Department for
Transport

From the Minister of State

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Mrs Anne Campbell
House of Commons
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Dear Anne

20 APR 2005

Thank you for your letter of 4 April to Elliot Morley, enclosing correspondence from Mr Michael Nield of [redacted], Cambridge, about contrails. Your letter has been passed to this department for reply.

Chemtrails are not a scientifically recognised phenomenon. Contrails (condensation trails) or artificial clouds may be formed when jet aircraft emit water vapour into the upper atmosphere resulting from the combustion of kerosene, the fuel used by aviation. This is not a new phenomenon, contrails have been documented since the 1940s.

Contrails form only when meteorological conditions are conducive. Basically, this is when the air mass into which the water vapour is emitted is both cold and humid enough. Many contrails evaporate quickly, as the air is either too warm or not humid enough. If the conditions are conducive to sustain persistent contrails, they may spread out to form a cirrus cloud-like cover. It is quite possible that the incidence of persistent contrails is higher than say 10-20 years ago, simply as a result of increased air traffic.

A major scientific Report, *Aviation and the Global Atmosphere*, was published in 1999 by the Intergovernmental Panel on Climate Change. The Report assessed the current contribution of aviation to climate change and, based on a range of scenarios and assumptions, forecast its contribution up to 2050. It estimated that contrails covered about 0.1% of the Earth's surface in 1992 and projected this cover would grow to 0.5% by 2050 (on middle range assumptions).

Contrails continue to be the subject of research to help better understand both how they are formed and what effects they have on the atmosphere.

Tony

TONY MCNULTY

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