

Climate Change and Aviation

Speech by Mrs Margot Wallström
European Commissioner for the Environment

BAA Climate Change and Aviation
Conference

London, 13 October 2003

Check against delivery!

Mr Chairman,
Minister,
Ladies and Gentlemen,

There can be no doubt that **climate change is one of the main challenges** to sustainable development. Looking back over the last few months we have all experienced what a changing climate may mean. In Europe we saw some of the highest temperatures ever measured. In Italy, the drought forced choices to be made between keeping power stations going and irrigating the fields. Last May, 562 tornados hit the United States, the highest number of tornados in any month so far. They resulted in 42 deaths. Temperatures in some Indian states reached 45 – 49 degrees centigrade killing several hundreds of people. The poorer countries will suffer most from climate change and are least able to adapt.

In a nutshell, we should not dismiss what science is telling us and we cannot ignore the writing on the wall. **The science is clear enough for us to act.**

It is therefore **encouraging that BAA has taken the initiative** for this seminar and I am pleased that I can be with you today.

I am pleased in particular that we share the analysis that climate change is a critical issue for mankind and that the aviation industry has to be part of the solution. This is what citizens expect.

You have asked me very specifically to set out my views on the right instruments to apply in the aviation sector when it comes to climate change. Before I do so, let me remind you first of aviation's contribution to climate change, and secondly of the framework in which we are operating.

Aviation's contribution to climate change

You know that aviation contributes in a variety of ways and significantly to climate change. It is responsible for emissions of carbon dioxide and nitrogen oxides, and for the formation of condensation trails and cirrus clouds. Taken together, these **effects are estimated to contribute around 3½ per cent of human-induced global warming**. This is roughly twice the UK's overall contribution to climate change.

There is one particularity in aviation's impact on the global climate. While carbon dioxide is the most important greenhouse gas globally speaking, this is not the case for aviation. The overall radiative forcing of aviation has been estimated to be 2 to 4 times larger than that of the CO₂ emissions alone. It is not only linked to the amount of fuel burnt. If our policy is to be credible it has to take these other effects into account.

What is more of course is the **predicted increase in emissions in the coming decades**. Aviation has gone through a crisis in the wake of the 11 September attacks and this year of SARS, and as a result of the general economic slowdown. But for a long time before the aviation industry has seen a strong growth. In the 1990s, intra-EU passenger traffic grew by 6 per cent on average per year. It is safe to assume a general long-term growth trend in air transport, temporary set-backs notwithstanding. This is associated with a growth in emissions. It is these effects of aviation growth that are worrying. They also mean that the **relative**

importance of aviation as a source of climate change is on the increase in the medium to longer term.

Therefore, tackling aviation emissions is a task in any strategy to address climate change.

Let us also not forget the **other environmental impacts of aviation** in terms of local air pollution and noise. They are of even more direct concern to many citizens around airports than climate change. These impacts are likely to get worse as a consequence of aviation growth.

Political framework

Just a few words on the political framework.

Aviation is of course an eminently international business. The role of the International Civil Aviation Organisation (ICAO) is therefore important and the EU has worked through ICAO for many years. ICAO has been invited under the Kyoto Protocol to address climate change.

I cannot hide my **disappointment however with the slow progress that has been made within ICAO on climate change**. This is hardly a surprise given the widely divergent interests within this organisation.

But we cannot wait forever. **The EU's 6th Environmental Action Programme foresees that the Community should act if ICAO doesn't do so in time**. It requires the Community to identify and undertake "specific actions to reduce greenhouse gas emissions from aviation if no such action is agreed within the International Civil Aviation Organisation by 2002." The 6th Action Programme was agreed by the Council and the European Parliament in 2002 and it is legally binding on the Community.

Against this background, this seminar and the recognition that we have to consider European solutions is timely and welcome.

Considering the instruments

Let me now turn to the core of today's debate, and that is the discussion on the right instrument to involve aviation in our efforts to combat climate change.

We have heard the case being made for emissions trading applied to aviation. Before I address this option, I want to talk about two other options – kerosene taxation and environmental charges.

