Draft Aviation Policy Framework

Response by Stop Stansted Expansion

31 October 2012

Overview

The Government states that its primary objective is to achieve long term economic growth and, as part of that objective, it is seeking to develop a sustainable policy framework for UK aviation. It will be extremely challenging to achieve this objective in an industry which is (a) likely to remain almost wholly dependent on finite fossil fuels for the foreseeable future and (b) is responsible for ever increasing quantities of carbon and other greenhouse gas emissions each year. In such circumstances, it is wholly inappropriate for the aviation industry to continue to enjoy duty free and VAT free fuel. We acknowledge that this anomalous situation arises as a result of the Chicago Convention and that the UK Government cannot act alone in ending the industry's tax exemptions. However, the Government should at least reaffirm the commitment it made in 2006 when, in describing the Chicago Convention as *'very out of date'* and the industry's fuel tax exemptions as *'anomalous'* it undertook *'to work energetically, together with our European and international partners, to press for the modernisation of the Chicago Convention and ICAO'*.[1]

The Government should provide an update on progress on the modernisation of the Chicago Convention and ICAO and if no significant progress has been made since 2006, the Government should set out an alternative strategy for dealing with the anomalies arising from the Convention. In the meantime, we find it puzzling that the DfT's growth forecasts for UK aviation to 2050 assume a continuation of the industry's fuel tax exemptions. This means that the DfT is planning for a level of UK demand which it accepts is artificially inflated by the industry's anomalous fuel tax exemptions. This is not a sensible basis for a sustainable policy framework for UK aviation. The Chicago Convention does not of course prohibit the UK Government from charging fuel duty and/or VAT on domestic flights and many countries around the world do charge either fuel duty or VAT on their domestic flights.

We believe that the starting point for a sustainable policy framework for UK aviation should be for the Government to set down some clear environmental limits. This is one of the guiding principles for sustainable development set down in the *'Securing the Future'* White Paper[2] and endorsed in the March 2012 National Planning Policy Framework ('NPPF')[3]. Environmental limits for the development of UK aviation should be set down in – at least – the following five key areas:

1) Climate change impacts

- There should be re-affirmation of the Government's January 2009 commitment to limit UK aviation emissions to below 2005 levels by 2050;
- The Government should confirm its acceptance of the statutory advice from the Committee on Climate Change ('CCC')[4] to bring aviation emissions into the UK's national carbon budgets, as provided for under the Climate Change Act 2008, by 2016;
- The Government should reaffirm its commitment to address aviation's non-CO_2 climate effects and should, as an interim measure (and, as was previously the case) apply a multiplier of 2 to aviation's CO_2 emissions so as to take some account of aviation's non-CO_2 climate effects. A more accurate basis for accounting for aviation's non-CO_2 climate effects can be introduced as scientific understanding develops. Refusing to take non-CO_2 effects into account because they cannot be measured with any certainty leads to a grossly misleading underestimate of aviation's overall impact on climate change.

2) Noise impacts

- The Government should re-affirm its July 2004[5] commitment to take account of the World Health Organization ('WHO') *'Guidelines for Community Noise'* in relation to night noise , including the guideline value of 30 dB $LAeq_8$ and 45 dB LAmax for inside bedrooms (windows open). At the time the Government stated that *'it would be very difficult, if not impossible, to achieve* [the WHO guideline values] *in the short to medium term without draconian measures'* and pointed to a target date of 2030 as a suitable timeframe. In addition to reaffirming this commitment, the Government should set down a phased programme for achieving it, with interim targets so that the industry has an opportunity to gradually adapt and adjust its activities at night.

- The Government must move away from the Leq metric as its definitive yardstick for assessing noise nuisance and introduce an improved measurement system for aircraft noise, such as that described in the ANASE[6] report. The evidence gathered in the course of the ANASE study clearly showed that the DfT was not only relying upon the wrong system for measuring aircraft noise impacts but also was applying the wrong standards of what constitutes low, moderate and high levels of noise annoyance. We expect the DfT to take forward the work of ANASE as a priority and develop a new framework for the measurement and control of aircraft noise impacts which, again, should take full account of the WHO *'Guidelines for Community Noise'.*
- The noise policy framework should also include clear environmental limits, based on international best practice, to control ground noise at UK airports.

3) Air quality impacts

- The existence of statutory EU air quality standards provides a clear framework within which the future development of aviation in the UK can take place. However, the Government needs to commit itself to full compliance with EU air quality standards by 1 January 2015 and desist from looking for any further derogations and/or loopholes aimed simply at reducing the risk of infraction.
- There should be a requirement for airports with a throughput in excess of 5 million passengers per annum[7] ('mppa') to have an AQ policy, to be approved by DEFRA, and to publish quarterly results, which should be subject to independent monitoring and oversight by the CAA.

4) Surface access impacts

- The Government states that it is committed to increasing the public transport mode share for journeys to/from airports but it must give effect to this aspiration by introducing policies to reduce car journeys by air passengers and airport employees alike, including: tight limits on airport car parking, the development of distant park-and-ride facilities and the prohibition of exclusive airport taxi franchise operations which result in almost a doubling of the requisite number of taxi journeys. The Government should consider using fiscal measures as a means of contributing to the delivery of its airport surface access policy objectives. An effective set of policies to reduce and minimize airport surface access impacts is a prerequisite for any sustainable policy framework for UK aviation.
- There should be a requirement (not just a DfT recommendation) for airports with a throughput in excess of 5 mppa to have an Airport Surface Access Strategy ('ASAS'), approved by the DfT and updated every three years. The ASAS should set out:
  - targets for increasing the proportion of journeys made to the airport by public transport for both airport workers and passengers;
  - other targets aimed at reducing the carbon, air quality and local community impacts of surface access to airports;
  - the strategy for achieving those targets; and
  - the arrangements for involving the local community in the development of the ASAS and deciding the key targets.

  Results should be published quarterly and subject to independent monitoring and oversight by the CAA.

5) Impacts on landscape, heritage and the natural environment

- Although the questions of (a) whether or not there should be more runways in the UK and (b) if so, where they should be, have been reserved for the next stage of the Government's policy development process, the impacts of such possible expansion should be covered by this policy framework and it should be emphasized that, in line with the guidance laid down in the NPPF, a high priority must be attached to conserving and enhancing landscape, heritage and the natural environment. For example, in para 1.1 of the Draft Aviation Policy Framework ('DAPF') the costs of aviation should include 'destruction of landscape, heritage and the natural environment in the event of more runways being built'. There should be a similar reference in para 4.2 of the DAPF.

Referring back to the NPPF, we note that in searching for a definition of 'sustainable development' it turns to Resolution 42/187 of the UN General Assembly which defined sustainable development as ***'meeting the needs of the present without compromising the ability of future generations to meet their own needs'***. Given the scale of environmental damage which the aviation industry inflicts upon the local and global environment and upon local communities and the scale of its usage of finite resources, it is – to say the least – extremely challenging to design a framework of environmental limits within which the industry can expand in a sustainable manner. Nevertheless, in responding to this consultation, we are seeking to make a constructive contribution to the development of an aviation policy framework which, provided it includes proper environmental limits, could provide a basis for the sustainable development of aviation in the UK.

