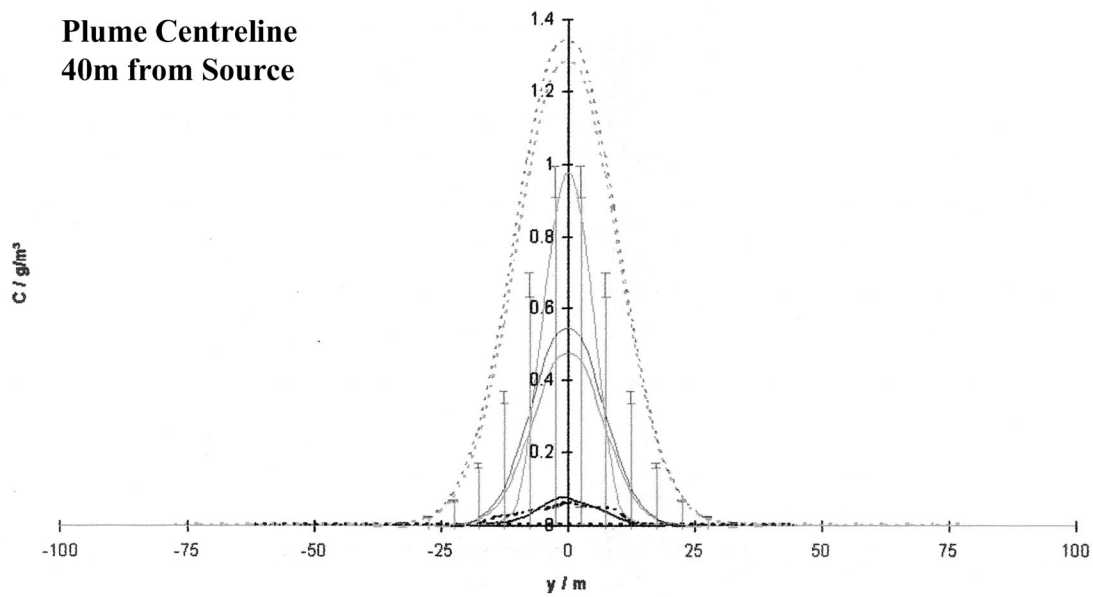
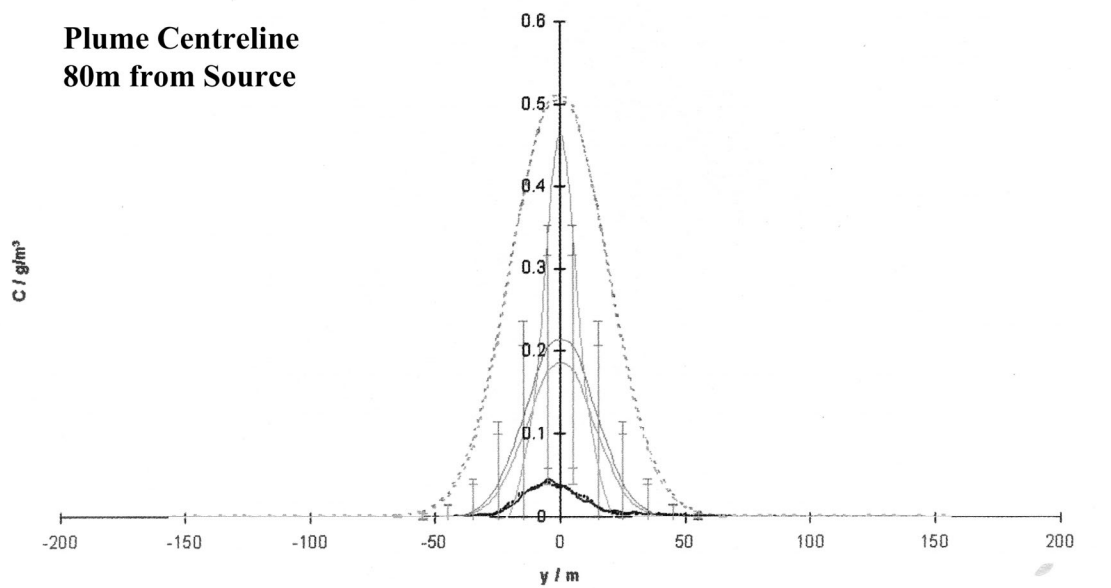


