



## **AEF Response to the CAA's "Future Airspace Strategy for the UK, 2011 to 2030"**

**February 2011**

### **The AEF**

Established in 1975, the AEF is the principal environmental association in the UK concerned specifically with all the environmental effects of aviation. The Federation's membership comprises over 100 residents' groups, amenity and environmental organisations, and local authorities around the UK's airports and airfields. The AEF is a founder and lead member of the International Coalition for Sustainable Aviation (ICSA), set up to represent the international environmental NGOs as an Observer to the International Civil Aviation Organisation.

### **The Consultation**

The AEF welcomes the publication of, and consultation on, the draft Future Airspace Strategy (FAS). With the Government about to start work on a new aviation policy, we believe that FAS provides a timely opportunity to develop a comprehensive strategy for aviation over the next 20 years, taking a holistic approach to the environmental implications of both airport and airspace use. Previously, the AEF has been critical of the lack of focus on airspace issues: in its written and oral evidence to the Transport Select Committee's 2008 Inquiry into Airspace Use, the AEF stated that "*The planning and regulation of UK airspace requires long-term strategic support. Providing comprehensive, independent evidence is used for its construction, an Airspace Master Plan covering the period of the White Paper would be beneficial*". The existing Air Transport White Paper (2003) had not delivered in this respect with airspace considerations confined to a few paragraphs acknowledging that: "*The Government will now look to the CAA to make early progress in bringing forward a structured programme for the redesign of UK airspace, with a view to the phased implementation of changes to eliminate constraints and permit the integration of the forecast increases in aircraft movements, including traffic using the additional runways proposed in this White Paper*".

Although the Government has ruled out new runways being constructed at Heathrow, Gatwick and Stansted, the need for FAS remains. Today, there is greater community awareness of the role of airspace management in both creating and solving environmental issues. For these reasons, we were pleased to engage with the FAS process as part of the Challenge Team and look forward to continuing to play a constructive role.

### **The Context: Aircraft Noise Issues**

Noise remains the most important issue to community groups today, despite the introduction of less-noisy aircraft. Recent studies, including the ANASE study, have confirmed longstanding community concerns that annoyance is strongly influenced by the number of noise events. With the growth of air traffic in the UK, periods of respite from noise are rapidly disappearing at many airports, with more pressure on sensitive periods such as evenings, night and weekends. This has led to greater adverse community reaction from both within and outside airport noise contours. The latter group are often overlooked: despite experiencing regular overflying, traditional noise indices have diverted attention away from those living further out but who remain directly under a flightpath. This experience suggests that noise should be addressed using a variety of appropriate metrics that allow for the consideration of both “close in” and “further out” noise impacts together.

The EU’s implementation of ICAO’s balanced approach to noise management – reduction at source, land use planning, operational restrictions and operational procedures - has its limitations. With reduction at source and land use planning focused on providing long-term benefits, operational restrictions and operational procedures are required to provide solutions to today’s problems.

The Noise Advisory Council in the 1970s concluded that dispersal would lead to greater levels of disturbance. Today this advice is repeated in the guidance given to the Civil Aviation Authority and in other policy documents, based on an overarching objective to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise.

However, this often leads to problems of concentration, compounded by a move to precision navigation. Alternative policies, such as a move to temporal dispersion (using more flight paths but utilising them at different times of day or days of the week) could maintain concentration but provide much needed respite. This approach could be beneficial at some airport locations, or over sensitive tranquil locations, but it is not supported by the current guidance. Revising and updating the guidance is a high priority with the objective of providing flexibility to allow the most appropriate solution to be deployed in any given circumstance.

### **The Context: Emission issues**

The 37<sup>th</sup> ICAO Assembly Resolution on aviation and climate change adopted the goal of a 2% per annum efficiency gain out to 2050. The Air Transport Action Group pledges industry support for a 1.5% per annum efficiency improvement to be delivered by airlines largely through fleet replacement. It claims the difference can be met, with support from governments, through operational improvements centred on efficient airspace management. Although the 2% goal is a global target and does not confer any obligation on an individual state, developed countries with a major share of international aviation activity (such as the UK) will be expected to contribute the most towards achievement of the goal. From 2012, airlines will be included in the EU Emissions Trading scheme and will have an additional economic incentive to improve efficiency. In response to these developments, it is likely that there will be an increased emphasis on air traffic management in the future.

