

Table 7.2 Summary of Regional Model Attributes (continued)

ATTRIBUTE	MEP	MOE	RCDM-3	UMACID
a. Model Type	Lagrangian	statistical	analytical	puff - trajectory
b. Receptor Grid (cells); Grid Resolution (km)*	user-specified; point receptors	user-specified; point receptors	70 x 70; 80 x 80	41 x 32; 80 x 80
c. Model Domain	eastern North America	North America	North America	eastern and central North America
d. Model Output	monthly concentration and dry and wet depositions of sulfur	long-term SO ₂ and SO ₄ ²⁻ concentrations; annual dry and wet sulfur depositions	monthly concentration and dry and wet depositions of sulfur	estimates of source contri- butions to downwind concen- trations and contributions of upwind sources on recep- tors at 6-h time steps
e. Input Requirements*				
1. Emissions	1. seasonal, annual 127 x 127 gridded North American emissions	1. point sources and area sources as effective point sources	1. emissions and emission centroids of source areas	1. total annual SO ₂ rates for 80 km grid squares
2. Winds	2. 6-h surface pressures	2. long-term statistics: mean west to east at 10 m s ⁻¹ , $\sigma_u=10$ m s ⁻¹ , and $\sigma_v=6$ m s ⁻¹	2. monthly, seasonal, and annual resultant winds and persistence factors from rawinsonde stations	2. rawinsonde and pilot winds at 12-h intervals
3. Precipitation	3. 3-h amounts	3. estimated statistics of durations of wet and dry periods (Eulerian and Lagrangian) and average precipitation rate during wet periods	3. spatially averaged annual and seasonal dry and wet period durations for each state/province	3. 3-h amounts

*Grid dimensions in the models using polar stereographic projections (AES, ASTRAP, CAPITA, MEP, and UMACID) are fractions of the U.S. National Meteorological Center and Canadian Meteorological Centre grid spacing (381 km at 60°N; less at lower latitudes).