JITI Seminar on CO_2 Emissions Reduction from Aircraft

October 9, Fairmont Hotel, Washington

Thank you for the invitation. Good to be back in Washington; and very good to be having a seminar on this important topic. It is heartening to hear the issue debated on this side of the Atlantic.

The aim of this talk is first to give a European perspective on the issues; to offer a view on how the science is seen in Europe; then to explain how public and political concern about CO_2 emissions can have an impact on the provision of aviation infrastructure; to review where we stand in the treatment of these issues on the global stage; and finally to offer some thoughts on the way forward. I hope that the last part in particular might provide our panel with some food for thought.

I first came to work in this city over 20 years ago as Transport Secretary in the British Embassy. Most of my time was given over to air service negotiations, the Airbus/Boeing funding dispute and shipping competition issues. Some are pretty live today. I also recall attending a conference on airport noise issues in Minneapolis. That was the big environmental issue at the time and until relatively recently, the aviation environment debate has focused almost entirely on local impacts. Noise and air quality were the issues of most concern to the public, to Governments and to ICAO. Of course they remain issues of great concern; that concern remains particularly acute for people living near airports or beneath flight paths. We have just seen a real controversy in the UK over the leaking of unfinished research into public attitudes to aircraft noise. This has been read as suggesting that people are much less tolerant of noise than they were; something that will doubtless affect their attitudes towards airport growth.

But – in Europe at least - for the vast majority of people, that is to say those who are not directly affected by aviation, it is aviation's greenhouse gas emissions that are now of greater concern. That was certainly not something that Washington worried about much in the late 80s. As a result of this new public concern, the debate about aviation's environmental impacts is gradually coming to be dominated by the global problem of climate change. Hence the importance of this event.

I accept that public concern is strongest in Europe. Anti-aviation sentiments have been building for several years. This summer saw around 1000 protestors at the week-long Heathrow Climate Camp. As part of that protest, several people superglued their hands to the front doors of the UK Department for Transport. I don't think that it was because they could not bear to be parted from me!

Whilst such strongly held opposition to aviation seems at present mainly confined to Europe, aviation emissions are slowly but surely creeping up the agenda elsewhere in the world.

In May this year, the Australia Institute called for a climate change levy of $30 to be added to flights and recommended that carbon dioxide emissions from the aviation industry should be included in any national emissions trading scheme[1].

And in July, the Australian think tank the Hodgkinson Group concluded that airlines should "*seriously consider supporting mandatory participation in an emissions offset market*" [2] because they have been slow to act on climate change.

Here in the US too, there are signs that aviation is beginning to come under the spotlight.

[1] http://www.tai.org.au/documents/downloads/DP94.pdf
[2] http://www.hodgkinsongroup.com/publications/documents/Hodgkinson.airline.emissions.pdf

The US Climate Action Partnership, an industry-NGO partnership which includes such corporate giants as General Electric, General Motors and Rio Tinto, has called for:

"*Mandatory approaches to reduce greenhouse gas emissions from the major emitting sectors including emissions from large stationary sources, transportation, and energy use in commercial and residential buildings* "[3];

Representative Ed Markey - Chairman of the House Select Committee on Global Warming and Energy Independence - wrote to the FAA in August about the issue. In his letter, he noted that

"*the aviation industry's contribution to the problem of global warming has grown as on-ground and in-air operations expand. While emissions from aviation currently account for only three percent of…greenhouse gases…that percentage is expected to rise significantly as a result of a projected three-fold increase in aviation over the next 20 years.*"

These may be only small, initial signs of interest, but they are reminiscent of the early stages of the climate change movement. That too had its epicenter in Europe, but in the past five years, it has spread rapidly around the world. As Marion Blakey, then FAA Administrator admitted last May:

"*[The] shift in the European view toward aviation happened virtually overnight; we should not be so foolish as to presume that it can't happen here.*" Indeed; and not just in the USA.

Some in the industry protest that the public outcry is disproportionate - after all, aviation is only some 2% of total global CO_2 emissions. But this misses the point. The reason for this outcry is not so much the current level of aviation

[3] http://www.us-cap.org/USCAPCallForAction.pdf

emissions, but the projections of future emissions. The trend at a global level is unremittingly upwards. In addition - and despite the fine efforts of the industry - transporting large numbers of people over large distances by air remains a carbon intensive business

There is no disagreement that emissions growth will continue to outstrip efficiency gains for the foreseeable future - IATA have stated plainly that "aviation's carbon foot print is growing."

The Intergovernmental Panel on Climate Change (IPCC) made the point clearly in their 4th Assessment Report when they said that, without policy intervention, projected annual improvements in aircraft fuel efficiency of the order of 1-2%, will be surpassed by annual traffic growth of around 5% each year, leading to an annual increase of CO_2 emissions of 3-4% per year.

And not only are emissions from air travel increasing significantly in absolute terms but, against a background of emissions reductions from many other sources, their relative rate of increase is even greater. This is certainly the case for the UK. Put another way, if emissions from other sources reduce as believed necessary, and aviation grows as projected, then by 2050 aviation will be one of the major sources of anthropogenic climate change.

In addition, there is growing public awareness of aviation's non-CO_2 impacts. Although considerable uncertainty remains over the effects of aviation's emissions, there is no doubt that these effects exist. Current estimates of aviation's total global warming impact range up to four times that of CO_2 alone.

While that possibility remains, those charts of aviation emissions growth will look even more worrying to people than they do already.

So my reluctant conclusion is that public perception is shifting – in some places, has shifted - against aviation and it will take more than a reiteration of the facts to change that.