Consultation questions	
Chapter 2: The benefits of aviation	**SSE Response**
1. Do you agree with our analysis of the meaning and value of connectivity?	In the absence of supporting evidence, it is either over-stating the case or simply rhetoric to claim that *'the future of the UK will undoubtedly continue to be shaped by the effectiveness of its international transport networks' (*para 2.13). What is the evidence for this statement and in which way will the effectiveness of the UK international transport networks shape the UK's future? It is far more likely in the foreseeable future that electronic communications technology will advance further and faster than aircraft technology and will increasingly replace air travel as a means of doing business. It is surprising that there is no mention of videoconferencing in the discussion on connectivity in this chapter (but we note that it is discussed in a later chapter in the context of seeking to address climate change impacts).
2. Do you support the proposal to extend the UK's fifth freedom policy to Gatwick, Stansted and Luton? Please provide reasons if possible.	Filling more seats per aircraft could be a positive step in terms of reducing the aviation industry's carbon footprint but it could also have the opposite effect if, for example, an aircraft on a flight from the Continent to the US stopped off at Gatwick, Stansted or Luton to pick up only a small number of passengers. In addition, local residents could be subjected to all of the noise and local air pollution impacts of a large long haul jet aircraft for the sake of a accommodating a small additional number of air passengers. Finally, whilst there may currently be some spare capacity at Gatwick, Stansted and Luton, the DfT forecasts indicate that this will not be the case in the longer term, and when capacity becomes tighter it would be highly inefficient to use these airports as 'bus stops'.
3. Are there any other conditions that ought to be applied to any extension of the UK's fifth freedom policy to Gatwick, Stansted and Luton?	No comment
4. Do you agree that the Government should offer bilateral partners unilateral open access to UK airports outside the South East?	No comment
5. Do you have any other comments on the approach and evidence set out in Chapter 2?	The UK accounts for 0.9% of the world's population but 9.5% of global CO_2 emissions from international air travel.[8] A fifth of all international air passengers in the world are on flights to or from a UK airport.[9] This disproportionately large volume of air travel to and from the UK brings concomitant adverse environmental impacts to the country, particularly the south east where most air travel is concentrated. It is therefore important to provide clear evidence about aviation's role in the economy since the adverse environmental consequences are not trivial. The DAPF fails to provide any such clear evidence. Moreover, the DAPF lightly dismisses evidence of negative economic impacts by concluding (in para 2.9) that *'... the evidence available to us does not show that a decrease in the number of UK residents flying abroad for their holidays would benefit overall the UK economy.'* This is very odd conclusion because at least some of the disposable income which would have been spent by UK residents on overseas holidays would be diverted to consumer spending in the UK - benefitting the domestic economy and delivering higher VAT receipts. What assessment did the DfT make of this substitutional effect and what other evidence did the DfT review before reaching this conclusion? In August 2011 we submitted a paper to the DfT entitled 'Aviation, jobs and the UK economy', as part of our response to the Scoping Consultation. This contained a considerable body of evidence to indicate that a decrease in the aggregate expenditure by UK residents on overseas leisure visits benefitted the domestic UK economy. Our paper was fully referenced, drawing

5. (cont'd)	upon other studies carried out in recent years and we find it disappointing that the DfT, which should be making transparent evidence- based judgments, has not explained what evidence it has accepted, what it has rejected, and why. For ease of reference, our August 2011 paper can be accessed at: http://www.stopstanstedexpansioncom/documents/SSE_scoping_response_-_Annex_A.pdf It is disappointing that, once again, the DfT uses tendentious terminology in that it always refers to 'the economic *benefits* of aviation' rather than its 'economic *effects*'. If it did the same with regard to the environment it would refer to 'environmental *damage,* whereas it commonly refers to 'environmental *effects*'.
Chapter 3: Climate change impacts	
6. Do you have any further ideas on how the Government could incentivize the aviation and aerospace sectors to improve the performance of aircraft with the aim of reducing emissions?	The Government's focus should be upon providing a clear framework for controlling aviation emissions, consistent with its commitment to be the 'greenest government ever', and not upon subsidizing R&D in the aviation and aerospace sectors with the objective of reducing aircraft emissions. In any event, this objective is essentially the same as improving aircraft fuel efficiency and so it is very much in the industry's own commercial interests to invest in this type of R&D. Moreover, the Government should re-affirm the commitment made in January 2009 by the previous Government to limit UK aviation emissions to below 2005 levels by 2050. This would mean a fixed budget of 37.5m tonnes of CO_2 p.a. for the aviation industry and so provide an added incentive to improve the emissions performance of aircraft because the industry would not be able to grow except to the extent that the emissions performance of aircraft improved. The other key element of this framework is for the Government to accept the CCC recommendation to bring aviation emissions into the UK's national carbon budgets from 2016 onwards. Aviation's non-CO_2 effects also need to be brought under control. Research by Lee et al (2009) indicates that aviation is responsible for 4.9% of global greenhouse gas ('GHG') emissions. There remains some uncertainty regarding the precise effect on the climate of aviation's non-CO_2 emissions but this should not be an excuse for ignoring their impact. Present scientific knowledge indicates that the CO_2 effect should be multiplied by a factor of 2 in order to allow for the non-CO_2 effects. Some suggest that the multiplier should be higher; the IPCC (1999) estimated aviation's non-CO_2 climate effects to be about 2 to 4 times greater than the effects of CO_2 alone, suggesting a mid-range value of 2.7 for 1992 and a range of 2.2 to 3.4 for 2050 (not allowing for the effects of contrails). The DfT has, in the past, variously used multipliers of 1.9 and 2.0 to try to take account of aviation's non-CO_2 climate effects but DfT now seems to be saying that aviation's non-CO_2 effects should be disregarded until there is better scientific understanding. This would lead to a grossly misleading underestimate of aviation's overall impact on climate change. Since the best scientific estimate presently available suggests a multiplier of 2, and since this does not allow for the effects of contrails, it is the minimum multiplier which should be used. The targets announced by ICAO and IATA for reducing aircraft emissions referred to in the DAPF are welcome but these are purely aspirational, not binding commitments, and, looking at the track record of these organizations, we are not led to expect much in terms of positive achievement. Industry claims are invariably more optimistic than the figures produced by independent studies so it is surprising that the DfT has accepted the assertions of IATA and Airbus regarding the industry's progress on improving fuel efficiency (para 3.31). Statistics provided to the House of Commons on behalf of the Secretary of State in 2009[10] showed a strong correlation between aviation CO_2 emissions and passenger numbers with only a 12% reduction in fuel consumption per passenger fuel efficiency gains were being offset by an increasing proportion of long haul flights, a trend which is likely to continue.