**Plume Centreline  
40m from Source**

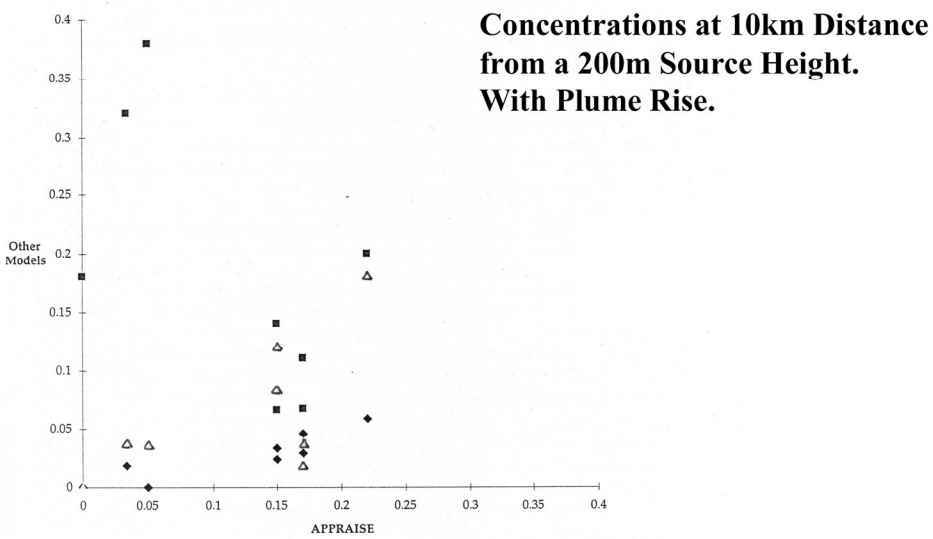
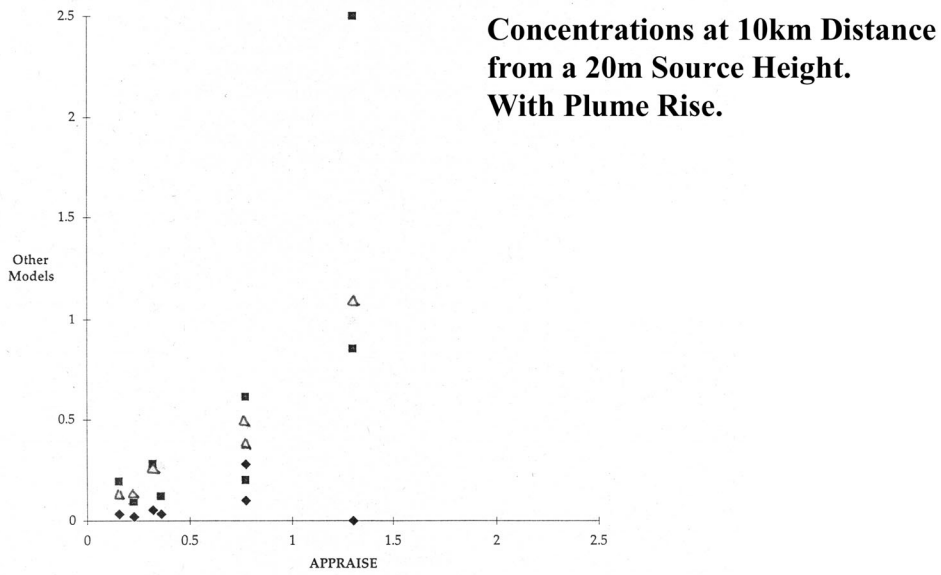
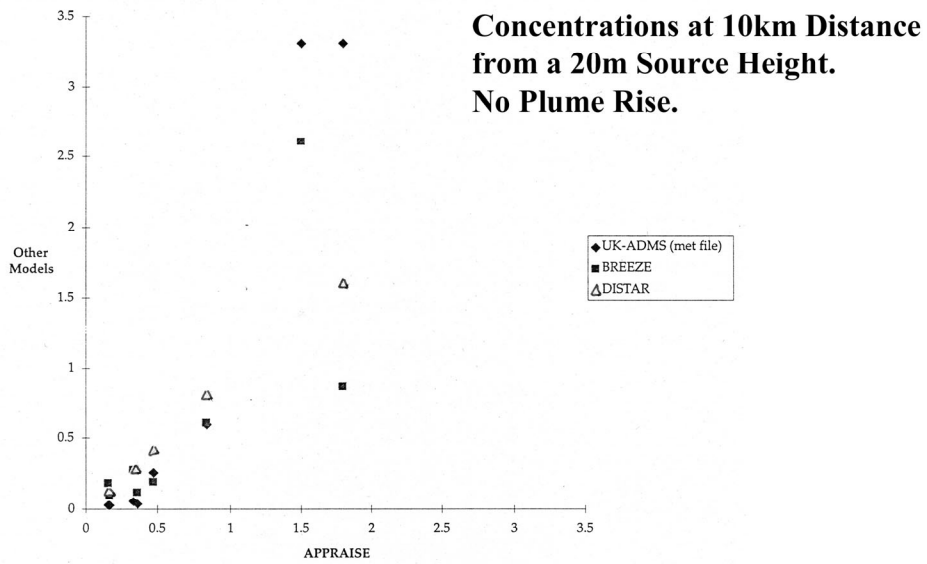


