The authors would like to thank the reviewers for their helpful and insightful comments. Each comment has been addressed below, and the manuscript has been revised based on each comment.

This is nice work and would be well-suited for the Special Issue on Fire Model Validation that it is currently open for submissions.  Along these lines, please consider the following changes.  
  
1. Figs 9 and 10 are not validation and can be removed.

The velocity and aerosol concentration gradients in the duct were not measured directly in the experiments. To supplement the validation results that were presented in the previous sections, this section includes predictions of the velocity and aerosol concentration gradients in the duct for various cases. The aerosol deposition rate is a function of the wall friction velocity and aerosol concentration. These results provide details about the conditions within the duct that govern the aerosol deposition rate to duct surfaces, which can provide insight into the behavior and relative impact of the gravitational and turbulent deposition mechanisms. Therefore, the inclusion of these results contributes to the overall understanding of the aerosol deposition mechanisms in this study. This information has been added to the revised manuscript to clarify the purpose of the separate section on the predicted velocity and aerosol concentration gradients.  
  
2. Some theory behind the grid sensitivity needs to be discussed and made clear in the plots.  What length scales are being resolved?  How is a user to identify the relevant length scales in this problem and decide on a grid resolution?  Pick a resolution criterion that does not involve trial and error.  Then present results for that resolution, half that resolution, and twice that resolution.  This gives a much better sense for the model uncertainty we can expect from a random user who is likely to either under resolve or (maybe, just maybe) over resolve the case.