6. (cont'd)	The CCC estimates 0.8% annual improvement in industry fuel efficiency to 2050[11] and we would urge the DfT to use this independent evidence base, rather than relying upon optimistic industry projections, when developing its sustainable aviation policy framework.
7. Do you have any other comments on the approach and evidence set out in Chapter 3?	The DAPF considers the potential for biofuels (para 3.36) and concludes that a better understanding is required of the issues involved before any judgment can be made on the way forward. We broadly agree with this conclusion because very considerable doubts remain concerning the supply of biofuels, competition with land transport, their cost and efficiency and the fact that they will still emit GHGs. The CCC also considered the use of biofuels for aviation fuel and concluded that *'it* [would not be] *prudent to assume that biofuels in 2050 could account for more than 10% of global aviation fuel'*. Again, we would urge the DfT to take careful note of the CCC's independent conclusions. The EU Emissions Trading System ('ETS') may in the future become a valuable tool for constraining carbon emissions. Aviation has only been included in the system since January 2012 and has been given preferential treatment compared to other sectors in that its limits are based on 2004-06 average emission levels rather than the 1990 levels that apply to all other sectors. In addition, generous allocations of permits within the EU ETS and the methods for offsetting have meant that the carbon price has stayed extremely low and the system has done nothing to reduce aviation emissions. Another shortcoming is that the ETS does not take aviation's non-CO_2 emissions into account.
Chapter 4: Noise and other local environmental impacts	
8. Do you agree that the Government should continue to designate the three largest London airports for noise management purposes? If not, please provide reasons.	We believe that the designation of Stansted – which has allowed the DfT, rather than the local planning authority, to decide the airport's night flying regime – has done virtually nothing to protect the interests of local residents because the DfT's primary focus has been to protect the interests of the airline users of Stansted Airport, rather than the interests of the local community. The permitted quota of night flights has always been set at a level comfortably above the likely level of demand and the quota has only applied to the 6.5 hours between 11.30pm and 6.00 am, not to the normal definition of night, i.e. from 11.00 pm to 7.00 am. With no restrictions on the number of flights between 11.00 pm and 11.30 pm and between 6.00 am and 7.00am, these two 'shoulder' periods have become amongst the busiest times of the day at Stansted. The low cost carriers exploit the shoulder periods to the full to maximize the utilization of their aircraft. This may suit their business model but it has obvious implications for local residents who are trying to sleep at these times. Night flights are a major source of community annoyance at Stansted and this arises from both aircraft movements and airport ground noise. This should not be surprising in view of the low levels of background noise within this largely rural environment. There is also a knock-on effect in terms of sleep disturbance caused by road traffic related to early morning and late night flights. Roads around Stansted can be busy from about 4.00 am until midnight. Quantification of the social and environmental costs needs to be undertaken in a more systematic manner which reflects the true value of a decent night's sleep to individuals contributing to the wealth of the UK economy whose efficacy is impaired by interrupted sleep. Cost benefit analysis carried out on Heathrow night flights by C E Delft in 2011 reached the overall conclusion *'… that a ban on night flights at Heathrow is likely to be beneficial to the economy as the economic costs of the ban will be outweighed by the savings made by the reduced health costs of the sleep disturbance and stress caused by the noise of the night flights'*. The vast majority of Stansted's night flights do not need to take place during the

8. (cont'd)	night and so the economic conclusion reached by CE Delft in the case of Heathrow would – we believe – be just as applicable to Stansted. There is also a social cost associated with adverse health impacts and educational impairment associated with poor quality sleep which has a further detrimental impact on the economic cost of aviation on the nation. The only passenger flights which take place at Stansted during the core night period are holiday charter flights for UK residents, flying them – in the main – to and from the beaches of Europe. There is no reason why such flights could not take place during the day, although the cost may be a little higher. However a relatively small cost saving to the holiday-maker does not seem to be a good reason to disturb the sleep of local residents and impair their work performance or their attentiveness at school – as the case may be – or, more generally, to undermine local residents' quality of life. We cannot speak for Heathrow or Gatwick but we believe that the DfT should de-designate Stansted in relation to the setting of the airport's night flying regime and that it should be for the local authority to determine this through the normal planning process, as happens at all other UK airports except London's three main airports. Stansted is a very different type of airport from Heathrow and Gatwick. It has more in common with a UK regional airport and it is located in rural surroundings where ambient noise levels are very low, especially at night. In devolving responsibility for determining the night flying arrangements at Stansted, we would expect the Government to issue guidance to local authorities to ensure that the interests of all stakeholders were taken into account and a balance struck having regard to all the relevant economic, environmental and social considerations. Finally, on the question of designation and devolution, we believe that central government (the DfT) should continue to have a role in setting down minimum environmental standards, including noise limits, for the larger UK airports (we suggest a threshold of 5 mppa[7]) as we explain more fully in our responses to questions 16 and 17 below.
9. Do you agree with the Government's overall objective on aviation noise?	In para 4.22 of the DAPF, the definition 'to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise' is a less demanding objective than that required by the EU Environmental Noise Directive ('END'). Under the EU END, Noise Action Plans ('NAPs') should have the objective of 'preventing and reducing environmental noise where necessary and particularly where exposure levels can induce harmful effects on human health and to preserving environmental noise quality where it is good'. Stansted's rural location results in very good ambient noise environment but this is being spoiled by aircraft noise and the Stansted NAP makes no real attempt to reduce local aircraft noise nuisance. There should be added safeguards introduced to protect rural areas from noise exposure but the Stansted NAP takes no account of this. The Stansted NAP is little more than a 'tick-box' exercise which describes noise control and mitigation measures already in place, including legal and planning obligations, and it contains no quantified targets for noise reduction. The absence of substantive measures to improve and protect the local noise environment in the Stansted NAP is counter to the objective set out in Article 1 of the EU END. Examples of reasonable noise reduction objectives which should have been included in the Stansted NAP are: • <u>Noise after take-off</u> – Different noise limits could be set for different types of aircraft on take-off. It would be sensible not to have a proliferation of different limits, but perhaps two or maybe three depending on the traffic mix at each airport. At Stansted the vast majority of aircraft are B737/A319 for which the departure QC is 0.5 so it should be possible to introduce two sets of three limits, one for each of the day, night and night quota periods. That is to say a lower set for aircraft of QC 0.5 and below and a higher set for aircraft of QC 1 and above. The new sets of limits could be scaled from the existing limits.

9. (cont'd)	• Gradient of climb on departure (jet aircraft) – Currently a minimum gradient of 4° is required up to 3,000 or 4,000ft. It is considered that with the ability to perform Continuous Climb Departures (CCD) and the improved climb capability of more than 5° of modern aircraft, this gradient angle should be increased. • Reverse Thrust – The only attempt to minimise the use of reverse thrust by aircraft landing at Stansted at night is the following request in the Stansted Airport Noise Abatement Procedures[12]: *'To minimize disturbance in areas adjacent to the aerodrome, commanders of aircraft are requested to avoid the use of reverse thrust after landing, consistent with the safe operation of the aircraft, from 2330 hours to 0600 hours (local time).'* This wording is not strong enough to discourage the use of reverse thrust except when safety dictates. At other European international airports, the guidance is more prohibitive, for example: ➢ Frankfurt: *'Reverse thrust may not be used on the entire runway system of Frankfurt/Main Airport except for safety reasons in unavoidable cases. This does not apply to idle reverse thrust.'* ➢ Schiphol: *'During night-time 2200-0600 (2100-0500): After landing, reverse thrust above idle shall not be used on any runway, safety permitting.'* ➢ Copenhagen: *'Use of more than idle reverse thrust is allowed only for safety reasons.'* The Stansted Airport Noise Abatement Procedures should be strengthened to state that *'reverse thrust above idle shall not be used between 2300 hours and 0700 hours except for safety reasons'.* • Noise Abatement Departure Procedures (NADP) – These are set down by ICAO in *'Procedures for Air Navigation Services – Aircraft Operations'*. There are two types of procedure, one that minimizes noise close to an airport and one that minimizes noise further away. Depending upon which type of NADP is used, there is a small difference in fuel burn and a large change in the location of noise exposure on the ground. Close to the airport, noise reduction should take precedence over any fuel burn economies which are of marginal benefit in terms of fuel savings and emissions over the total duration of the flight.
10. Do you agree that the Government should retain the 57 dB LAeq,16h contour as the average level of daytime aircraft noise marking the approximate onset of significant community annoyance?	Emphatically no. The 57 dBA Leq_{16} contour – indeed any contour based on the Leq averaging system – is not a reliable measure of the extent of noise disturbance because, relying as it does on average noise over a length of time, it is insensitive to the frequency of noise events and it understates the impact of aircraft noise intrusion on local communities – especially in rural areas where ambient noise levels are very low and consist largely of pleasant, natural sounds. The area enclosed by the 57dBA Leq_{16} contour at Stansted is limited by planning condition to 33.9 sq km but, during the Stansted 'Generation 1' public inquiry in 2007, evidence of registered complaints to Stansted's Flight Evaluation Unit showed that the area affected by aircraft noise annoyance was some 100 km (E/W) by 50 km (N/S), more than 100 times larger than the 57dBA Leq_{16} contour limit. It is not only local airport community groups, like SSE, who have little faith in the Leq_{16} system for assessing aircraft noise impacts. The Inspector at the Heathrow T5 public inquiry stated in his report:[13] • *'The survey on which the use of the LAeq 16-hour is based was carried out in 1982 and the relationship between the LAeq and community annoyance was statistically weak even at that time'* (para 21.3.32) • *'…it does seem likely that the weight attached to the 57dB LAeq by the Department* [for Transport] *as the measure of the overall noise climate is greater than the original research would support.'* (para 21.3.32); • *'…*[the LAeq 16-hour index] *was the subject of severe criticism much of which I consider to be well-founded. …I believe that it fails to give adequate weight to the number of aircraft movements'* (para 21.3.34);