**Plume Centreline  
80m from Source**



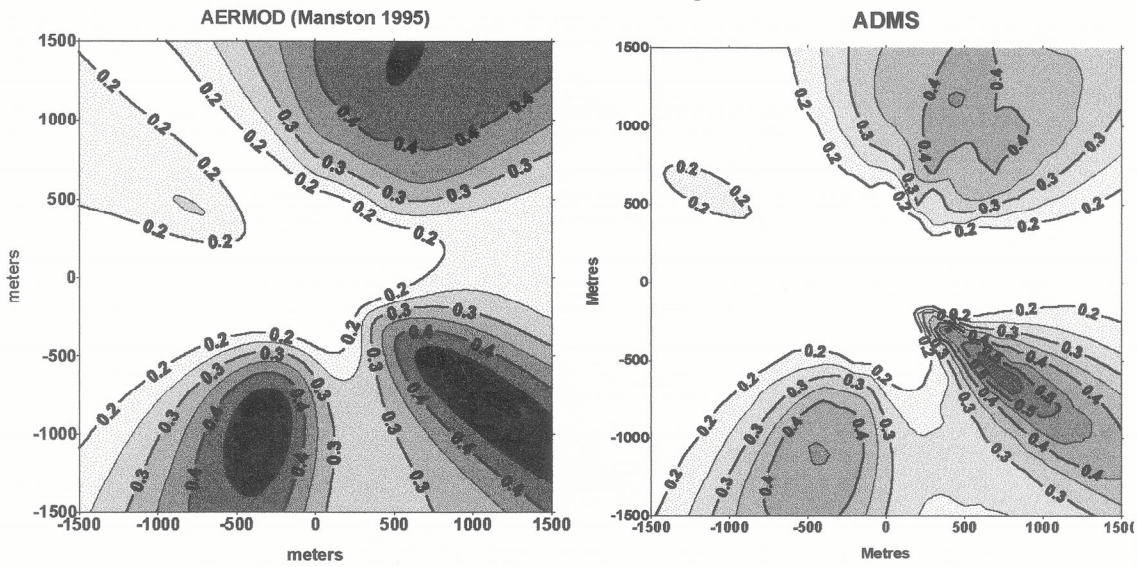
— observed C g/m<sup>3</sup>                      ······ observed sigmaC g/m<sup>3</sup>                      — ADMS C g/m<sup>3</sup>  
 ······ ADMS sigmaC g/m<sup>3</sup>                      — ADMS C ambient temp g/m<sup>3</sup>                      ······ ADMS sigmaC ambient temp g/m<sup>3</sup>  
 — R91 C ambient temp g/m<sup>3</sup>

