complementary to the ETS towards this end.

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