



Natural Environment Research Council Centres for Atmospheric Science (NCAS).

EMBARGOED until 00.01 on Monday 12th July 2004

Gone With the Wind?

Over a hundred scientists take to the skies to track global air pollution

This morning a team of forty scientists from seven UK universities will travel to the Azores to join hundreds more in the largest international atmospheric field campaign of its type ever attempted.

The exciting mission will track and investigate a mass of polluted air as it leaves the United States and travels across the Atlantic to the UK and mainland Europe. Scientists will measure chemical reactions within the air-mass as it travels, quantifying the resulting pollutants delivered to Europe.

This ambitious project involves scientists from six countries co-ordinating five research aircraft (including the UK BAE-146 aircraft), a research ship as well as numerous ground stations and satellites.

With the help of sophisticated UK tracking models, US scientists will start the campaign by making measurements in a polluted air-mass off the east coast of the States. UK scientists will then fly out from the Azores to intercept the same air mass and make similar measurements from their own flying laboratory - the UK BAE 146. To complete the picture, the German scientists will intercept it in their Falcon aircraft, as it lands over Europe. Excitingly, mid-air wing-tip to wing-tip calibrations between the three aircraft will also be carried out during the mission.

UK organiser, Dr Alastair Lewis from the Intercontinental Transport of Ozone and Precursors programme (ITOP), said:

"It's highly likely that air leaving the States contains a cocktail of nitrogen oxides and hydrocarbons, which are emitted from vehicle exhausts and power stations. We want to know how these will react together on the way to Europe and notably whether they form ozone and particles, both of which can be harmful to humans."

Dr Lewis continued:

"It's almost a year now since the 2003 summer heatwave when we measured elevated levels of ozone and particles above London. It was estimated then that up to 800 deaths were brought forward by this air pollution incident and although we know that some of this pollution was produced locally in the UK, we still don't know what the contribution was from other countries.

"For the first time, this mission will allow us to work with our international colleagues to understand and quantify the effects of trans-continental transport of chemicals, both on regional and global air pollution."

The British, American, Canadian, German, French and Portuguese scientists are all part of the International Consortium for Atmospheric Research on Transport and Transformation (ICARTT), led by NASA and the National Oceanic and Atmospheric Administration (NOAA).

The Natural Environment Research Council Centres for Atmospheric Science (NCAS) and the NERC directed programme, the "Upper Troposphere Lower Stratosphere Ozone Programme", has provided instrumentation and £1.2M of funding for the project.

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Notes to Editors

1. Background and supplementary information to this story is provided in the Background_info.doc file, attached. Pictures are also available from Dr Louisa Watts (contact details below), who can also answer any queries you may have regarding this document.
2. Scientists involved with this mission (see point 4 below) leave the UK on July 12th 2004, returning on August 4th 2004. Members of the press may arrange interviews with scientists in advance of July 12th 2004 or after August 4th 2004, by contacting Dr Louisa Watts or Owen Gaffney (contact details below).
3. The £1.2M funding for ITOP has been provided by the NERC directed programme entitled: Upper Troposphere Lower Stratosphere Ozone programme (<http://utls.nerc.ac.uk/>) and the NERC Centres for Atmospheric Science (NCAS). NCAS is a collaborative centre of the Natural Environment Research Council (NERC) and carries out the UK's core strategic research programme in atmospheric science <http://ncas.nerc.ac.uk/>
- 4 ITOP is led by Dr Alastair Lewis from the University of York. Other leading scientists involved in ITOP are: Professor Pilling and Dr Dwayne Head, University of Leeds; Dr Paul Monks, University of Leicester; Dr Claire Reeves and Professor Stuart Penkett, University of East Anglia; Dr Hugh Coe, University of Manchester Institute of Science and Technology; Professor John Pyle and Dr Rod Jones, University of Cambridge; Dr John Methven, University of Reading.

For more information contact:

Dr Louisa Watts, NCAS Science Communication Manager: mobile 07786 214886 and tel. 01793 411609 or 0118 378 5586, email: NCAScomms@nerc.ac.uk; or Owen Gaffney, NERC Press Officer: 01793 442629/07775 713203