**Figure 13. Comparison Between ADMS and R91 Model Predictions of Lateral Plume Concentration Against LIDAR Data. From Test Case D7 of Carruthers et al (1996).**

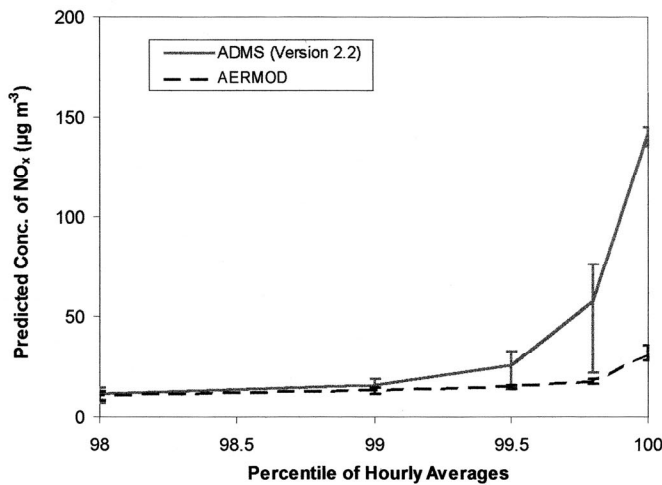
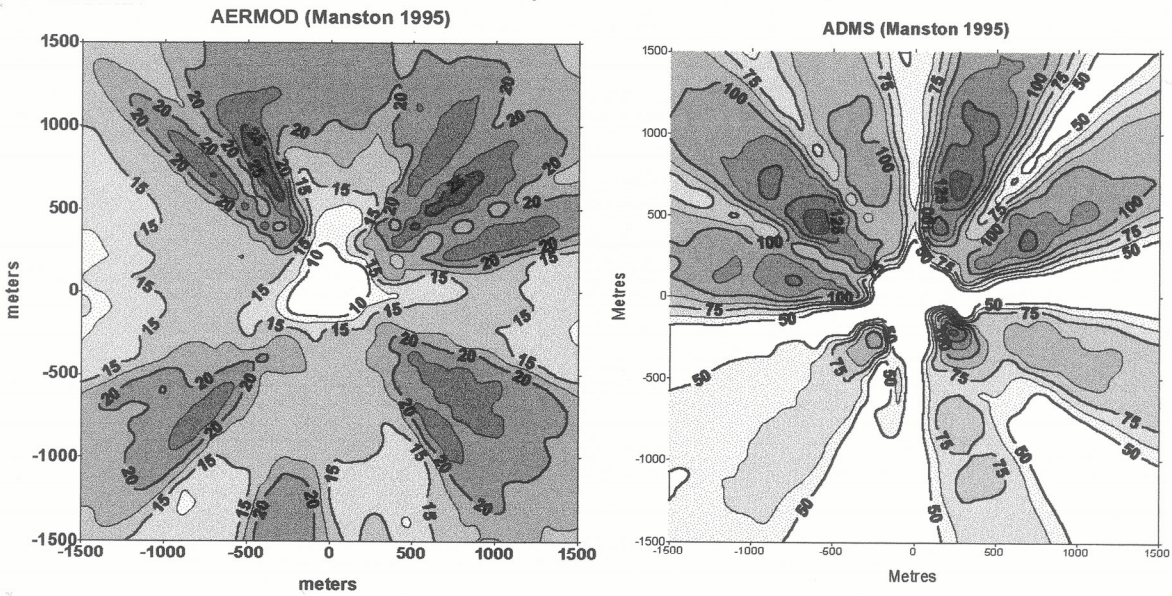


