Table 7.2 Summary of Regional Model Attributes

ATTRIBUTE	AES	ASTRAP	CAPITA	ENAMAP-1
a. Model Type	Lagrangian - box	statistical - trajectory	Monte Carlo	puff - trajectory
b. Receptor Grid (cells); Grid Resolution (km)*	52 x 37; 127 x 127	user specified; receptor point locations	52 x 37; 127 x 127	46 x 41; 70 x 70
c. Model Domain	North America and adjacent oceans	North America and adjacent oceans	North America and adjacent oceans	eastern and central North America
d. Model Output	monthly SO_2 and SO_4^{2-} concentrations and dry and wet S depositions	monthly SO_2 and SO_4^{2-} concentrations and dry depositions and bulk S wet deposition	monthly SO_2 and SO_4^{2-} concentrations and dry and wet depositions	monthly SO_2 and SO_4^{2-} concentrations and dry and wet depositions
e. Input Requirements*				
1. Emissions	1. annual and seasonal SO_2 grids (127 km)	1. 3-D annual and seasonal SO_2 for 6-layer grids (127 km) plus stack parameters of major point sources	1. annual SO_2 grids (95 km for northeastern U.S. and southeastern Canada and 190 km elsewhere)	1. annual SO_2 grids (70 km)
2. Winds	2. 0000 and 1200 GMT rawinsonde winds and temperatures at 1000, 850, 700, and 500 mb levels	2. 0000 and 1200 GMT rawinsonde wind profiles	2. 1500, 1800, and 2100 GMT surface winds and 0000 and 1200 GMT rawinsonde wind profiles	2. 0000 and 1200 GMT rawinsonde wind profiles
3. Precipitation	3. daily amounts	3. 6-h amounts	3. 6-h probabilities	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).