10. (cont'd)	• *'Even the Department* [for Transport] *recognized the deficiencies of the LAeq system. They also accepted that it is difficult to establish the true relationship between the noise of individual events and their number and that it would have been useful if further social surveys had been carried out';* (paras 21.3.32-33); • *'If parties are to have confidence in the indices used to measure the noise climate they need to be founded on a sound basis of up-to-date research. Unfortunately the Department's own evidence suggests that this does not apply to the use of LAeq, in spite of their argument that research had guided the choice of noise indices since 1967'* (paras 21.3.35). At the very least, and as a first step towards properly tackling aircraft noise disturbance, the Government should introduce an improved measurement system for aircraft noise, such as that described in the ANASE report. Moreover the evidence gathered in the course of the ANASE study clearly showed that the DfT was not only relying upon the wrong system for measuring aircraft noise impacts but was also applying the wrong standards of what constitutes low, moderate and high levels of noise annoyance. The Leq averaging system for assessing noise disturbance, based upon dose/response surveys in the early 1980's is now wholly inadequate. It is not sufficiently sensitive to the number of noise events (flights) and takes no cognizance of background noise levels against which each noise event is heard. The DfT should take forward the work of ANASE as a priority and develop a new framework for the measurement and control of aircraft noise impacts, taking full account of the recommendations set down in the WHO *Guidelines for Community Noise*.
11. Do you think that the Government should map noise exposure around the noise designated airports to a lower level than 57 dBA? If so, which level would be appropriate?	Para 4.3.1. of the WHO '*Guidelines for Community Noise'*, states: '*to protect the majority of people from being moderately annoyed during the daytime, the sound pressure level should not exceed 50 dBA Leq… indeed the lower sound level [40 dBA Leq] should be considered the maximum sound pressure level for all new developments whenever feasible'.* The Government has previously said that it will take account of the WHO *'Guidelines for Community Noise'* as a long term (by 2030) policy goal[5] and so, if the Government insists on continuing with the Leq noise averaging system, it should map noise exposure around existing airports to 50 dBA Leq_{16} and to 40 dBA Leq_{16} for all new developments. Noise mapping is already undertaken for 24-hour Lden which provides a slightly better method than 16-hour Leq for assessing noise disturbance since it weights the sensitive evening and night periods. However both methods suffer from the same fundamental flaw, which is the averaging out of a discrete number of noisy events over time. People do not hear average noise levels of aircraft over time; they hear each aircraft noise event, its duration and its low frequency components against ambient levels. For example, school children near airports are adversely affected by what is termed 'jet pause' during aircraft flyovers. The Lden metric should replace the Leq metric and be used as an interim measure with a 55 dB Lden level being the indicative level of onset of significant annoyance. Noise maps using Lden should be produced annually to enable the local community to monitor better how the airport is performing to avoid, prevent or reduce the exposure to noise.
12. Do you agree with the proposed principles to which the Government would have regard when setting a noise envelope at any new national hub airport or any other airport development which is a nationally significant infrastructure project?	We reject this idea outright. The term 'noise envelope' is vague and whilst designed to convey the impression of containing noise impacts, it could in practice allow the number of flights to increase substantially even if there were just a slight reduction in the average noise produced per aircraft. Local communities look forward to the time when aircraft become noticeably less noisy and less frequent, such that they will suffer less sleep disturbance, less disruption to their enjoyment of their local environment and less general intrusion into their lives by overflying aircraft. It would be totally unacceptable if these benefits were to be diluted or even neutralized by an increase in the number of flights in line with the average noise reduction achieved per aircraft. As stated above, the Government's first priority in seeking to address the problem of aircraft noise disturbance should be to introduce an improved measurement system for aircraft noise, which the public could have trust in, such as that described in the ANASE report.

12. (cont'd)	The Australian N70 type metric also has merit in that it was devised to represent 'Number Above' contours, combining information on single event noise levels with aircraft movement numbers. It directly represents an assessment of the noise level of each flight and the number of flights. Other things being equal, if the number of aircraft movements over an area doubles, the N70 doubles. Contours can be drawn for lower levels such as N60 at night. But the N70 type is a useful metric as it permits measured noise levels to be very neatly summarized for any given period. This metric should be considered in addressing an improved measurement system for aircraft noise. It is closer to what people actually hear and much easier than LAeqs to explain to the general public. It is disingenuous to describe newer aircraft as being quieter. Aircraft are inherently very noisy and the best that can be achieved is to make them less noisy. A modern jet aircraft on take-off emits 140 decibels of noise and it is this high noise level together with the number of noisy events which causes annoyance. The aviation industry claim that noise impacts are reducing because aircraft are becoming less noisy ignores the fact that the increase in the number of flights far outweighs the benefit of each flight being slightly less noisy. Moreover, the improvement curve for the reduction of aircraft noise levels since the early 1960s has been flattening out and – in the absence of some new breakthrough technology – there are no grounds to expect the noise performance of aircraft to improve much further. The industry statement in the DAPF pledging *'a 50% reduction in perceived noise levels in 2020 compared to 2000'* is misleading.[14] A halving of sound pressure levels equates to a 3 decibel decrease but a reduction of 3 decibels is the minimum perceptible change under normal conditions. It takes a reduction of about 10 decibels to achieve a 50% reduction in loudness and this level of improvement in aircraft noise performance by 2020 is not remotely possible, even for new aircraft. Moreover, aircraft typically have a serviceable life of 20-25 years[15] and so the aircraft coming off the production line today will still be in service in the mid 2030s.
13. Do you agree that noise should be given particular weight when balanced against other environmental factors affecting communities living near airports?	In our overview at the start of this response we emphasised the importance of having clearly defined environmental limits. Provided the Aviation Policy Framework sets down sensible and clear limits for noise impacts, climate change impacts and local air quality impacts, the question of trade-offs should be of very little import.
14. What factors should the Government consider when deciding how to balance the benefits of respite with other environmental benefits?	We strongly welcome the Government's commitment to providing respite to those affected by aircraft noise disturbance wherever feasible (para 4.52); its strong support for work being done by the industry to explore opportunities for providing respite (para 4.53); and its encouragement to airports and airlines to work with NATS and CAA to consider creative solutions to protect and enhance respite (para 4.54). We note that London City Airport provides the following periods of respite: • Closed every night, Sunday to Friday, from 10.00pm until 6.30am the following morning; • Closed from 12.30 pm Saturday until 12.30 pm Sunday; • Closed until 9.00 am on Bank Holidays; and • Closed to all flights on Christmas Day. We accept that it would be unrealistic in the short term to expect Stansted to adopt the same operating hours as London City Airport but the Government should encourage the airport operator at Stansted to explore opportunities for introducing similar respite arrangements in the longer term, on a phased programme, in consultation with the local community and its airline customers. Closure of the airport on Christmas Day would be a welcome – and symbolic – starting point.