**Figure 14. Comparison Between ADMS (Version 1.5), BREEZE (ISCST2), DISTAR (R91) and APPRAISE (R91). From Maul et al (1996).**

### Annual Average

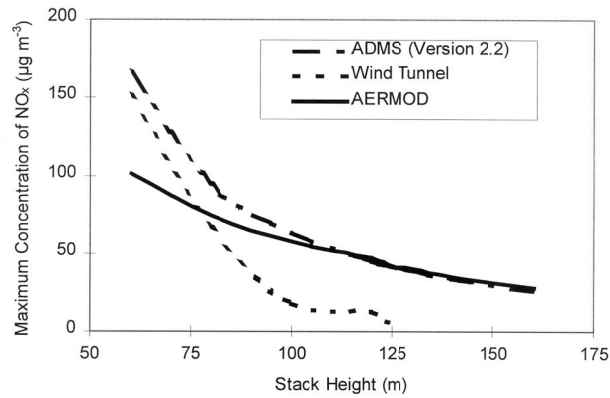


### Hourly Maximum (100%ile)

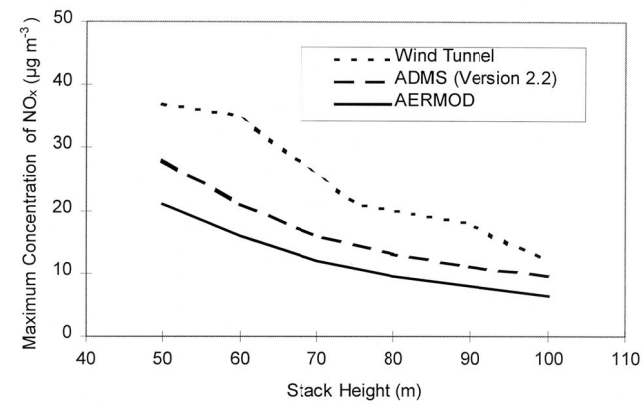


**Figure 15. Comparison Between ADMS (Version 2.2) and AERMOD. Annual Mean and Maximum Concentrations for a Buoyant Release from a 70m Stack. From Harvey(1998a).**

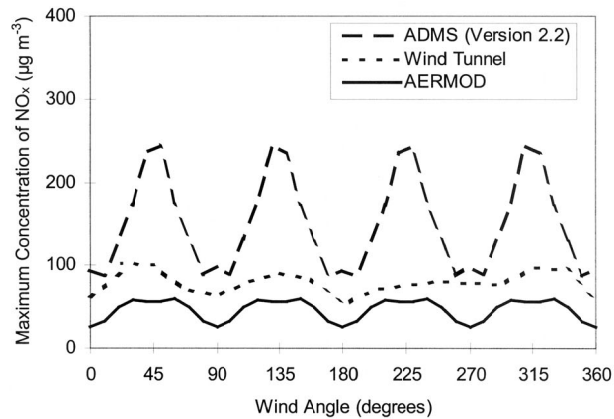
**Maximum Measured and Predicted Ground Level Concentrations of the Oxides of Nitrogen for Cement Plant Emissions (Case A) from an Isolated Stack for a Range of Stack Height, Wind Speed of  $10 \text{ m s}^{-1}$ .**



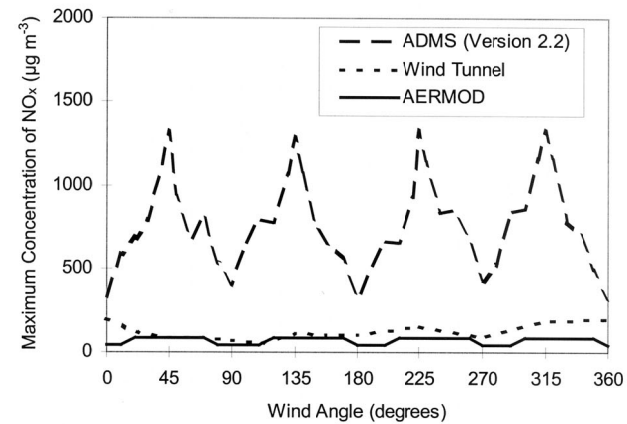
**Maximum Measured and Predicted Ground Level Concentrations of the Oxides of Nitrogen for CCGT Power Station Emissions (Case B) from an Isolated Stack for a Range of Stack Heights and a Wind Speed of  $25 \text{ m s}^{-1}$**



