UK SEEKS TO EXPAND IT'S WINGS - AT WHAT COST?

The perennial issue of airport expansion and environmental mitigation is one that will not go away, and as low cost airlines continue to offer European flights for less than the price of a cinema ticket, recreational travel is set to increase alongside the demands of the business user. Air travel has never been open to more people and the industry is keen to accommodate this business but what will the expansion of UK airports cost the environment? *WEM* looks at the issues and implications.

CLEARING THE AIR AROUND UK AIRPORTS

Michael Bull* considers the air quality implications of airport expansion.

Air travel continues to expand in the UK and as a consequence further airport expansion is envisaged as part of the government's recent white paper on the subject. There is proposed expansion at Stansted, Birmingham and Edinburgh, and possibly at Heathrow if environmental limits can be achieved. One of the more apparent concerns about airport development is the issue of air quality. Airport operations include numerous sources of air pollutants, the most obvious being the aircraft themselves and emissions from vehicles accessing the airport. All of these sources contribute to reducing air quality around airports and it is no surprise to find that Air Quality Management Areas have been declared around Heathrow and Gatwick airports and that the situation at Stansted is currently under review.

Although it is often considered that the emissions from the vehicles accessing the site or using the motorways around the airport are the main source of air pollutants, it is evident that operations within the airport site have a significant contribution.

A recent study carried out on behalf of BAA examined concentrations of nitrogen dioxide in a section across Heathrow airport for a week during the summer of 2003. Although a limited data set, this clearly showed a substantial increase in concentrations associated with the airport operations. Peak concentrations observed were associated with the locations where aircraft activity was highest - for instance at locations close to aircraft take-off.

Although the airport activities are only one part of the local pollutant sources, steps are already being taken to reduce the air quality impacts of on-site activities. Simple steps, such as requiring the use of ultra low sulphur fuels, are already introduced into some airports and alternative fuels are also being used at Heathrow. However, it is acknowledged that these will only have small impacts and that larger reductions can be achieved by more radical changes in equipment. For instance, the use of auxillary power units is being reduced by the installation of fixed power units and the installation of 'pre-conditioned air' to be used for control of cabin conditions whilst on the stand. More radical changes are still needed and the industry is looking at replacement of engines to ensure that they meet the latest emission standards. By a combination of these methods emissions from airport operations can be substantially reduced and will help to substantially reduce public exposure to pollutants.

Environmental pressure groups argue that these measures are not sufficient and that more radical steps should be taken, including the taxation of aviation fuels and increases in air passenger duty. The airport industry themselves are considering radical options, such as charging for use based on the level of emissions from aircraft - thus favouring cleaner vehicles. The debate will continue and air quality monitoring will demonstrate the success of the proposed measures over the coming few years.■

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