

formulation of such an agreement, bilateral work groups were established to prepare scientific reports on specific aspects of the problem. The specific aspect that Work Group 2 was to address was atmospheric science and modeling. This Work Group was established to provide information, based on co-operative atmospheric modeling and analysis of monitoring and other data, which would lead to a further understanding of the transport of air pollutants between source regions and sensitive areas. The complete Terms of Reference for the Work Group and its membership are contained in Appendices 1 and 2, respectively.

The purpose of this report is to provide as complete a response as possible to all the scientific and technical areas identified in the Terms of Reference and as specified in the approved phased Work Plans. The Work Group has devoted its efforts to developing source-receptor relationships based on quality controlled modeling results and other analyses of data. During the past year, the Work Group has:

- (1) documented, evaluated, intercompared and applied eight regional-scale models to the North American Continent;
- (2) assessed the appropriateness of the methods and assumptions used in these regional models to quantify source-receptor relationships on an annual basis over eastern North America;
- (3) attempted to define the applicability and limitations of the models to predict the result of changes in annual emission rates in this region; and
- (4) used data to estimate the usefulness of the models and the validity of the annual source-receptor relationships.