**Maximum Measured and Predicted Ground Level Concentrations of the Oxides of Nitrogen for Emissions from a Cement Works (Case A), 125 m Stack, 105 m High Building and Wind Speed of  $10 \text{ m s}^{-1}$**



**Maximum Measured and Predicted Ground Level Concentrations of the Oxides of Nitrogen for Emissions from a CCGT Power Station (Case B), 60 m Stack 42 m High Building and wind Speed of  $20 \text{ m s}^{-1}$**



**Figure 16. Comparison Between ADMS and AERMOD models Against Wind Tunnel Data for Cases with Significant Building Entrainment. From Harvey and Obasaju (1999).**

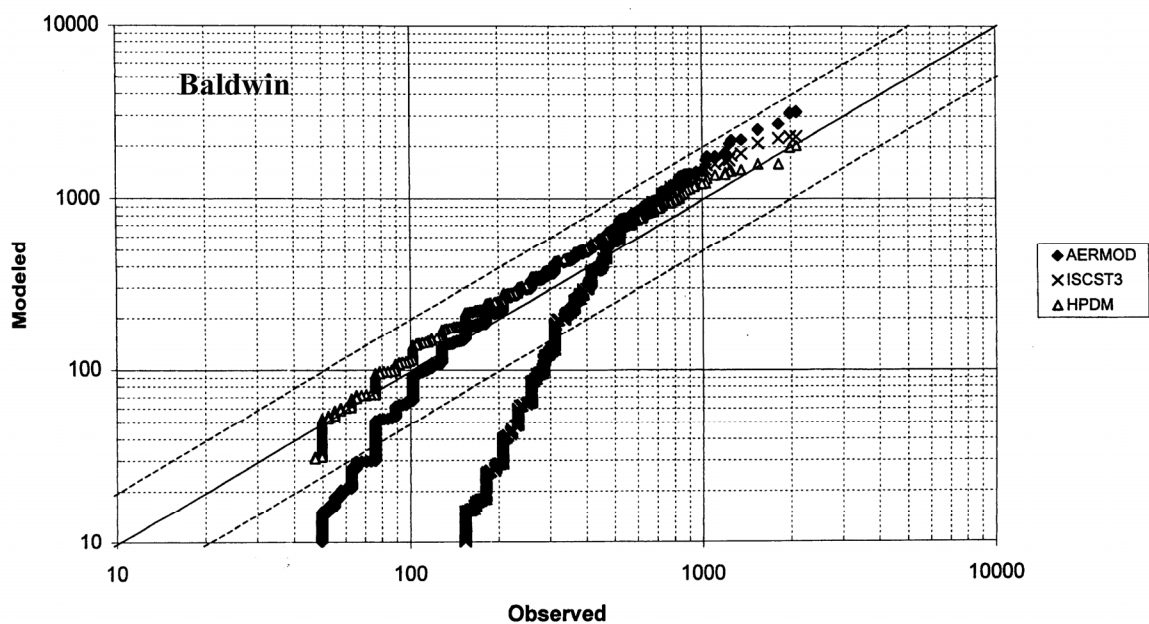
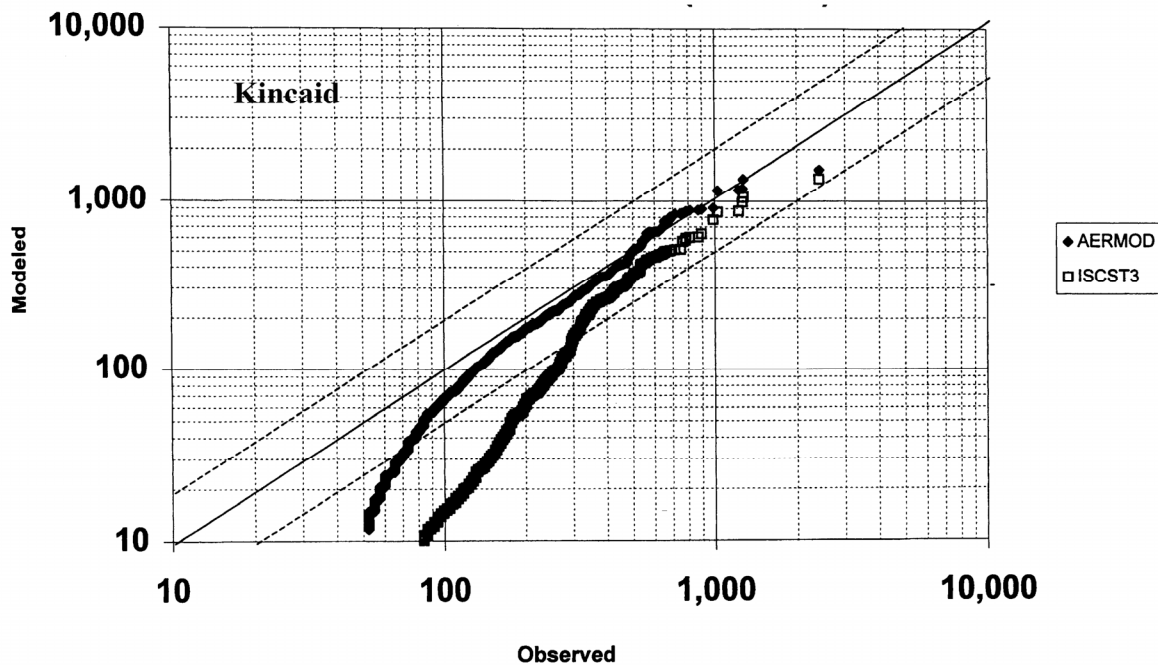
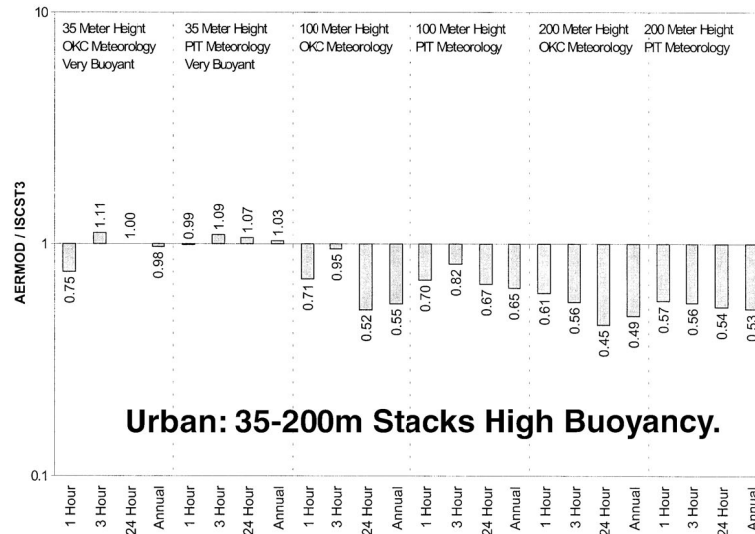
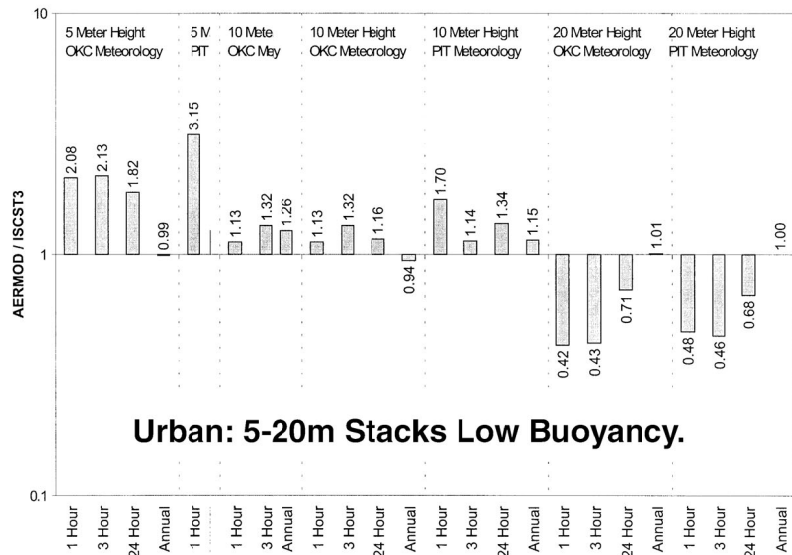