The **exemption of aviation from excise duties on fuel** is a special treatment that is very difficult to defend. This has been a long-standing Commission position. **Exemptions of kerosene from mineral oil taxation should therefore be ended**. This spring, the Commission and a large majority of Member States, including the UK, agreed that as a matter of principle, and in the interest of a consistent tax system, commercial aviation fuel should be taxed on the same basis as any other fuel. The new Community Directive on energy taxation makes a first step in this direction. It allows Member States to tax kerosene on domestic flights and – on the basis of bilateral agreements – intra-EU flights. In order to ensure a level

playing field, ending legal limitations to kerosene taxation in bilateral air service agreements is important.

In addition, the Commission is currently considering the results of a study on *en route charges* that could form the basis for a Commission proposal. The advantage of such a charge is that it can be targeted at all the climate impacts of aviation, and not only CO₂, and that it could apply to both Community and third-country airlines and thereby avoid a distortion of competition.

En route charges are an attractive instrument also because they appear realistic for the short and medium term. Any alternative to *en route* charges would have to demonstrate its advantages in terms of environmental effectiveness, economic efficiency and political and practical feasibility.

Emissions trading in aviation

Emissions trading is the third instrument. It is an instrument that combines environmental effectiveness and economic efficiency. It is also an instrument though that requires a **firm framework to ensure its environmental integrity and the confidence of all market participants**.

Our reference point in thinking about emissions trading is the new Community emissions trading system. The legislative framework for this scheme was adopted by the Council and the European Parliament in July and is now being implemented by the Member States. Trading in the EU will start in 2005. In July the Commission presented a further proposal that would allow emission credits from projects under the so-called 'Kyoto project mechanisms' to be converted into allowances under the EU emissions trading scheme.

Let me highlight some of the **key features of the Community emissions trading system**, before I turn to aviation more specifically.

First, the EU system is a **mandatory** one based on a Community directive. It covers all the installations – more than 10,000 across the EU – in the main emitting sectors. Member States may exempt installations until the end of 2007 subject to strict conditions and approval by the Commission to protect fair competition in the internal market. The system covers CO₂ from stationary sources and from 2008 other greenhouse gases may be included, again subject to approval by the Commission.

Secondly, our scheme is a **“cap-and-trade” system**. This means that the Member States allocate a number of allowances to each installation and each installation has to render a sufficient number of allowances to cover its emissions for the previous year. The total number of allowances in the market is therefore fixed which ensures a pre-determined environmental outcome of the system. Allowances are initially allocated free of charge, but Member States may auction a certain percentage of allowances.

Thirdly, a **strong framework is established for the monitoring and verification of emissions and for ensuring compliance**. Penalties have to be paid by installations that do not have sufficient allowances to cover their emissions at the end of the period.

The advantages of emissions trading are obvious. Emission cuts will be made where they are cheapest because emission rights can be traded. Emissions trading is the **market instrument par excellence and it will reduce the costs of meeting our Kyoto targets**. It is therefore one of the cornerstones of our climate change strategy.

Should emissions trading be applied to aviation? And, if yes, how to do this?

I believe that this possibility merits serious consideration. Clearly, **a number of issues would have to be satisfactorily addressed**. Some of them are also relevant in the case of environmental charges.

Our starting point when thinking about emissions trading will always be a **mandatory cap-and-trade approach**. It ensures the environmental benefit of any system. The risk of voluntary emissions trading is that only those will join who have emission credits to sell – but a market needs buyers as well as sellers. A cap-and-trade system also implies that market participants take full responsibility for the totality of their emissions. Only this ensures the full internalisation of the external costs.

In this respect it is important to take into account the special conditions in aviation where CO₂ only accounts for part of the total climate change impact. If the **non-greenhouse-gas-related factors are to be included under the emissions trading system**, as they should be, they would probably have to be converted into CO₂-equivalence units. Science may not provide us with a single conversion factor, but a decision ought to be possible based on the best evidence and a conservative approach.

A question to be answered early on is **who would be made responsible** under an emissions trading scheme. The airlines are the most obvious candidate and would have to cover the climate impact of their aircraft by emission allowances.

Finally, a difficult hurdle is that **aviation's climate change impact is not yet allocated to Parties to the Kyoto Protocol**. Because of this, aviation would have to be treated differently to other sectors if it were to be included in the EU emissions trading scheme. Alternatively, an entirely separate EU scheme for aviation would have to be set up.

