# Annex B - Emissions trading

1. The Government is committed to taking action to reduce the impact of aviation emissions on climate change. It considers the best means of achieving this is to work with the European Commission and other Member States over the next two years. The aim is to resolve any outstanding difficulties during the UK Presidency in 2005 so that aviation can be included in the EU Emissions Trading Scheme, with effect from 2008.

## What is emissions trading?

2. Emissions trading is emerging as a key instrument in the drive to reduce greenhouse gas emissions. In essence, it is a mechanism by which those responsible for emissions are required to keep within specified limits by reducing their own emissions and/or by buying additional 'allowances' from other parties with lower emissions. A limit is set by way of an overall cap on emissions of all participating industries. This is then divided into allowances for each industry, each allowance representing a tonne of $CO_2$, or emissions of other gases equivalent to a tonne of $CO_2$ in terms of the global warming they cause. At the end of a pre-determined period for compliance, participants must hold sufficient allowances to account for all their emissions.

3. The rationale behind such an approach is to ensure that the emissions reductions required to achieve a particular environmental outcome take place in as cost-effective a manner as possible. Those participants for whom the cost of reducing emissions (abatement) is above the market price of allowances are likely to opt to live within their allowance by, at least in part, buying allowances from other participants. Participants with abatement costs below the market price are likely to make emissions reductions beyond the level of their allowance and benefit from selling on any surplus allowances or saving it for use in later years.

4. The advantage of emissions trading is that it guarantees the desired environmental outcome in a way that other instruments, such as charges, do not. Companies have the flexibility to meet emissions reduction targets according to their own strategy, by reducing emissions or by buying allowances from the market. The environmental outcome is still achieved, since it is determined by the overall cap on emissions which sets the limit on the number of allowances which are allocated. In this way, emissions trading combines environmental effectiveness with economic efficiency.

# The EU Emissions Trading Scheme

5. In October 2001 the European Commission proposed the establishment of an EU Emissions Trading Scheme (ETS) as one of the policies being introduced across Europe to tackle emissions of carbon dioxide and other greenhouse gases and combat the serious threat of climate change.

6. The EU Emissions Trading Scheme, which will initially only cover emissions of $CO_2$, will commence on 1st January 2005. The first phase runs from 2005-2007 and the second phase will run from 2008-2012 to coincide with the first Kyoto Commitment Period. [1]

7. When it comes into force, the EU Emissions Trading Scheme will cover installations over a certain size in a range of industrial sectors, set out in the annex to the EU Emissions Trading Directive. These include energy activities, production and processing of ferrous metals and the mineral industry. The aviation sector is not included in phase one of the scheme but the Commission is able to propose extending the activities covered by the Scheme before the start of the second phase.

8. For aviation to be included in the EU Emissions Trading Scheme there are a number of issues we would need to work with the Commission and other Member States to resolve:

**Allocation of emissions.** The Kyoto Protocol does not currently say who is responsible for emissions from international aviation. Therefore, to operate an EU scheme, Member States would have to agree amongst themselves a basis for allocating responsibility for emissions from flights between EU Member States. There are several options which need investigating, but one possible arrangement would be for the countries of departure and arrival for each flight to share the emissions equally on the assumption that these two countries would be the ones to benefit economically from the flight.

**Allowances.** Emissions trading is trading in allowances to emit $CO_2$. One allowance is a permit to emit one tonne of $CO_2$ (or $CO_2$ equivalent). The EU ETS will have its own brand of allowances, but because the scheme is intended to be compatible with the international emissions trading mechanism envisaged by the Kyoto Protocol, each movement of an EU allowance will be shadowed by an equivalent movement of the allowances issued under the Kyoto Protocol (Kyoto allowances are called assigned amount units, or AAUs).

As aviation falls outside Kyoto there are no AAUs to back emissions from aviation. A decision would be needed on how to distribute allowances to the aviation industry.

**Basis for trading.** The impact of aviation on climate change is increased over that of $CO_2$ alone by the range of secondary emissions released and their specific effects at altitude. The Intergovernmental Panel on Climate Change report 'Aviation and the Global Atmosphere' included a central estimate that the impact of aviation emissions was 2.7 times the impact of $CO_2$ alone. A decision would be needed on how the extra impact of aviation should be taken into account when designing the sector's participation in the trading regime.

# Emissions trading on a global scale

9. The 33rd Assembly of the International Civil Aviation Organisation (ICAO) in 2001 endorsed the development of an open emissions trading scheme for international aviation, and requested the ICAO Council to develop, as a matter of priority, the guidelines for open emissions trading, focusing on the structural and legal basis for aviation's participation. The UK is supporting this work and would prefer to see aviation in a global emissions trading scheme. The Government recognises that the need for consensus among the participating states in ICAO means that progress is likely to take time. That is why we have concluded that an effective mechanism on an EU basis should be pursued.

[1] The first Kyoto Commitment period runs from 2008-2012. Developed countries have agreed to reduce an overall basket of six greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride) by 5.2 per cent below 1990 levels.