period modeling results. A survey of modeling groups (see Appendix 4) revealed that there are about fifteen active modeling efforts in the U.S. and Canada and that the majority of the models are of the Lagrangian type and have been applied to monthly-to-annual time periods. The effort on Eulerian and episode type models has increased during the past year, providing more balance in the overall modeling effort.

Discussion of Models Selected

The models selected for this exercise fulfilled several important criteria, namely:

(1) They are fully operational;

(2) They are numerically practical;

(3) They can be expanded as the knowledge base increases;

(4) They can be used over the geographical and temporal time scales of interest; and

(5) They have each been at least partially evaluated through comparison with measurements.

Two regional air quality simulation models developed in Canada and three developed in the United States were selected for Phase I. It is conceivable that additional Canadian and/or U.S. developed models could be added to or replace this initial group of models as a result of the Phase II work effort. Appendices 4 and 5 summarize current North American modeling efforts and describe more fully those models used in Phase I analysis.