15. Do you agree with the Government's proposals in paragraph 4.68 on noise limits, monitoring and penalties?	Aircraft operating to/from Stansted rarely infringe the noise control limits because the current limits are set at generously high levels which can easily be achieved by modern aircraft. The limits should be significantly lowered and the penalties for breaching the limits should be substantially higher. We believe that a 10-fold increase in penalties is needed to act as a deterrent for the small number of 'rogue' aircraft which breach the limits. The fact that it is often the same aircraft which breach the limits on a regular basis demonstrates that the present level of fines is not an effective deterrent.
16. In what circumstances would it be appropriate for the Government to direct noise designated airports to establish and maintain a penalty scheme?	If the Government is serious about establishing higher environmental standards at UK airports, it would be entirely appropriate for the Government to require all UK airports above a certain size – we suggest a threshold of 5 mppa[7] – to establish and maintain an approved (by the DfT) penalty scheme for aircraft which breached airport noise control limits.
17. In what circumstances would it be appropriate for the Government to make an order requiring designated airports to maintain and operate noise monitors and produce noise measurement reports?	Again, we believe it would be entirely appropriate for the Government to require all UK airports above a threshold of 5 mppa to maintain and operate noise monitors and to produce – and publish – noise measurement reports. We suggest that airport noise measurement reports should be published quarterly and that they should be subject to independent verification/auditing by the CAA.
18. How could differential landing fees be better utilized to improve the noise environment around airports, particularly at night?	The airport charging differentials should be substantially increased so as to provide a greater incentive for less noisy aircraft and a greater disincentive for noisier aircraft. At present, Stansted Airport provides only a 10% discount on the Chapter 3 'Base' landing charge for Chapter 4 and 'Chapter 3 minus' aircraft. This should be increased to a 50% discount. For noisier aircraft, Stansted Airport applies a 50% surcharge on top of the Chapter 3 'Base' landing charge for 'Chapter 3 plus' aircraft. This should be increased to 100%. We would also like to see landing charges for helicopters being set at a level of not less than the landing charges for Chapter 3 fixed wing aircraft over 16 metric tonnes. (Our concerns regarding helicopter noise nuisance are explained more fully in our response to Q.20, below.) It is superficially tempting to suggest that airport charges should be substantially higher for night flights but this could weaken the case for tighter controls on the number of night flights and our over-riding objective is the phasing out of all night flights at Stansted over a reasonable timescale.
19. Do you think airport compensation schemes are reasonable and proportionate?	(i) <u>Unfairness of the Land Compensation Act</u> The Land Compensation Act 1973 needs to be amended because it allows airport operators to exploit the so-called 'golden rivet' loophole and thereby avoid their obligation to compensate local residents for property devaluation arising from airport development. An example of this relates to the approval, in July 1999, for Stansted to grow from 8 mppa to 15 mppa. BAA defined the physical infrastructure which would be needed for this expansion and, under the Land Compensation Act, local residents adversely affected by the airport's near doubling in scale would be eligible to apply for compensation 12 months after the final piece of the physical infrastructure, 'Taxiway Echo', was completed. Passenger throughput reached 8 mppa in 1999 and it exceeded 15 mppa in 2002 but Taxiway Echo – the 'golden rivet' – has still not been built. In fact, BAA does not envisage needing Taxiway Echo until 2019/20 and so no-one will be eligible for compensation until 2020/21 at the earliest, by which time the airport is expected to be handling 35 mppa. So, at best, Taxiway Echo will be completed – and compensation paid – 20 years later than local residents expected. Taxiway Echo may never be built and, if that is the case, compensation will never need to be paid. In compensation terms, local residents around Stansted Airport continue to live next to an airport handling less than 8 mppa.

19. (cont'd)	(ii) <u>Generalized Blight</u> It is unsatisfactory that there is no legal obligation for an airport operator to introduce a compensation scheme to deal with the generalized blight which arises as soon as there is the prospect of major expansion at the airport. In the absence of a legal requirement, an airport operator can introduce wholly inadequate arrangements and claim that he has addressed the issue, and – as we learned at Stansted in 2005 – there is no scope for the local community to mount a legal challenge to the terms of such a compensation scheme, no matter how unfair or unjust it is, because it is only a voluntary scheme. The 2003 Air Transport White Paper ('ATWP') supported a second runway at Stansted and stated – with no legal force – that the airport operator would need to put in place a scheme to address the problem of generalized blight. It was left to the airport operator to define the threshold for qualification, the basis for compensation and all the terms and conditions. The result was a wholly inadequate and unfair scheme. By setting the qualification threshold at 66dBA, fewer than 500 homeowners could qualify and they then had to demonstrate, *inter alia*, that they had marketed their property for at least three months on the open market at a realistic asking price, had not declined offers within 15% of that price and that they had a pressing reason to move. BAA would not compensate for the first 15% loss of value. All of this was against a background where it could clearly be demonstrated from Land Registry data that, in Uttlesford alone, some £700 million had been wiped off property values as a result of the threat of a second Stansted runway, affecting some 15,000 homes. Detached homes (47% of the housing stock in the affected area) had, on average, lost 17% of their value, semi-detached (31% of the housing stock) had lost 11% of their value and terraced homes (14% of the housing stock) had lost 9% of their value. Conversely, the average price of flats and maisonettes (8% of the housing stock) increased 5% in value.[16] The Government should place a legal obligation upon airport operators to introduce fair and reasonable compensation arrangements when airport expansion proposals give rise to generalized blight. The starting point for this should be for the Government to consult on the arrangements which should be put in place, the threshold for qualification, the basis for compensation and all the other terms and conditions. We look forward to contributing to such a consultation based on the very unhappy experience of homeowners in the vicinity of Stansted Airport in the aftermath of the ATWP. (iii) <u>Qualification thresholds for acoustic insulation</u> The qualification thresholds at Stansted for acoustic insulation – whereby the airport operator will meet either the full cost of secondary glazing, or half the cost of double glazed replacement windows – are (i) the daytime 66dBA Leq16 noise contour (0700 hours to 2300 hours); (ii) the night 90dBA SEL noise footprint (2300 hours to 0700 hours); and (iii) within 600 metres of sources of airport ground noise but excluding properties south of the A120 and east of the M11. For reasons we have explained earlier, the Leq noise averaging system is not a suitable basis for assessing aircraft noise nuisance, especially in rural areas, and so it should not form the basis for a qualification threshold for acoustic insulation. The Government should introduce an improved measurement system for aircraft noise such as that described in the ANASE report and this should be used as the basis for compensation schemes. As an interim measure, however, the Leq_{16} qualification threshold should be reduced from 66dBA to 55dBA, the threshold specified in the WHO '*Guidelines for Community Noise*, as marking the onset of 'serious annoyance daytime and evening'.[17] Turning to night noise, any household exposed to aircraft noise at night above threshold of 60 dB LAmax (fast) set down in the WHO *Guidelines for Community Noise* should also qualify for acoustic insulation.

