

1. Introduction

The establishment of trends in atmospheric chemistry parameters has been one of the major thrusts in evaluating man's influence on his environment. Trends in urban ozone concentration, regional sulfate values and global carbon dioxide levels are examples of measurements that show secular changes of possible anthropogenic origin. Scientists working in the precipitation chemistry field have also looked for possible trends in the chemical composition of precipitation. Unfortunately, no one consistent set of network data exists over a long enough period of time (>10 years) that can be used to give trends in wet depositions over an area. Because of this, workers have used a mix of data from networks that did not use comparable collection and analysis methods. Though definite changes could be seen in the period from 1955 to present, no clear cut trend can be established because of before mentioned data inconsistencies. In contrast to the past spotty performance of North American monitoring, a strong effort has been mounted in recent years that should go a long way to establish trends in the coming decade.

This paper reviews the historical data available, the new networks that have been established and the status of trend analysis in North America.