Q&A

- **U.S. Department of Homeland Security:** The Aeolus program simulates this urban canyon effect you depicted. Do you think you could work with Lawrence Livermore National Laboratory to correlate what they are seeing in the Aeolus model with what you are seeing at the laboratory scale?
    - **Michael Pirhalla:** Yes, I am aware of the modeling in that agency. We will probably use AERMOD, the EPA's Gaussian, regulatory dispersion model. The Gaussian model is relatively simplistic, but fast, so you can calculate concentrations quickly.
- **U.S. Department of Homeland Security:** Do Gaussian models calculate those urban effects better though?
    - **Michael Pirhalla:** Not necessarily. We are also doing some CFD simulations to compare our work to the CFD model. But I agree that more detailed models could probably paint a better picture of dispersion.
- **Sandia National Laboratories:** With analogues of the Gaussian model, there are programs like BPIP (Building Profile Input Program). Do your simulations relate well to those simulations? I think BPIP is limited to flat roof simulations.
    - **Michael Pirhalla:** Right now, that is meant for one building. There are plans to try to incorporate more than one in the future, but that will be something that we test. For our case, many of the buildings are rectangular in structure.