



Urban And Background Surface Ozone Trends Over The Czech Republic In 1995 - 2004

T. Balcar (1,2), P. Krizan (1), J. Kastner (2)

(1) Institute of Atmospheric Physics, Prague, Czech Republic, (2) Charles University, Faculty of Science, Department of Physical Geography and Geocology, Prague, Czech Republic (balcar@ufa.cas.cz)

Decadal trends analysis of near-surface ozone at background/rural, background/suburban and traffic/urban stations in the Czech Republic were carried out and compared with similarly situated stations in surroundings countries. There are a lot of studies focused on evaluation of long-term ozone trends, but only a few ones aimed to urban and suburban environment. That is why these sites are influenced by local phenomena, such as geographical location, production of emission and their sources, meteorological conditions, location of measuring instrument, etc. The results are ambiguous and hardly interpreted. There are some difficulties connected with long-term analysis: shortage of stations with sufficiently long and quality data record (particularly in Central and Eastern Europe), large inter-annual variability and many gaps in data. In spite of it we are able to choose representative stations and detect different trends in the Czech Republic and in the other regions. Trends, both in the magnitude and direction change significantly from site to site with geographical location and also during the year. Further we have discussed a possible link between ozone trends and change of emission production.