But the UK is not anti-aviation. Quite the opposite - we are strongly in favour of growth and the economic benefits this can bring. Which is why we support the further development of Heathrow – certainly our most congested and controversial site for expansion - by adding a third runway and by making better use of the existing runways.

But we also absolutely accept that any growth must be sustainable, which is why development at Heathrow is subject to strict conditions on air quality and noise, and improving public transport access.

Of course, those conditions are not enough for many people - such as the Climate Camp protestors. Although they don't put it in quite these terms, they see a supply-side solution: don't supply any ground capacity and there's your solution. We might expect the idea to feature strongly in the thousands of responses we will receive to our public consultation on the expansion of Heathrow. And, of course, in a democratic society like the UK, we will have to analyse all the comments we receive and weigh the arguments carefully.

But that was not the approach of Europe to last month's ICAO Assembly. The Climate Change strategy that Europe put forward last month was based on a comprehensive approach. So it won't surprise you that the UK and Europe generally found the outcome disappointing. We consider it a missed opportunity. The aviation sector could have used the Assembly to regain the initiative in this area and perhaps contain the spread of anti-aviation feeling.

The difficult area for debate centred on the use of market-based measures to help tackle aviation’s emissions and, most particularly, on the conditions under which foreign operators might be included in emissions trading schemes.

Europe did not want to have to enter a reservation in this area - we remain committed to going forward with a comprehensive approach to reducing aviation emissions and to contributing effectively to the international response to addressing climate change more broadly.

We remain convinced, too, that the inclusion of aviation in the EU ETS – and within that, the participation of non-EU airlines - can be achieved in a way that is compatible with our member states' international obligations and in particular the key principles of sovereignty and non-discrimination. We were hopeful of a compromise that would have maintained consensus and demonstrated ICAO's willingness to take the measures necessary to meet the challenge of climate change. But we do not agree that "mutual agreement" is necessary – and fear it might be a tool that could be used forever to put off necessary action.

All that said, there are of course many points on which we still agree - mutually, of course! We all recognise that what we need is a toolkit to tackle the issues, and we agree that this must include three things:

- research and development into improved aircraft technologies, to build on what the industry has already achieved and to push this even further in order to achieve a step-change in performance;
- focused operational improvements to ensure that we squeeze out the maximum efficiency from the system and that this is delivering real, measurable emissions reductions; and, yes
- market based measures, recognising that market incentives are a powerful lever to improve efficiency, but that efficiency improvements can take us only so far. Emissions trading seem to us to be the best option available – it recognises the cost of abatement in aviation and provides a mechanism whereby the industry can grow while making emissions cuts in sectors where this is cheaper.

ICAO’s high level Group on Aviation and Climate Change stems from an idea that Europe put forward and it offers a process where we can all come together to find a way forward. It is crucially important that we all approach this positively and realistically.

The Group's agenda has a lot to offer:

- It will treat all countries on an equal footing, maintaining a crucial ICAO principle;
- It will develop an aggressive programme of action to address aviation emissions ;
- It will identify a comprehensive toolkit of measures for states to use;
- It will identify metrics for measuring progress in achieving ICAO's environmental goal;
- It will identify fuel efficiency goals to drive technology forward;
- And it will provide a "state of the industry" report to the world at large about the progress made.

These are important pieces of work that we will - all of us - need to engage with strongly in order to achieve the best outcome for the industry. I will certainly be urging Europe to participate at a senior level; and to do so with commitment and having reflected on the outcome of the Assembly.

But I would like even now to set out some elements that will be needed if, at the end of the process, we are to end up with a success, rather than another failure.

I’ll start in Europe. I accept that Europe has some thinking to do. We need to make a better and more convincing case for using an emissions trading scheme in this sector; and we should be open to a worldwide scheme of some sorts, if we can make it compatible with the EU scheme. And we have to put flesh on the bones of our ideas of "equivalence", whereby countries or regions with their own emission containment programmes might have these rated as equivalent to participation in the ETS; and the exemptions that we are

willing to bring forward for "de minimis" or marginal operators within the scheme. And we have, of course, to satisfy our own populations that the resultant scheme will still deliver significant reductions in potential emissions.

A second essential element in success will be a genuinely ambitious outcome, in terms of agreement on where we are going, what I called in Montreal the “level of our collective ambition”. The industry has already set an example here. IATA has some important goals for reducing the energy intensity of their members’ operations. And the ACARE group in Europe also has some challenging goals. My own view is that, without some significant move in this area, the opponents of aviation growth will remain unpersuaded by any ICAO programme.

My third challenge is that the ICAO outcome should be genuinely comprehensive. That means there should be a full toolbox that includes better R+D, better operations, better air traffic management and properly thought through market-based-measures. Without the last element, the chances of seeing growth in the industry coupled with sustainable emission levels across the world economy must be substantially reduced.

And finally, I think that the ICAO High Level Group should produce an action plan that all states can implement in their own way. I see that this is an unusual area for ICAO, where the importance of common rules comes up against the Kyoto doctrine of “common but differentiated responsibilities”. It will be important to find a way to bridge this gap if the action plan is to proceed with a real chance of success. After all, some of the big developing countries are now major aviation players, but so, too, are a number of small counties, particularly in the Gulf. All these major players have a part to play.

We still have a chance - working together - to show that aviation can take a lead in tackling climate change. But it requires vision and an understanding of the pressures in the real world. The answer does not lie in half-hearted action which recognises - but does not fully address - the scale of the practical, political and presentational challenges. This is not the time to lack ambition or to be over cautious. For it is time that will tell if we meet the challenges that we face.

Thank you.