

Kristin M. Poland
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NTSB Experience: Dr. Poland has been employed at the NTSB since 1998 as a senior biomechanical engineer in the Vehicle Performance Division. She developed NTSB methodology for occupant kinematics investigations; performed occupant kinematics simulations and injury causation analysis for the special investigation report on bus crashworthiness (1999) and the safety study for airbag-equipped general aviation aircraft; developed vehicle dynamics and occupant kinematics simulations for investigations of the 1999 motorcoach accident in New Orleans, Louisiana; the 2000 school bus/train collision in Conasauga, Tennessee; the Hampshire, Illinois, specialty bus collision; the Osseo, Wisconsin, motorcoach/tractor trailer collision; and the NYC, NY and Doswell, VA motorcoach rollover accidents; the Port Saint Lucie, FL and the Anaheim, CA school bus accidents. She analyzed occupant motion during highway, rail, and aviation crashes; participated in the human performance investigations of USAir 427, TWA 800, EgyptAir 990, American Airlines 587, and the *Crown Princess* marine accident. Dr. Poland has published multiple papers for Aviation Space and Environmental Medicine, the Society of Automotive Engineers (SAE), the annual TRB conference, and the STAPP car crash conference. She has performed as a technical expert at multiple Board forums and public hearings including the motorcycle forum, the aging driver forum, the child safety forum, the truck and bus safety forum, the Bronx, NY rail public hearing. Dr. Poland also leads the Board's work to document and analyze accidents with a 3-dimensional laser scanner and was invited to assist the Transportation Safety Board of Canada's by scanning the damaged tanker cars in the Lac Megantic rail accident.

Other Experience: Dr. Poland is a technical expert in occupant kinematic modeling, which is used to better understand occupant motion and injury causation. She completed a detail in NHTSA's Human Injury Research Division in 2010 studying older adult transportation safety. She has a background in ergonomic evaluations of workplaces and also the biomechanics of spinal injury.

Professional Honors and Awards: Dr. Poland received the NTSB Peer Award (2013) and the Dr. John K. Lauber Award for technical excellence (1999).

Education/Training:

B.S., Mechanical Engineering (1994), Cornell University

Ph.D., Biomedical Engineering (1998), University of Iowa