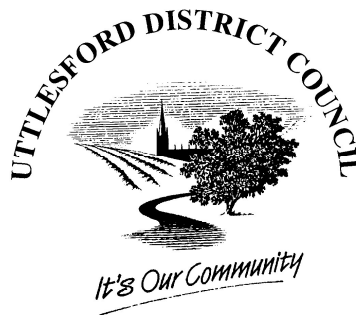


AIRPORTS COMMISSION

**DISCUSSION PAPER 03:
AVIATION AND CLIMATE CHANGE**

RESPONSE BY UTTLESFORD DISTRICT COUNCIL

MAY 2013



INTRODUCTION

1. This is Uttlesford District Council's response to the Aviation Commission's Discussion Paper 03: Aviation and Climate Change. The District Council is the local planning authority for Stansted Airport. The Commission will be aware that the airport has planning permission to expand to 35 million passengers per annum (mppa). Current throughput is about 17.5mppa, having declined from just under 24mppa in 2008. Stansted has just been sold to the Manchester Airports Group (M.A.G), which has given an initial indication of wanting to grow the airport by about 5mppa to 22.5mppa by 2018. Stansted Airport has sufficient unused capacity through to 2030 and beyond.
2. Expansion of Stansted Airport has been a key issue of local concern for many years. Most recently, a suite of planning applications for the construction of a second runway and associated infrastructure (known as Generation 2) was submitted in 2008 to enable 68mppa to be reached by 2030. These applications were withdrawn in 2010 following the Coalition Government indicating that it did not support the then current aviation policy set out in the 2003 Air Transport White Paper.
3. In preparing this response, the Council has borne in mind the questions set out in Paragraph 7.2 of the Conclusions section of the discussion paper.

THE COUNCIL'S RESPONSE

Credibility of the forecasts

4. Figure 4.2 of the discussion paper shows the forecast range of UK aviation CO₂ emissions from the present day to 2050. The range is lower than that based on the August 2011 forecasts, reflecting the downgrading of the DfT's earlier forecasts and up-to-date emissions data. The CO₂ emissions forecast range widens with time to take account of increased levels of uncertainty, which is what you would expect and which is consistent with all modelling.
5. The DfT forecasts do not project high-end Air Transport Movements (ATMs) after 2043 because capacity constraints in the SE would produce a misleading pattern of traffic. From 2044-2050 high-end ATMs are therefore frozen at 2043 levels, but with the assumption that CO₂ emissions would fall due to fuel efficiency gains and fleet turnover. This has to make the high-end forecasts a little less credible in the longer term. The central forecast, which is probably more credible, shows emissions continuing to rise to 2050, albeit at a slow rate.
6. The forecasts are subject to the vagaries of the continuing economic downturn and the need to project over 30 years into the future. Table 4.1 (which is sourced from the DfT's 2013 UK aviation forecasts)

shows low-end emissions in 2050 to be 34.7MtCO₂ with high-end emissions at 52.1MtCO₂, representing a 50% variation. This is a considerable variation within which to estimate the likely scenario.

The provision of additional capacity

7. Whether additional capacity should be provided depends on one's viewpoint, and a future Government will no doubt have a difficult decision to make at some point. Historically, Governments have favoured airport expansion, believing that the economic benefits outweigh the environmental disbenefits. There is also an argument that limiting UK emissions by curtailing growth might be counter-productive as this could merely result in leakage. The Commission will need to ensure that it models emissions leakage effects as accurately as it can when looking at a range of growth (or no growth) scenarios.
8. The other issue is whether additional capacity can be provided with the UK continuing to meet its emissions targets. It is interesting to look at what was said by representatives from the environmental lobby at the Westminster Energy Environment & Transport Forum on 31st January 2013, which focussed on a 3rd runway at Heathrow. Within the context of what the Committee on Climate Change has been advising, it was acknowledged by the environmental lobby that the number of flights could increase by 55% from 2005 to 2050 with the UK staying within its targets, but:
 - i) constructing a third runway at Heathrow (as now being recommended by the House of Commons Transport Committee – HoCTC) would probably rule out any expansion elsewhere, and there might need to be some retrospective capping at other airports,
 - ii) the power sector would need to fully decarbonise by 2030, with the successful introduction of carbon capture and storage at power stations and with no development of shale gas.
9. If these arguments are accepted, there must be some doubts about the ability of one industry sector to fully decarbonise. For instance the Department for Energy and Climate Change admits that, whilst the techniques behind carbon capture, transport and storage are not new, there are no projects that use all three together at the commercial scale required to serve a power station.
10. Sustainable Aviation (SA) published its CO₂ Road-Map in 2012. Through internationally focussed efforts around fuel-burn reductions and the use of sustainable fuels, SA concludes that UK aviation can grow significantly to 2050 without a substantial increase in absolute CO₂ emissions. SA also believes that net CO₂ emissions in 2050 can be reduced to 50% of 2005 levels through internationally agreed carbon trading. SA does not support unilateral UK targets and measures (mainly for market distortion / leakage reasons), but there