These are some of the questions to be taken up. However, I do not want to close the door on this issue. **We intend to study these questions further and come to a decision soon on how to move forward**. The emissions trading Directive in any case commits us to consider extending the EU emissions trading scheme and the transport sector is mentioned specifically.

At the same time, kerosene taxation and environmental charges should be pursued and discussion about emissions trading should not delay this work.

Concluding remarks

Ladies and gentlemen,

We cannot wait much longer for progress at the international level in tackling the climate impact of aviation. While we want ICAO to take up its responsibility on climate change **what we cannot afford is further delays. The EU may have to move first**. By moving first we may also be able to show the way for other parts of the world.

In moving forward, **we want to work with the industry** and in particular the airlines that would be directly concerned by the different instruments under discussion.

Climate change does not allow us to wait. We are the first generation taking steps to combat climate change and we may be the last generation to escape the full brunt of its impact. We owe it to our children to be creative in developing solutions and then moving from words to deeds.

Thank you.

Defensive points

Why not cover aviation just in respect of emissions of carbon dioxide?

Aviation is unusual because on top of its emissions of carbon dioxide it is closely linked to other substantial climate change impacts. As a result, the total climate change effect is 2 to 4 times greater than from the carbon dioxide alone.

The environmental integrity of the EU emissions trading scheme would be undermined if the climate change impact of aviation could increase in return for a smaller reduction in the contribution to climate change from ground-based sources. The market would be skewed, and we would not effectively be addressing climate change.

Where activities are included in the EU emissions trading scheme for carbon dioxide, the full climate change impact of that activity is covered. When other greenhouse gases are included, the full climate change impact of the activities producing those gases will be covered – for example, methane is more than 20 times more damaging than carbon dioxide, and would be included on this basis. A conservative approach must be taken with uncertainties, so that the EU emissions trading scheme is not undermined.

Why not use emissions trading for some impacts and a charge for others?

The Commission is considering using charges in respect of the whole climate change impact of aviation. As a general principle we should try not to put different instruments on top of each other for the same environmental harm.

What about airports joining the EU emissions trading scheme?

Member States can include airports in the EU emissions trading scheme as from 2008, subject to the adoption of EU-wide monitoring and reporting guidelines. However, as the Directive applies to direct emissions from stationary installations (not electricity use, which is covered at the power-plant level), it's not clear what extra emissions could be covered.

US not ratifying the Kyoto Protocol

The non-participation of the United States of course remains a problem – first and foremost because it reduces the environmental effectiveness of the Kyoto Protocol. The EU will keep reminding the US that as the biggest emitter of greenhouse gases it cannot shun its global responsibility forever.

Russia/ Entry into force of the Kyoto Protocol

I believe that Russia will do the right thing and ratify the Kyoto Protocol – because it is in Russia's interest to do so. As a Party to the Kyoto Protocol – and only then - Russia will gain economically from international emissions trading and projects leading to the transfer of advanced technology. Already a JI project is being prepared, for example, that would reduce leaks from Russian gas pipelines, with economic and environmental benefits. These benefits will only materialise if Russia ratifies. Russia also knows that the Kyoto Protocol has become part of our broader common political agenda. The EU - and the international community as a

whole - expects Russia to honour the commitment it made at the World Summit in Johannesburg last summer and ratify.

Legal barriers to aviation fuel taxation

The 1944 Chicago Convention does not prohibit taxation of fuel loaded on board an aircraft. Article 24 (a) of the Chicago Convention states that “...*Fuel [...] on board an aircraft of a contracting State, on arrival in the territory of another contracting State and retained on board on leaving the territory of that State shall be exempt from customs duty, inspection fees or similar national or local duties and charges.*”, and therefore prohibits taxation of fuel already on board an aircraft arriving from another contracting State. This prohibition does not apply to the taxation of aviation fuel loaded on board an aircraft in the EU.

However, many bilateral air service agreements also exempt kerosene taken on board from taxation.

What about a voluntary agreement?

The Commission supports voluntary agreements and commitments by sectors and industries to improve the environmental performance of their activities, but in its 2000 Communication on Community objectives for the 33rd ICAO Assembly in the field of environmental protection (COM(2000)821), the Commission acknowledged that this “...could not alone achieve an ambitious emission reduction target...” and “...would have to be used in conjunction with other mechanisms...”.

Next steps?

We will intensify our work on the possibility of applying emissions trading to aviation. We want to move forward in this field now.