19. (cont'd)	Regarding ground noise, the current qualification boundary is clearly arbitrary. We do not have any firm view on what the boundary should be, but it should be based on a proper assessment of the actual impacts of ground noise upon residents who live in close proximity to the airport, especially the impacts at night. (iv) <u>Airports' Compulsory Purchase Powers</u> The current powers given to airport operators to compulsorily purchase land should be reviewed. It cannot be right that an airport operator can compulsorily purchase farmland at its undeveloped, i.e. agricultural value, develop that land as, for example, an airport car park, a business park or a warehousing complex, and then later sell the developed site at its full, free market commercial value, making enormous windfall profits in the process. This is profoundly unfair to the original landowner and is, in effect, a hidden subsidy to the aviation industry. There is also unfairness where an airport operator retains ownership of the developed site and rents it out because he can undercut competitors with similar premises (offices, warehouses etc.) available for rent outside the airport perimeter, who did not have the benefit of being able to compulsorily purchase the land for their developments.
20. Do you agree with the approach to the management of noise from general aviation and helicopters, in particular to the use of the section 5 power?	We would advocate that all UK airports with an annual passenger throughput of 5 mppa or above should be specified by the Secretary of State under s.5 of the Civil Aviation Act 1982. This would require the CAA, in exercising its aerodrome licensing functions, *'to have regard to the need to minimize so far as reasonably practicable – (a) any adverse effects on the environment, and (b) any disturbance to the public, – from noise, vibration, atmospheric pollution or any other cause attributable to the use of aircraft for the purpose of civil aviation.'* The Secretary of State has had the statutory authority to give the CAA this environmental duty for 30 years and we are disappointed that he has not once used these powers. We believe that the CAA could make a positive contribution to improving environmental standards at UK airports and so we would very much welcome the use of s.5 of the 1982 Act as a basis for giving the CAA a greater environmental role. We have no particular points to make regarding the General Aviation ('GA') sector but do have some comments regarding helicopter noise. Stansted has a significant and growing number of helicopter operations and these give rise to localized noise nuisance in settlements close to the airport which are commonly overflown at low altitude. Civilian helicopters can now be over 2,500 horsepower and, in addition to engine and exhaust noise, helicopters produce a distinctive, low frequency blade noise. Moreover, they fly at low altitude over rural settlements close to the airport and there is confusion as to whether the '500 ft rule' or the '1000 ft rule' applies. There seems to be some reluctance on the part of both the CAA and the local airport management to be pro-active in seeking to reduce helicopter noise. Helicopter noise impacts need to be reduced and a useful starting point would be to act on the recommendations of the 2008 DEFRA study *'Research into the Improvement of the Management of Helicopter Noise'*. This study identified the need for further research on dose/response relationships to better determine annoyance to helicopter noise but as a general indication it considered that helicopters could be up to 15dBA more annoying than fixed wing aircraft.
21. What other measures might be considered that would improve the management of noise from these sources	Dealt with in response to Q.20 above.

22. Do you have any further ideas on how the Government could incentivize the aviation and aerospace sector to deliver quieter planes?	There is presently no sign of any technological breakthrough which could significant reduce the level of aircraft noise nuisance and, in view of the long lead times for aircraft/engine development and the 20-25 year life cycle of aircraft coming off the production line today, it would take a very long time for the benefits of any technological breakthrough to be realized. We believe that it would be far better for the Government to focus on improved noise control procedures rather than incentivizing the aviation and aerospace industries to deliver less noisy planes. In our responses to questions 8-20 above, we describe a wide range of noise control measures which – given the political will – could be introduced at UK airports and which would reduce aircraft noise impacts. We would therefore urge the Government to focus on tackling aircraft noise impacts at the operational level, rather than being drawn in to subsidizing industry R&D. The Government should set ambitious but achievable noise control limits for UK airports and serve notice on the industry that these will be progressively tightened over the years, underpinned by strict enforcement and effective (i.e. substantial) penalties for non compliance. That will provide a framework to encourage the industry to pay more attention to tackling its noise impacts. We also take this opportunity to remind the DfT that Stansted is the only one of the designated airports which still does not operate CDA on each runway direction.
23. Do you believe that the regime for the regulation of other local environmental impacts at airports is effective?	We believe there are significant shortcomings in the following three areas: (i) Air Quality – The DAPF states that the DfT's policy on air quality is to seek improved international standards to reduce emissions from aircraft and vehicles and to work with airports and local authorities as appropriate to improve air quality. We are not aware of any evidence to demonstrate the DfT's commitment to improving local air quality at Stansted. The DAPF points out that airport operators have no legal duties in relation to the management of air quality but asserts that '*this is not an impediment to action'* and it gives the example of the '*Heathrow Air Quality Strategy for 2011-2020'* in support of this assertion. However this is a *laissez faire* approach and it does not constitute an effective national policy for alleviating the polluting effects of airport activities on the UK's air quality. Neither is it entirely correct to say that airport operators have no legal duties in relation to the management of air quality. For example, under the Environment Acts of 1990 and 1995 business operators who, in the course of their activities create pollution or annoyance that could be defined as a statutory nuisance, can be required to remedy the situation. Local authorities have duties under the UK Air Quality Standards Regulations 2010 to monitor air quality and, if pollution is present, to draw up Action Plans (to be approved by the Secretary of State) for polluted areas, known as Air Quality Management Areas ('AQMAs'). While AQMAs may contain measures that can be locally enforced, local authorities have no powers to require an airport operator to modify its operations, vehicles or equipment, or any matters relating to aircraft movements that might help reduce airport emissions. Moreover, where there are air pollution problems in the vicinity of an airport, not only do local authorities not have the powers to deal with this, they do not have either the expertise or the other resources to apply effective air quality management policies in an airport environment. This is a very unsatisfactory state of affairs. It appears to us that there is a lack of genuine commitment to meeting the EU air quality standards and so we do not find it surprising that the UK is failing to meet the targets for particulate matter (PM_{10}) and Nitrogen Dioxide (NO_2) required under the EU Air Quality Directive (2008/50/EC). The UK has been granted an extension by the EU to meet PM_{10} targets and has applied for an extension to meet NO_2 targets since it does not expect to be able to achieve these by 2015.

23. (cont'd)	We believe that the EU statutory air quality limits would be more effective if the Government was more fully committed to achieving them, for example, by ceasing to treat NOx sampling exclusion zones as areas where the AQ standards do not need to be met, and by ceasing to keep looking for derogations and/or loopholes aimed at reducing the risk of infraction. There is also a need for greater transparency on the air quality standards that are being achieved in the vicinity of airports and so we believe there should be a requirement for airports with a throughput of 5 mppa or above to have an approved AQ policy and to publish results quarterly, which should be subject to independent monitoring and oversight by the CAA. Whilst NO_2 and particulates pose the main risk to human health, other oxides of nitrogen ('NOx') are particularly harmful to vegetation, and the EU Air Quality Directive sets critical limits which must not be exceeded. Stansted Airport is located in a rural area with an SSSI immediately to the north east (Eastend Wood) and another immediately to the south (Hatfield Forest) where NOx emissions from aircraft and vehicle traffic arising from the operations of Stansted Airport are known to cause significant damage to vegetation, including Hatfield Forest's irreplaceable ancient trees. There is a need for much closer and far more transparent monitoring by the airport of NOx levels within these SSSIs. (ii) Airport Surface Access – There is no meaningful regulation in this area. Airports are left to develop their own surface access strategies and, above all, these are focused on meeting their own commercial interests rather than on minimizing environmental impacts. An example of this at Stansted is that BAA – following a competitive tender – grants an exclusive franchise to one airport taxi operator and this results in almost a doubling of the requisite number of taxi journeys to and from the airport. Occasionally, local authorities can exert influence on an airport's surface access strategy via planning conditions but this opportunity only arises when a planning application is submitted and determined locally. We would encourage the DfT to re-visit the Integrated Transport White Paper '*A New Deal for Transport: Better for Everyone'* which set out a range of policies aimed at reducing the environmental impact of surface access travel, including travel to and from airports. Some progress has been made in implementing these policies but there is much more that could be done and we believe there is a place for regulation in order to assist in policy implementation. For example, tight limits on airport car parking – both for passengers and airport employees – would help encourage the use of public transport and reduce car journeys to/from airports. Tight limits on airport car parking could also encourage the development of distant park-and-ride facilities and, again, reduce the surface access impacts of airports. SSE has examined a range of opportunities for reducing surface access impacts at Stansted and these are set down in a 2004 (updated 2006) SSE research paper entitled *'Towards a Lo-Car Strategy for Stansted Airport'.*[18] The Government should set down a range of policies aimed at reducing and minimizing airport surface access and that these policies should, wherever practicable, be underpinned by regulation. The Government should also consider using fiscal measures as a means of contributing to the delivery of its airport surface access policy objectives. (iii) Airport Ground Noise – In our response to Q.9, above, we referred to the weak regulation of airport ground noise. We encourage the DfT to introduce more effective regulation in this area, having regard to international best practice.
24. Do you think that noise regulation should be integrated into a broader regulatory framework which tackles the local environmental impacts from airports?	Yes, and we have described, above, many of the other environmental impacts of aviation which should be included in that framework. Aviation's health impacts also need to be included in the framework and we will come to these later in this paper.

