

Appendix 8C

MM5 Model Configuration

OTC MM5 Meteorological Model Configuration

| Science Options | Configuration | Details/Comments |
|--------------------------|--------------------------------|--------------------|
| Model Code | MM5 Version 3.6 | |
| Horizontal Grid Mesh | 36km/12km | |
| 36-km grid | 149x129 cells | |
| 12-km grid | 175x175 cells | |
| Vertical Grid Mesh | 29 layers | |
| Grid Interaction | No feedback | Two-way nesting |
| Initialization | Eta first guess fields/LittleR | |
| Boundary Conditions | Eta first guess fields/LittleR | |
| Microphysics | Simple Ice | |
| Cumulus Scheme | Kain-Fritsch | 36km/12km grids |
| Planetary Boundary Layer | High-resolution Blackadar PBL | |
| Radiation | Simple cooling | |
| Vegetation Data | USGS | 24 Category Scheme |
| Land Surface Model | Five-Layer Soil model | |
| Shallow Convection | None | |
| Sea Surface Temperature | Do not update SST | |
| Thermal Roughness | Default | |
| Snow Cover Effects | None | |
| 4D Data Assimilation | Analysis Nudging: 36km/12km | |
| Integration Time Step | 75 seconds | |
| Simulation Periods | 2002 | |
| Platform | Linux Cluster | Done at UMD |