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Jason Averill presently serves as a fire protection engineer in the Fire Research Division of the Building and Fire Research Laboratory at the National Institute of Standards and Technology. He is responsible for development, application, and evaluation of computer fire models. His research interests include egress, fundamental fire behavior, computer fire models, applied mathematics, and performance-based design.

After receiving his bachelor's degree in civil engineering from Worcester Polytechnic Institute, Mr. Averill stayed at WPI, working in the Computational Fire Modeling Laboratory at the Center for Firesafety Studies, where he applied probabilistic computer fire model to Coast Guard Cutters. Completing his master's degree in fire protection engineering, Mr. Averill moved to NIST's Building and Fire Research Laboratory, where he has since participated in small- and large-scale fire experiments, applied computer fire models to a range of fire safety problems, and focused on building occupant evacuation. Most recently, he led the evacuation study of the World Trade Center disaster as a member of the National Construction Safety Team.

Mr. Averill is a member of the National Fire Protection Association, Society of Fire Protection Engineers, and Salamander Society. Additionally, he is a registered engineer-in-training in the state of Massachusetts.

Emergency Egress and Access

Tall buildings present a unique and challenging egress environment. The very aspect ratio which makes tall buildings economically desirable accentuates the impact of egress and other building systems. Further, recent events have raised important questions about the egress design and procedural assumptions traditionally used in tall building design.

This presentation will discuss how technology, training, and emergency management can address the challenges of tall building egress and access. Elevators will likely play a key future role in both fire department access and occupant egress, particularly for mobility challenged-occupants. Coordination and information flow between building systems, building management, emergency responders, call centers, and occupants will be discussed. These are presented in the context of the findings and recommendations of the NIST World Trade Center Investigation with regard to recommended changes to codes, standards, and practices.