Chapter 5: Working together	
25. Do you think Airport Consultative Committees should play a stronger role and if so, how could this be achieved?	Yes, we refer you to our response to Q.41 in your Scoping Consultation last year, available at: http://www.stopstanstedexpansion.com/documents/SSE_response_to_scoping_consultation.pdf The key failing of Airport Consultative Committees (ACCs) is that they lack independence and are viewed by many local residents as simply an extension of the airport's PR department. In our view, this failing could largely be addressed by giving the CAA responsibility for appointing and remunerating the chairman of each ACC, funded by an airport levy per passenger. We estimate that the CAA would need to levy about 0.25p per passenger on average but with a de minimis figure to take account of smaller airports.
26. Is there a case for changing the list of airports currently designated to provide consultative facilities?	Unless ACCs are made genuinely independent, they will continue to be 'box ticking' institutions whose sole purpose is to fulfill a designated airport's statutory obligation to provide consultative facilities. Under the present arrangements therefore we consider it to be of little consequence whether the DfT designates every UK airport to provide consultative facilities, or designates none.
27. Do you agree that the Civil Aviation Authority should have a role in providing independent oversight of airports' noise management?	Yes, we refer you to our response to Q.53 in your Scoping Consultation last year, available at: http://www.stopstanstedexpansion.com/documents/SSE_response_to_scoping_consultation.pdf where we argued for the CAA to be given a role in providing independent oversight of airports' noise management and other airport-related environmental impacts. We explained that there was widespread mistrust amongst local communities close to airports, in relation to the fairness, objectivity and transparency of the current 'in-house' arrangements for reporting upon aircraft noise, emissions and track-keeping and for recording and handling public complaints regarding aircraft noise and other environmental impacts.
28. Do you agree with the Government's overall objective on working together?	We fully agree with the Government's overall objective of encouraging the aviation industry and local stakeholders to strengthen and streamline the way in which they work together. We also fully agree with the Government's objective of encouraging airport operators to be more transparent and open and one very tangible way of making progress in these areas would be for airport operators to be deemed to be public authorities for the purposes of the Environmental Information Regulations 1992 (pursuant to 90/313/EEC), noting that airport operators are deemed to be public authorities in relation to the compulsory purchase of land, under s.50 of the Airports Act 1986. We start from a position of scepticism that airport operators will pay much heed to the DfT's exhortations in this area. In our response to last year's Scoping Consultation we explained our experience at Stansted and included the example of the airport master plan, as follows. *'The 2003 Air Transport White Paper called upon airport operators to produce master plans 'as quickly as possible and preferably within the next 12 months'. The best that BAA managed to do at Stansted was to produce an interim master plan and that was not published until May 2006. A final master plan was supposed to follow 'within a few months' but it never did. Moreover, the Stansted interim master plan now bears no relation to reality. On the basis of our experience with BAA at Stansted, the master plan process seems to be a waste of time and money.'* There is also a need for greater transparency on the air quality standards that are being achieved in the vicinity of airports and so we believe there should be a requirement for airports with a throughput of 5 mppa or above to have an approved AQ policy and to publish quarterly results which are subject to independent monitoring and oversight by the CAA. There is also a need for greater transparency on the air quality standards that are being achieved in the vicinity of airports and so we believe there should be a requirement for airports with a throughput of 5 mppa or above to have an approved AQ policy and to publish results quarterly, which should be subject to independent monitoring and oversight by the CAA.

29. Is the high-level guidance provided in Annex E sufficient to allow airports to develop local solutions with local partners?	Guidance on the content of airport master plans and the process for developing them is meaningless when airport operators can ignore the whole idea of producing a master plan. As part of developing a sustainable framework for UK aviation, the Government needs to place a statutory duty upon airports to produce master plans to a specified level of detail and to update them at least every five years.
30. Do you agree that master plans should incorporate airport surface access strategies?	Yes, as part of the reform we propose in response to Q29 above.
31. Do you agree that, where appropriate, the periods covered by master plans and noise action plans should be aligned?	Yes, as part of the reform we propose in response to Q29 above, and we would delete the phrase *'where appropriate'* because this may provide a basis for evading responsibility.

Chapter 6: Planning – No consultation questions have been posed by DfT for this chapter but we wish to comment, as below.

The DAPF quotes from the National Planning Policy Framework ('NPPF') in this chapter, stating (para 6.6): '…*that local planning authorities should 'identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen choice.' This could apply to airport infrastructure.'* This extract from the NPPF must however be read in the context of the overriding requirement in the NPPF for sustainability and the DAPF needs to make this clear. As it stands, the DAPF makes no reference to the guiding principle of the NPPF, namely, the need to support sustainable development, and by extension to avoid development which is not sustainable. This applies to sustainable transport as much as any other form of development – as para 29 of the NPPF says: *'Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel.' The NPPF also requires that 'Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion.'* (para 30).

Para 6.7 of the DAPF also needs to be amended in order to accord with the NPPF. The NPPF (para 41) requires that sites and routes should be protected where both '*there is robust evidence'* and the sites and routes '*could be critical'*. However, the DAPF goes much further, saying that land should be protected if it '*may be required for airport development in the future'.* This is far too loosely worded because an airport operator could argue that almost any piece of land near an airport *'may be required for airport development in the future'* [our emphasis]. Much of the area around Stansted Airport has been blighted by the long-running uncertainty over the potential expansion of the airport, and the areas surrounding airports should be protected from this form of uncertainty. The DAPF states that long term uncertainty and non-statutory blight should be minimized (para E5) and the best way to do this is to keep the land safeguarded to a minimum. Para 6.9 of the DAPF also fails to reflect the sustainability requirements of the NPPF, which talks about maximizing sustainable transport modes [our emphasis].

It should therefore be a requirement for airport development proposals to demonstrate how opportunities for sustainable transport modes have been maximized, not just a requirement to increase public transport mode share, a requirement which is far less ambitious in terms of reducing the impacts of surface access road traffic upon the environment and upon local communities, and far less onerous for the developer. Para 6.9 of the DAPF must therefore be amended by the DFT so as to avoid watering down the more sustainable approach set down in the NPPF.

In relation to paragraph 6.10, the longstanding policy, as set out in the Integrated Transport White Paper (1998), is/was that the aviation industry should contribute funding for surface access improvements, taking account of the extent to which it benefits. It now seems that DfT intends to water down this principle by requiring an industry contribution only where there is a need to cope with additional passengers. Implementing the NPPF policy to encourage more sustainable modes of surface access to airports, should not be coupled with providing taxpayer funds to the aviation industry to pay for the introduction of more sustainable surface access modes. The original policy on funding airport surface access improvements should be maintained.

Health impacts – No consultation questions have been posed by DfT on health impacts but we wish to comment, as below.

The DAPF pays only scant attention to the effects of aircraft noise on health. We recommend that the final version of the aviation policy framework includes a 'Health Impacts' chapter. This may cause some duplication of material, but the health implications of continued expansion of UK aviation needs to be properly addressed. Moreover, the Department of Health should have been included in the departments listed for consultation on this document.