must be questions over the extent to which international agreements are likely.

11. The discussion paper deals with biofuels, but rightly questions their sustainability on the basis of the feedstock used to grow them. There will be tensions between growing crops for biofuels and growing crops to feed the world's increasing population, especially as land is a finite source. Also, of course, aviation will have to compete with other demands for sustainable fuels which may not be able to be met in their totality.

12. The Commission will have received the London Assembly's "Airport Capacity in London" submission which says, on Page 16:

"To provide for any growth in aviation without adverse environmental effects, the Airports Commission may be required to make a "leap of faith" regarding the decarbonisation of the UK economy by 2050".

The Council agrees that leaps of faith may be necessary based on uncertainty over international agreements being reached to limit CO₂ emissions.

13. In the new Aviation Policy Framework the Government also favours action at a global level, with action within Europe the next best option as a stepping stone towards international agreement. The Government also says that it will take action at a national level where appropriate, but acknowledges the risk of market distortion. The HoCTC appears to echo these views.

14. The London airports operate in one of the most crowded areas of airspace in the world. At peak times stacking patterns operate to regulate arrivals, and aircraft are held either at their stand prior to taxi or at runway thresholds to regulate departures. Both of these are inefficient operations that not only increase emissions, but also increase noise for residents. The discussion paper refers to the NATS target of reducing air traffic movement CO₂ emissions in its airspace by an average of 10% per flight by 2020 by modernising the airspace around London and other major cities. This is a challenging, but worthwhile target.

15. In the Council's view, operational efficiencies are one of the most effective short term ways of reducing emissions, and these efficiencies must be compatible with the outcomes of the Commission's work. The Council notes that the HoCTC has recommended that NATS carry out modelling work to identify the extent to which stacking might be reduced if an additional runway is built at Heathrow.

16. Airspace modernisation requires a balance to be struck between control of aircraft noise and control of emissions. The Council is firmly of the view that limiting noise in the interests of local residents should

be paramount when looking at departure and arrival procedures at levels below 5,000ft.

Non-CO₂ emissions

17. There is much uncertainty about the magnitude of the non-CO₂ effects, both individually and collectively. As the discussion paper points out, a further complication is that some effects are global and long-lived (e.g. CO₂), whilst others are more localised and short-lived (e.g. contrails). Where most of the non-CO₂ effects (warming or cooling) are related directly to fuel burn, as is CO₂, the Commission could merely assume that measures to reduce overall fuel burn would be beneficial. It is unlikely that the science behind the understanding of the effect of the non-CO₂ emissions will change much during the Commission's lifetime.

Main climate risks and adaptation challenges

18. Paragraph 6.6 of the discussion paper sets out the most obvious ones. It is essential that the Commission considers the issue of resilience of the network when making its recommendations.

CONCLUSIONS

19. Reconciling growth in aviation with the control of emissions is not an exact science, and will require assumptions to be made, especially about the ability of society in general to decarbonise. The main problem is that the measures that would appear to be the most effective on a global basis (i.e. international agreements) would also appear to be the least likely to achieve because of international politics.
20. As the Commission takes its work forward, the best chance to achieve effective emission controls might therefore be to work closely with NATS to ensure that any additional capacity provided is not only compatible with airspace modernisation, but also facilitates it and provides resilience against shocks caused by extreme weather.