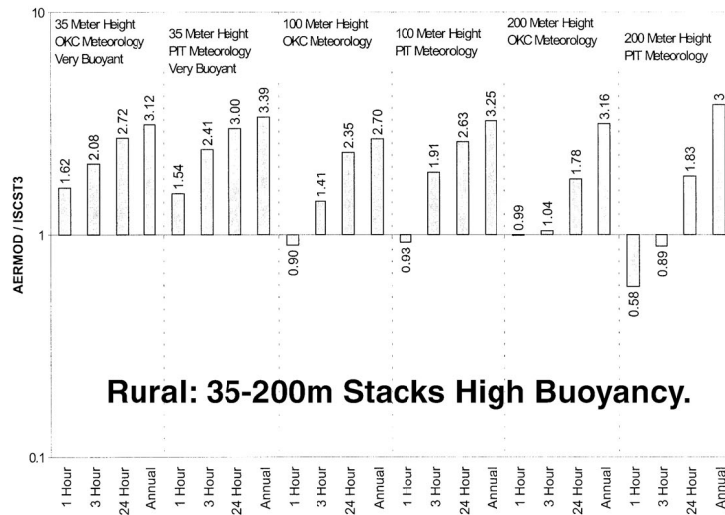
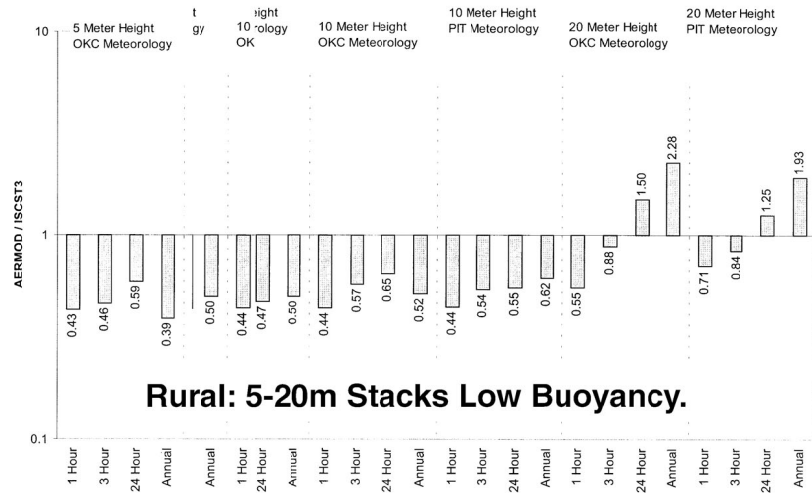


Figure 17, Comparisons between EPA models for the Kincaid and Baldwin Flat Terrain Data Sets. Hourly SO<sub>2</sub> Data. From Paine et al (1998).





**Figure 18. Comparison between AERMOD and ISC for a range of stack heights and rural and urban conditions. From Peters et al(1999)**