In 1999 EU members adopted the WHO *'Charter on Transport, Environment and Health'*[19] which requires them to *'ensure that the wellbeing of our communities is put first when preparing and making decisions regarding transport and infrastructure policies'.* In the same way that the Government respects and honours the 1944 Chicago Convention, we would expect it to respect and honour the 1999 WHO *'Charter on Transport, Environment and Health',* to which it is a signatory.

The adverse health effects of aviation fall disproportionately on those who are vulnerable, i.e. children, the elderly, those with disabilities and those who are socially excluded. The WHO Charter stresses the importance of carrying out environmental and health impact assessments (EIAs and HIAs) to ensure that noise and air quality levels are acceptable for environments such as dwellings, schools and hospitals. The need for health impacts to be assessed and taken fully into account needs to be reflected in the final version of the aviation policy framework, and HIAs, like EIAs, should be mandatory for any major airport development proposal.

It is regrettable that the Royal Commission on Environmental Pollution ('RCEP') has been disbanded. In its report on the environmental effects of civil aircraft in flight[20] it concluded that unchecked air travel would soon become a major factor in driving climate change, with serious consequences for air pollution, flooding, water scarcity and the potential for tropical diseases in temperate climates. This was a major contribution to the debate over the need to address aviation's growing climate change impacts and these RCEP conclusions – published ten years ago – still need to be taken into account. So too should the conclusions of the RCEP's 2007 report[21] which recommended that HIAs be incorporated explicitly in sustainability appraisals, strategic environmental assessments and EIAs.

Another report which the DfT should take into account when developing its aviation policy framework is the Government's 2008 White Paper, '*Health is Global': a UK Government Strategy 2008-2013'*, published by the Department of Health ('DoH'). This spelt out the principle that the Government would *'set out to do no harm and as far as was feasible would investigate the impact of our domestic and foreign policies on global health to ensure that our intention is fulfilled'*. It emphasized that global health was determined by factors which showed scant respect for national boundaries, such as international trade, climate change and pollution. Endorsed by the then Prime Minister and subsequently by the Coalition Government, this report sets out a strategy which will focus over a period of five years on improving the health of people across the world including the U.K. Clearly this has implications for aviation policy and the DfT should explain, in its final version of the aviation policy framework, the steps it is taking to ensure that the policies set down in the '*Health is Global'* White Paper are being taken forward.

The current Air Quality Strategy for the UK (2007) estimated that poor air quality reduces life expectancy in the UK by an average of 7-8 months and this takes no account of the numbers of susceptible individuals sensitive to NOx or PM_{10}/$PM_{2.5}$ who are admitted to hospital annually. Any activity liable to aggravate the situation should be required to take appropriate preventive action. The House of Commons Environmental Audit Committee ('EAC') reported on poor Air Quality in 2010[22] and found that air pollution could be contributing to as many as 50,000 deaths per year and in pollution hotspots it could be cutting the most vulnerable people's lives short by as much as 9 years. The EAC recommended that a dramatic shift in transport policy was required if air quality is to be improved.

Recent research[23] has assessed the risks associated with aircraft emissions globally, emitted in the stratosphere and eventually transmitted by air currents to ground level. It appears that these emissions are a source of particulate matter, $PM_{2.5}$ and are therefore directly associated with the increased mortality risks highlighted in a report by the DoH Committee on the Medical Effects of Air Pollutants.[24] The final version of the DfT's aviation policy framework needs to consider all of the adverse health impacts of aviation – which have national as well as international implications – and set down policies to address these.

The Government – and in particular the DfT – needs to pay far greater attention to the impact of aircraft noise on children's health and education. There is a wealth of academic evidence, independently peer reviewed, which indicates that aircraft noise disturbance gives rise to significant adverse impacts upon community health and children's education. We do not propose to go through that evidence here. A good summary of the academic evidence is provided in a literature review published by the CAA in February 2010.[25]

Finally. we recommend that the DfT reviews all of the evidence on the health impacts of aviation and takes full account of this before producing the final version of its aviation policy framework. We are of course aware that the aviation industry has sought to dismiss and/or discredit much of the academic evidence on the health and education impacts of aircraft noise. We would simply say that if the Government is in any doubt regarding the academic evidence, it should commission its own independent review of the evidence base and then act in accordance with the conclusions of that review.

References

[1] *'Air Transport White Paper Progress Report'*, DfT, December 2006, paras 2.7 and 2.8.
[2] *'Securing the future: delivering UK sustainable development strategy',* DEFRA, March 2005.
[3] *'National Planning Policy Framework'*, DCLG. March 2012.
[4] *'Scope of carbon budgets: Statutory advice on inclusion of international aviation and shipping'*, Committee on Climate Change, April 2012.
[5] *'Night Flying Restrictions at Heathrow, Gatwick and Stansted: Consultation on Restrictions to apply from 30 October 2005',* DfT, July 2004, paras 3.9 - 3.13.
[6] *'Attitudes to Noise from Aviation Sources in England'*, DfT, November 2007.
[7] Throughput of 5 mppa or above is the definition of a large airport in the Civil Aviation Bill, currently going through Parliament.
[8] *'International Aviation and Maritime Emissions in a Copenhagen (post 2012) Agreement'*, AEA/Qinetiq for DfT, September 2009 - see http://www.dft.gov.uk/publications/international-aviation-and-maritime-emissions-post-copenhagen-2012-agreement/ and '*Greenhouse gas emissions by transport mode'*, DfT, October 2011 - see http://www.dft.gov.uk/statistics/tables/env0201/.
[9] *'The Future of Air Transport'* White Paper, DfT, December 2003, para 2.6.
[10] Hansard, 4 March 2009, Col 1604W.
[11] *'Meeting the UK aviation target – options for reducing emissions to 2050'*, Committee on Climate Change, December 2009, p10.
[12] The *'Stansted Airport Noise Abatement Procedures'* are determined by the Secretary of State using his powers under s.78(1) of the Civil Aviation Act 1982. They can be found on the NATS Aeronautical Information Service ('AIS') website at http://www.ead.eurocontrol.int/eadbasic/pamslight-1A957C2FC6360821C819775FF9EF6F7E/7FE5QZZF3FXUS/EN/AIP/AD/EG_AD_2_EGSS_en_2012-05-31.pdf.
[13] *'Report of the Inspector at the Heathrow Terminal 5 Inquiry'*, December 2000.
[14] DAPF, para 4.33, quoting the strategy of the industry coalition, *Sustainable Aviation*.
[15] *'UK Air Passenger Demand and CO_2 Forecasts'*, DfT, November 2007, para 3.27.
[16] http://www.stopstanstedexpansion.com/documents/SSE11a_Proof_Economic_Impacts_(Housing).pdf.
[17] *'Guidelines for Community Noise'*, World Health Organization, 1999, Table 4.1.
[18] Available at: http://www.stopstanstedexpansion.com/documents/Stansted_Surface_Access_Strategy.doc.
[19] *'Charter on Transport, Environment and Health'*, World Health Organization, June 1999.
[20] *'The Environmental Effects of Civil Aircraft in Flight'*, Royal Commission on Environmental Pollution, November 2002.
[21] *'The Urban Environment'*, Royal Commission on Environmental Pollution, March 2007.
[22] Environmental Audit Committee, Fifth Report 2009/10, 'Air Quality', March 2010.
[23] *'Global Mortality Attributable to Aircraft Cruise Emissions'*, Steven R. H. Barrett, Rex E. Britter and Ian A. Waitz, Environ. Sci. Technol., 2010, 44 (19), pp 7736–7742, September 2010.
[24] *'Cardiovascular Disease and Air Pollution'*, Committee on the Medical Effects of Air Pollutants, Department of Health, February 2006.
[25] *'Aircraft Noise and Children's Learning'*, CAA ERCD Report 0908, February 2010.