



## Real-time pollution assessment

London's Greenwich borough has recently been developing a real-time pollution assessment for its traffic controllers, allowing road to be shutdown at critical times if smog is building up.

The borough is particularly vulnerable to build up of car exhaust in still and hot conditions because it lies in a geographical bowl on the east side of London. It suffers the worst effects in the city and predicting the problem in advance will be highly useful.

So the borough has been working with Transoft International, which makes specialist gas and noise dispersion simulators, to develop a real-time assessment system.

According to Sharad Tripathi,

UK representative for the French firm, software from Fluidyn programmes developed by the firm can be set up in real-time with links in from meteorological stations and traffic predictions for the hours ahead, allowing the build up of pollution blackspots to be assessed.

The Fluidyn package is based on specialist programmes from France's Transoft International, using software developed originally for military use, understanding gas dispersal on battlefields, and christened Panache.

"We now have several packages tailored for road use including Panroad, which can make a three dimensional simulation of the build up of pollutants from a road,"

says Tripathi.

The software uses data from maps or a GIS database, with the road line drawn in or entered, and then details of properties and vegetation - particularly heights - entered precisely. It then generates various dispersions cloud pattern according to the type of vapour or fluid, weather conditions and wind factors etc.

A colour coded representation shows concentrations of the various pollutants.

A separate module is used for closed 'tunnel' geometries and the company also produces Road DB which assesses the dispersal of noise from a road, and allows the impact of noise barriers and buildings to be calculated.