### **The Context: “Trade-offs”**

It will be important to maximise the benefits for noise and emissions when considering the airspace strategy and future changes to airspace. In some circumstances, mitigation options for one issue may have adverse consequences for the other, and these are often presented as trade-offs. As the EU ETS starts to put a price on carbon, there is likely to be a preference from airlines to prioritise emission reductions. “User preferred trajectories” and optimal routing will help to deliver this but it is important that they do not automatically override noise considerations. The AEF believes that both issues should receive an equal weighting as they benefit (or disbenefit) different audiences: reductions in emissions may have a global benefit but they will do little to diminish the concerns of those impacted by noise and vice versa. An evidence-base will be required to inform decisions on environmental costs to help manage trade-offs.

The term “trade-off” can be misleading. In most cases, it is a question of achieving a sub-optimal benefit, where there is an improvement to both noise and emissions but the full potential to reduce one or both impacts cannot be fully realised. Any change that makes either noise or emissions worse than they would otherwise be should not be considered.

### **Specific Commentary on the Consultation**

- The 2030 Vision – as a key driver for FAS, mitigation of the environmental impacts needs to achieve policy objectives. These need to be clearly defined by Government (as they are for local air quality). For this reason, we support the conclusion that *“National aviation policy and regulation must be robust enough to support the implementation of changes. Some of the changes proposed may require new or updated policy and regulation.”*
- Strategic drivers – we welcome the fact that environment is considered to be one of three key strategic drivers, but would stress that the focus of ATM improvements should be on both GHG emissions and noise.
- Aircraft noise – we welcome FAS’s recognition that existing principles need to be re-assessed in light of new ATM concepts, operational and technological capabilities and the emergence of new issues such as the need to protect tranquil areas. To do so effectively, FAS will need to understand current attitudes and develop appropriate metrics to communicate and assess the problem and benefits. This will require a commitment to new research, especially on the topic of “environmental cost” (consistent with DAP’s approach to minimising total costs and assessing the costs and benefits of defining “efficiency”).
- Engagement – identification of key stakeholders is biased towards industry participation. As a key driver, environmental and community interests have an important role to play.
- Future Arrival and Departure Management techniques are encouraged where they will lead to the reduction or removal of stacks. The AEF views a policy towards the removal of stacks as an important measure in reducing GHG emissions and facilitating greater optimisation of CDO and CCO operations in the future (bringing additional noise benefits).

- Possible Environmental Metrics for FAS – monetisation alone is unlikely to reflect the importance that people attach to noise, and therefore an element of weighting will be required. It is also more difficult to monetise the effects of noise compared to GHG emissions where there is existing evidence to support a damage or shadow cost approach, and a carbon market. Experiences in other countries suggest that communities relate to statistical, time and frequency based metrics. In studies, respondents often cite these metrics as providing the closest correlation with their perception of aircraft noise. They can be particularly beneficial in communicating proposed changes in operation. These measures are supported in addition to the use of exposure metrics. We do not believe that complaint levels are a reliable indication of annoyance. But in addition to the opportunity for bias due to orchestrated campaigns, FAS should acknowledge that poor community relations on the part of an airport operator can also lead to fewer complaints as there is little community expectation that complaints will be handled in a satisfactory way. For policy purposes, the scientific community has highlighted the limitations of RFI and the advantages of moving towards temperature based metrics. The possible climate change metrics identified in this report cover the range of options under consideration. Discussion on the metrics to measure tranquillity, and the secondary metrics, is welcomed.

**For further information, contact AEF at:**

**Broken Wharf House  
2 Broken Wharf  
London EC4V 3DT  
Tel: 020 7248 2223  
Fax: 020 7329 8160  
Email: [info@aef.org.uk](mailto:info@aef.org.uk)  
Web: [www.aef.org.uk](http://www.aef.org.uk)**